# carchip® PRO

## From the road to your PC

## Online Help
### Printable Version

CarChip Software Version 2.3 Online Help Printable Version

(6/11/2007)

For Product Numbers: # 8226, # 8246, #8210, # 8211, # 8220, # 8221, # 8225, # 8241, # 8245

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### What's New in CarChip 2.3

CarChip Software version 2.3 includes the following changes:

- The CarChip software now processes VIN number read from vehicle (if there is one) during download.

- Fixed issue with the CarChip software not detecting a connected CarChip when the software is first launched.

- The Fuel Entry box and corresponding vehicle report now display fuel information in both litres and gallons, depending on unit type selected in the Units dialog box.

- The CarChip Pro and CarChip Fleet Pro models of CarChip are now supported in this release.

- Audible alarm volume can now be adjusted in the Set Alarm Volume dialog box for the CarChip Pro and CarChip Fleet Pro models of Carchip.

- The default settings have been normalized for every model of CarChip and every firmware version.

- Fixed issue regarding the Anomalous Vehicles list not displaying the selected car once it was selected.

- Added Saturn Hybrids to the Anomalous Vehicles list.

- An issue has been fixed  regarding access being denied when a new .car file is created or an existing .car file is trying to be accessed if the current open file happens to be the Example.car file.

- The list of possible trouble codes  displayed in the Trouble Log is updated according to SAE J2012 (April 2002) and trouble codes recorded during the trip are processed more accurately.

See Also:

CarChip Prior Release Notes

# Getting Started

Use the following topics to start using your CarChip device and software:

How CarChip Works

CarChip Installation

Example File

What's New in CarChip 2.3

Walkthrough Express Setup

Walkthrough Full Setup

Downloading CarChip Data

Viewing Data

Exporting Data

Using the File Menu

Printing

Toolbar

Using CarChip Help

# How CarChip Works

The CarChip Pro plugs into the OBDII port in many 1996 or newer cars or trucks to record trip and performance data. This data is then downloaded into your PC computer, providing a detailed look at how the vehicle was driven, including trip start and end times, vehicle speeds, rates of acceleration and braking, and also any OBDII trouble codes detected during the trip. The CarChip software displays vehicle data in summary, plot or table format, and can also be exported to Microsoft Excel for further analysis. The CarChip Pro also logs additional engine and vehicle data parameters, including an accident log which records 20 seconds of vehicle speed history prior to every sudden stop.

Use CarChip Pro (# 8226) for:

- **Troubleshooting your car -** Records trouble codes and displays freeze frames of sensor readings.

- **Logging your car's performance -** Records acceleration, deceleration, and speed.

- **Recording trip information -** Records dates, starts and stops, and distance.

- **Clearing your car's check engine light -** Checks your car's sensors and turns off the check engine light.

- **Engine performance data logging -** Log up to 4 of 23 available data parameters.

- **Creating an Accident Log for every extreme stop.**

- **Announcing to driver when speed, braking, and acceleration thresholds have been exceeded** - Gives off an audible alarm when thresholds have been broken.

Use CarChip Fleet Pro (# 8246) for:

- **Downloading car information to both the CarChip software and the DriveRight Fleet Management Software (# 8186)**

See Also:

CarChip Installation

What is OBDII

Information on Discontinued CarChip Models

# CarChip Installation

The following help topics show you how to connect CarChip to your car, to your computer, and how to install the CarChip software. This information is also included in the CarChip packaging.

Connecting the CarChip Pro to a Car

Connecting the CarChip Pro to a Computer

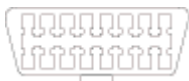Installing CarChip Software

Connecting an Older Model CarChip to a Computer

## Installing CarChip in your Car

Follow these steps to install the CarChip data logger in your car.

1. Find the OBDII port on your car.

The OBDII port is located within 3 feet of the steering wheel, usually near the general area indicated by the dotted line in the following illustration. The port should be easily accessible to a person in the driver's seat.
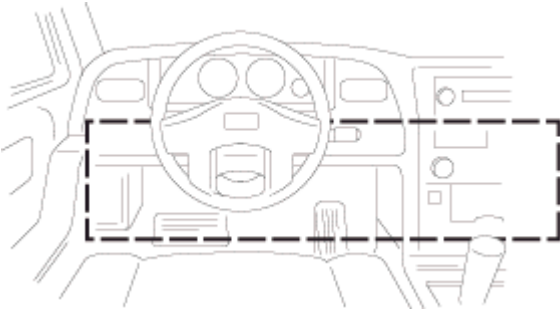
2.  Check the following areas for the OBDII port:

    Under the Dash              Behind a small access panel in the dash

    In front of the passenger seat    In or around the center console

    Behind the ash tray

3.      Plug the CarChip data logger into the OBDII connector.



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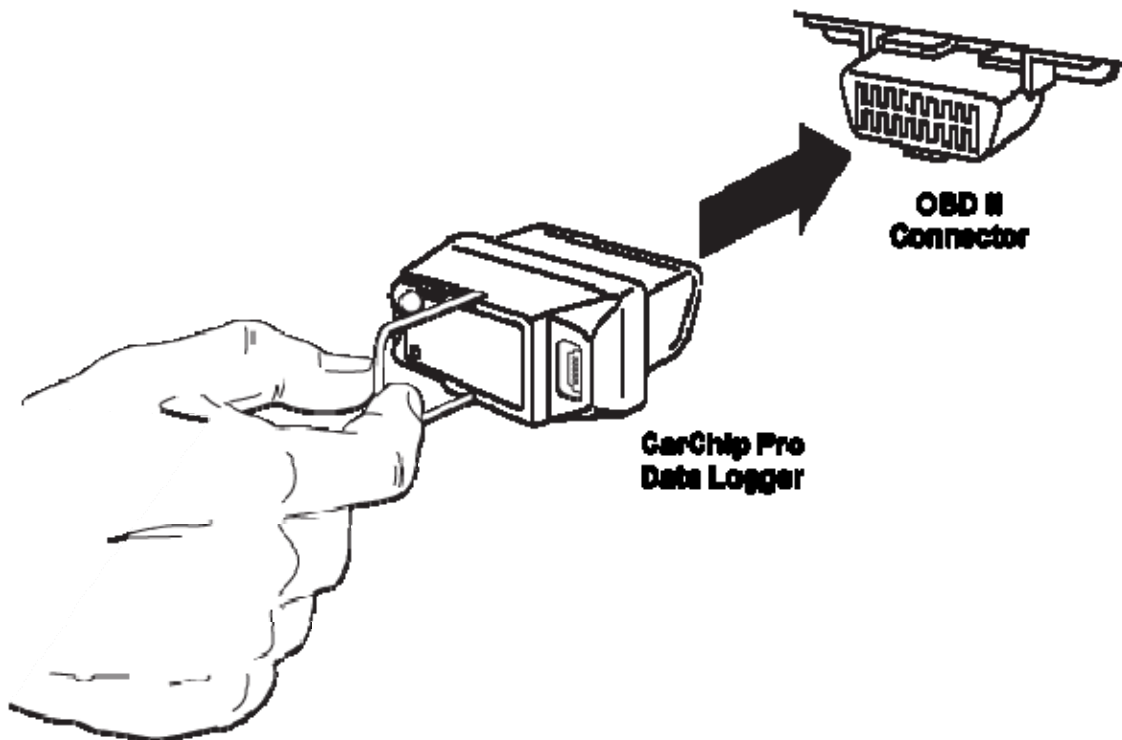
Note: If the indicator light is enabled, which is its default setting, it continuously blinks when connected to a vehicle. If the indicator is disabled, it stops blinking once is has established communication with the OBDII computer.

4.      Check to make sure the data logger indicator light is blinking. This verifies CarChip was properly inserted into the OBDII port and is communicating with your vehicle.
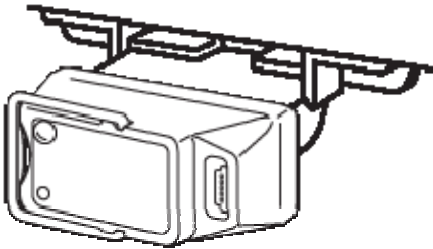
## Connecting CarChip Pro to a Computer

The CarChip Pro or CarChip Fleet Pro data logger (# 8226, 8246) connects to your computer using a USB connection.

To connect the CarChip Pro data logger to your computer using a USB connector:

1.  Insert the USB connector of the download cable into a USB port.
2.  Plug the smaller connector into the CarChip Pro  (# 8226) or CarChip Fleet Pro (# 8246) data logger port.
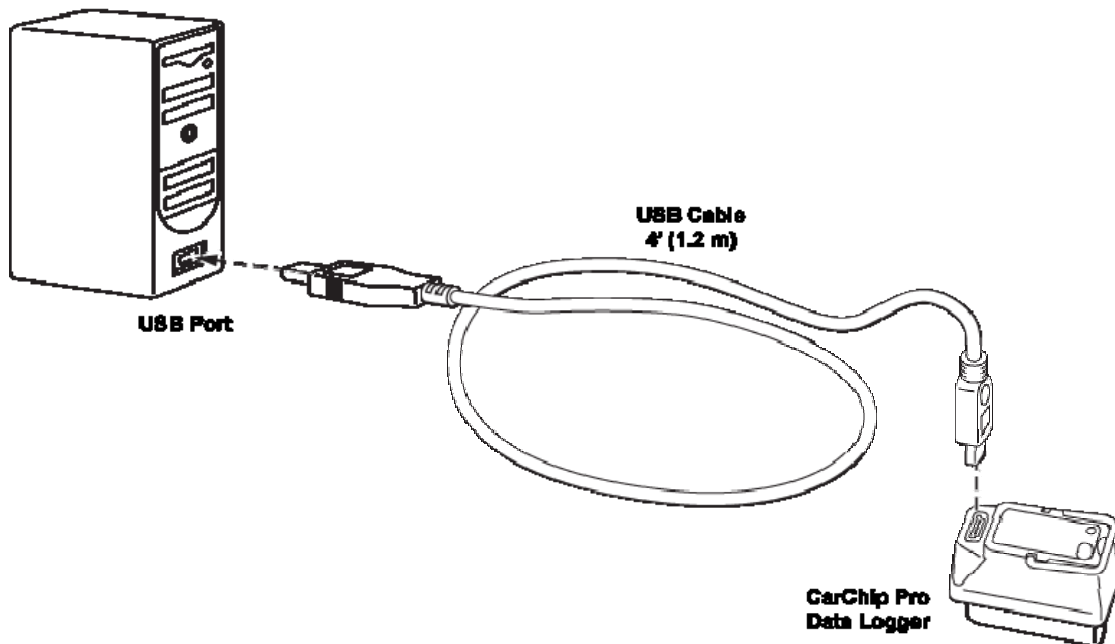
See Connecting an Older Model CarChip to a computer if using a different model of the CarChip than the one shown.

## Installing CarChip Software

Follow the steps provided below to install the CarChip software. CarChip software is compatible with computers running Windows™ 98SE, ME, NT 4.0, 2000, XP, or Vista.

1. Place the CarChip software CD in your CD ROM drive.

2. The install program should start automatically. If the install program does not start, select Run from the **Start** menu, type D:\SETUP (or the correct letter for your CD ROM drive), and click **OK** to begin the installation.

3. Follow the on-screen prompts to complete the installation.


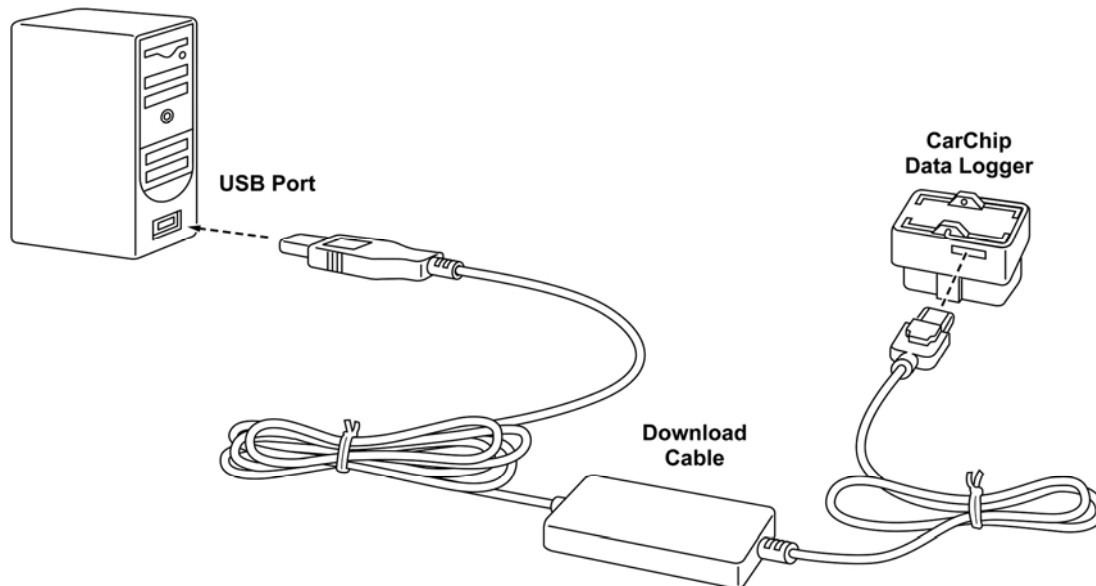## Connecting an Older Model CarChip to a Computer

The older models of the CarChip data logger connect to your computer using a USB connection (# 8211, 8221, 8225, 8241, 8245) or using a serial port connection (# 8210, 8220). See Connecting CarChip Pro to a Computer if you have a CarChip Pro or CarChip Fleet Pro (# 8226, 8246).

Note: The CarChip data logger does not have to maintain a constant connection with your computer. The CarChip can be connected and disconnected at any time the CarChip software is not downloading information from the CarChip data logger.

To connect the CarChip data logger to your computer using a USB connector:

1. Locate a free USB port on the front or back of your computer and insert the USB connector of the download cable into the USB port.

2. Plug the microminiature connector into the port on the CarChip data logger.



To connect the CarChip data logger to your computer using a serial port:

The following instructions for connecting earlier versions of the CarChip (products # 8210, # 8220) to a serial port connection:
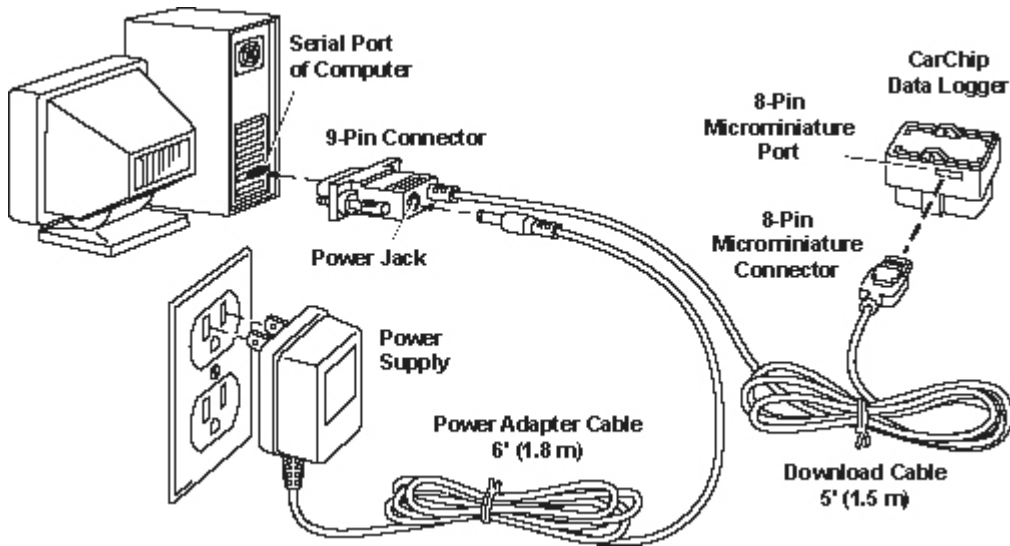
1. Locate a free serial port on the back of your computer and insert the 9-pin connector of the download cable into the port.

2. Plug the power adapter cable into the power jack on the 9-pin connector.

3. Plug the power supply into an AC outlet.

4. Plug the 8-pin microminiature connector into the port on the CarChip data logger.

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# Example File

Sample data is automatically loaded and displayed in the CarChip software when the software is installed and opened for the first time. Use the sample data to view the functionality that exists in the CarChip software.

To display the example data:

1.  The Example File dialog box displays when the CarChip software is first opened. This dialog box displays an alert that a file with sample data will be opened and displayed. Click **OK** to open the sample data file.



The sample data file, Example.car, is located in your CarChip software directory and can also be manually opened.

To manually open the example file:

1.  Select **Open** in the File Menu. The **Browse** dialog box displays.

2.  Select the Example.car file in the CarChip program directory. The CarChip program directory is located in the directory where you installed the CarChip Software. In this example, the directory is C:\Program Files\CarChip.

3.  Click **Open** to load the example file into the software. Click **Cancel** to exit the dialog box without opening the file.

CarChip Online Help Printable Version

# Downloading CarChip Data

Once you have connected your CarChip data logger to your computer, you are ready to download data from any of the CarChip models.

To download data:

1. Click the Download CarChip icon or select Download CarChip Data from the **CarChip** menu.

   In some instances, the Warning Clock Setup dialog box displays. When data is downloaded, the software automatically compares the internal clock on the CarChip against the clock on your computer. Click **OK** to continue or check **Synchronize Clocks** to set the CarChip data logger's internal clock to your computer's clock.

   The Downloading Logs status dialog box displays. Click **Cancel** to abort the download before it is finished. The **Downloading Logs** dialog box closes when the download is complete.



2. The Question dialog box displays. The **Question** dialog box asks if you want to delete the data currently in the CarChip memory.



3. Click **No** to keep the current data in the CarChip device, or click **Yes** to clear the CarChip memory.

**Note:** This dialog box contains a **Don't Ask Again** check box. By Checking this option and clicking **Yes,** the CarChip's memory is automatically cleared after every download. By clicking **No**, the CarChip's memory is never cleared after download. To change your CarChip memory clearing options, see Memory Clearing Options.

The **Unidentified Vehicle/Driver** dialog box displays. See Unidentified Vehicle/Driver ID for more information on this dialog box.

Once you have finished associating vehicles and drivers with the downloaded trip data, the Activity Log Summary view automatically displays the downloaded data.

# Unidentified Vehicle/Driver ID

The Unidentified Vehicle/Driver ID dialog box displays once data has been downloaded from the CarChip data logger, prompting you to select the vehicles and drivers associated every trip that was recorded. The CarChip device is capable of being connected to multiple vehicles. Every time the CarChip is connected to a vehicle, a connection event is recorded. The **Unidentified Vehicle/Driver ID** dialog box displays for every connection event that has been recorded in the CarChip device, with the date and time the connection occurred. From this dialog box, select the drivers and vehicles associated with every connection event.

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**Unidentified Vehicle/Driver**

This CarChip was connected to a vehicle on 3/19/2007 7:13 PM.
VIN read from vehicle: 6G2VX12U96L820647

Please identify the vehicle and driver by selecting from the lists below, or create new IDs for them.

Vehicle                                              Driver

[Brad's Car ▼]  [New...]                    [John ▼]  [New...]

[Apply]        Updates the trips between this connection time and the following disconnection.

[Apply To All]   Uses the selected IDs for all new trips in the CarChip.

[Cancel]       Cancels the entire download procedure.

[Help]

To select a vehicle and driver associated with each connection event:

1.  Select the vehicle name from the **Vehicle** box.

    If no vehicle exists, or if the vehicle that is associated with the event is not listed, see Creating a New Vehicle. If you select the wrong vehicle for the displayed VIN, you may correct this after the download by changing the vehicle name in the Vehicle ID dialog box.

To create a new vehicle to associate with each connection event:

1.  Click **New** next to the **Vehicle** box.

    The **New Vehicle** Dialog Box displays.

2.  Enter a unique vehicle name or the vehicle's VIN number in the **VIN** box.

3.  Enter a unique vehicle name in the **Name** box and click **OK**.

    You do not have to enter a name in the name box. Click **OK** if you want the information displayed in the **VIN** box to display in the **Name** box.

    The new vehicle information displays in the **Vehicle** box.

4.  Select a driver name from the **Driver** box.

    If no driver exists, or if the driver that is associated with the event is not listed, see Creating a New Driver.

To create a new driver to associate with each connection event:

1.  Click **New** next to the **Driver** box.

    The **New Driver** Dialog Box displays.

2.  Enter a unique driver name or ID in the **ID** box.

3.  Enter a name in the **Name** box and click **OK**.

    You do not have to enter a name in the name box. Click **OK** if you want the information displayed in the **ID** box to display in the **Name** box.

    The new driver information displays in the **Driver** box.

4.  Click **OK** to associate the selected vehicle and driver with the connection event.

    If the driver and vehicle are associated with all the connection events stored on the CarChip, select **Apply To All.**

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Once all connection events have been associated with a vehicle and driver, the dialog box closes and the summary report for the Trip Log displays.
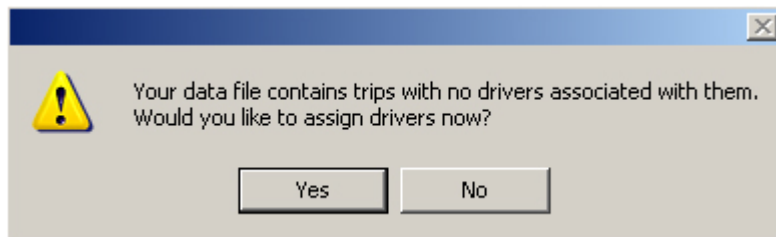
# Assign Drivers

The **Assign Drivers** dialog box displays if a CarChip file from a previous version of the CarChip software (CarChip 1.3 or earlier) has been added. This dialog prompts you to assign drivers associated with every trip that was recorded.  The **Assign Drivers** dialog box displays for every trip present in the CarChip file. From this dialog box, select the drivers associated with every trip.
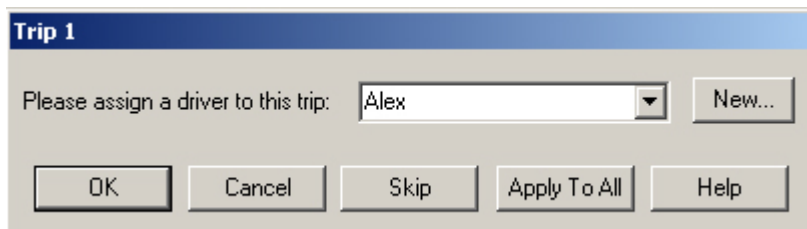
To Assign Drivers:

1.  Open a .car file from an earlier version of the CarChip Software.

    The Assign Drivers Now? dialog box displays.

    

2.  Click **Yes** to assign drivers to trip information.

    The Assign Drivers dialog box displays.

    

3.  Select a driver name from the **Driver** drop down box, or click **New** to assign a new driver to the trip or trips.

4.  Click **OK** to associate the driver to the displayed trip. Click **Skip** to skip assigning a driver to the displayed trip. Click **Apply to All** to associate the selected driver to all the trips.

# View Menu Commands

The **View** menu commands allow you to view Trip Log, Activity Log, Accident Log, Vehicle Trouble Log and Summary Log information.

Note: The Accident and Summary Log menu commands are only available for CarChip data logger model E/X or higher.

Use the following topics to learn more about each log view:

CarChip Home Page

Trip Log

Activity Log

Accident Log

Vehicle Trouble Log

Summary Log

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# Exporting Data

You can export logged data from the Trip, Activity, Accident, and Trouble Log views using the menu that displays when you right-click on a log report. There are several options and formats available for exporting data. The available options are:

- Information displayed in any of the Log Views can be exported by either saving to a file or copying to the clipboard. Copying to a clipboard allows you to paste the information directly into other applications.

- Trip, Activity, Accident, and Trouble summary, report, and table views can be exported as either a text file or a data file.

- Plot views can be exported as a metafile (vector graphic format), bit-mapped graphics file, or as data.

Data files are tab delimited text files that can be imported into a spreadsheet.


See Also:

Right Click Copy As

Right Click Save As

Right Click Copy Plot As

Right Click Save Plot As

# File Menu Commands

With the options in the **File** menu you can save your downloaded CarChip data, open previously saved data, and print your data.

- **New** - Closes existing CarChip data and the corresponding file so that new CarChip data can be downloaded and displayed.

- **Open** - Opens an existing CarChip data file.

- **Save** - Saves the CarChip data currently displayed in the software. The data is saved in specially formatted CarChip file called a .car file.

- **Save As** - Lets you specify a new file name when you save CarChip data.

- **Properties** - Displays information about the data file currently loaded in the CarChip software. This command is only available when you are viewing data loaded from a file or that has been downloaded from the CarChip data logger and saved.

- **Print Setup** - Allows you to select a printer and configure printer options.

- **Print Preview** - Shows how the current log or data display would look like in a printed document.

- **Print** - Prints the currently displayed window.

- **Exit** - Closes the CarChip software.

# Toolbar

The Toolbar provides a quick way to access CarChip software commands.
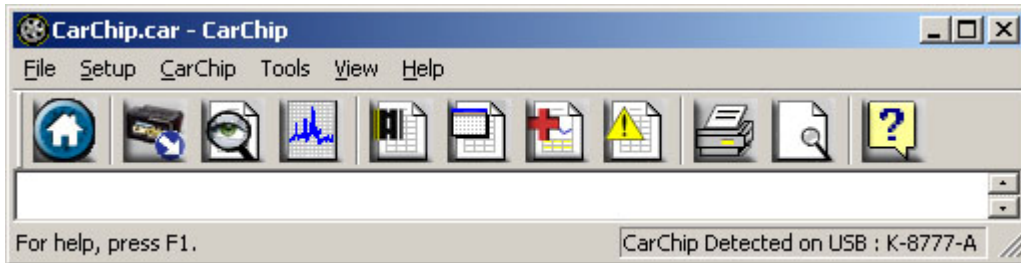


## Toolbar Icons

Home - Displays the CarChip Home Page, containing vehicle and driver summary information.

Download - Downloads data from the CarChip data logger.

Trip Log Report View - Selects the last Trip Log Report View.

Trip Log Plot View - Selects the last Trip Log Plot View.

Trip Logs - Displays the Trip Log Summary page.

Activity Logs - Displays the Activity Log Summary page.

Accident Logs - Displays the Accident Log Summary page.

Trouble Logs - Displays  the Trouble Log Summary page.

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Print - Prints the current open displayed page.

Print Preview - Previews the current open page.

[Help](#) - Opens the CarChip Help file.

See Also:

[Navigation Buttons](#)

[Shortcuts and Navigation Aids](#)

# Navigation Buttons

**Trip Log Navigation Buttons**

Use the left and right arrow navigation buttons to select records in the Trip Log View:

**Back** - Click the left arrow button to display the previous trip record.

**Forward** - Click the right arrow button to display the next trip record.

Use the up and down arrow navigation buttons to select plots in the Trip Log Plot View:

**Up** - Click the up arrow button scroll up to the next plot.

**Down** - Click the down arrow button to scroll down to the next plot.

**Accident Log Navigation Buttons**

Use the left and right arrow navigation buttons to select records in the Accident Log View:

**Back** - Click the left arrow button to display the previous accident record.

 **Forward** - Click the right arrow button to display the next accident record.

# Shortcuts & Navigation Aids

The following keyboard shortcuts and navigational aids can help you move quickly through the logged data views. These shortcuts work when viewing any log record. Use these shortcut keys to:

**Down cursor key** - Move to next record.

**Up cursor key** - Move to the previous record.

These apply to the buttons labeled "Report, Plot, and Table" when viewing individual reports in the trip and accident log. Use these shortcut keys to:

**Left cursor key** - Select button to the left of current selection.

**Right cursor key** - Select button to the right of the current selection.

These apply to any log view that will not completely fit on one screen. Use these shortcut keys to:

**Page up key** - scrolls up the screen.

**Page down key** - scrolls down the screen.

The following buttons are navigation aids that are only available in Trip Log View and Accident Log View Plots. Use these buttons to:

Back - Display the previous trip or accident record.

Forward - This command displays the next trip or accident record

The following buttons are navigation aids that are only available in Trip Log View Plots. use these buttons to:

Up - Scrolls up to the next plot.

Down - Scrolls down to the next plot.

# Right Click Menu Options

The following **Right-Click** menu options are available when viewing log summaries, individual records, and table views:

Copy As

Save As

Help F1

See Also:

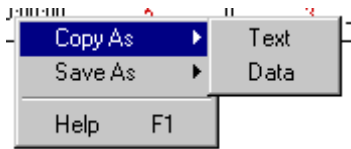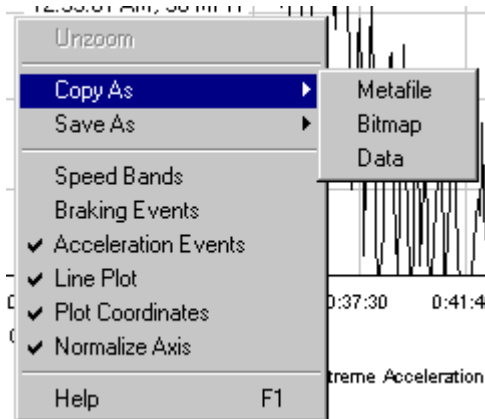Viewing Accident Plots

Viewing Trip Plots

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# Right Click Copy As

The Copy As command available in the **Right-Click** menu for the Summary, Record, and Table Views offers two file formats for copying the displayed information: text and data.

| Copy As | ▶ | Text |
|---------|---|------|
| Save As | ▶ | Data |
| Help | F1 | |

- **Copy As > Text** - Paste the displayed information as text in another application.

- **Copy As > Data** -  Paste the displayed information as tab delimited text in a spreadsheet program.

# Copy Plot As

The Copy As command in the **Plot View** right-click menu offers three options for copying the displayed information: metafile, bitmap, and data. The Copied information can then be pasted directly into another application.

| Unzoom | | |
|--------|---|---|
| Copy As | ▶ | Metafile |
| Save As | ▶ | Bitmap |
| | | Data |
| Speed Bands | | |
| Braking Events | | |
| ✔ Acceleration Events | | |
| ✔ Line Plot | | |
| ✔ Plot Coordinates | | |
| ✔ Normalize Axis | | |
| Help | F1 | |

- **Copy As > Metafile** - Copies the plot into another application as a vector graphics file.

- **Copy As > Bitmap -** Copies the plot into another application as bitmapped paint file.

- **Copy As > Data -** Copies the plot data as tab delimited text into a spreadsheet program.

# Right Click Save As

The Save As command available in the **Right-Click** menu for the Summary, Record, and Table Views offers two file formats for saving the displayed information: text and data.

| Copy As | ▶ | |
|---------|---|------|
| Save As | ▶ | Text |
| Help | F1 | Data |
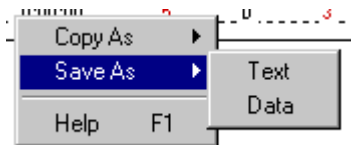
- **Save As > Text** - Pastes the displayed information as text in another application.

- **Save As > Data** -  Paste the displayed information as tab delimited text in a spreadsheet program.

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# Save Plot As

The Save As command available in the **Right-Click** menu for the Plot View offers three file format options for saving the displayed information: Metafile, Bitmap and Data.
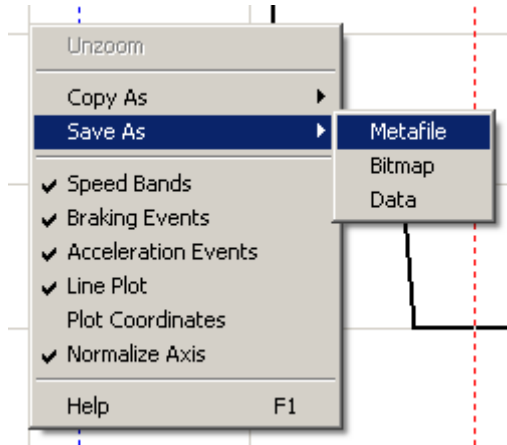


- **Save As > Metafile** - Saves the plot as a vector graphics ".emf" file.

- **Save As > Bitmap** - Saves the plot as bitmapped paint ".bmp" file.

- **Save As > Data** - Saves the plot data as a tab delimited text ".txt" file for use in a spreadsheet program.

# Using CarChip Help

Here is some information on getting started and using CarChip Help:

Context-Sensitive Help

- **Tool Bar Help Button** - Opens the help topic for the active CarChip window.

- **Dialog Box Help Button** - Opens the help topic for that dialog box.

- **F1 Key** - Opens the help topic for the active dialog box or the active CarChip window.

CarChip Hyperlink Conventions

Blue Underline : indicates link to CarChip help topic. When selected, the new topic replaces the previous topic in the window.

**Bold blue Underline** : indicates link outside of CarChip Help to information such as an external help topic, web page, or documents in the  program directory. Open this link in a new window that uses your default web browser.

Green Underline : indicates drop-down text or illustrations that display below the drop-down link in the current help topic window.

Using Windows HTML Help

If you have Internet Explorer installed on your computer, CarChip Help opens in the Microsoft HTML Help viewer. If you don't have Internet Explorer, it opens your default browser.

To learn more information about using the Microsoft HTML Help Viewer, click the following links.

Resizing the HTML Help viewer

| To: | Do this |
| --- | --- |
| To minimize the window | Click **Minimize** to shrink the viewer so it is displayed in the button bar on the bottom of the Windows Desktop. Right-click this button and select **Restore** to display the viewer. |
| To maximize the window | Click **Maximize** to maximize the window so it occupies the entire desktop area. |
| To restore the viewer to its default size | Click **Restore** to restore the viewer to it's default size. |
| To manually resize the viewer | Place the pointer over the edge of the viewer so it turns into a line with arrows on each end . Press the left mouse button and drag up, down, left or right. The viewer is resized after you release the mouse button. |

Opening and closing the left-hand panes

| To: | Do this |
| --- | --- |
| Close the left-hand tabs from view | Click **Hide** |
| Open the left-hand tabs | Click **Show** |

Using the navigation buttons

| To: | Do this |
| --- | --- |
| Display the previous topic going backwards in your topic selection sequence. | Click **Back** |
| Display the next topic going forward in your topic selection sequence. | Click **Forward** |

Using the Options menu

The **Options** button opens a menu with selections for hiding the left-hand tabs, going back and forward, stopping a topic or Web page from loading, refreshing the information displayed in the window, printing, and turning search highlighting on or off. You can also access Internet options from this menu.

# Menu Commands

Click on a topic below to view help for a particular menu:

File Menu

Setup Menu

CarChip Menu

View Menu

Help Menu

# File Menu Commands

With the options in the **File** menu you can save your downloaded CarChip data, open previously saved data, and print your data.

- **New** - Closes existing CarChip data and the corresponding file so that new CarChip data can be downloaded and displayed.

- **Open** - Opens an existing CarChip data file.

- **Save** - Saves the CarChip data currently displayed in the software. The data is saved in specially formatted CarChip file called a .car file.

- **Save As** - Lets you specify a new file name when you save CarChip data.

- **Properties** - Displays information about the data file currently loaded in the CarChip software. This command is only available when you are viewing data loaded from a file or that has been downloaded from the CarChip data logger and saved.

- **Print Setup** - Allows you to select a printer and configure printer options.

- **Print Preview** - Shows how the current log or data display would look like in a printed document.

- **Print** - Prints the currently displayed window.

- **Exit** - Closes the CarChip software.

# Setup Menu Commands

The **Setup** menu commands configure various aspects of the CarChip software, including how the data is displayed and the connection between CarChip data logger and the CarChip software. The **Setup** menu commands are:

Walkthrough - Express Setup - Displays all the setup dialog boxes needed to configure your CarChip software and CarChip data logger connection for first time users.

Walkthrough - Full Setup - Displays all the setup dialog boxes needed to configure your CarChip software and CarChip data logger connection.

Communication Port - Lets you manually select the serial or USB port connection the CarChip data logger uses to send information to your computer.

Plots - Contains options for displaying plots and graphs.

Units - Lets you select the unit systems used to display data measurements. You can also create your own customized unit system.

Parameter Thresholds - Lets you create thresholds for certain parameters of your vehicle's performance that the CarChip data logger monitors.

Note: This command is only available for CarChip E/X models or higher.

Driver ID - Displays all of the drivers associated with the CarChip data logger.

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Vehicle ID - Displays all of the vehicles associated with the CarChip data logger.

CarChip ID - Displays information about the CarChips that have been connected with the CarChip software.

Miscellaneous - Lets you configure the options for clearing the CarChip data logger's memory.

## Walkthrough Menu

The CarChip software includes a two walkthrough options that step you through the process of configuring your CarChip data logger and CarChip software configurations:
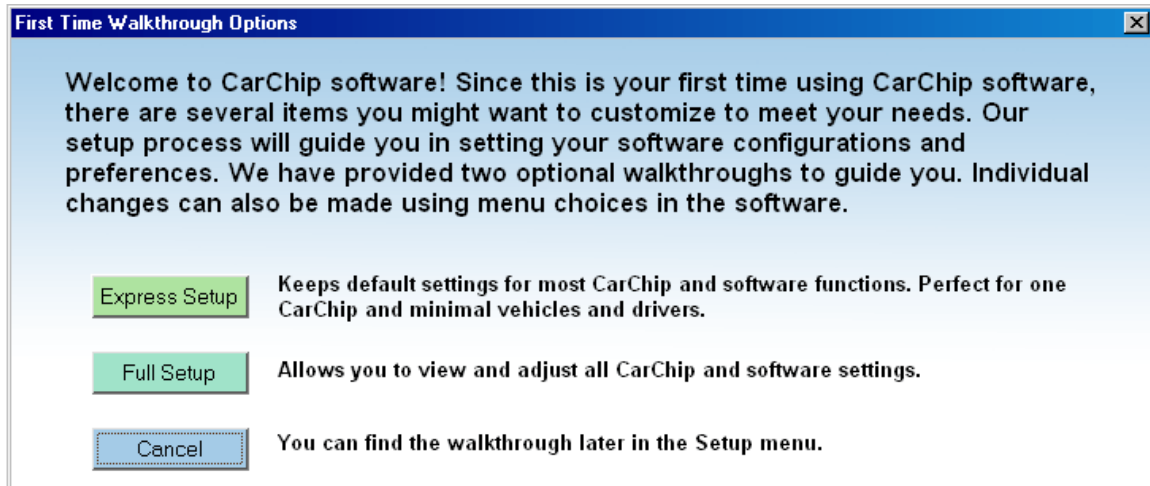
- Express Setup - Displays the essential dialog boxes and screens for configuring your CarChip and software features, such as driver and vehicle information and logging parameters.

- Full Setup - Displays all dialog boxes and screens used to configure varying areas of your CarChip and the software, such as plotting features and units of measure.

After installing the CarChip software on your computer and opening the program, the Walkthrough Selection dialog box automatically displays. By clicking **Express Setup**, the express walkthrough process begins.  By clicking Full Setup, the full walkthrough process begins. You can set up and configure your CarChip data logger and software by separately selecting all of the necessary setup options from the **Setup** menu. Individual Walkthrough commands are included in the **Walkthrough** sub-menu in the **Setup** menu so that you can access each individual walkthrough process at any time.
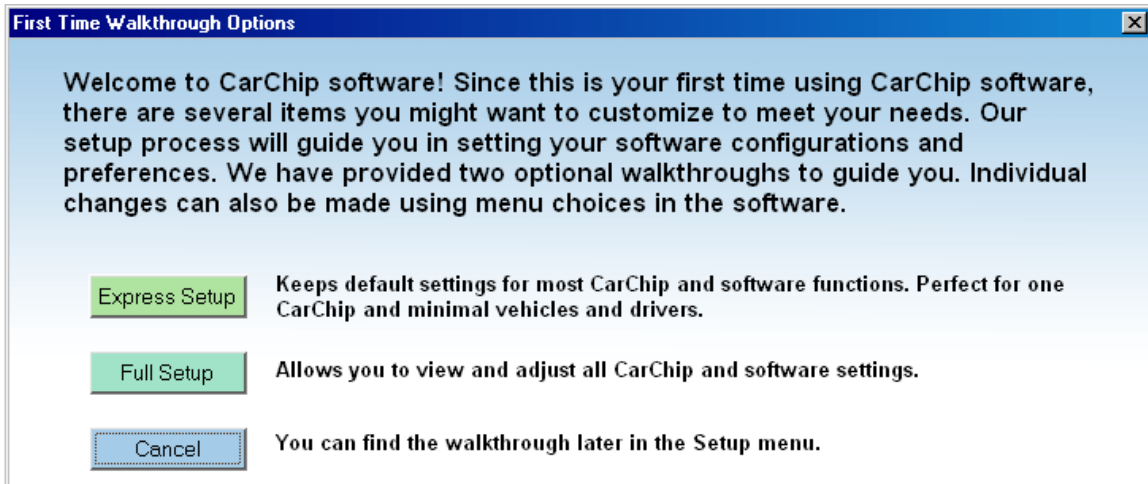


## Walkthrough - Full Setup

The CarChip software includes a full walkthrough that steps you through the full process of configuring your CarChip data logger and CarChip software. This process is useful for a first time or returning user that would like a step through guide to configuring and setting up all aspects of the CarChip and the software. After installing the CarChip software on your computer and opening the program, the Walkthrough Selection dialog box automatically displays. By clicking **Full Setup**, the full walkthrough process begins.  A full Walkthrough command is included in the **Setup** menu so that you can access the full walkthrough at any time. Alternately, you can set up and configure your CarChip data logger and software by separately selecting all of the necessary setup options from the **Setup** menu.

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Note: The CarChip data logger does not have to be connected to your computer to use the Full Setup option. Without the CarChip connected, the Full Setup displays the essential software features only. When the CarChip data logger is connected, the other setup commands pertaining to the CarChip are available.

By selecting the walkthrough process, the software displays a series of dialog boxes listed below. At each step in the walkthrough process, confirmation boxes are provided to perform or skip the next step in the walkthrough. To continue, click **OK**. To skip a step and move to the next step, click **Skip**. To cancel the entire walkthrough process, click **Cancel**.

## Walkthrough Sequence

The dialog boxes included in the full walkthrough vary depending on the CarChip data logger model you have and whether your CarChip is connected to your computer.

Available when CarChip is plugged in:

- CarChip / Set Speed Bands - Enter the threshold speeds for the CarChip data logger. The threshold speeds help you identify how much time is spent in each speed band. The time spent in each band shows up on the Trip Report and is displayed as horizontal dotted lines in the Trip Speed Plot.

- CarChip / Set Braking Thresholds - Enter the rates of deceleration that define hard braking and extreme braking.

- CarChip / Set Acceleration Thresholds - Enter the rates of acceleration that define hard acceleration and extreme acceleration.

- CarChip Parameter Report - Displays the vehicle data parameters the CarChip has been set to record, if any are available.
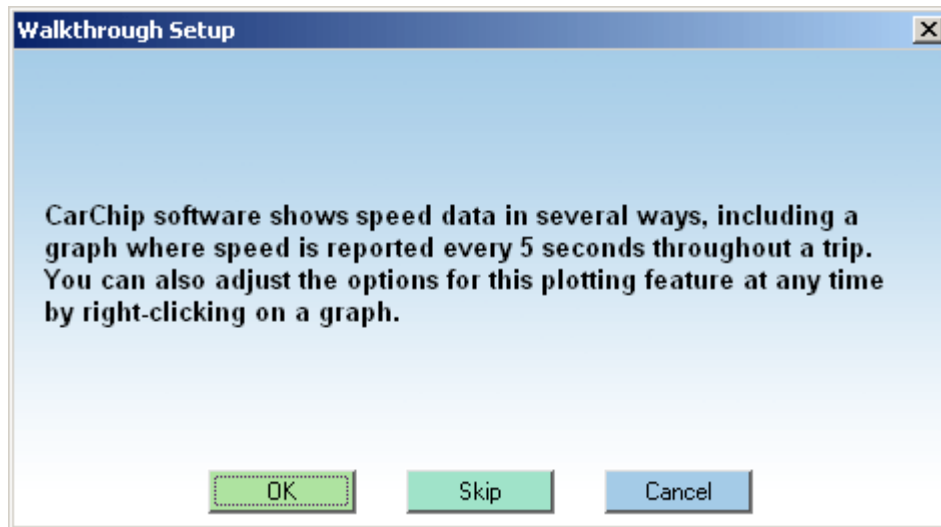
- CarChip/Choose Other Parameters - Set vehicle data parameters that the CarChip records. You can select up to four different parameters in addition to vehicle speed to record.

Note: This dialog box displays only for CarChip models E/X or higher.

- Parameter Thresholds - Set thresholds for parameters monitored in the Summary Log view.

Note: This dialog box displays only for CarChip models E/X or higher.

- Anomalous Vehicles - Specify the vehicle in which the CarChip will be used. Some vehicles have special OBDII communication properties. By selecting a vehicle name from the list, you are configuring the CarChip data logger to adjust to that vehicle's unique communication features.

CarChip software features:

- Plots - Select the options for displaying plots and graphs.
- Select Units - Select the units of measure to be used for displaying data and information.
- Miscellaneous - Select an option for clearing your CarChip's memory.
- Driver ID - Add, delete, or edit the list of drivers using the CarChip data logger.
- Vehicle ID – Add, delete, or edit the list of vehicles using the CarChip data logger.
- CarChip ID - Edit the CarChip data logger names.
- CarChip Download - If the CarChip already has available data, lets you download the data now.
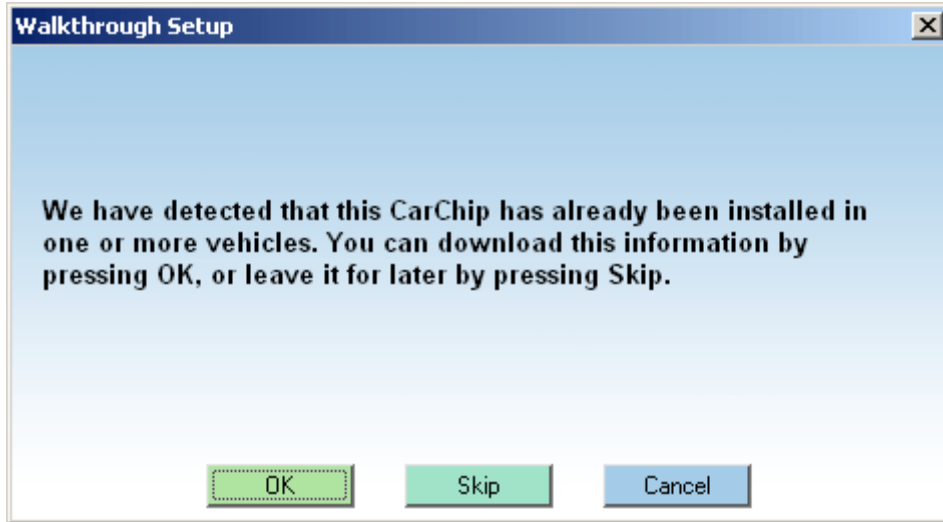
- Clear CarChip Memory - Click **Yes** to delete CarChip memory after download. Click no to keep memory on CarChip after download.

- CarChip / Set Clock - Set the CarChip data logger's internal clock to match your computer's clock.

## Walkthrough - Express Setup

The CarChip software includes an express walkthrough that steps you through the dialog boxes and screens in the software that are essential for configuring your CarChip data logger and CarChip software as a first time user. After installing the CarChip software on your computer and opening the program, the Walkthrough Selection dialog box automatically displays. By clicking **Express Setup**, the express walkthrough process begins. The Express Walkthrough command is included in the **Setup** menu so that you can access the express walkthrough at any time. You can alternately configure your CarChip data logger and software by separately selecting all of the necessary setup options from the **Setup** menu.
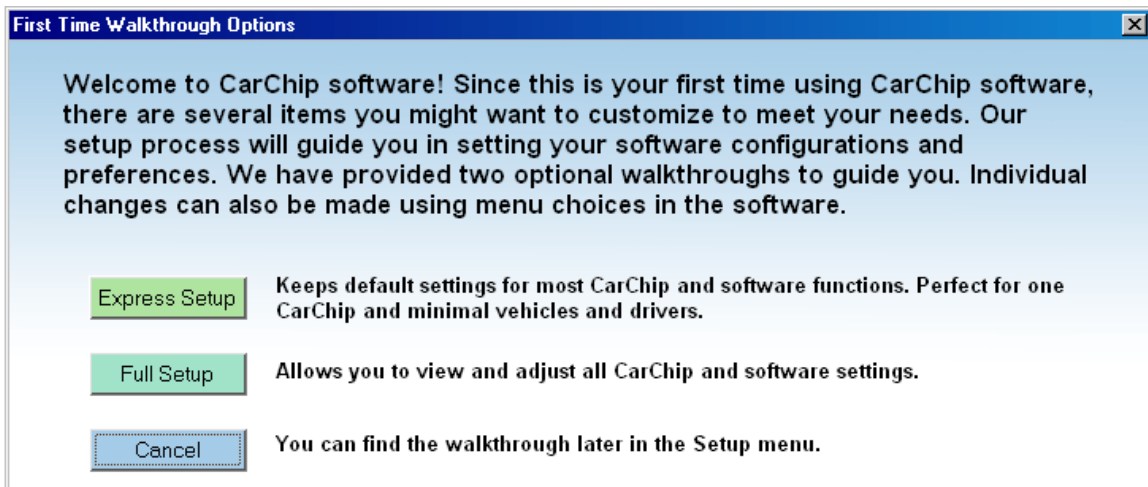


Note: The CarChip data logger does not have to be connected to your computer to use the Express Setup option. Without the CarChip connected, the Express Setup displays the essential software features only. When the CarChip data logger is connected, the other setup commands pertaining to the CarChip are available.

By selecting the express walkthrough process, the software displays a series of dialog boxes listed below. At each step in the walkthrough process, confirmation boxes are provided to perform or skip the next step in the walkthrough. To continue, click **OK**. To skip a step and move to the next step, click **Skip**. To cancel the entire walkthrough process, click **Cancel**.

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## Walkthrough Sequence

The dialog boxes included in the express walkthrough vary depending on the CarChip model you have and whether your CarChip is connected to your computer.

Available when CarChip is plugged in:

- CarChip Parameter Report - Displays the vehicle data parameters the CarChip has been set to record, if any are available.



- CarChip/Choose Other Parameters - Set vehicle data parameters that the CarChip records. You can select up to four different parameters in addition to vehicle speed to record.

Note: This dialog box displays only for CarChip models E/X or higher.

- Anomalous Vehicles - Specify the vehicle in which the CarChip will be used. Some vehicles have special OBDII communication properties. By selecting a vehicle name from the list, you are configuring the CarChip data logger to adjust to that vehicle's unique communication features.

CarChip software features:

- Add Driver/Vehicle ID - Add, delete, or edit the list of drivers and vehicles using the CarChip data logger.

- CarChip Download - Lets you download the CarChip if it already has available data.
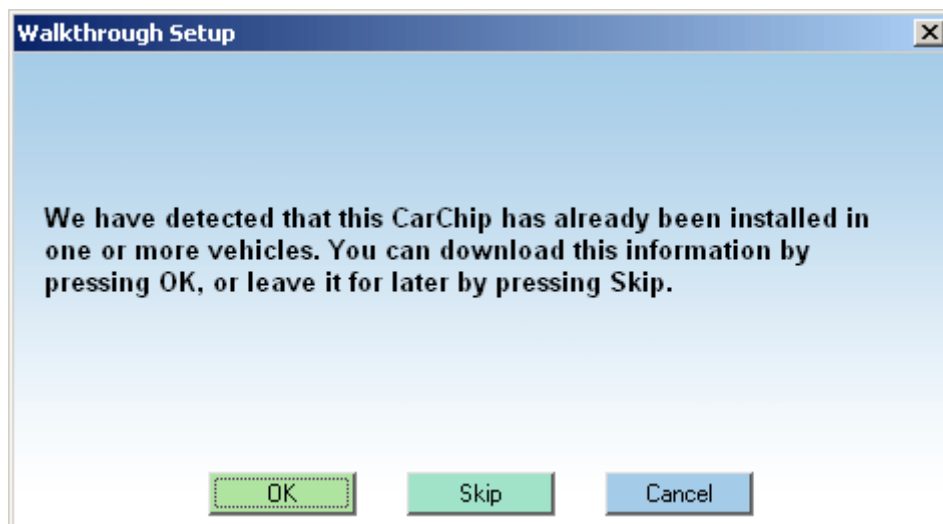


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- Clear CarChip Memory - Click **Yes** to delete CarChip memory after download. Click no to keep memory on CarChip after download.

- CarChip / Set Clock - Set the CarChip data logger's internal clock to match your computer's clock.

## Anomalous Vehicles

The **Anomalous Vehicles** dialog box lets you configure your CarChip data logger to meet any unique specifications present on the ODBII port of your vehicle. This dialog box displays as part of the Walkthrough Setup. This dialog box also displays if a vehicle from the Anomalous Vehicle list has been detected by the CarChip data logger once the CarChip is connected to the software.

To select your vehicle:

1. Click **OK** on the Special OBDII Communication Properties dialog box from the Walkthrough Setup. The Anomalous Vehicle dialog box displays.
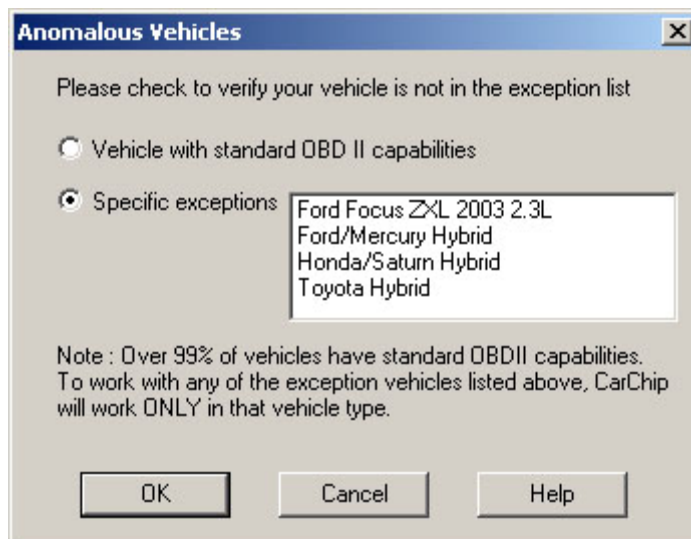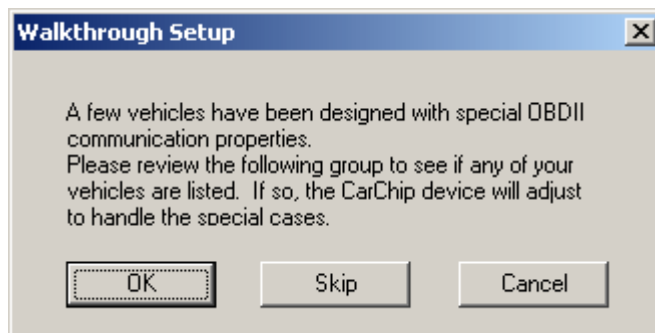


2. Click the **Specific Exceptions** radio button if your vehicle is present in the list and select the vehicle name, or click the **Vehicle with Standard OBD II Capabilities** radio button if your vehicle is not present on the list.

3. Click **OK** to save the anomalous vehicle information, or click **Cancel** to exit the dialog box without saving the information.

**Caution: Most vehicle have standard OBD II capabilities. If CarChip is set to work with an exception vehicle, it will not work with a vehicle that has standard OBD II capabilities.**

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### Communications Port

The **Communications Port** dialog box lets you manually select the port connection that is used to communicate with your CarChip data logger. This command can be accessed from the Walkthrough Setup or the **Setup** menu.

Note: If your CarChip data logger has been connected to a serial port or USB port and has been detected by the CarChip Software, this dialog box does not display in the walkthrough process.

To select the communications port connection manually:

1. Select Communications Port from the **Setup** menu. The Setup / Communications Port dialog box displays.
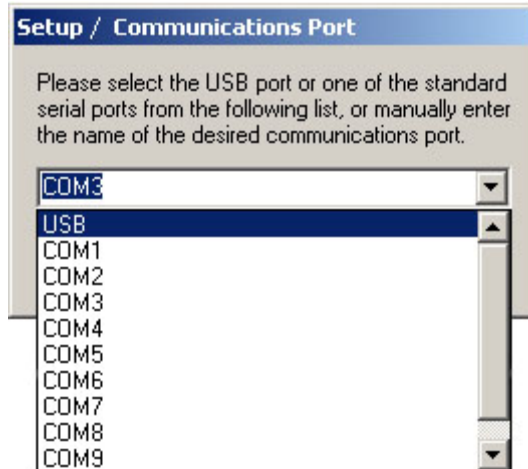


2. Select one of the listed ports or enter the name of the desired port.

   Select USB if the CarChip is connected to a USB port. Select one of the available COM ports if the CarChip is connected to a Serial or COM port, or type in the name of the COM port if it is not on the available list.

3. Click **OK** to save the new port selection, or click **Cancel** to exit the dialog box and retain the previous port selection.

## Plots

Use the **Plots** dialog box to configure your Trip View and Accident View plot options.

To configure the plot display options:

1. Select Plots from the **Setup** menu, select this option during the Walkthrough Setup process, or click the **Options** button when a Trip Log view or Accident Log view is displayed. The Setup / Plots dialog box displays.
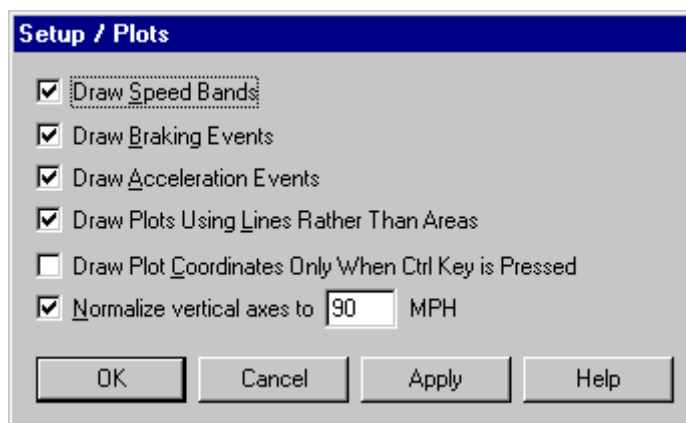
2.  Check the box next to each plot option to turn it on. A checked box indicates the option is turned on. De-select a box to turn a plot option off. Multiple options can be turned on or off at a time. The plot options are:

- **Draw Speed Bands -** Displays your selected speed band settings in the plot.

- **Draw Braking Events** - Marks braking events that exceed your preset braking thresholds.

- **Draw Acceleration Events** - Displays acceleration events that exceed your preset acceleration thresholds.

- **Draw Plots using Lines Rather than Areas** - Displays a line graph of the measured data. Turning this option off turns the area under the measured data black in the plot.

- **Draw Plot Coordinates Only When Ctrl Key is Pressed** -  Display the cursor's plot coordinates only when the Control key is pressed. The plot coordinates are the elapsed time of the trip and the data value associated with that time. If not checked, the cursor's coordinates on the plot are displayed continuously when the cursor is within the plot area.

- **Normalize vertical axes to ____ MPH / KPH** - Set the upper limit of the vehicle speed plot to the speed of your choice. You can change the speed used to normalize the axes by highlighting the current speed setting with your cursor and then entering the new speed. If not checked, the upper limit of the vertical axes will be the maximum speed achieved by the vehicle during the current trip.

3.  Click **OK** to save the new plot options. Click **Cancel** to exit the dialog box and retain the previous plot options.

See Also:

Draw Speed Bands

Draw Braking Events

Draw Acceleration Events

Draw Plots Using Lines

Draw Plot Coordinates

Normalize Vertical Axis


## Draw Speed Bands

The **Draw Speed Bands** check box in the **Setup / Plots** dialog box displays the speed limitations set in Set Speed Bands dialog box in the plots displayed in the Trip Log Plot view.

By selecting this option in the **Setup/Plots** dialog box, the speed bands are drawn in the plot. These speed bands are represented in the plot by horizontal dotted lines. The two intermediate speed bands are black dotted lines. The maximum speed band is a red dotted line.

To display speed bands in the plots:

1.  Select Plots from the **Setup** menu. The Setup / Plots dialog box displays.



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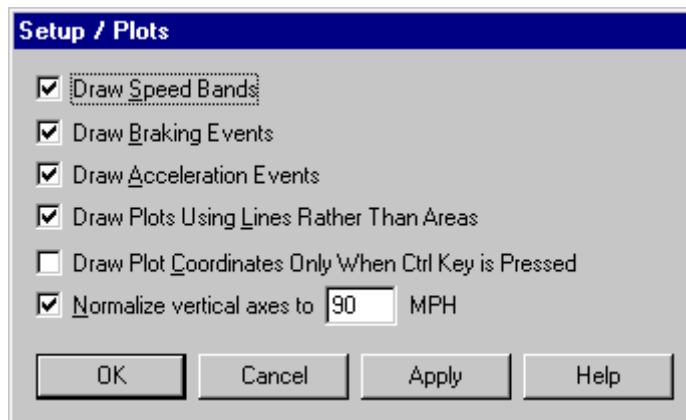
2. Click on the **Draw Speed Bands** check box to toggle the function on and off. A check indicates that the Draw Speed Bands function has been enabled.

3. Click **OK** to save the new plot setup. Click **Cancel** to exit the dialog box and retain the previous plot setup. Click **Apply** to make the change without exiting the dialog box.
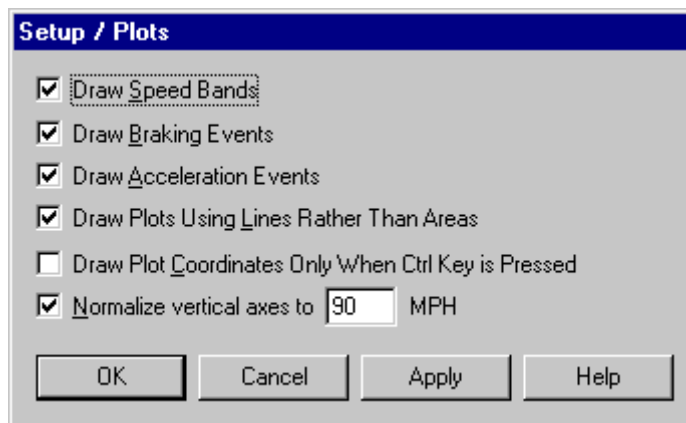
See Also:

Speed Band Right-Click Commands

## Draw Braking Events

The **Draw Braking Events** check box in the **Setup / Plots** dialog box displays any hard and extreme braking events in the Trip Log Plot view when selected. The thresholds for hard and extreme braking are set in the Set Braking Thresholds dialog box.

If the **Draw Braking Events** box is selected from the **Setup / Plots** dialog box, the braking events are represented by red vertical lines. A hard braking event is a dotted red vertical line. An extreme braking event is a solid red vertical line.

To display acceleration events in the plots:

1. Select Plots from the **Setup** menu. The Setup / Plots dialog box displays.



2. Click the **Draw Braking Events** check box to toggle the function on and off. A check indicates that the Draw Braking Events function has been enabled.

3. Click **OK** to save the new plot setup. Click **Cancel** to exit the dialog box and retain the previous plot setup. Click **Apply** to make the change without exiting the dialog box.

## Draw Acceleration Events

The **Draw Acceleration Events** check box in the **Setup / Plots** dialog box displays any hard and extreme acceleration events in the Trip Log Plot view when selected. The thresholds for hard and extreme accelerations are set in the Set Acceleration Thresholds dialog box.

If the **Draw Acceleration Events** box is selected from the **Setup / Plots** dialog box, the acceleration events are represented by blue vertical lines. A hard acceleration event is a dotted blue vertical line. An extreme acceleration event is a solid blue vertical line.

To display acceleration events in the plots:

1. Select Plots from the **Setup** menu. The Setup / Plots dialog box displays.

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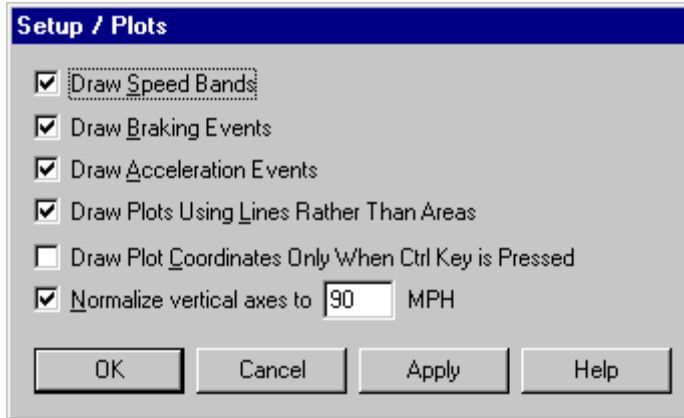
2. Click the **Draw Acceleration Events** check box to toggle the function on and off. A check indicates that the Draw Acceleration Events function has been enabled.

3. Click **OK** to save the new plot setup. Click **Cancel** to exit the dialog box and retain the previous plot setup. Click **Apply** to make the change without exiting the dialog box.

## Draw Plots As Lines

The **Draw Plots As Lines** check box in the **Setup / Plots** dialog box displays the trip and plot information in lines in the Trip Log Plot view when selected.

If the **Draw Plots As Lines** box is selected from the **Setup / Plots** dialog box, the plot information is displayed as a black line. If the **Draw Plots As Lines** box is toggled off, the area under the plot line is filled black.

To display lines in the plots:

1. Select Plots from the **Setup** menu. The Setup / Plots dialog box displays.
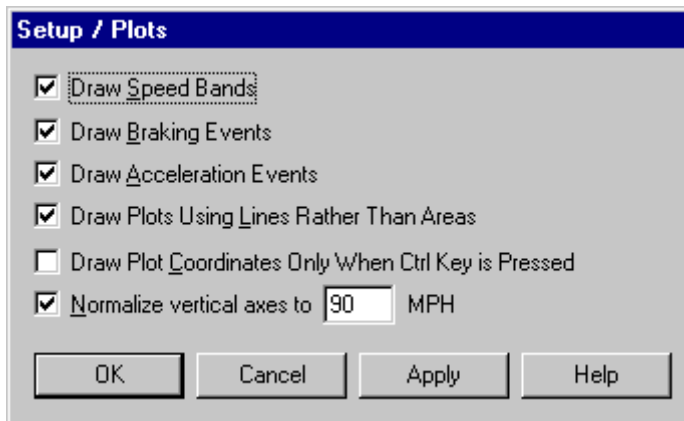


2. Click the **Draw Plots Using Lines Rather Than Areas** check box to toggle the function on and off. A check indicates that the Draw Plots Using Lines function has been enabled.

3. Click **OK** to save the new plot setup. Click **Cancel** to exit the dialog box and retain the previous plot setup. Click **Apply** to make the change without exiting the dialog box.

## Plot Coordinates Options

The Setup \ Plots dialog box contains the **Draw Plot Coordinates Only when Central key Is Pressed** check box. When selected, the plot coordinates, which include the time and speed of the coordinate display when the Control key is pressed with the cursor over a coordinate in the plot. When the check box is not selected, the plot coordinates are displayed any time the cursor is active over a plot.

To display  plots with a normalized axis:

1. Select Plots from the **Setup** menu. The Setup / Plots dialog box displays.

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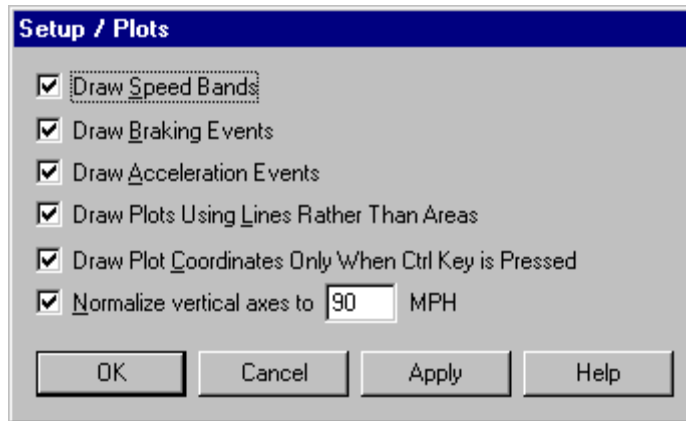
2. Click the **Draw Plot Coordinates...** check box to toggle the function on and off. A check indicates that coordinates display only when the Control key is pressed in a plot view. When the function is turned off, coordinates are displayed anytime the cursor is active over a plot.

3. Click **OK** to save the new plot setup. Click **Cancel** to exit the dialog box and retain the previous plot setup. Click **Apply** to make the change without exiting the dialog box.

## Normalize Vertical Speed Axes

The **Normalize Vertical Speed Axes** check box in the **Setup / Plots** dialog box displays the plot vertical axis based on a set speed in the Trip Log Plot view when selected.

If the **Normalize Vertical Speed Axes** check box is selected from the **Setup / Plots** dialog box, the top limit of the plot is the speed limit displayed in the text box. If this check box is not selected, each plot is displayed based on the maximum speed reached in the plot.

To display  plots with a normalized axis:

1. Select Plots from the **Setup** menu. The Setup / Plots dialog box displays.
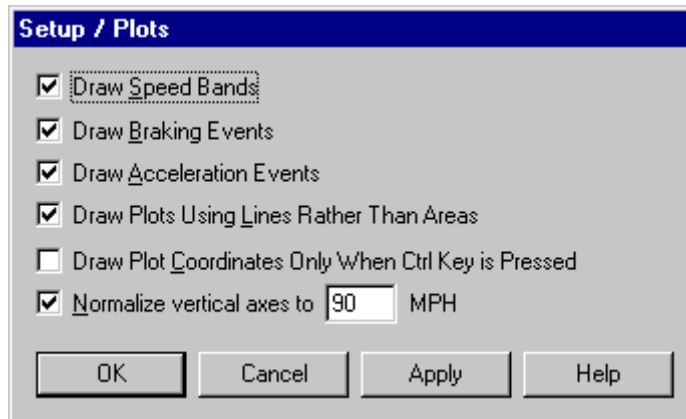


2. Click the **Normalize Vertical Speed Axes** check box to toggle the function on and off. A check indicates that the plots display normalized speed axis.

3. Type the speed that represents the top limit displayed in all the Trip Log Plot views.

   The default vertical axis value is 90 mph, 153 kph, or 42.5 meters per second, based on the unit system selected from the **Units** dialog box. The maximum allowable vertical axis speed is 158 mph, 255 kph, or 70.8 m/s.

4. Click **OK** to save the new plot setup. Click **Cancel** to exit the dialog box and retain the previous plot setup. Click **Apply** to make the change without exiting the dialog box.

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## Units of Measure

You can select the units of measure used by CarChip software to display the CarChip data. You can even create custom unit systems.

Three Unit Systems are included with the CarChip software:

- U.S. - Displays measurements and units based on the U.S. measurement system.

- Metric - Displays measurements and units based on the metric system.

- S.I. - Displays measurements based on the International System of Units.

To select a measurement system:

1. Select Units from the **Setup** menu.

   The Setup / Units dialog box displays.
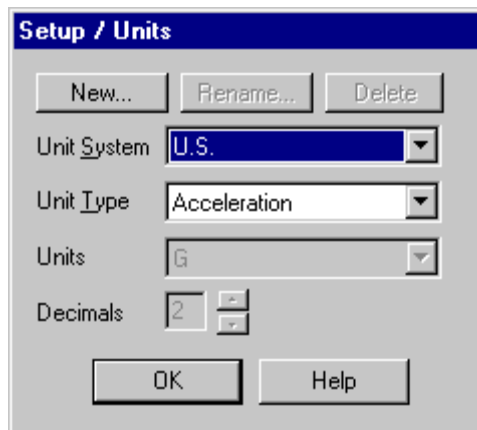
2. Select the desired unit system from the **Unit System** drop-down box.

   The new unit system selection displays. To see the unit used for every unit type in the selected system, click a unit type name from the **Unit Type** drop-down box. The unit of measure for the selected unit type displays in the **Units** dialog box.

3. Click **OK** when you are satisfied with the unit system selection.

To create a custom measurement system:

You can define a custom unit system for CarChip if you have specialized units-of-measure requirements.

1. Select Units from the **Setup** menu. The **Setup / Units** dialog box displays.

2. Click **New** on the **Setup / Units** dialog box. The New Unit System dialog box displays.
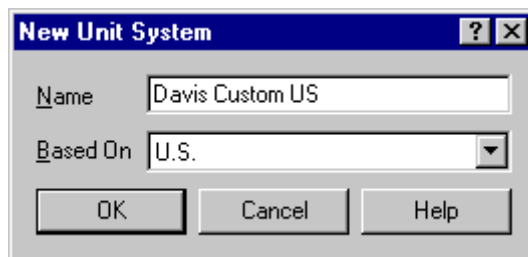
3. Type the name of the new unit system in the **Name** box.

4. Select the unit system the new customized measurement system uses as a template from the **Based On** drop down box.

5. Click **OK** to add the new unit system, or click **Cancel** to exit the dialog box without making any changes. The **Setup / Units** dialog box displays with the customized unit system.

6. Select a unit type whose value you want to change from the **Unit Type** drop down box. The available units for the unit type display in **Units** drop down box.

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7. Select the unit you want and click **OK** to save and display your unit changes. Click **Cancel** to exit the Units dialog box without saving your changes.

To rename a custom unit system:

1. Select Units from the **Setup** menu. The **Setup / Units** dialog box displays.
2. Select the custom unit system that you want to rename.
3. Click **Rename** on the **Setup / Units** dialog box. The Rename Unit System dialog box displays.
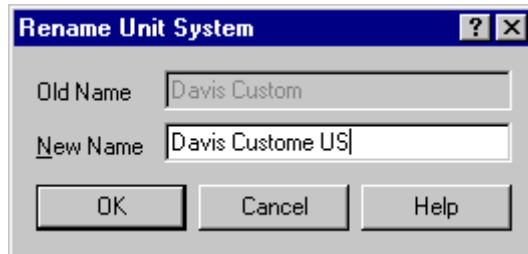


4. Type the new name for the custom unit system in the **Name** box.
5. Click **OK** to rename the custom unit system, or click **Cancel** to exit the dialog box without making any changes. The **Setup / Units** dialog box displays with the new custom unit name.

To delete a custom unit system:

You can delete any custom unit system you have defined for CarChip. The standard unit systems cannot be deleted.

1. Select Units from the **Setup** menu. The **Setup / Units** dialog box displays.
2. Use the drop-down list to select the custom unit system you want to delete.
3. Click **Delete** on the **Setup / Units** dialog box. The Delete Unit System dialog box displays.
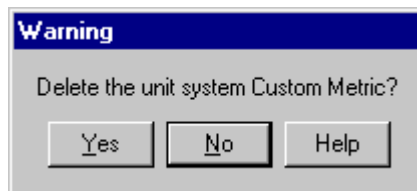


4. Click **Yes** to delete the selected unit system, or click **No** to cancel the command.

## Parameter Thresholds

Use the **Parameter Thresholds** dialog box to set monitors on your vehicle's activities.

Note: This dialog box in the **Setup** Menu is for advanced CarChip data logger models, E/X for higher. The dialog box can be accessed from the **Setup** menu for basic CarChip models, but any parameter changes made are not recorded by the basic CarChip model.

The Parameter Thresholds dialog box allows you to set thresholds for multiple areas of your vehicle. The information that is downloaded from the data logger based on these selected thresholds displays in the Summary Log view in the **View** menu.

To set parameter thresholds:

1. Select Parameter Thresholds from the **Setup** Menu. The **Parameter Thresholds** dialog box displays.

2. Set the maximum threshold for each parameter.

   The maximum threshold is the value that a vehicle can safely work under for each parameter. The thresholds should be set based on your vehicle's specifications. Consult your vehicle's owner's manual for safe limitations of these parameters. See Vehicle Data Parameters for the list of data parameters you can monitor.

3. Click **OK** to save your parameter threshold changes, click **Cancel** to exit the dialog box without saving your changes or click **Default** to display the default parameter threshold values.

## Vehicle Data Parameters

There are several data parameters that you can configure your CarChip data logger to monitor by using the Parameter Thresholds and Choose Other Parameters dialog boxes. The data parameters that you select are displayed in the Summary Log, and the Trip Plot and Table Views. The data parameters that are available are:

- **Vehicle Speed**
- **Engine Speed**
- **Throttle Position**
- **Coolant Temperature**
- **Engine Load**
- **Intake Manifold Pressure**

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- **Air Flow Rate**

- **Intake Air Temperature**

- **Timing Advance**

- **Fuel Pressure**

- **Fuel System Status**

- **Short Term Fuel Trim (B1)**

- **Short Term Fuel Trim (B2)**

- **Long Term Fuel Trim (B1)**

- **Long Term Fuel Trim (B2)**

- **O2 Sensor Voltage (B1, S1)**

- **O2 Sensor Voltage (B1, S2)**

- **O2 Sensor Voltage (B1, S3)**

- **O2 Sensor Voltage (B1, S4)**

- **O2 Sensor Voltage (B2, S1)**

- **O2 Sensor Voltage (B2, S2)**

- **O2 Sensor Voltage (B2, S3)**

- **O2 Sensor Voltage (B2, S4)**

- **Battery Voltage**

## Driver ID

The **Driver ID** dialog box lets you configure the drivers that have logged trips on the CarChip data logger. You can add, delete, and edit Driver IDs. The Driver IDs are used to associate a driver with trip information.

To view all the Driver IDs:

1. Select Driver ID from the **Setup** Menu.

   The Driver ID dialog box displays with a list of the available Driver IDs.
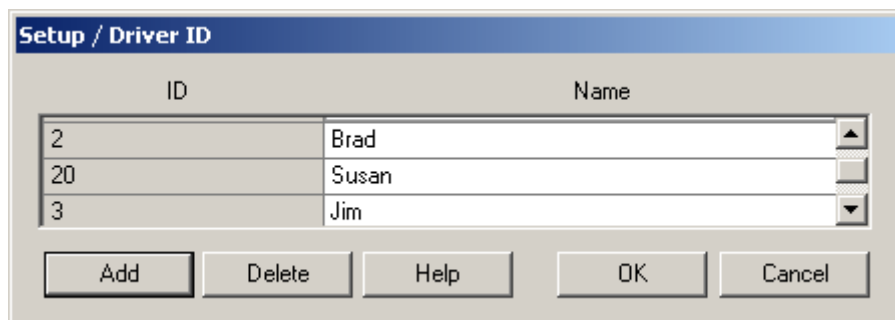


2. Scroll the list of Driver IDs using the scroll bar.

To create a new driver, from the Driver ID dialog box:

1. Click **Add**.

   The New Driver dialog box displays.
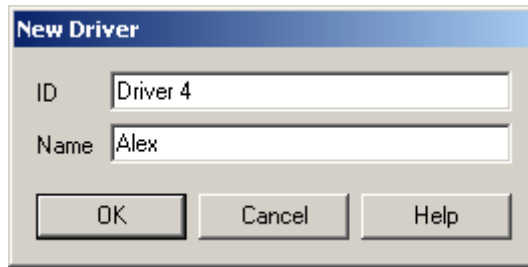
2.  Enter a unique driver name or ID in the **ID** box.

3.  Enter a name in the **Name** box and click **OK**.

    You do not have to enter a name in the name box. Click **OK** if you want the information displayed in the **ID** box to display in the **Name** box. The new driver information displays in the Driver ID table.

4.  Click **OK** to add the Driver ID, or click **Cancel** to exit the **Driver ID** dialog box without saving changes.

To delete an existing driver, from the Driver ID dialog box:

1.  Select a driver name from the Driver ID table.

2.  Click **Delete**. The selected driver ID is deleted from the list.

3.  Click **OK** to delete the Driver ID, or click **Cancel** to exit the **Driver ID** dialog box without saving changes.

To edit existing driver information, from the Driver ID dialog box:

1.  Double-click the Name field for the driver name you want to change.

    The selected driver name is highlighted.

2.  Edit the driver name.

3.  Click **OK** to accept the changes to the Driver ID, or click **Cancel** to exit the **Driver ID** dialog box without saving changes.

Note: You can not edit the ID field for the Driver IDs. If you would like to change the Driver ID of an existing driver, delete the driver ID and add a new driver ID.

## Driver ID Column

Each driver in the CarChip database is primarily identified by a driver ID. Once a Driver ID has been created, it can not be renamed or edited.
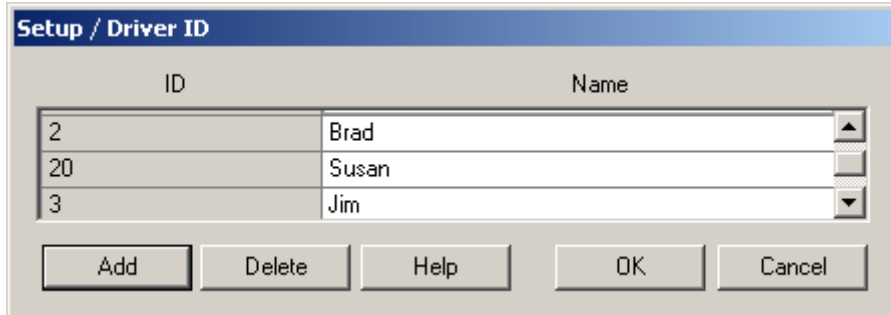


See Also:

Driver ID

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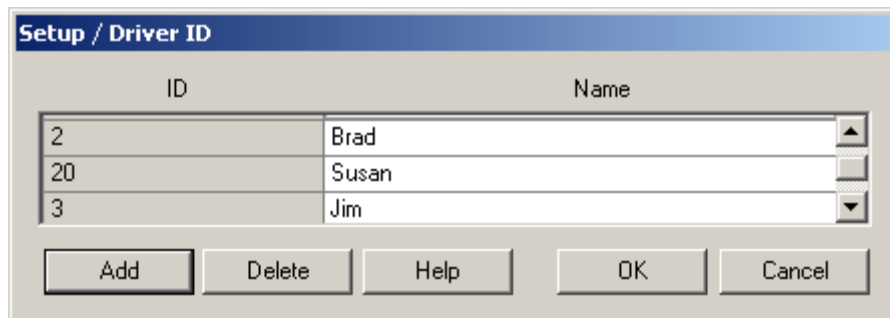
## Driver ID Name Column

Each driver in the CarChip data base is identified by a driver ID and name. The Driver Name column in the Driver ID dialog box displays the unique name given to the driver. Click name column for a driver to rename or edit the driver name field.

See Also:

Driver ID

## Vehicle ID

The **Vehicle ID** dialog box lets you configure the vehicles that the CarChip data logger has been connected to. You can add, delete, and edit Vehicle IDs. The Vehicle IDs are used to associate a vehicle with trip information.

To view all the Vehicle ID's:

1. Select Vehicle ID from the **Setup** Menu.

   The Vehicle ID dialog box displays with a list of the available Vehicle IDs.
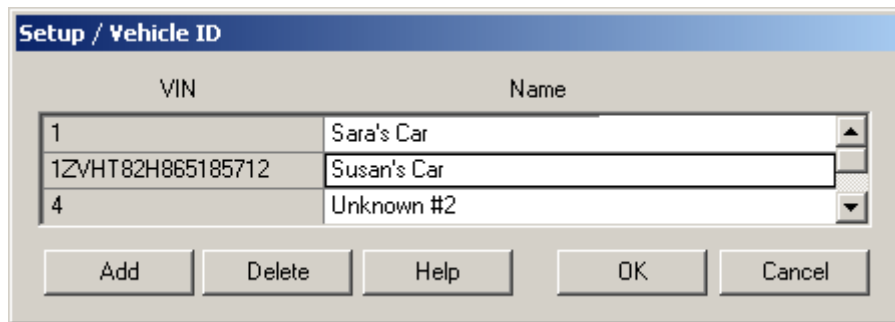
2. Scroll the list of Vehicle IDs using the scroll bar.

To create a new vehicle:

1. Click **Add** from the **Vehicle ID** dialog box.

   The New Vehicle dialog box displays.
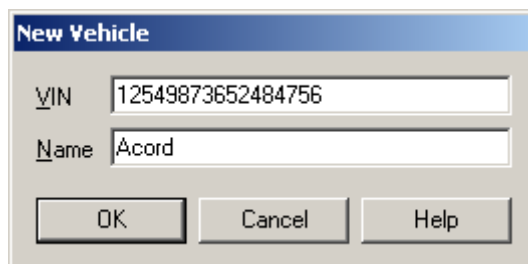
2. Enter a unique vehicle name or the vehicle's VIN number in the **VIN** box.

3. Enter a unique vehicle name in the **Name** box and click **OK**.

   You do not have to enter a name in the name box. Click **OK** if you want the information displayed in the **VIN** box to display in the **Name** box. The new vehicle information displays in the Vehicle ID table.

4. Click **OK** to add the Vehicle ID, or click **Cancel** to exit the **Vehicle ID** dialog box without saving changes.

To delete an existing vehicle:

1. Select a vehicle name from the Vehicle ID table from the **Vehicle ID** dialog box.

2. Click **Delete**. The selected vehicle ID is deleted from the table.

3. Click **OK** to delete the Vehicle ID, or click **Cancel** to exit the **Vehicle ID** dialog box without saving changes.

To edit existing vehicle information:

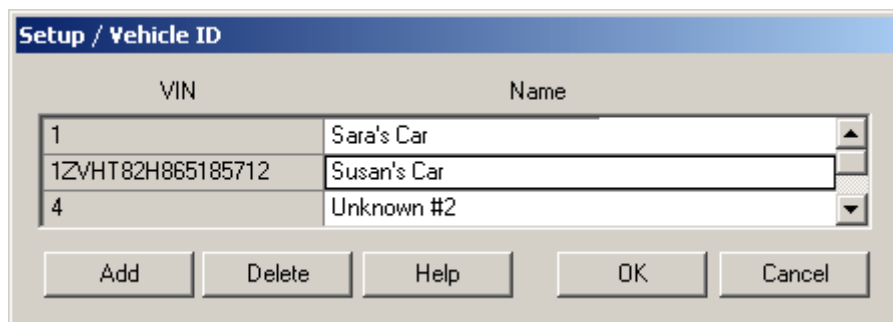1. Double-click the Name field  from the Vehicle ID dialog box,

   The selected vehicle name is highlighted.

2. Edit the vehicle name.

3. Click **OK** to accept the changes to the vehicle ID, or click **Cancel** to exit the **Vehicle ID** dialog box without saving changes.

> Note: You can not edit the VIN field for the Vehicle ID's. If you would like to change the Vehicle ID of an existing driver, delete the vehicle ID and add a new vehicle ID.

## Vehicle ID Name Column

Each vehicle in the CarChip database is primarily identified by the vehicle identification number (VIN). In some cases your CarChip will be able to read the VIN via the OBDII port, but not all manufacturers have implemented this feature. In most cases you will need to manually enter a VIN number for each vehicle, or other number by which you can uniquely identify each vehicle. In addition to the VIN, you can also give each vehicle a name which will be used to identify the vehicle in reports.



See Also:

Vehicle ID

## Vehicle ID VIN Column

Each vehicle in the CarChip data base is primarily identified by the vehicle identification number (VIN). In some cases your CarChip will be able to read the VIN via the OBDII port, but not all manufacturers have implemented this feature. In most cases you will need to manually enter a VIN number for each vehicle, or other number by which you can uniquely identify each vehicle. In addition to the VIN, you can also give each vehicle a name which will be used to identify the vehicle in reports.

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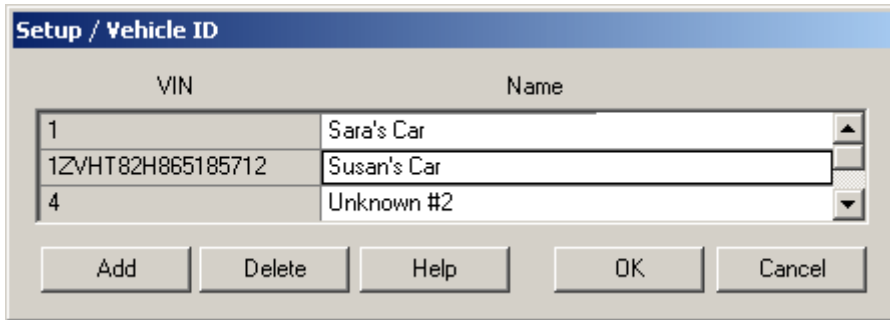
See Also:

Vehicle ID

## CarChip ID

The **CarChip ID** dialog box displays information about the CarChip data logger or loggers you are using, including serial numbers, the CarChip data loggers with data that the CarChip software is currently using, and the CarChip name.  Use the **CarChip ID** dialog box to enter, edit, or delete a CarChip data logger name.

To view all the CarChip IDs:

1.  Select CarChip ID from the **Setup** Menu.

    The Setup / CarChip ID dialog box displays with a list of the available CarChip IDs.
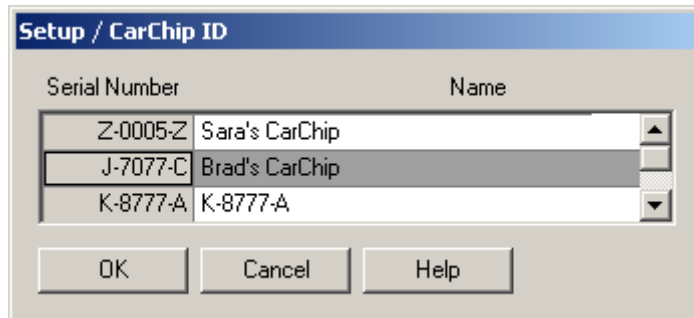


2.  Scroll the list of CarChip IDs using the scroll bar.

To edit existing CarChip information:

1.  Double-click the Name field for a CarChip data logger from the **CarChip ID** dialog box.

    The selected CarChip name is highlighted.

2.  Edit the CarChip name.

3.  Click **OK** to accept the changes to the Driver ID, or click **Cancel** to exit the **Driver ID** dialog box without saving changes.

## CarChip Name Column

The CarChip Name Column lets you give each CarChip data logger that has been connected to the CarChip software a name which is used to identify the CarChip in the different reports available in the **View** menu.
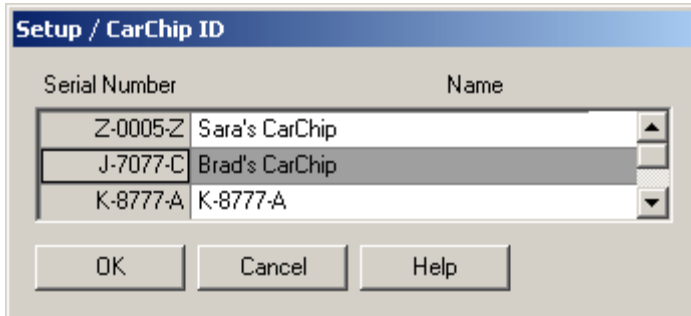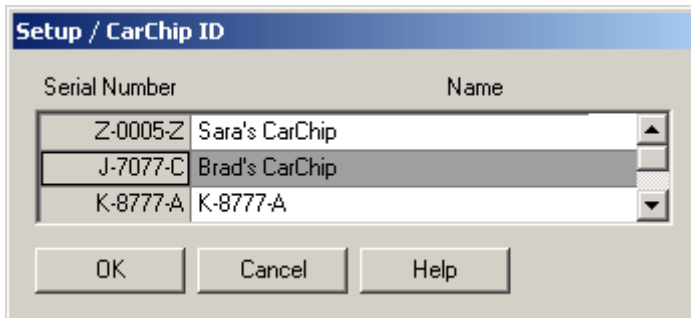


See Also:

CarChip ID

## CarChip Serial Number Column

The CarChip Serial Number Column displays the unique CarChip data logger serial number assigned to each CarChip that has been connected to the CarChip software. The serial number is embedded in the CarChip, and cannot be changed.
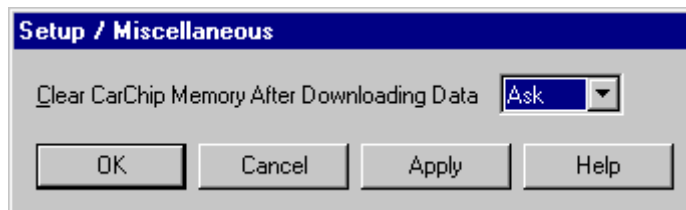


See Also:

CarChip ID

### Miscellaneous

The **Miscellaneous** dialog box lets you configure the memory clearing options for the CarChip data logger.

To configure the CarChip memory clear options:

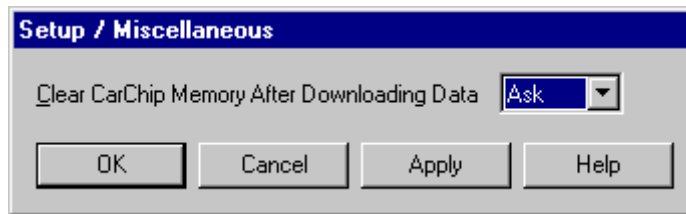1. Select Miscellaneous from the **Setup** menu. The Setup / Miscellaneous dialog box displays.

2. Select one of the following options from the drop-down box:

- **Always -** The CarChip data logger memory is automatically cleared after each download.

- **Never -** The CarChip's memory is not cleared after every download and you will not be prompted if you want to clear the memory. Use the Clear CarChip Memory command from the **CarChip** menu to clear the memory manually.

- **Ask -** The software asks you after each download if you want to clear the CarChip data logger memory.

3. Click **OK** to save the selected memory clearing option. Click **Cancel** to exit the dialog box and retain the previous selection. Click **Apply** to make the change without exiting the **Miscellaneous** dialog box.

## Miscellaneous Command: Clear Memory Box

The Clear Memory box in the **Miscellaneous** dialog box contains memory clearing options for the CarChip data logger.

To configure the CarChip memory clear options:

1. Select Miscellaneous from the **Setup** menu. The Setup / Miscellaneous dialog box displays.



2. Select one of the following options from the drop-down box:

- **Always -** The CarChip data logger memory is automatically cleared after each download.

- **Never -** The CarChip's memory is not cleared after every download. Use the Clear CarChip Memory command from the **CarChip** menu to clear the memory manually.

- **Ask -** The software asks after each download if you want to clear the CarChip data logger memory.

3. Click **OK** to save the selected memory clearing option. Click **Cancel** to exit the dialog box and retain the previous selection. Click **Apply** to make the change without exiting the **Miscellaneous** dialog box.

## Clear CarChip Memory?

The Question \ **Clear CarChip Memory** dialog box displays after every download if, the **Ask** option is the current memory clearing option selected from the Miscellaneous dialog box from the **Setup** menu.

To Clear the CarChip data logger's memory:

1. Click **Yes**.

To keep the current data on the CarChip data logger:

1. Click **No**.

To hide this dialog box in future downloads:

1. Click **Don't Ask Again** and your desired memory clearing option.

**Note:** This dialog box contains a **Don't Ask Again** check box. By Checking this option and clicking **Yes,** the CarChip's memory is automatically cleared after every download. By clicking **No**, the CarChip's memory is never cleared after download. To change your CarChip memory clearing options, see Clear Memory.

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# CarChip Menu Commands

The **CarChip** menu commands control operations affecting the CarChip data logger.

The commands that display in this menu depend on the CarChip data logger model. The **CarChip** menu commands are:

Download CarChip Data - Lets you download data from the CarChip data logger to your computer.

Display CarChip Memory - Displays the available memory available on your CarChip data logger.

Clear CarChip Memory - Lets you clear the CarChip memory.

Enable CarChip LED - Controls the modes of operation for your CarChip LED.

Reset Check Engine Light - Configures your CarChip to turn off the Check Engine Light in your vehicle.

Enable CarChip Alarm - Controls the modes of operation for your CarChip Alarm.

Note: This command is only available for the CarChip Pro (# 8226), CarChip Fleet Pro (# 8246), and CarChip E/X Alarm (product 8225), and CarChip Fleet with Alarm (# 8245) model.

Enable CarChip VIN Mode - Configures your CarChip to retrieve vehicle's unique VIN number when it is connected to a car.

Note: This command is only available for CarChip models 8211, 8221, 8225, 8226, 8241, 8245, and 8246.

Set Anomalous Vehicle - Lets you configure your CarChip data logger to meet any unique specifications present on the ODBII port of your vehicle.

Set Speed Bands - Lets you set speed thresholds so you can monitor your speed.

Set Braking Thresholds - Lets you configure the deceleration rates that determine hard and extreme breaking in your vehicle.

Set Acceleration Thresholds -  Lets you configure the acceleration rates that determine hard and extreme acceleration in your vehicle.

Set Clock - Lets you set the CarChip data logger's internal clock to your computer's clock.

Choose Other Parameters - Lets you configure parameters regarding your

## Downloading CarChip Data

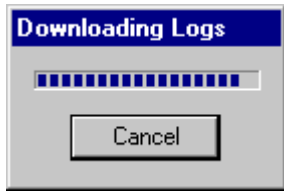Once you have connected your CarChip data logger to your computer, you are ready to download data from any of the CarChip models.
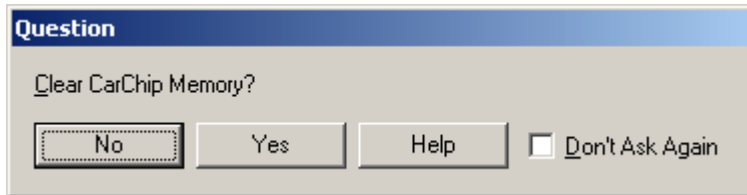
To download data:

1.  Click the Download CarChip icon or select Download CarChip Data from the **CarChip** menu.

    In some instances, the Warning Clock Setup dialog box displays. When data is downloaded, the software automatically compares the internal clock on the CarChip against the clock on your computer. Click **OK** to continue or check **Synchronize Clocks** to set the CarChip data logger's internal clock to your computer's clock.

    The Downloading Logs status dialog box displays. Click **Cancel** to abort the download before it is finished. The **Downloading Logs** dialog box closes when the download is complete.

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2. The Question dialog box displays. The **Question** dialog box asks if you want to delete the data currently in the CarChip memory.



3. Click **No** to keep the current data in the CarChip device, or click **Yes** to clear the CarChip memory.

**Note:** This dialog box contains a **Don't Ask Again** check box. By Checking this option and clicking **Yes,** the CarChip's memory is automatically cleared after every download. By clicking **No**, the CarChip's memory is never cleared after download. To change your CarChip memory clearing options, see Memory Clearing Options.

The **Unidentified Vehicle/Driver** dialog box displays. See Unidentified Vehicle/Driver ID for more information on this dialog box.

Once you have finished associating vehicles and drivers with the downloaded trip data, the Activity Log Summary view automatically displays the downloaded data.

## Display CarChip Memory

The **Display CarChip Memory** dialog box displays how much memory is currently be used by the CarChip data logger.

Note: This command is only available when a CarChip data logger is connected to your computer.
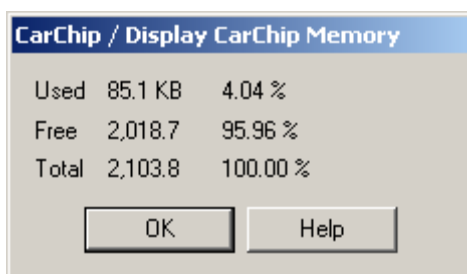
To display CarChip memory information:

1. Select Display CarChip Memory from the **CarChip** menu. The Display CarChip Memory dialog box displays the following information

   **Used -** The memory occupied by data.

   **Free** - The amount of memory available for data.

   **Total** - The  total amount of memory available on the data logger.



2. Click **OK** to close the dialog box.

The amount of memory available on the CarChip depends on the Carchip Model. See CarChip Pro and CarChip Fleet Pro Specifications for information on the memory size available for the CarChip Pro and CarChip Fleet Pro models. See CarChip, CarChip E/X, and CarChip E/X with Alarm for information on memory size of older models of Carchip.

## Clear CarChip Memory

The **Clear CarChip Memory** dialog box lets you clear the CarChip data logger's memory.

To clear CarChip memory:

1.  Select Clear CarChip Memory from the **CarChip** menu. The Clear CarChip Memory dialog box displays.
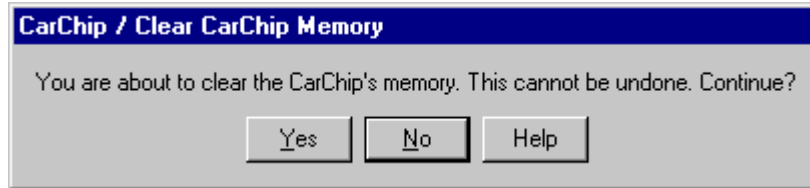


2.  Click **Yes** to clear the CarChip data logger memory. Click **No** to exit the dialog without clearing the data logger memory.

## Enable CarChip LED

The Enable CarChip LED command on the **CarChip** menu toggles the CarChip LED between Diagnostic Mode and Disabled Mode. When a check box displays next to the Enable CarChip LED command, the Diagnostic Mode is in use on the CarChip data logger. If a check box does not display, the CarChip data Logger LED is in Disabled Mode.

To toggle between the CarChip LED modes:

1.  Select Enable CarChip LED from the **CarChip** menu.

    The CarChip software takes a moment to initialize the LED setting. The CarChip LED is now in Diagnostic Mode.

2.  Select Enable CarChip LED a second time.

    The CarChip software take a moment to initialize the LED setting. The CarChip LED is now in Disabled Mode.

To view CarChip LED status:

1.  View Enable CarChip LED from the **CarChip** menu.

    If a check displays next to the command, Diagnostic Mode is currently in use on your CarChip. If a check does not display, Disabled Mode is currently in use.

See Also:

CarChip LED Modes

## CarChip LED Modes

The CarChip can be toggled between two LED Modes: Diagnostic and Disabled.

Diagnostic Mode

Diagnostic Mode enables the LED in the following manner:

**Self-test Mode** - Displays three rapid blinks, indicating the initial hardware self-test was completed successfully.

**Communications Mode** - Displays two rapid blinks per second until the CarChip successfully begins to communicate with a vehicle.

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**Data Mode** - Displays one blink per second while the CarChip is communicating with a vehicle.

**Sleep Mode** - Does not display any blinks.

**PC Mode** - Displays one blink per second whenever CarChip is connected to a PC. LED is 100% ON when downloading to a PC.

Disabled Mode

When the CarChip LED is disabled only the Self-test and PC modes are active.

**Self-test Mode** - Displays three rapid blinks indicates the initial hardware self-test was completed successfully.

**PC Mode** - Displays one blink per second whenever CarChip is connected to a PC. LED is 100% ON when downloading to a PC.

## Reset Check Engine Light

The Reset Check Engine Light command enables your CarChip data logger to turn off the Check Engine light in your vehicle the next time the CarChip data logger is connected to your vehicle.

> **Note:** If the condition that caused the check engine light to appear has not been corrected, the light will reappear the next time the car detects the condition.

To turn the Reset Check Engine Light command on and off:

1. Select Reset Check Engine Light from the **CarChip** menu.

   The CarChip software takes a moment to initialize the setting. The Reset Check Engine Light is now turned on.

2. Select Reset Check Engine Light a second time.

   The CarChip software take a moment to initialize the setting. The Reset Check Engine Light is now turned off.

To view Reset Check Engine Light status:

1. View the Reset Check Engine Light command from the **CarChip** menu.

   If a check displays next to the command, the command is turned on. If a check does not display, the command has been turned off.

## Enable CarChip Alarm

The Enable CarChip Alarm command is active (not grayed out) on the **CarChip** menu when a CarChip E/X with Alarm (# 8225), CarChip Fleet with Alarm (# 8245), CarChip Pro (# 8226) or CarChip Fleet Pro (# 8246) is connected to your computer and has an established a connection with the CarChip software. These models of CarChip emit an audible alarm in your vehicle when speed band thresholds, acceleration and braking thresholds have been exceeded.

The **Enable Alarm** command initializes the alarm setting and allows you to set the alarm volume or disable the alarm if the alarm is currently enabled through the Set Alarm dialog box. When a check box displays next to the **Enable Alarm** in the **CarChip** Menu, the alarm on the CarChip data logger is turned on. If a check box does not display, the CarChip data logger alarm has been turned off.

To toggle the CarChip Alarm on and off:

1. Select Enable Alarm from the **CarChip** menu.

   The CarChip software takes a moment to initialize the Alarm setting. The **Set Alarm** dialog box displays with the alarm settings available for the version of CarChip you are using. See Set Alarm Volume for more information.

To view CarChip Alarm Status:

1. View Enable Alarm from the **CarChip** menu.

   If a check displays next to the command, the CarChip alarm is turned on and in use. If a check does not display,  the CarChip alarm is turned off.

## Set Alarm Volume

The **Set Alarm Volume** dialog box allows you to enable and set the alarm volume on the CarChip Pro (# 8226) and Carchip Fleet Pro (# 8246) or allows you to enable the alarm for all other models of CarChip. The command is available on the **CarChip** menu when a CarChip E/X with Alarm (# 8225), CarChip Fleet with Alarm (# 8245), CarChip Pro (# 8226) or CarChip Fleet Pro (# 8246) is connected to your computer and has an established a connection with the CarChip software.  These models of CarChip emit an audible alarm in your vehicle when speed band thresholds, acceleration and braking thresholds have been exceeded.

To enable or set alarm volume:

1.  Select Enable Alarm from the **CarChip** menu.

    The CarChip software takes a moment to initialize the Alarm setting. The **Set Alarm** dialog box displays with the CarChip's current Alarm status and the options available for the alarm.

    If a CarChip Pro or Carchip Fleet Pro is connected, the *Set Alarm* dialog box displays the High, Medium, and Low radio button options and the Disabled radio button for disabling the CarChip's Alarm. If an older model CarChip is connected, the **Medium** radio button or **Disabled** radio button are the only selections available in the *Set Alarm* dialog box.
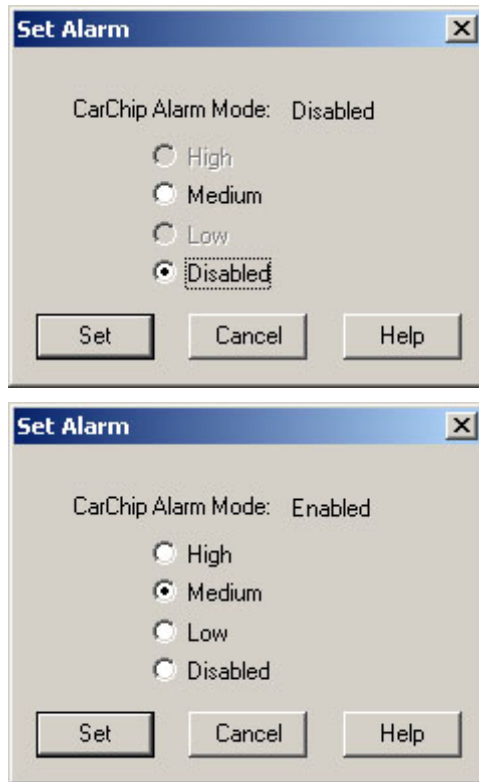


2.  Select an available volume option or **Disabled** and click **OK** to save the alarm settings or **Cancel** to exit the dialog box without saving.

    The CarChip software take a moment to initialize the alarm setting. The CarChip Alarm is now off.

## Enable CarChip VIN Mode

The Enable CarChip VIN mode command on the **CarChip** menu toggles the VIN reading function on the CarChip data logger on and off. When the CarChip VIN mode is turned on, the CarChip data logger reads the unique VIN number associated with the vehicle the next time the CarChip data logger is connected to the vehicle. When the trip information is later downloaded, the VIN number is associated with trips taken, and displays in the Trip Log Report View.  When the CarChip VIN mode is turned off,  the VIN number is not recorded and does not display in association with trip information.

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**Caution: With VIN Mode enabled, the CarChip records the VIN number from the vehicle if the vehicle supports that feature. If the VIN number does not display the next time the CarChip has been connected to your vehicle, we recommend you disable the CarChip VIN Mode, since asking for data the vehicle does not support can cause undesirable side effects.**

The Enable VIN Mode command toggles the VIN mode on and off. When a check box displays next to the Enable VIN Mode command, the VIN recording capabilities on the CarChip data logger are turned on. If a check box does not display, the CarChip data logger alarm has been turned off.

Note: The Enable VIN Mode command is not available for the serial versions (# 8210, 8220) of CarChip.

To toggle the CarChip VIN Mode on and off:

1. Select Enable VIN Mode from the **CarChip** menu.

   The CarChip software takes a moment to initialize the VIN setting. The CarChip VIN mode is now on and will record the VIN information on a vehicle the next time it is connected to a vehicle.

2. Select Enable VIN Mode a second time.

   The CarChip software take a moment to initialize the VIN setting. The CarChip VIN mode is now off.

To view CarChip VIN status:

1. View Enable VIN Mode from the **CarChip** menu.

   If a check displays next to the command, the CarChip VIN Mode has been enabled on the CarChip data logger. If a check does not display, the CarChip VIN Mode is turned off.


## Set Speed Bands

Use the **Set Speed Bands** dialog box to enter the threshold speeds for the CarChip data logger. The threshold speeds help you identify how much time is spent in each speed band. The time spent in each band shows up on the Trip Report and the thresholds are displayed as horizontal dotted lines in the Trip Speed Plot.

To set speed bands:

1. Select Set Speed Bands… from the **CarChip** menu. The CarChip / Set Speed Bands dialog box displays.



2. Enter the maximum threshold speed for each of the first three speed bands. The fourth speed band consists of all speeds greater than the last threshold, or click **Default** to use the software default threshold settings.

3. Click **OK** to save the new speed band settings. Click **Cancel** to exit the dialog box without saving changes to the settings.

Note: The speed threshold displayed in the fourth speed band is also the threshold that triggers the audible alarm in the CarChip Pro, CarChip Fleet Pro, CarChip E/X with Alarm, and CarChip Fleet with Alarm models. When this speed band is exceeded in a vehicle, the alarm sounds until the vehicle is no longer over the speed band threshold. See Enable CarChip Alarm for more information on using the CarChip Alarm feature.

## Speed Bands Right-Click Menu

The **Draw Speed Bands** check box in the **Setup / Plots** dialog box contain a right-click menu with options regarding the options available for each check box. Using the mouse right-click when the cursor is in the **Draw Speed Bands** edit box displays the following menu choices:

- Requirements… Ctrl+R
- Errors…            Ctrl+E
- Unit Systems…  Ctrl+U
- Help              F1

## Set Braking Thresholds

Use the **Set Braking Thresholds** dialog box to enter the rates of deceleration that define hard braking and extreme braking. Accident Logs are created based on the thresholds set in this dialog box. Any time the car's braking threshold exceeds these set limits, the event is logged in the Trip Report.

To set braking thresholds:

1. Select Set Braking Thresholds from the **CarChip** menu. The CarChip / Set Braking Thresholds dialog box displays.
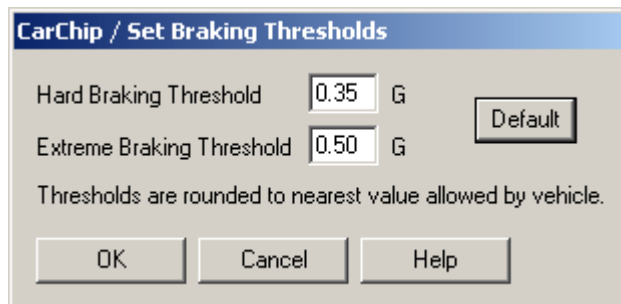
2. Enter your desired hard and extreme braking thresholds or click **Default** to use the software default threshold settings. The default braking thresholds are: 0.35 and 0.50 G (US & Metric) and 3.4 and 4.9 m/s$^2$ (S.I.).

3. Click **OK** to save the new settings. Click **Cancel** to exit the dialog box and retain the previous settings.

Note: The extreme braking threshold is also the threshold that triggers the audible alarm on the CarChip Pro, CarChip Fleet Pro, CarChip E/X with Alarm, and CarChip Fleet with Alarm models. When this braking threshold is exceeded in a vehicle, the alarm sounds five times. See Enable CarChip Alarm for more information on using the CarChip Alarm feature.

See Also:

Hard Braking Threshold

Extreme Braking Threshold

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## Hard Braking Threshold

The Hard Braking Threshold box in the Set Braking Thresholds dialog box is the lower of two braking thresholds in the CarChip Software.

The default hard braking threshold for each standard measurement system is:

- **0.35 G** - For U.S. measurement system.

- **0.35 G** - For Metric measurement system.

- **3.4 m/s²** - For S.I. measurement system.

See Also:

Extreme Braking Threshold


## Extreme Braking Threshold

The **Extreme Braking Threshold** box in the Set Braking Thresholds dialog box is the higher of two braking thresholds in the CarChip software.

The default extreme braking threshold for each standard measurement system is:

- **0.50 G** - For U.S. measurement system.

- **0.50 G** - For Metric measurement system.

- **4.9 m/s²** - For S.I. measurement system.


See Also:

Hard Braking Threshold


## Set Acceleration Thresholds

Use the **Set Accelerations Thresholds** dialog box to enter the rates of acceleration that define hard acceleration and extreme acceleration. These thresholds help you monitor how hard the vehicle is being accelerated. Any time the car's acceleration exceeds these set limits, the event is logged in the Trip Report.

To set acceleration thresholds:

1. Select Set Acceleration Thresholds… from the **CarChip** menu. The CarChip / Set Acceleration Threshold*s* dialog box displays.
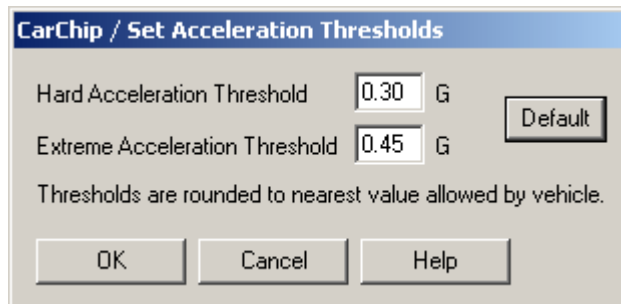


2. Enter your desired hard and extreme acceleration thresholds or click **Default** to use the software default threshold settings. The Default acceleration thresholds are: 0.30 and 0.45 G (US & Metric) and 2.9 and 4.4 m/s² (S.I.).

3. Click **OK** to save the new settings. Click **Cancel** to exit the dialog box and retain the previous settings.

Note: The extreme acceleration threshold is also the threshold that triggers the audible alarm on the CarChip Pro, CarChip Fleet Pro, CarChip E/X with Alarm, and CarChip Fleet with Alarm models. When this acceleration threshold is exceeded in a vehicle, the alarm sounds five times. See Enable CarChip Alarm for more information on using the CarChip Alarm feature.

See Also:

Hard Acceleration Threshold

Extreme Acceleration Threshold

# Hard Acceleration Threshold

The Hard Acceleration Threshold box in the Set Acceleration Thresholds dialog box is the lower of two acceleration thresholds in CarChip software.

The default hard acceleration threshold is:

- **0.30 G** - For U.S. measurement system.

- **0.30 G** - For Metric measurement system.

- **2.9 m/s²** - For S.I. measurement system.

See Also:

Extreme Acceleration Threshold

# Extreme Acceleration Threshold

The Extreme Acceleration Threshold box in the Set Acceleration Thresholds dialog box is the higher of two acceleration thresholds in the CarChip software.

The default extreme acceleration threshold is:

- **0.45 G** - For U.S. measurement system.

- **0.45 G** - For Metric measurement system.

- **4.4 m/s²** - For S.I. measurement system.

See Also:

Hard Acceleration Threshold

## Set Clock

The **Set Clock** dialog box lets you set the CarChip data logger's internal clock to match your computer's clock.

To set the CarChip's internal clock:

1. Select Set Clock from the **CarChip** menu. The CarChip / Set Clock dialog box displays.
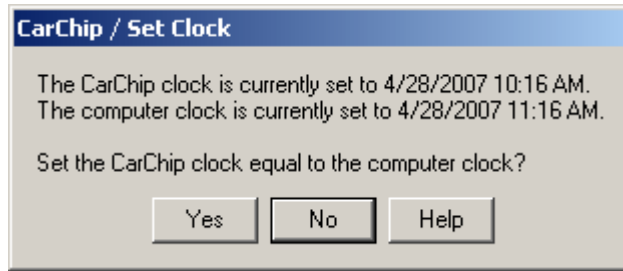
2.  Click **Yes** to set the clock on the CarChip to match the clock on your computer, or click **No** to exit the dialog box and retain the CarChip's previous clock settings.

## Time Difference Adjustment

When data is downloaded, the software automatically compares the internal clock on the CarChip data logger against the clock on your computer. The data that has been downloaded can display the time recorded from the CarChip data logger or can adjust to display the times according to your computer.

To display time recordings based on your computer's clock:

1.  Select **Computer** from the drop down box when the Time Difference dialog box displays.



2.  Click **OK** to download data, or click **Cancel** to abort the CarChip download.

To display time recordings based on the CarChip data logger's internal clock:

1.  Select CarChip from the drop down box when the **Time Difference** dialog box displays.

2.  Click **OK** to download data, or click **Cancel** to abort the CarChip download.

To synchronize clocks (set the CarChip clock to the computer clock):

1.  Click the **Synchronize Clocks** check box.

2.  Click **OK** to download data, or click **Cancel** to abort the CarChip download.

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## Time Difference Warning

The Warning Clock Setup dialog box displays if the software finds a difference between the internal clock on the CarChip and the clock on your computer. See Time Difference Adjustment for more information on clock differences.

**Warning**

Your CarChip's internal clock differs from your computer's internal clock by 0:59:40.

This may be due to a change in time zones or a change in Daylight Savings Time.

Download logs using time as recorded by [Computer ▼]   ☐ Synchronize clocks

    Computer
    CarChip

[ OK ]      [ Help ]
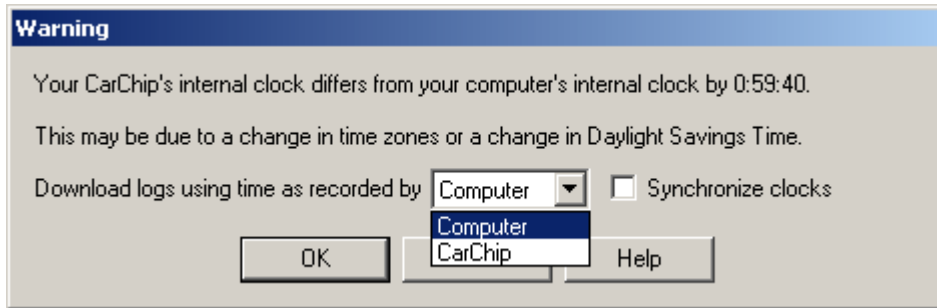
## Choose Other Parameters

Use the **Choose Other Parameters** dialog box to select up to four additional vehicle data parameters to be logged in addition to vehicle speed and allows you to choose the sampling intervals for the parameters.

To choose other parameters:

1.  Select Choose Other Parameters... from the **CarChip** menu. The CarChip / Choose Other Parameters dialog box displays.
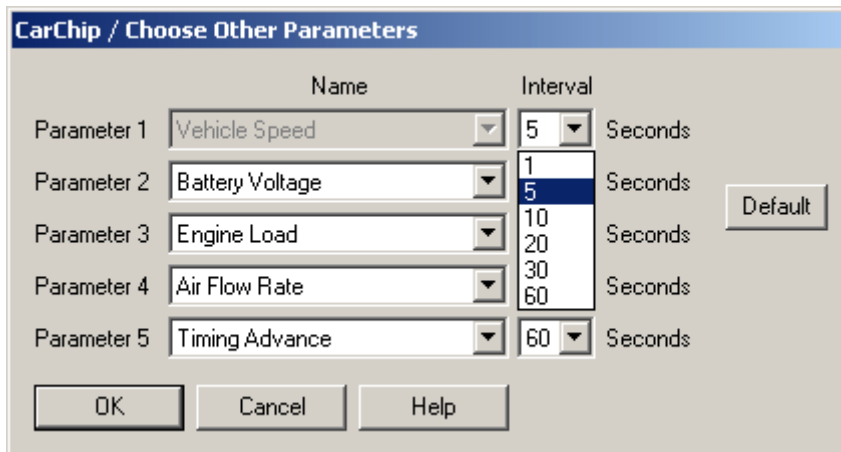
**CarChip / Choose Other Parameters**

|             | Name          | Interval |         |
|-------------|---------------|----------|---------|
| Parameter 1 | Vehicle Speed | 5 ▼ Seconds | |
| Parameter 2 | Battery Voltage | Seconds | [ Default ] |
| Parameter 3 | Engine Load | Seconds | |
| Parameter 4 | Air Flow Rate | Seconds | |
| Parameter 5 | Timing Advance | 60 ▼ Seconds | |

Interval dropdown: 1 / 5 / 10 / 20 / 30 / 60

[ OK ]   [ Cancel ]   [ Help ]

*(This is the **CarChip / Choose Other Parameters** dialog box that displays for CarChips with firmware 2.18 or later. The Sampling Interval for the Vehicle Speed Parameter is selectable.)*
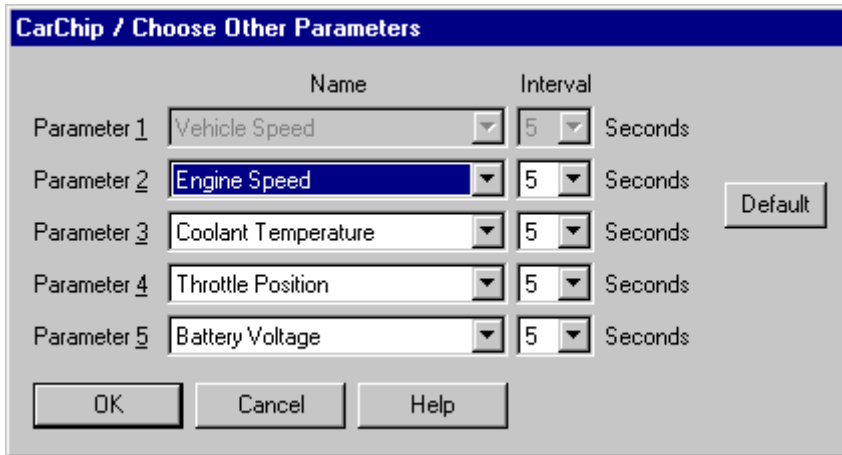
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*(This is the **CarChip / Choose Other Parameters** dialog box that displays for CarChips with firmware 2.17 or earlier. The Sampling Interval for the Vehicle Speed Parameter is not selectable.)*

2. Use the drop down list to select up to four additional vehicle data parameters.

3. For each parameter including the Vehicle Speed Parameter, select a sampling interval. Note that the sampling interval for Vehicle speed is not selectable for CarChips with firmware versions 2.17 or earlier but is selectable for CarChips with firmware versions 2.18 or later. To check your CarChip's firmware versions, select **About CarChip** from the **Help** menu while the CarChip is connected to your computer. The CarChip's firmware version displays.

4. Click **OK** to save the parameter settings, or click **Cancel** to exit the dialog box and retain the previous settings.

Note: A parameter can not be logged more than once. Please review your parameter selections and remove any duplicate selections.

See also:

List Of Data Parameters

Sampling Interval

# Tools Menu Commands

The **Tools** menu contains various commands for organizing and categorizing the trip data downloaded from your CarChip, such as fuel entry and viewing readiness code records. The **Tools** menu commands are:

Fuel Entry - Lets you enter fuel usage for each vehicle associated with the CarChip software.

Emissions Readiness - Displays all the records for the readiness code tests a vehicle performs at startup and the resulting status of those tests.

Trip Type Entry - Lets you select and categorize trips by type and creates a mileage analysis based on the categorized trips.

### Fuel Entry

The Fuel Entry dialog box lets you enter information about fuel usage and costs for every vehicle you have added to the CarChip software. Fuel entry information is used to calculate the fuel efficiency and fuel expense and is displayed in the CarChip Home Page and Vehicle Summary View.

To add a fuel entry:

1. Select Fuel Entry from the **Tools** menu. The Fuel Entry dialog box displays.
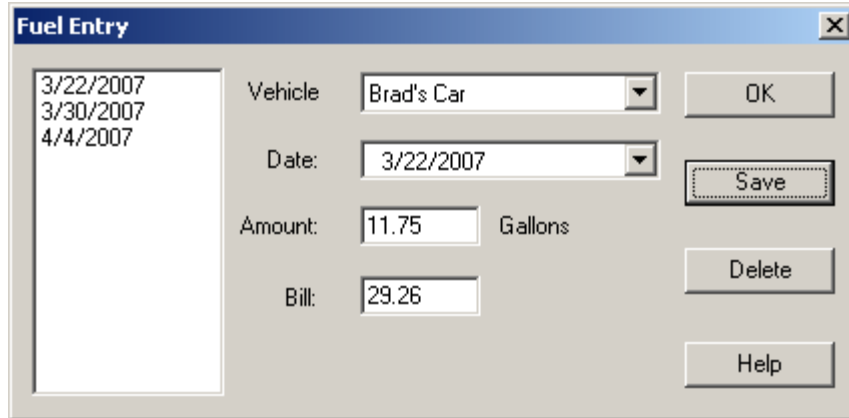
2. Select the vehicle from the **Vehicle** box.

3. Select the date the fuel was purchased from the **Date** box.

4. Enter the amount of fuel purchased in the **Amount** box.

5. Enter the price paid for the fuel purchase in the **Bill** box.

6. Click **OK** to close the **Fuel Entry** dialog box without saving the fuel entry information, or click **Save** to save the fuel entry information. Select a date from the **Fuel Entry** list box and click **Delete** to delete fuel entries.

## Emissions Readiness

The **Emissions Readiness** dialog box displays the last recorded status of the emissions readiness codes for every vehicle in the CarChip Database. Use this dialog box to view whether or not a particular readiness code is supported for the vehicle and whether or not the monitor completed its test for each of the available readiness codes. A readiness code is used to indicate whether or not monitored emissions control systems have been tested by the OBDII system. Each emissions control system has its own monitor and related code. Some emission control components are tested continuously throughout a trip and others are tested intermittently when predetermined operating conditions are met.

Note: The readiness code database displays readiness codes from the last recorded trip for every CarChip and assigned vehicle in the database. One readiness code record is available for each assigned vehicle.

To organize trip type information:

1. Select Emissions Readiness from the **Tools** menu. The Readiness Code dialog box is displayed.

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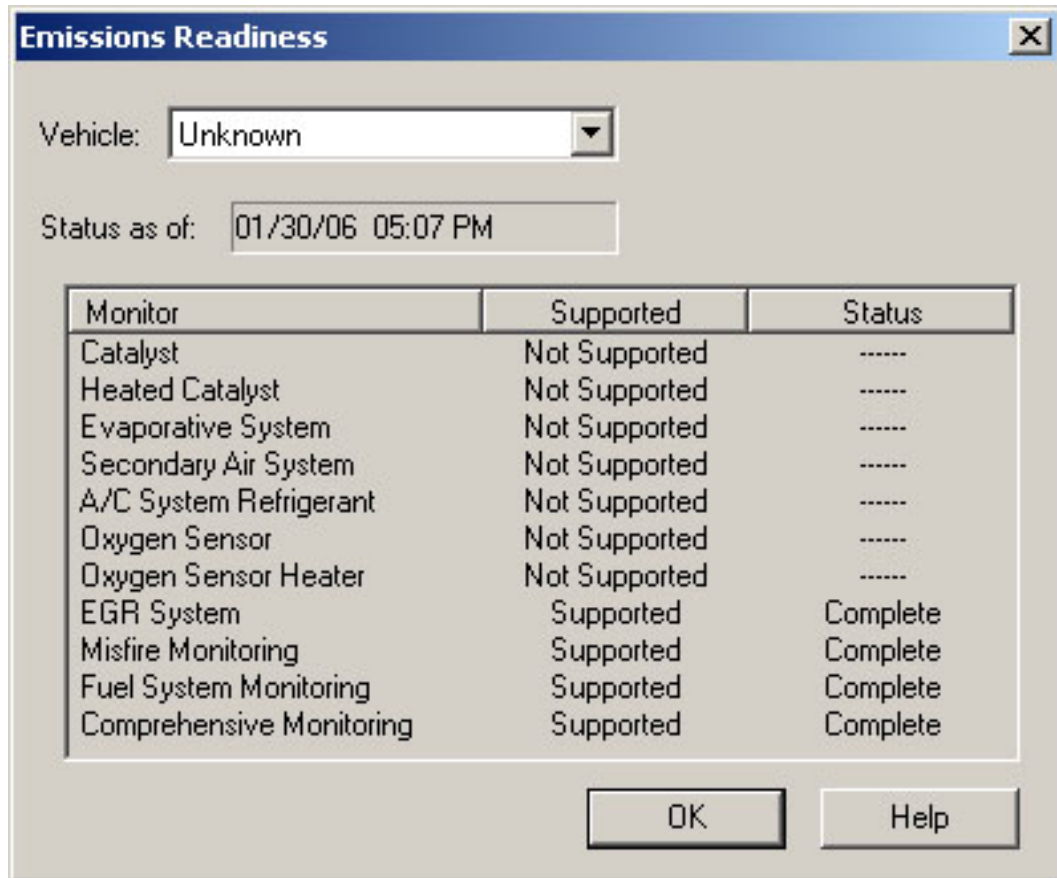
2. Select a Vehicle from the **Vehicle** drop-down box.

The **Readiness Code** dialog box displays the eleven possible readiness codes, whether or not the readiness code is supported for the vehicle and if the monitor completed a test or did not complete a test of its systems at the time the codes were recorded (usually at time of vehicle start-up) for each of the available readiness codes for the selected vehicle.

The readiness codes monitored are:

Catalyst
Heated Catalyst
Evaporative System
Secondary Air System
A/C System Refrigerant
Oxygen Sensor
Oxygen Sensor Heater
EGR System
Misfire
Fuel System
Comprehensive Component

Not all eleven monitors displayed on the list may be supported, or monitored by your vehicle's systems. If "Not Supported" displays in the supported column, it simply means that the monitor does not exist or is not monitored by your vehicle. See your vehicle's manual or supporting documentation for emission monitors that your vehicle does support.

The Status column displays "Complete" or "Not Complete" for the readiness codes that are supported in your vehicle and "--" for all the readiness codes that are not supported. A "Complete" means a test of that emissions monitor was completed at the time of CarChip recorded the readiness codes. A "Not Complete" could mean that the OBD system has not yet completed testing of that component or system or that a component failure may exist, but has not been identified because system testing has not been complete. Most states allow for two "Not Complete" readiness codes during OBD or

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smog check testing. If three or more "Not Complete", non-continuous codes are present, the vehicle may be deemed as "Unable to complete OBD Testing". See your state's rules and regulations for more details.

3. Click **OK** to exit.

## Trip Type Entry

The **Trip Type Entry** dialog box lets you categorize the all the recorded trips by trip type and provides a mileage analysis of the types of trips taken. The trip information is displayed in summary report.

To organize trip type information:

1. Select Trip Type Entry from the **Tools** menu. The Trip Type Entry dialog box displays.
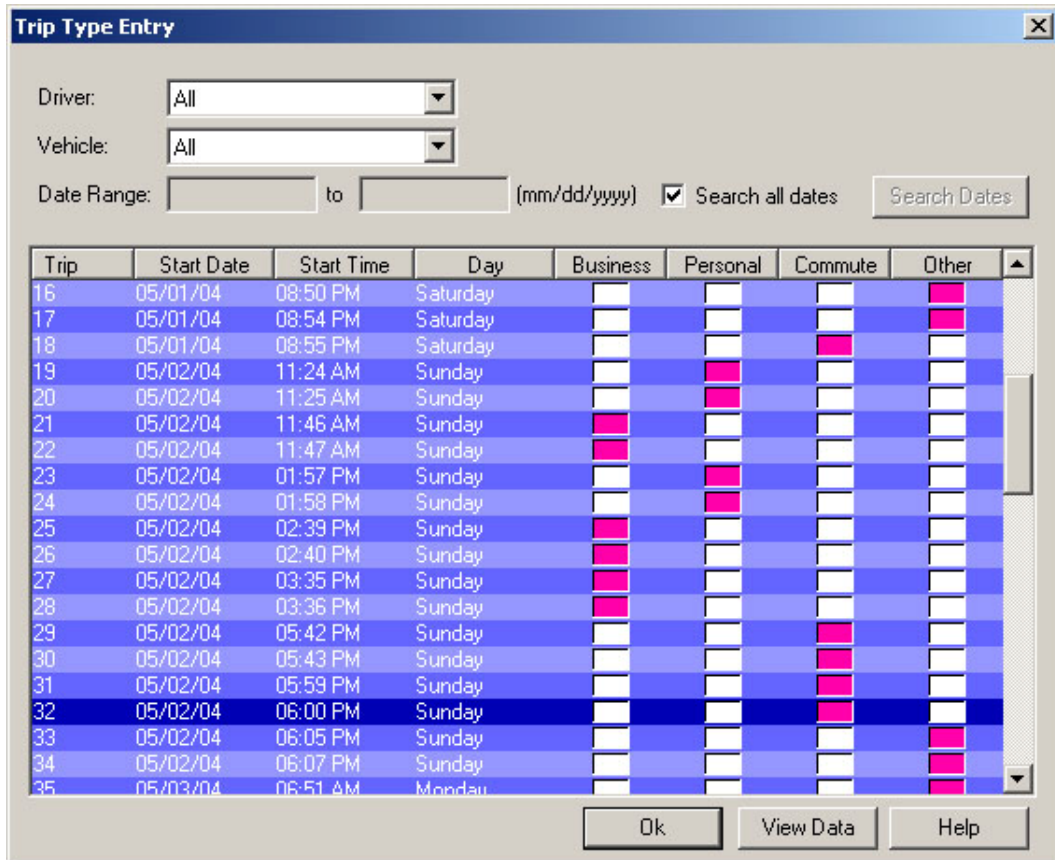


2. Select the a driver from the **Driver** box or select **All**.

3. Select a vehicle from the **Vehicle** box or select **All**.

4. Select the **Search All Dates** check box or enter a date range for the trips you want displayed in the **Date Range __ To __** box. Selecting a date range is especially helpful if you do not want to display all the trip entries or if you want to limit the number of trips displayed based on the last download.

5. Select a trip type for each trip listed in the Trip Box. There are four trip types to choose from: "Business", "Personal", "Commute", "Other". "Other" is the default setting for all the trips listed.

6. Click **View Data**. The triptype.txt file opens up in a text editor, displaying a mileage summary for the vehicle and driver you selected, between the date ranges you selected. If you wish to save this mileage summary, save the file under a different name. Every time new trip type information is added, the triptype.txt file is reopened displaying the new summary, which means the previous data is no longer present.

7. Close the file and return to the dialog box.

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8.  Click **OK** to close the **Trip Type Entry** dialog box.

# View Menu Commands

The **View** menu commands allow you to view Trip Log, Activity Log, Accident Log, Vehicle Trouble Log and Summary Log information.

Note: The Accident and Summary Log menu commands are only available for CarChip data logger model E/X or higher.

Use the following topics to learn more about each log view:

CarChip Home Page

Trip Log

Activity Log

Accident Log

Vehicle Trouble Log

Summary Log

## CarChip Home Page

The CarChip Home Page displays summary information about the CarChip data loggers, vehicle IDs, and driver IDs listed in the CarChip software. From the Home Page you can access the monthly vehicle and driver summaries as well as detailed monthly summaries for every vehicle and driver listed in the home page.

To view the Home Page:

1.  Click on the Home icon or select Home from the **View** menu. The Home Page view displays with a summary of usage for every CarChip data logger associated with the CarChip software and a monthly summary of vehicle and driver information.

The CarChip Home Page contains the following information:

## CarChip Table

The CarChip table contains information about the CarChip data logger(s) associated with the CarChip software. The information displayed in this table is:

| Table Row: | Description: |
| --- | --- |
| CarChip | Displays the CarChip data logger serial number or unique name. |
| Last Downloaded | Displays the date the CarChip data was last downloaded. |
| Vehicle | Displays the vehicles that have been associated with connection events to the CarChip data logger. If there is more than one vehicle associated with the CarChip, the word **Multiple** displays. |
| Driver | Displays the drivers that have been associated with connection events to the CarChip data logger. If there is more than one driver associated with the CarChip, the word **Multiple** displays. |

## Monthly Summary

The Monthly summary displays vehicle and driver statistics available for the current month. To display vehicle information for other months, click **Previous** or **Next**.

## Vehicle Summary

The Vehicle Summary table contains vehicle information for the current month. The information displayed in this table is:

| Table Row: | Description: |
|---|---|
| Vehicle | Displays the VIN number or unique name for the vehicle. Contains a hyperlink for displaying detailed information about the vehicle. |
| Distance | Displays the total distance the vehicle was driven with the CarChip data logger connected to the vehicle for the selected month. |
| High Speed | Displays the highest speed the vehicle logged for the selected month. |
| Fuel Efficiency | Displays the average miles per gallon, or liters per 100 Km for the vehicle for the selected month. The Fuel Efficiency for your vehicle is determined by the information you enter in the Fuel Entry dialog box. |
| Fuel Expense/Mile | Lists the price per mile or KM it costs to fuel the vehicle for the selected month. The Fuel Expense/Mile for your vehicle is determined by the information you enter in the Fuel Entry dialog box. |

## Driver Summary

The Driver Summary table contains driver information for the current month. The information displayed in this table is:

| Table Row: | Description: |
|---|---|
| Driver | Displays the unique name for the driver. Contains a hyperlink for displaying detailed information about the driver. |
| Distance | Displays the total distance the driver drove with the CarChip data logger connected to the vehicle for the selected month. |
| High Speed | Displays the highest speed the driver logged for the selected month. |
| Acceleration Events /100 miles or 100km | Displays the number of all hard and extreme acceleration events that took place over the most recent 100 miles or 100 kilometers. |
| Deceleration Event /100 miles or 100km | Displays the number of all hard and extreme acceleration events that took place over the most recent 100 miles or 100 kilometers. |
| Top Speed Band | Displays the total time the driver spent driving over the top speed band limit for the selected month. |

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## Home Page Driver Summary View

The Home Page Driver Summary view displays when you select a Driver hyperlink from the Driver Summary table in the CarChip Home page. The Driver Summary displays detailed information about the selected driver for the selected month on the CarChip Home page.

Driver Summary Table

The Driver Summary table contains driver statistics for selected time intervals.  The information displayed in this table is:

| Table Row: | Description: |
|---|---|
| Time Interval | Displays the periods of time that cover the driver statistics. The time intervals are:<br><br>This Month<br><br>Last Month<br><br>Last 3 Months<br><br>Last 6 Months<br><br>Last 12 Months |
| Distance | Displays the total distance the driver covered with the CarChip data logger connected to the vehicle. |
| High Speed | Displays the highest speed that was recorded for the driver for the time interval. |
| Acceleration Events /100 miles or 100km | Displays the number of all hard and extreme acceleration events that took place over the most recent 100 miles or 100 kilometers. |
| Deceleration Event /100 miles or 100km | Displays the number of all hard and extreme acceleration events that took place over the most recent 100 miles or 100 kilometers. |
| Top Speed Band | Displays the total time the driver spent driving over the top speed band limit during the displayed time periods. |

## Home Page Vehicle Summary View

The Home Page Vehicle Summary page displays when you select a Vehicle Hyperlink from the Vehicle Summary table in the CarChip Home page. The Vehicle Summary displays detailed information about the selected vehicle for the month displayed in the CarChip Home page.

Vehicle Use Overview Table

The Vehicle Use Overview table contains vehicle usage statistics for selected time intervals.  The information displayed in this table is:

| Table Row: | Description: |
|---|---|
| Time Interval | Displays the periods of time that cover the vehicle statistics. The time intervals are:<br><br>This Month |

|  | Last Month |
|  | Last 3 Months |
|  | Last 6 Months |
|  | Last 12 Months |
| Distance | Displays the total distance  the vehicle was driven with the CarChip data logger connected to the vehicle. |
| High Speed | Displays the highest speed the vehicle logged for the time interval. |
| Fuel Efficiency | Displays the average miles per gallon, or liters per 100 Km for the vehicle for the selected month. The Fuel Efficiency for your vehicle is determined by the information you enter in the Fuel Entry dialog box. |
| Fuel Expense/Mile | Lists the price per mile or KM it costs to fuel the vehicle for the selected month. The Fuel Expense/Mile for your vehicle is determined by the information you enter in the Fuel Entry dialog box. |

Parameter Summaries

The Parameters summary displays available parameter statistics for you car based on the time intervals displayed in the Vehicle Use Overview table. The information displayed in these tables are:

| Table Row: | Description: |
|---|---|
| Parameter | Displays the name of the parameter that was monitored for the time period. |
| Threshold | Displays the maximum threshold value set for the selected parameter for the time period being displayed. |
| Time Over Thresh (Threshold) | Displays the total time the vehicle spent over the maximum threshold. |
| Time Under Thresh (Threshold) | Displays the total time the vehicle spent under the maximum threshold. |
| High Above Threshold | Displays the highest value recorded above the threshold, if any exists for the time period being displayed. |
| Low Below Threshold | Displays the lowest value recorded below the threshold. |

## Trip Log Views

The Trip Log Views allow you to look at the vehicle data recorded by your CarChip. Select a topic below to learn more about the Trip Log Summary, Trip Log Report View, Trip Log Plot View, and the Trip Log Table View.

Trip Log Summary

Trip Log Report View

Trip Log Plot View

Trip Log Table View

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## Trip Log Plot View

The Accident Log Plot View displays line graphs of all the available trip data.

To view the Trip Log Plots:

1.  Click on the Trip Log View icon or select Trip Log from the **View** menu. The Trip Log Summary view displays.

2.  Click on the Trip Log drop-down box to display a list of all the trips recorded in the Trip Log. The drop-down list box always begins with the Summary view, with each recorded trip listed in order below the Summary.



3.  Select one of the Trips records listed in the drop-down list by placing the cursor over it to highlight the stop, then clicking with the left mouse button. You can also select trip records by using the up and down cursor keys to move up and down the list, then pressing **Enter** when you have highlighted the desired stop.

    The Trip Log Report view displays.

4.  Use the **Right** or **Left** cursor key to select the Plot view of the record, or click the **Plot** button. The Trip Log Plot view displays.
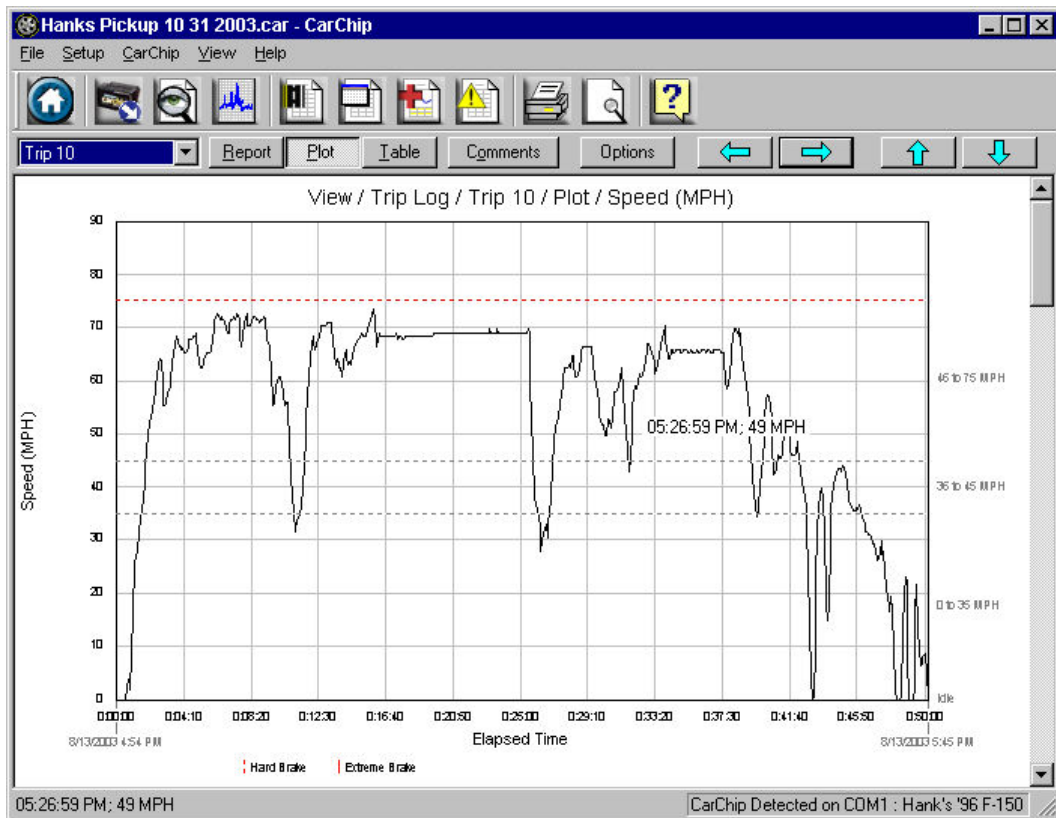
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5. Click the **Left Arrow** button or press the **Up** cursor key to display the previous Trip Log record.

6. Click the **Right Arrow** button or press the **Down** cursor key to display the next Trip Log record.

7. Use the **Left** and **Right** cursor keys to select the Report or Table views of the record.

8. Click the **Down Arrow** button to display the next plot available for the selected trip.

9. Click the **Up Arrow** button to display the previous plot for the selected trip, or use the scroll bar to display the different plot views.

10. Click **Comments** to either view or edit a comment for the current record.

11. Click **Options** to change the Accident Log Plot View setup options.

See Also:

Plot View Mouse Commands

Trip Log Summary View

Trip Log Report View

Trip Log Table View

Comments

Options

Plot View Navigation Buttons:


## Trip Log Plot View Mouse Commands

The following mouse commands are available in Trip Log Plot view:

Left Button Commands:

The following commands are available using the Left Mouse button:

Zoom

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Right-Click Menu Commands:

The Right-Click Menu commands are available in the Trip Log Plot view:
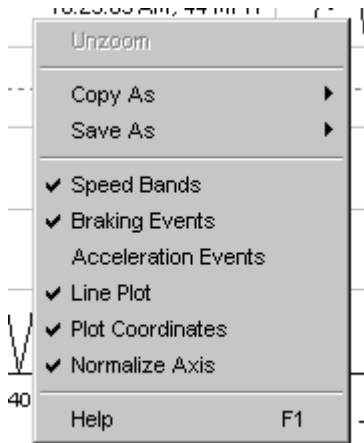
- Unzoom

- Copy As

- Save As

- **Speed Bands** - Select to include horizontal lines indicating speed band settings.

- **Braking Events** - Select to draw vertical lines indicating braking events that exceed a braking threshold.

- **Acceleration Events** - Select to include vertical lines indicating acceleration events that exceed an acceleration threshold.

- **Line Plot** - Select to draw plots using plain lines. If not selected the area under the lines is filled in with black.

- **Plot Coordinates** - Select to display the cursor coordinates inside the plot view window.

- **Normalize Axes** - Select to use the same upper speed range for all Speed Plots. The upper end of the speed range is set in the **Setup / Plots** dialog box. Click the **Options** button in the plot window to change the upper speed range.

- Help F1

## Trip Log Table View

The Trip Log Table view displays the all the values, including vehicle speed and any other selected parameters, that were sampled by the CarChip data logger through the duration of the trip.

Note: The trip data that displays in the table view depends on CarChip data logger model. The basic CarChip displays only the vehicle speed in the table view. The CarChip E/X or higher model displays the data for any additional parameters that have been selected.

To view the Trip Log Table:

Click the Trip Log View icon or Select **Trip Log** from the **View** menu. The Trip Log Summary view displays.

1. Click on the Trip Log drop-down box to display a list of all trips recorded in the Trip Log. The drop-down list box always begins with the Summary view, with each recorded trip listed in order below the Summary.
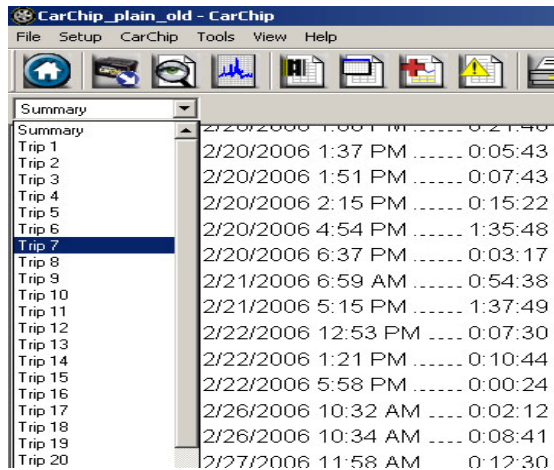
2. Select one of the trip records listed in the drop-down list by placing the cursor over it to highlight the trip, then clicking with the left mouse button. You can also select trip records by using the **Up** and **Down** cursor keys to move up and down the list, then pressing **Enter** when you have highlighted the desired trip. The Trip Log Report view displays.

3. Use the **Right** or **Left** cursor key to select the Table view of the record, or click the **Table** button. The Trip Log Table view displays.
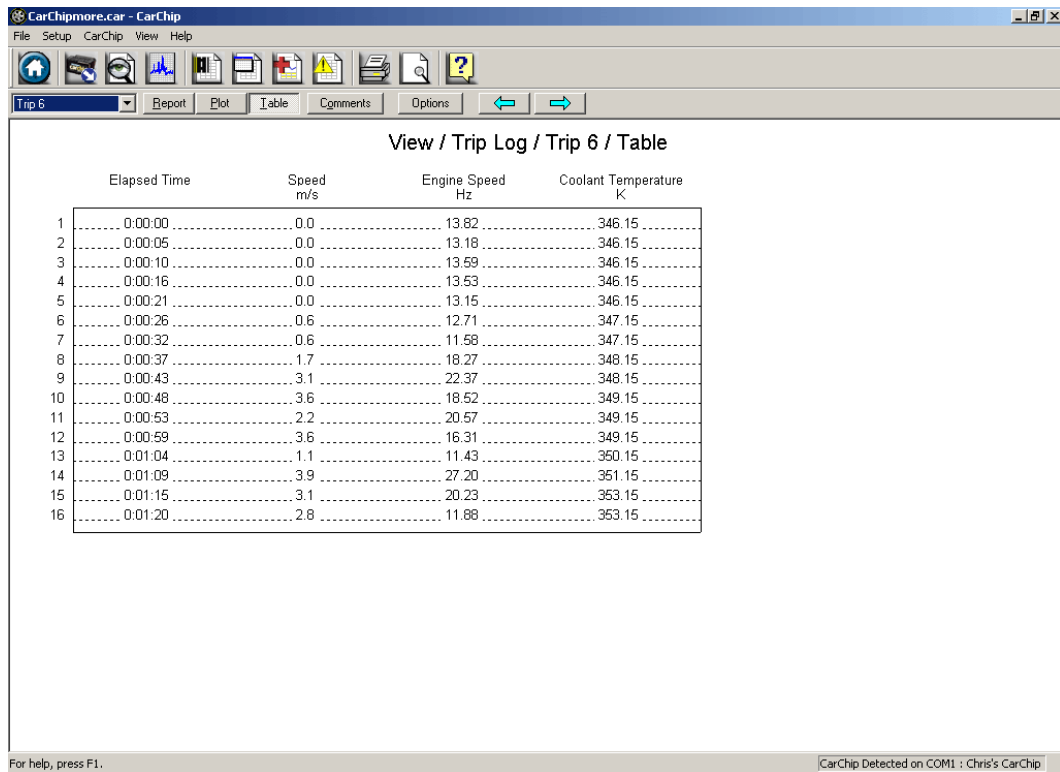


4. Click on the **Right Arrow** button or press the **Down** cursor key to display the new Trip Log record.

5. Click on the **Left Arrow** button or press the **Up** cursor key to display the previous Trip Log record.

6. Use the **Right** and **Left** cursor keys to select the Plot and Report views of the record, or, just click the **Plot** or **Report** button.

7. Click on **Comments** to either view or edit a comment for the current record.

8. Click on **Options** to change the Trip Log Plot View setup options.

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See Also:

[Right Click Menu Options](#)

[Trip Log Summary View](#)

[Trip Log Plot View](#)

[Trip Log Table View](#)

[Trip Record Comments](#)

[Plot Setup Options](#)

[Trip Log Navigation Buttons](#)


## Trip Log Report

The Trip Log Report view displays expanded summary trip information for each trip recorded on the CarChip data logger.

To view the Trip Log Report:

1. Click on the [Trip Log View](#) icon or select Trip Log from the **View** menu. The Trip Log Summary view displays.

2. Click on the [Trip Log](#) drop-down box to display a list of all trips recorded in the Trip Log. The drop-down list box always begins with the Summary view, with each recorded trip listed in order below the Summary.
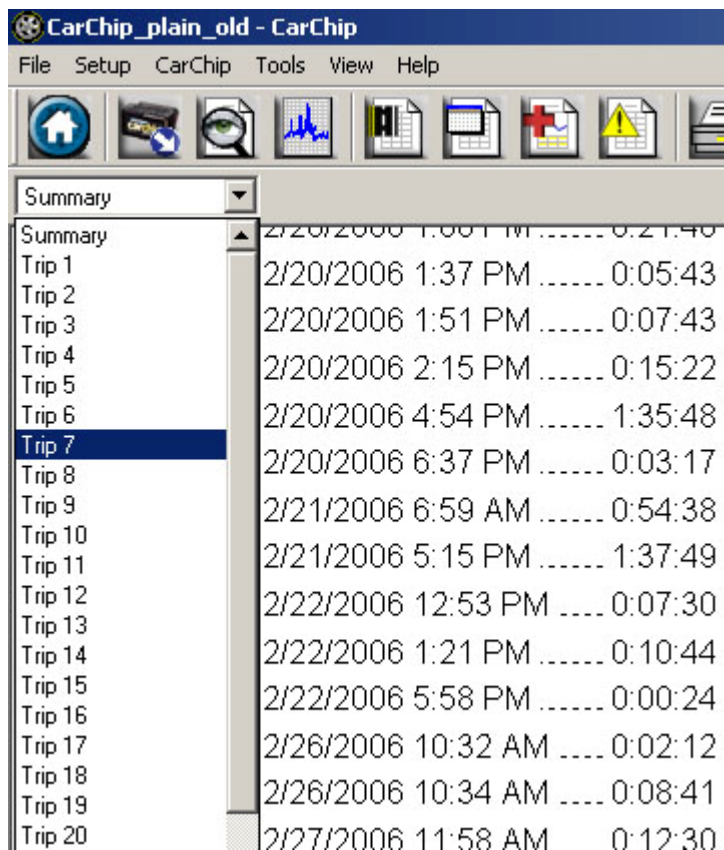


3. Select one of the trip records listed in the drop-down box by clicking enter once you have selected the desired trip. You can also scroll through trip records by using the **Up** and **Down** cursor keys.

   The [Trip Log Report](#) view displays.
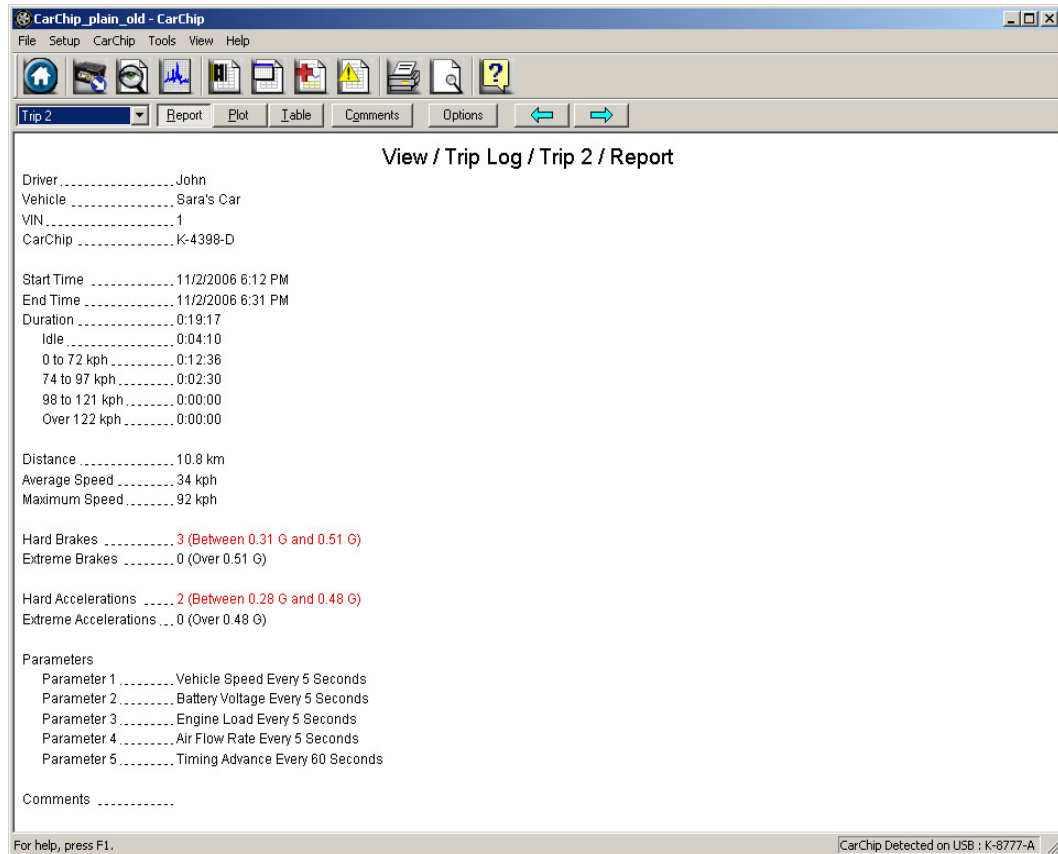
4. Click on the **Right Arrow** button or press the **Down** cursor key to display the next Trip Log report.

5. Click on the **Left Arrow** button or press the **Up** cursor key to display the previous Trip Log report.

6. Use the **Left** and **Right** cursor keys to select the Plot or Table views of the record.

7. Click on **Comments** to either view or edit a comment for the current record.

8. Click on **Options** to change the Accident Log Plot View setup options.

9. Click on **Comments** to either view or edit a comment for the current record.

10. Click on **Options** to change the Trip Log Plot View setup options.


See Also:

Right Click Menu Options

Trip Log Summary View

Trip Log Plot View

Trip Log Table View

Trip Record Comments

Plot Setup Options

Trip Log Navigation Buttons

## Trip Log Summary

The Trip Log Summary view displays basic trip information.

To view the Trip Log Summary:

1. Click on the Trip Log View icon or select Trip Log from the **View** menu. The Trip Log Summary view displays.

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See Also:

[Right Click Menu Options](#)

[Trip Log Report View](#)

[Trip Log Plot View](#)

[Trip Log Table View](#)

[Trip Record Comments](#)

[Plot Setup Options](#)

[Trip Log Navigation Buttons](#)

## Activity Log View

The Activity Log View displays all the activity events recorded by your CarChip. Select a topic below to learn more about the Activity Log Summary and the Activity Log Event View.

[Activity Log Summary](#)

[Activity Log Event View](#)

## Activity Log Event View

The Activity Log Event view displays the activity information including any comments.

To view an Activity Log Event:

1.  Click the Activity Log icon or select Activity Log from the **View** menu. The Activity Log Summary view displays.

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2.  Click the Activity Log drop-down box to display a list of all events recorded in the Activity Log. The drop-down list box displays the Summary view when the Activity Log is displayed, with each recorded event listed in order below the Summary.
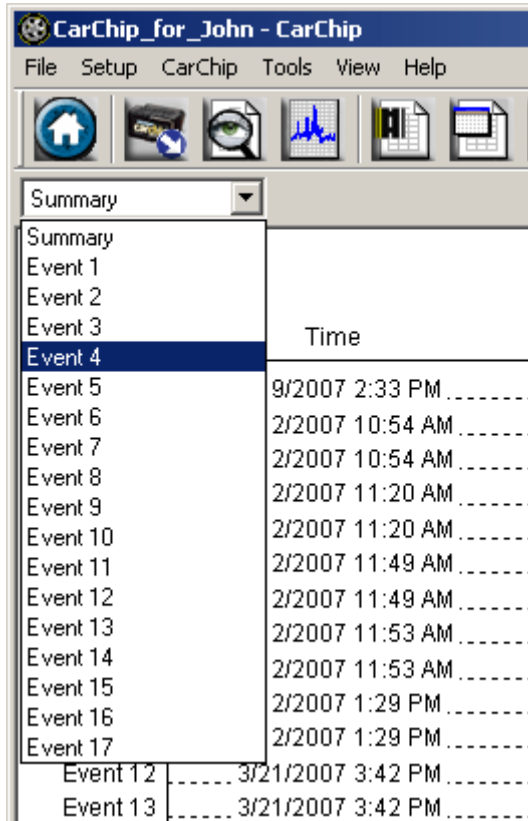


3.  Select one of the event records listed in the drop-down list by placing the cursor over it to highlight the event, then clicking with the left mouse button. Also, use the **Up** and **Down** cursor keys in the drop down box to display each event.

    The selected Activity Log Event view displays.
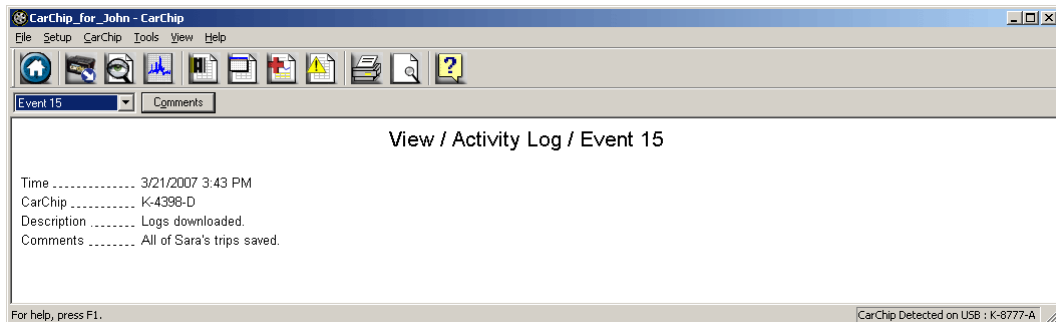


4.  Click Comments to either view or edit a comment for the current record.

The Activity Log Plot View displays a line graph of the vehicle speed data recorded during the 20 seconds prior to the stop.

See Also:

Right Click Menu Options

Activity Log Summary View

Comments

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## Activity Log Summary View

The Activity Log Summary displays all the activities recorded for the currently loaded CarChip database.

To view the Activity Log Summary:

1.  Click the Activity Log View icon or select Activity Log from the **View** menu. The Activity Log Summary view displays.
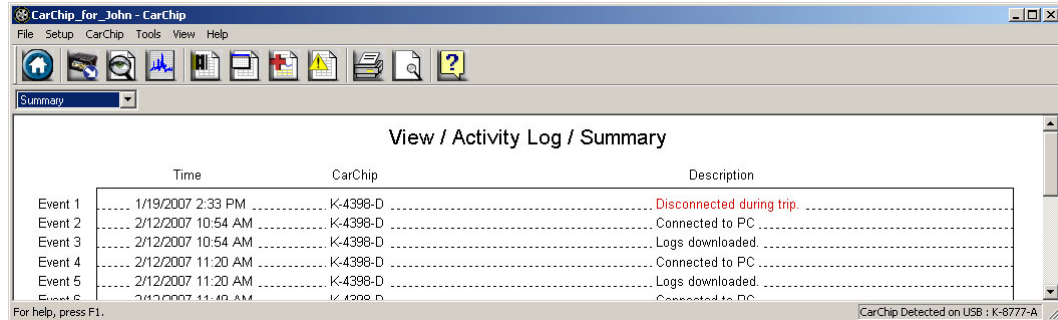


See Also:

Right Click Menu Options

Activity Log Event View

Comments

## Accident Log Views

The Accident Log Views allow you to look at the accident data collected by your CarChip. CarChip defines an accident as a stop in which the rate of deceleration exceeds either the hard braking or the extreme braking thresholds.

Select a topic below to learn more about the Accident Log Summary, Accident Log Report View, Accident Log Plot View, and the Accident Log Table View.

Accident Log Summary

Accident Log Report View

Accident Log Plot View

Accident Log Table View

## Accident Log Plot View

The Accident Log Plot View displays a line graph of the vehicle speed data recorded during the 20 seconds prior to the stop.

To view the Accident Log Plots:

1.  Click the Accident Log View icon or select Accident Log from the **View** menu. The Accident Log Summary view displays.
2.  Click the Accident Log drop-down box to display a list of all stops recorded in the Accident Log. The drop-down list box always begins with the Summary view, with each recorded stop listed in order below the Summary.

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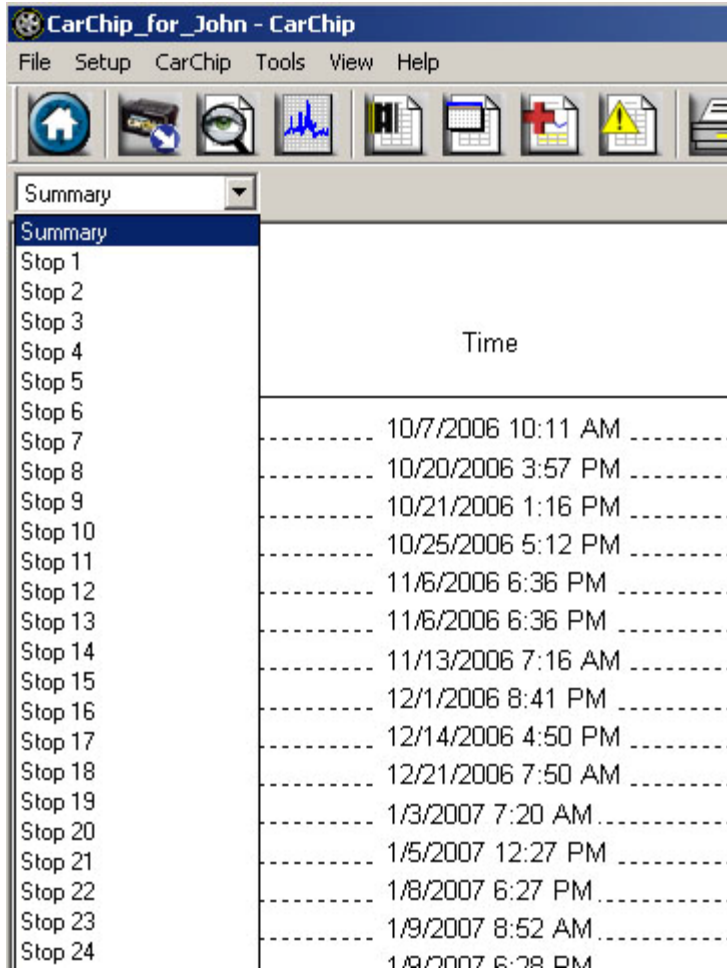


3.  Select one of the stop records listed in the drop-down list by placing the cursor over it to highlight the stop, then clicking with the left mouse button. You can also select stop records by using the up and down cursor keys to move up and down the list, then pressing **Enter** when you have highlighted the desired stop.

    The Accident Log Plot view displays.

4.  Use the **Right** or **Left** cursor key to select the Plot view of the record, or click the **Plot** button. The Accident Log Plot view displays.
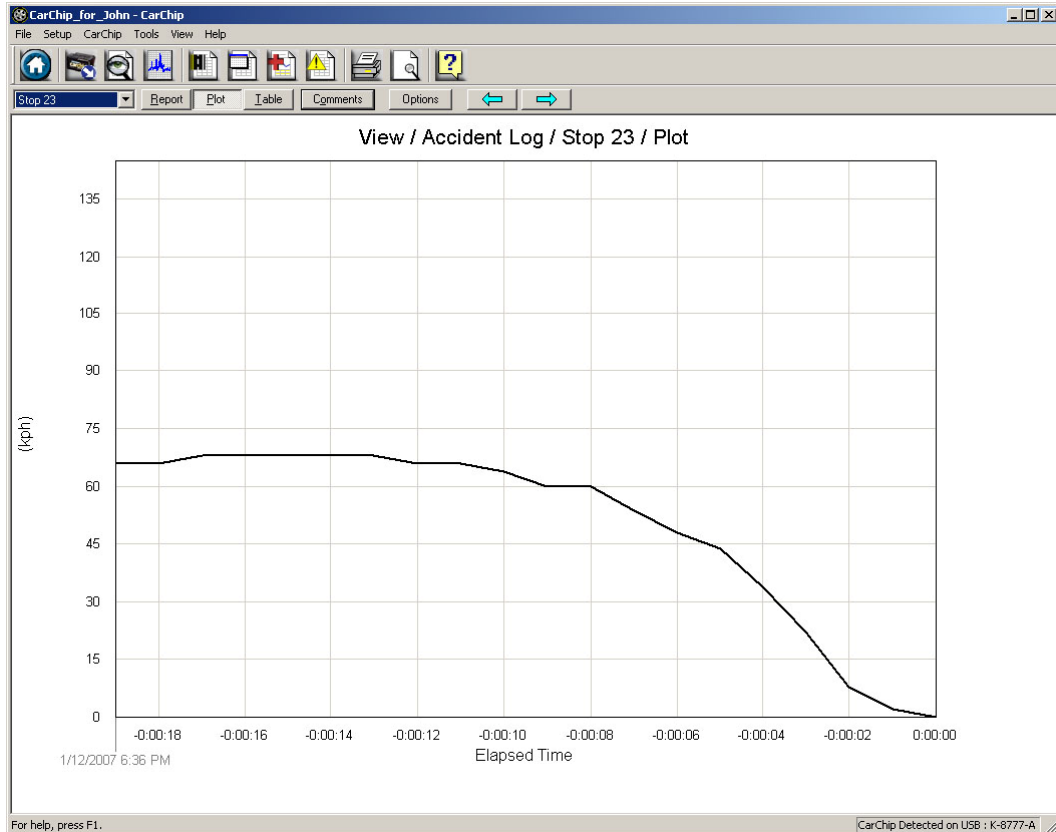
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5.  Click the **Left Arrow** button or press the **Up** cursor key to display the previous Accident Log record.

6.  Click the **Right Arrow** button or press the **Down** cursor key to display the next Accident Log record.

7.  Use the **Left** and **Right** cursor keys to select the Report or Table views of the record.

8.  Click **Comments** to either view or edit a comment for the current record.

9.  Click **Options** to change the Accident Log Plot View setup options.


See Also:

Plot View Mouse Commands

Accident Log Summary View

Accident Log Report View

Accident Log Table View

Accident Record Comments

Plot Setup Options

Accident Log Navigation Buttons


**Accident Log Plot View Mouse Commands**

The following mouse commands are available in Accident Log Plots.

Left Button Commands:

*   Zoom

Right-Click Menu:
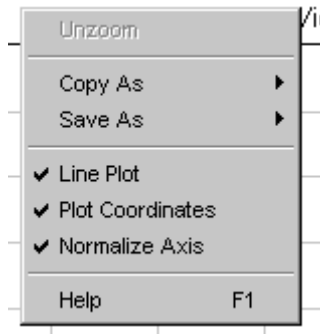
- [Unzoom](#)

- [Copy As](#)

- [Save As](#)

- Line Plot

Select to draw plots using plain lines. If not selected the area under the lines will be filled in.

- Plot Coordinates

Select to display the cursor coordinates inside the plot view window.

- Normalize Axes

Select to use the same upper speed range for all Speed Plots.

The upper end of the speed range  is set in the Setup / Plots dialog box - Click Options button in plot window.

- [Help F1](#)

## Accident Log Report View

The Accident Log Report view displays the accident event information such as CarChip ID and speed.

To view the Accident Log Report:

1. Click on the Accident Log View icon or select Accident Log from the **View** menu. The Accident Log Summary view displays.
2. Click on the Accident Log drop-down box to display a list of all stops recorded in the Accident Log. The drop-down list box always begins with the Summary view, with each recorded stop listed in order below the Summary.
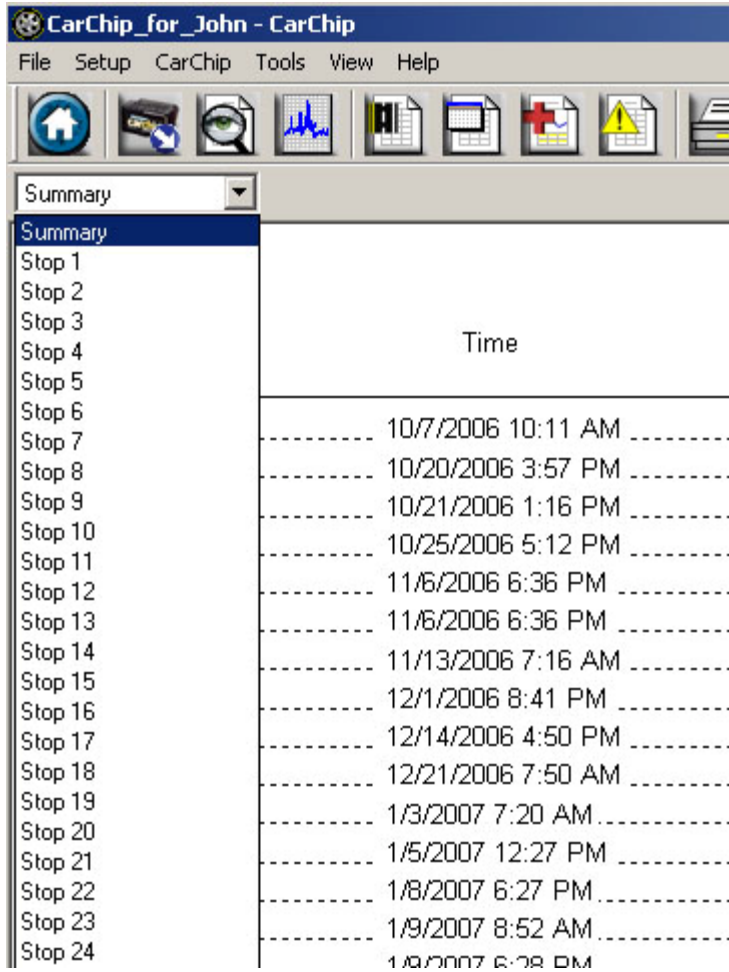
3. Select one of the stop records listed in the drop-down box by placing the cursor over it to highlight the stop, then clicking with the left mouse button. You can also scroll through stop records by using the **Up** and **Down** cursor keys.

The screen displays the [Accident Log Report](#) view .

To display the next Accident Log record, click on the **Right Arrow** button or press the **Down** cursor key.

To display the previous Accident Log record, click on the **Left Arrow** button or press the **Up** cursor key.
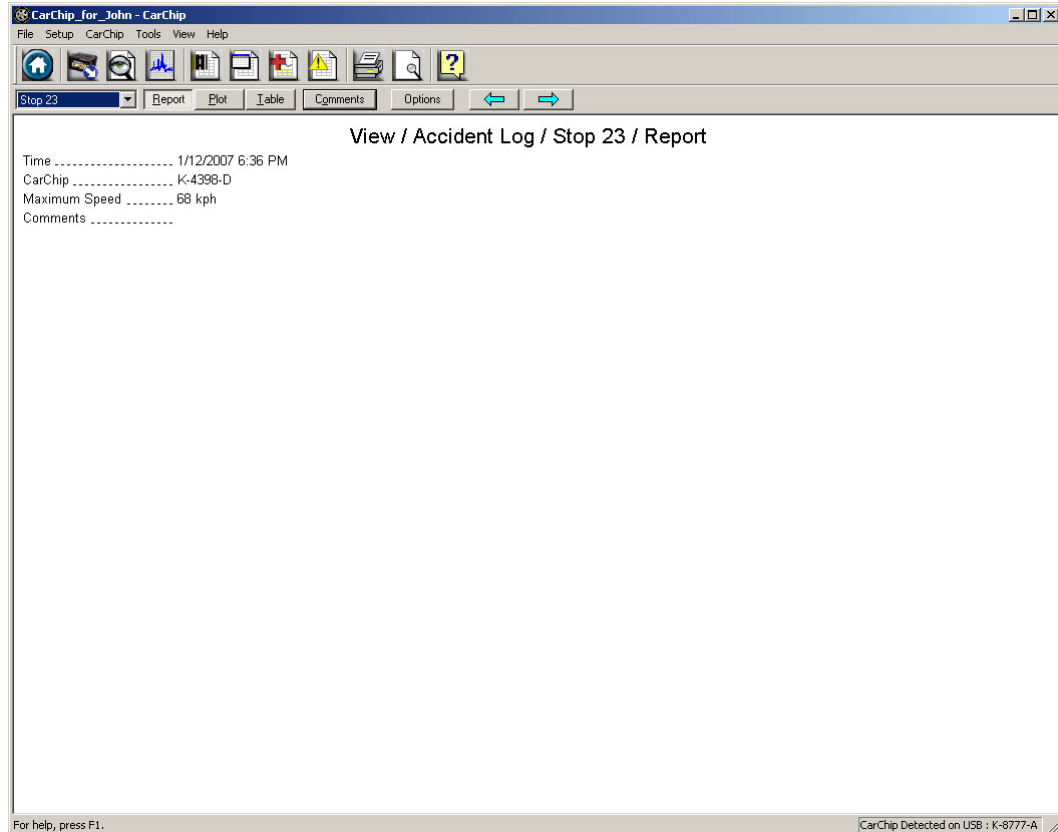
4. Use the **Left** and **Right** cursor keys to select the Plot or Table views of the record.

5. Click on **Comments** to either view or edit a comment for the current record.

6. Click on **Options** to change the Accident Log Plot View setup options.

See Also:

Right Click Menu Options

Accident Log Summary View

Accident Log Plot View

Accident Log Table View

Accident Record Comments

Plot Setup Options

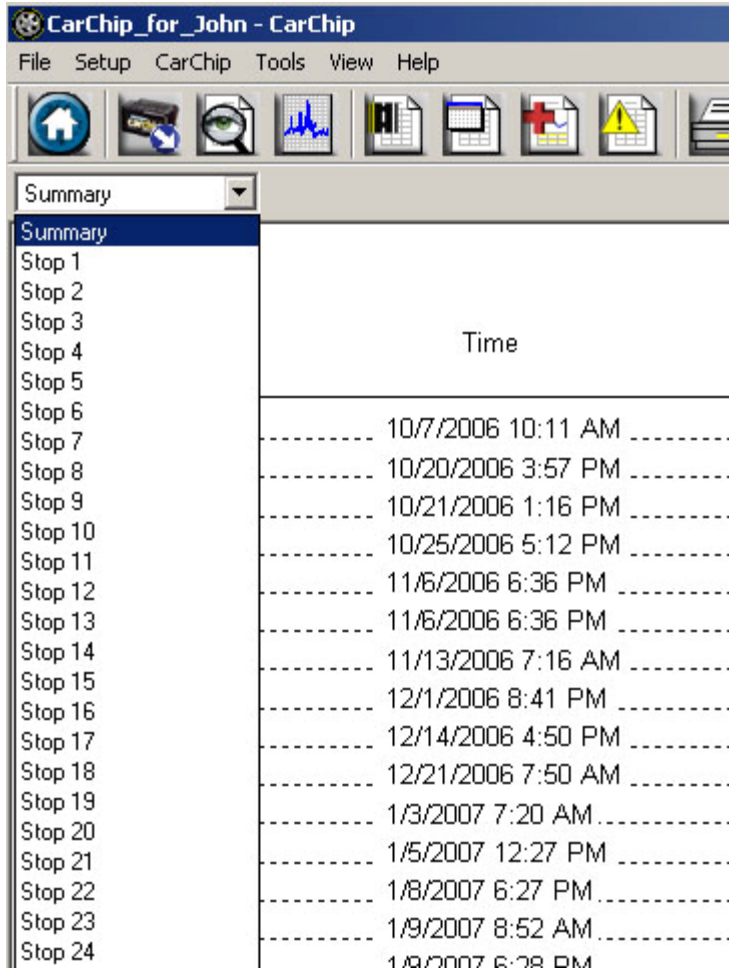Accident  Log  Navigation Buttons

## Accident Log Summary View

The Accident Log Summary view displays the date and time, the CarChip ID, and the maximum speed recorded for each stop in the Accident Log.

To view the Accident Log Summary:

1. Click on the Accident Log View icon or select Accident Log from the **View** menu. The Accident Log Summary view displays.

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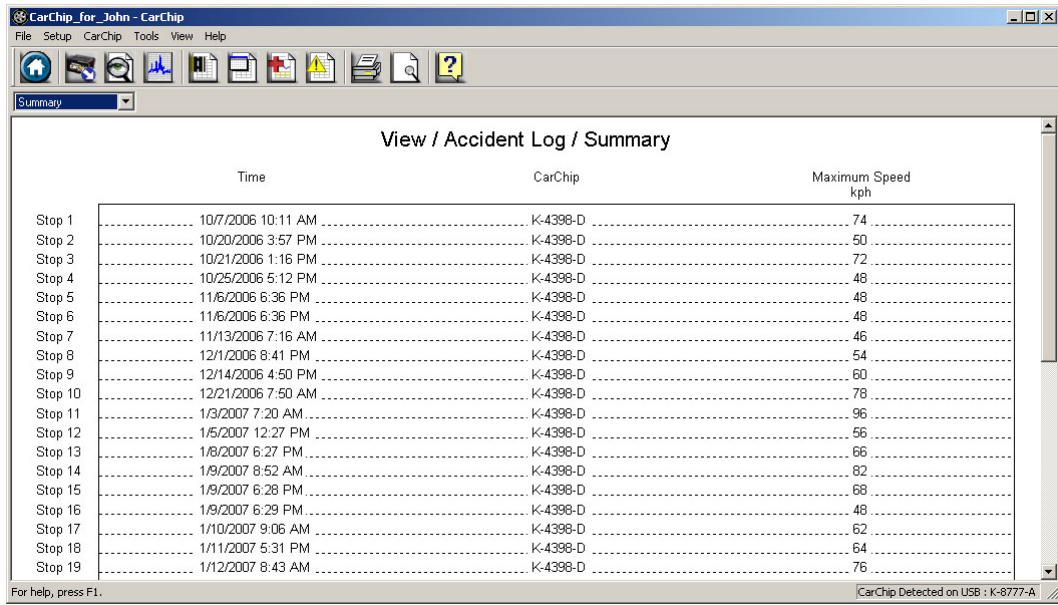
2. Click on the Accident Log drop-down box to display a list of all stops recorded in the Accident Log. The drop-down box always begins with the Summary view, with each recorded stop listed in order below the Summary. From the Summary View you can click on the Summary drop-down list box to display a list of all stops recorded in the Accident Log.



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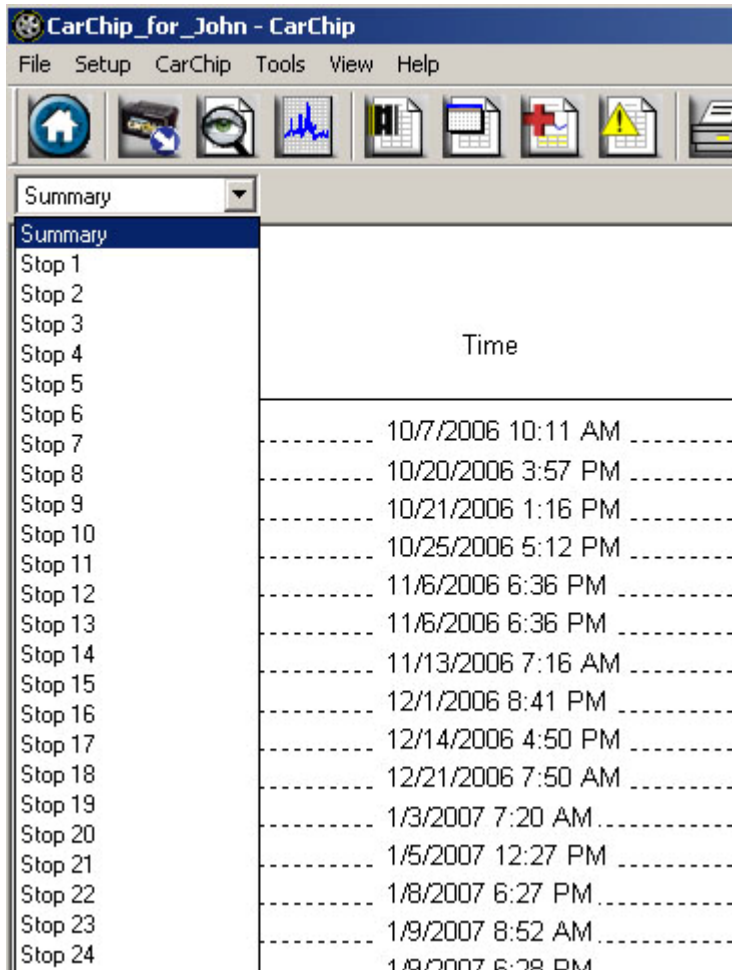
3.  Select a stop record by placing the cursor over it to highlight the stop, then clicking with the left mouse button.  You can also scroll through stop records using the **Up** and **Down** cursor keys or using the wheel on your mouse.

4.  The selected record is displayed in the Accident Log Report view.


See Also:

Right Click Menu Options

Accident Log Report View

Accident Log Plot View

Accident Log Table View

Accident Record Comments

Plot Setup Options

Accident Log Navigation Buttons

## Accident Log Table View

The Accident Log Table view displays the vehicle speed over the 20 seconds prior to the stop.

To view the Accident Log Table:

1.  Click the Accident Log View icon or Select  **Accident Log** from the **View** menu. The Accident Log Summary view displays.



2.  Click on the Accident Log drop-down box to display a list of all stops recorded in the Accident Log. The drop-down list box always begins with the Summary view, with each recorded stop listed in order below the Summary.

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3. Select one of the stop records listed in the drop-down list by placing the cursor over it to highlight the stop, then clicking with the left mouse button. You can also select stop records by using the **Up** and **Down** cursor keys to move up and down the list, then pressing **Enter** when you have highlighted the desired stop. The Accident Log record view displays.

4. Use the **Right** or **Left** cursor key to select the Table view of the record, or click the **Table** button. The Accident Log Table view displays.
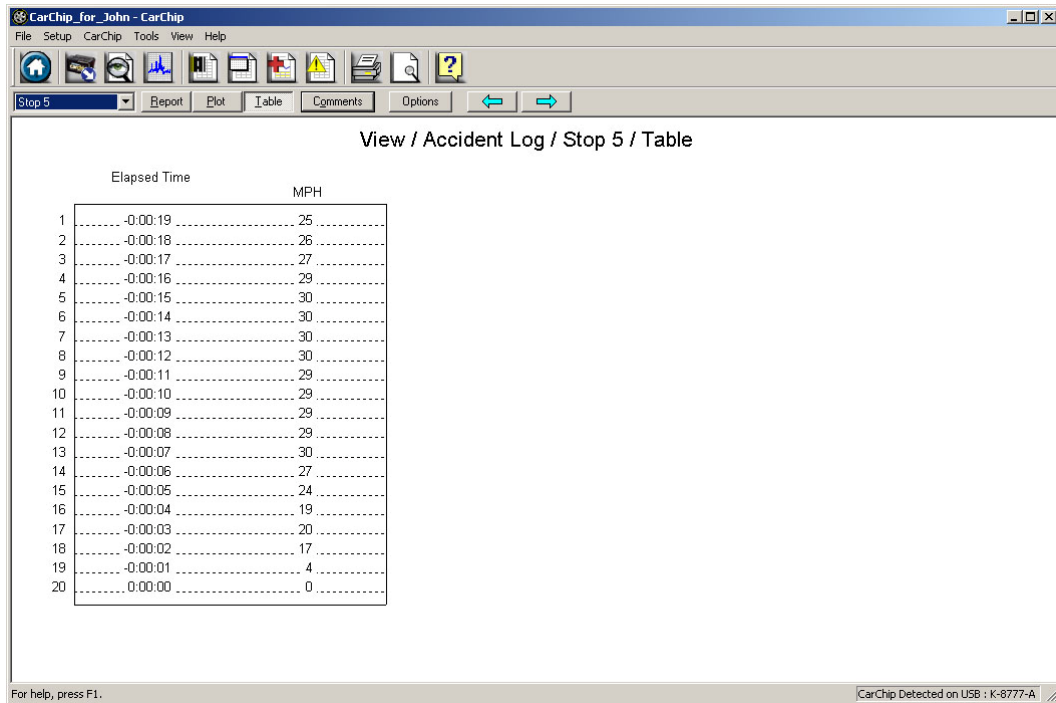
5.  Click on the **Right Arrow** button or press the **Down** cursor key to display the new Accident Log record.

6.  Click on the **Left Arrow** button or press the **Up** cursor key to display the previous Accident Log record.

7.  Use the **Right** and **Left** cursor keys to select the Plot and Report views of the record, or, just click the **Plot** or **Report** button.

See Also:

Right Click Menu Options

Accident Log Summary View

Accident Log Report View

Accident Log Plot View

Accident Record Comments

Plot Setup Options

Accident Log Navigation Buttons

## Vehicle Trouble Log View

The Vehicle Trouble Log View displays all the internal vehicle problems detected by your CarChip. Select a topic below to learn more about the Vehicle Trouble Log Summary and the Vehicle Trouble Log Problem View.

Vehicle Trouble Log Summary

Vehicle Trouble Log Problem View

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## Vehicle Trouble Log Summary View

The Vehicle Trouble Log Summary displays a summary of all the problems and trouble codes that were logged while the CarChip data logger was connected to a vehicle or vehicles.

To view the Vehicle Trouble Log Summary:

1. Click the Vehicle Trouble Log View icon or select Trouble Log from the **View** menu.

   The Vehicle Trouble Log Summary view displays.



2. Click on the Vehicle Trouble Log drop-down list box to display a list of all problems recorded in the Vehicle Trouble Log. The drop-down list box always begins with the Summary view, with each detected problem listed in order below the Summary.
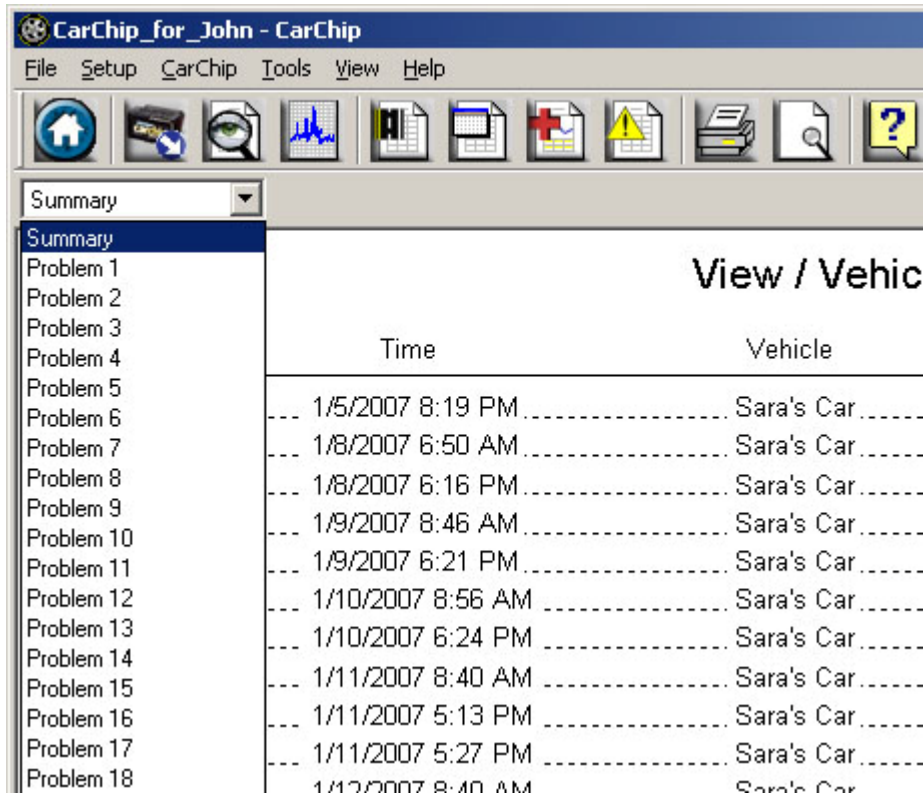
3. Select one of the trouble log records from the drop-down list by placing the cursor over the record and clicking the left mouse button. You can also scroll through the records by using the **Up** and **Down** cursor keys.

The vehicle trouble log problem view displays.

See Also:

Right Click Menu Options

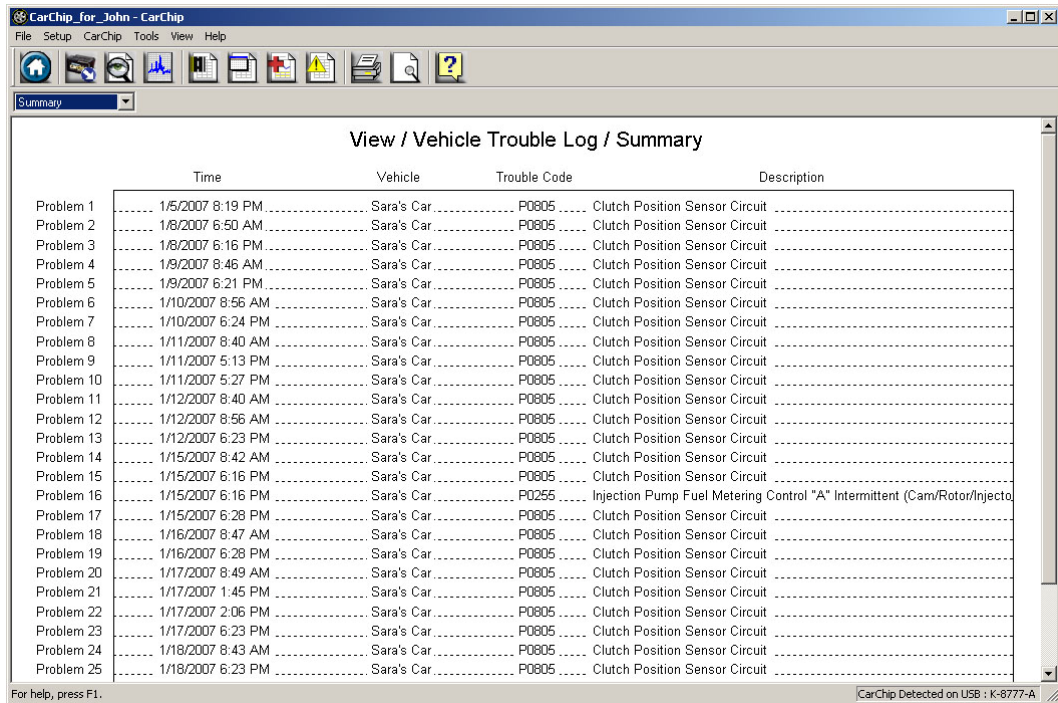Vehicle Trouble Log Problem View

Comments

## Vehicle Trouble Log Problem View

The Vehicle Trouble Log Problem View displays any problems detected with the vehicle or vehicles the CarChip data logger has been connected with. Any problem that is detected includes a trouble code and a brief description.

To view the Vehicle Trouble Log Problem View:

1. Click the Vehicle Trouble Log View icon or select **Vehicle Trouble Log** from the **View** menu.

The Vehicle Trouble Log Summary displays.

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2.    Click the Trouble Log drop-down list box to display a list of all problems recorded in the Vehicle Trouble Log. The drop-down list box always begins with the Summary view, with each detected problem listed in order below the Summary.
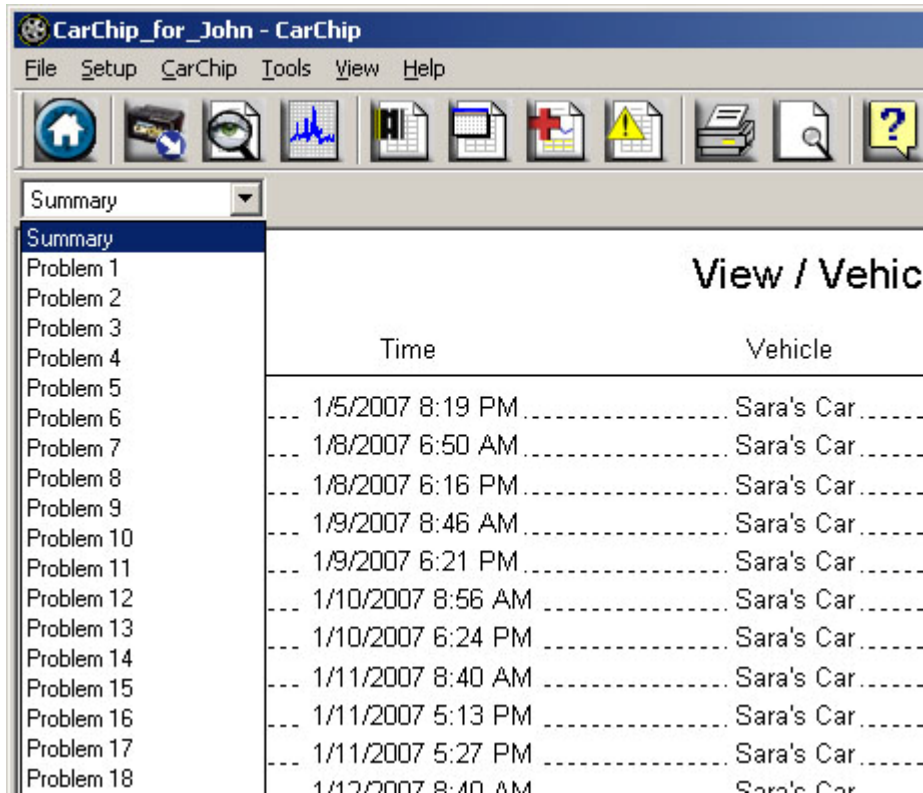


3.    Select one of the problem records listed in the drop-down list by placing the cursor over it to highlight the event, then clicking with the left mouse button. You can also scroll through the Problem records by using the **Up** and **Down** cursor keys.

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The Vehicle Trouble Log Problem view displays. The Problem View may include a "freeze frame" snapshot of the vehicle data at the time the problem was detected, depending on the behavior of the vehicle.
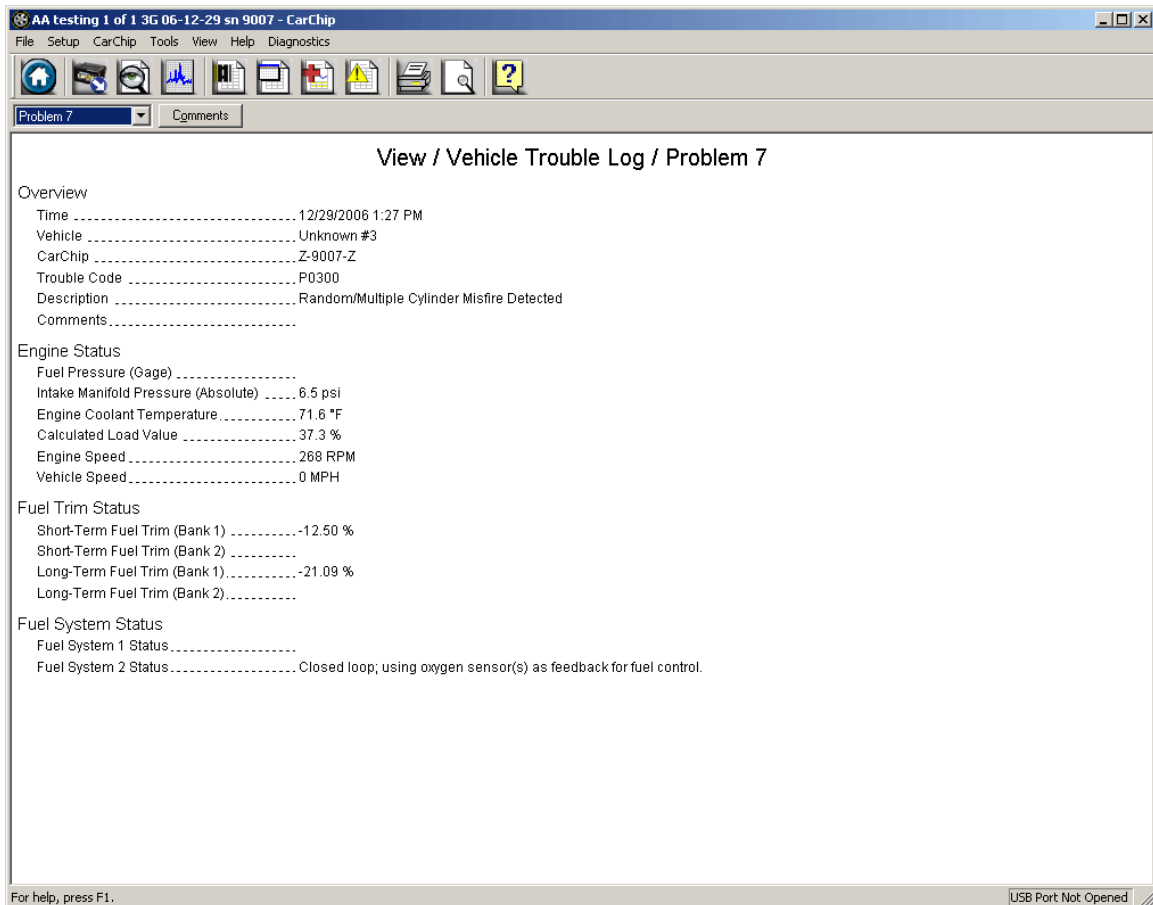


4. Select Comments to either view or edit the comments for the problem.


See Also:

Right Click Menu Options

Problem View Freeze Frame

Vehicle Trouble Log Summary View

Comments


## OBDII Freeze Frame

The Trouble Log Problem View displays the date and time the problem was detected, the trouble code, and also a description of the problem. Some vehicles will also include a detailed OBDII freeze frame, which reports the vehicle status at the time the problem was detected.

The OBDII Freeze Frame includes some or all of the following information, depending on the make, model and year of the vehicle:

- Time and Date

- Vehicle ID

- CarChip ID


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- Trouble Code

- Problem Description

- Fuel Pressure

- Intake Manifold Pressure

- Engine Coolant Temperature

- Calculated Load Value

- Engine Speed

- Vehicle Speed

- Fuel Trim Status

- Fuel System Status


See Also:

Trouble Log Summary View

Comments


## Summary Log

The **Summary Log** displays the vehicle parameter data recorded by the CarChip data logger for every trip. View the summary log available for each trip, go directly to a summary log, or delete all summary logs from this dialog box.

Note: This menu command is only available for CarChip Models E/X or higher.

To view the Summary Log:

1. Select Summary Log from the **View** Menu. The Summary Log dialog box displays.

The Summary Log contains the following fields and boxes:

| Field | Description |
| --- | --- |
| Record | Displays the number of summary records that currently exist in the summary log |
| Driver | Displays the unique name for the driver. |
| Vehicle | Displays the unique name for the vehicle. |
| CarChip | Displays the CarChip data logger serial number or unique name. |
| Start Time | Displays the trip's start time. |
| End Time | Displays the trip's end time. |
| Duration | Displays the trip's duration. |
| Distance | Displays the total distance of the trip. |
| Avg. Speed | Displays the average speed. |
| Max Speed | Displays the maximum speed, or highest speed that was recorded during the trip. |
| Parameter Name | Displays the name of the parameter that was selected for monitoring. |
| Threshold | Displays the maximum threshold value for the parameter. |
| Max Value Above | Displays the value the CarChip recorded that was over the set threshold |

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| Threshold | value. |
|---|---|
| Time Above Threshold | Displays the total time the vehicle spent over the threshold value. |
| Min Value Below Threshold | Displays the value the CarChip recorded that was the lowest value under the set threshold. |
| Time Below Threshold | Displays the total time the vehicle spent under the threshold value. |
| **OK** | Click to close the summary log view. |
| **Delete All** | Click to delete all the records present in the summary log. |
| **Go To** | Click to display a specific record number. |
| **Previous** | Click to view the previous record. |
| **Next** | Click to view the next record. |
| **Help** | Click to receive context sensitive help for this dialog box. |

2. Click OK to close the **Summary Log** dialog box.

To Delete all records:

1. Click **Delete All.** All the available records are deleted.
2. Click **OK** to close the **Summary Log** dialog box.

Note: Deleting all the records displayed in the Summary Log may impact the information displayed in the CarChip Home Page and corresponding pages. Review the statistics and data displayed in these pages before deleting all the summary log information.

## Comments

The Comments dialog box provides functionality for adding comments to each individual trip, activity, accident, or trouble record.

To display or edit the comments for a record:

1. Display the trip, activity, accident or trouble record that requires a comment. Use the drop down box containing all the records for the current log view to display the record.
2. Select the **Comments** button when the record displays. The Comments dialog box displays.
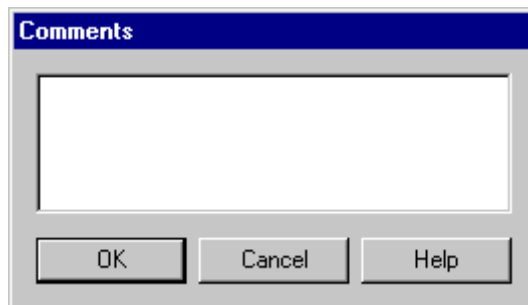


3. Enter new comments or edit existing comments.
4. Click **OK** to save the comments or click **Cancel** to exit the dialog box without saving the comment changes.

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# Help Menu Commands

The CarChip **Help** menu lets you access the CarChip Help and CarChip Version Information. The Help menu contains the following:

- **CarChip Help** - Opens the CarChip Help window. See Using CarChip Help for more information about using the Help window.

- **About CarChip** - Displays version information for the CarChip hardware, firmware, and software.

To display the CarChip Help Window:

1. Select CarChip Help from the **Help** menu or click **Help** from the toolbar. The Help window displays.

To display the About CarChip Window:

1. Select About CarChip from the **Help** menu. The About CarChip window displays.

2. Click the window to close it and re-display the CarChip software.


# Information on Discontinued and Older Model CarChips

Davis Instruments continues to improve and update our CarChip product and software. Among these changes are vehicle compatibility and product enhancements. The following product numbers show the features for discontinued versions of CarChip.

Use CarChip (# 8210, 8211) for:

- **Troubleshooting your car -** Records trouble codes and displays freeze frames of sensor readings.

- **Logging your car's performance -** Records acceleration, deceleration, and speed.

- **Recording trip information -** Records dates, starts and stops, and distance.

- **Clearing your car's check engine light -** Checks your car's sensors and turns off the check engine light.

Use CarChip E/X (# 8220, 8221) for all the features of the CarChip plus:

- **Engine performance data logging -** Log up to 4 of 23 available data parameters.

- **Creating an Accident Log for every hard and extreme stop.**

Use CarChip E/X with Alarm (# 8225) for all the features of CarChip E/X plus:

- **Announcing to driver when speed, braking, and acceleration thresholds have been exceeded** - Gives off an audible alarm when thresholds have been broken.

Use CarChip Fleet  (# 8240, 8241, 8244, 8245) for all the features of CarChip plus:

- **Downloading car information to both the CarChip software and the DriveRight Fleet Management Software (# 8186)**


See Also:

Connecting an Older Model CarChip to a Computer

Older Model CarChip Specifications

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# CarChip, CarChip E/X, and CarChip E/X with Alarm, CarChip Fleet, CarChip Fleet with Alarm Specifications

The following specifications pertain to the CarChip (# 8211) and CarChip E/X (# 8221) CarChip E/X with Alarm (# 8225), CarChip Fleet (# 8241)and CarChip Fleet with Alarm (# 8245) models of the CarChip. See CarChip Pro Specifications for specifications on the CarChip Pro (# 8226) and CarChip Fleet Pro (# 8246) models of CarChip.

General

| | |
|---|---|
| Operating Temperature | -40° to +185°F  (-40° to +85°C) |
| Primary Power, Connected to Vehicle | 12 VDC |
| Primary Power, Connected to Computer | USB powered |
| Backup Power | Internal battery, 10-15 year life in normal use |
| Memory | 128KB for CarChip, 512KB for CarChip E/X |
| Memory Storage | 75 hours for CarChip, 300 hours for CarChipE/X) |
| Time & Date | Accurate to +/- 2 seconds per day |
| Vehicle Interface | 16-pin OBDII connector |
| Computer Interface | USB |
| Computer Cable Length | 5' (1.5 m) |
| Indicator Lamp | LED, pulses to indicate unit status |
| Dimensions | 1.8" wide  x  1 " tall x  1.25" deep" (46 mm x 25.4 mm x 32 mm) |
| Weight | 0.9 oz. (2.55g) |

OBDII Compatibility

| | |
|---|---|
| Supported Protocols | J1850-41.6, J1850-10.4, ISO9141, KWP2000 (ISO 14230), CAN (Control Area Network ISO 11898) |
| CarChip Compatible Vehicles: | |
| US-Market | Most domestic and import vehicles, 1996 or later. |
| European-Market | Some 1996 and later vehicles and most 2000 and later vehicles compliant with the supported protocols listed above. |
| Elsewhere | Undetermined. Some 1996 and later vehicles that are compliant with the supported protocols may be CarChip Compatible. |

| Incompatible US Market Vehicles * | CarChip meets and complies with most of the supported protocols used with US market vehicles. Despite this, incompatibilities still exist. Review the General CarChip Exclusions List to see the known exceptions, exclusions and anomalies. |
|---|---|
| | See the [Incompatible Vehicle List](#) for more information. |
| * As of publication date. | |

Software Requirements

| Operating System | Windows 95, 98, ME, NT 4.0, 2000, XP, Vista |
|---|---|
| Disk Space | 5 MB free disk space |
| Display | Windows-compatible VGA minimum |

Data Display

| Trip Log Summary View | Start date and time, duration, distance, max speed, time in top speed band, number of hard braking events, number of extreme braking events, number of hard acceleration events, number of extreme acceleration events, vehicle ID |
|---|---|
| Trip Log Report View | Vehicle ID, CarChip data logger ID, start time, end time, duration, time spent at idle, time spent in first speed band, time spent in second speed band, time spent in third speed band, time spent in fourth speed band, distance, average speed, maximum speed, number of hard braking events, number of extreme braking events, number of hard acceleration events, number of extreme acceleration events, list of logged parameters (speed only for CarChip, up to 5 parameters for CarChip E/X), comments |
| Trip Log Plot View | Line graph for vehicle speed. CarChip E/X includes line graphs for up to four additional parameters |
| Trip Log Table View | Elapsed time for trip and speed up to every second. Up to four other parameters every 5, 10, 20, 30 or 60 seconds for CarChip E/X only |
| Activity Log Summary View | Date and time, CarChip ID, description |
| Activity Log Event View | Date and time, CarChip ID, description, comments |
| Accident Log Summary View (CarChip E/X only) | Date and time, CarChip ID, maximum speed in log |
| Accident Log Stop View (CarChip E/X only) | Date and time, CarChip ID, maximum speed in log, comments |
| Accident Log Plot View (CarChip E/X only | Date and time, line graph of vehicle speed for 20 seconds prior to stop. |
| Accident Log Table View (CarChip E/X only) | Vehicle speed for each of the 20 seconds prior to the stop. |

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| Trouble Log Summary View | Date and time, vehicle ID, trouble code, problem description |
|---|---|
| Trouble Log Problem View | Date and time, vehicle ID, CarChip ID, trouble code, problem description, comments, OBDII freeze frame info (parameters included in freeze frame vary from car to car) |

Data Options

| Supported Unit Systems | U.S., Metric, S.I., custom |
|---|---|
| Vehicle Speed Sampling Interval | 1, 5, 10, 20, 30 or 60 seconds |
| Other Parameters Sampling Intervals (E/X only) | 5, 10, 20, 30, or 60 seconds |
| Vehicle Speed Bands | 4, user configurable, use to identify typical vs atypical vehicle operation |
| Calculated Data | Hard and extreme braking, hard and extreme acceleration |

Data Parameters for CarChip and CarChip E/X

| Parameter | Range* | Resolution* |
|---|---|---|
| Vehicle Speed | 0 to 158 mph, 0 to 255 kph, 0 to 70 m/s | 0.6 mph, 1 kph, 0.3 m/s |
| Trip Distance Traveled | 0 to 10,000 miles, 0 to 16,000 km | 0.1 m, 0.1 km |
| Acceleration/Deceleration Threshold | 0 to 3 G, 0 to 30 m/sec$^2$ | 0.03 G, 0.3 m/sec$^2$ |

*Range and resolution of sensor measurements only. Accuracy is dependent on the accuracy of the vehicle's sensors.
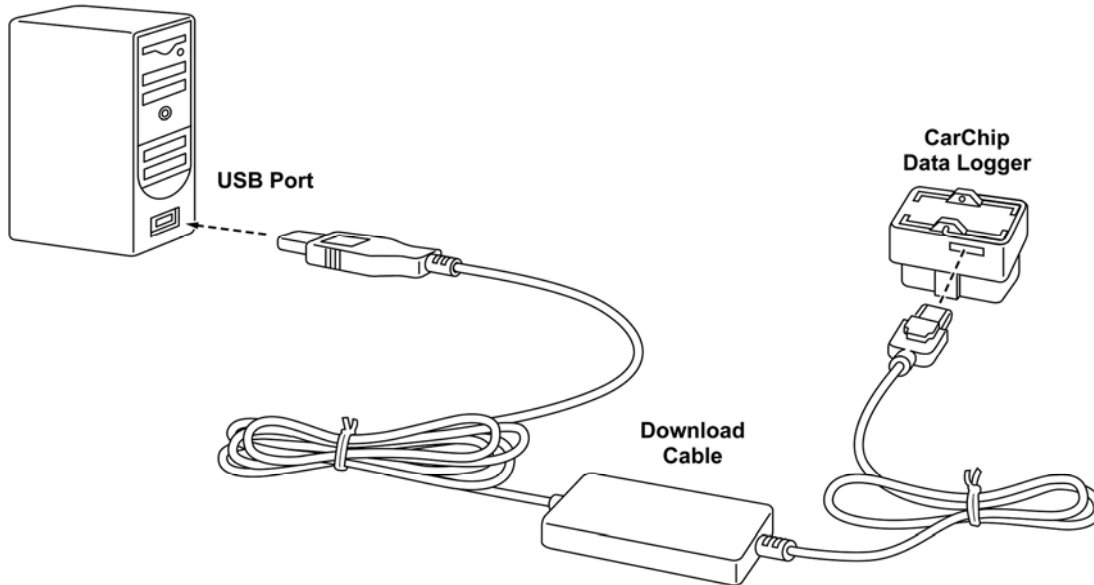
Data Parameters for CarChip E/X Only

| Parameter | Range* | Resolution* |
|---|---|---|
| Engine Speed | 0 to 16,384 rpm | 1 rpm |
| Throttle Position | 0 to 100% | 0.1% |
| Coolant Temperature | -40° to +420°F, -40° to +215°C | 2°F, 1°C |
| Engine Load | 0 to 100% | 0.1% |
| Air Flow Rate | 0 to 8714 lb/min, 0 to 655.35 gm/sec | 0.1 lb/min, 0.01 gm/sec |
| Intake Air Temperature | -40° to +420°F, -40° to +215°C | 2°F, 1°C |
| Intake Manifold Pressure | 0 to 75 in. hg., 0 to 255 kPaA | 0.3 in. hg., 1 kPaA |

| | | |
|---|---|---|
| Fuel Pressure | 0 to 110 psiG, 0 to 765 kPaG | 0.5 psiG, 3 kPaG |
| O2 Sensor Voltage (B1-2, S1-4, 8 total) | 0 to 1.275 V | 0.005 V |
| Ignition Timing Advance | -64° to 63.5° | 0.5° |
| Short Term Fuel Trim | -100% to 99.22% | 0.8% |
| Long Term Fuel Trim | -100% to 99.22% | 0.8% |
| Battery Voltage | 6 to 16 VDC | 0.1 VDC |
| *Range and resolution of sensor measurements only. Accuracy is dependent on the accuracy of the vehicle's sensors. | | |

See also:

[Incompatible Vehicle List](#)

# Connecting an Older Model CarChip to a Computer

The older models of the CarChip data logger connect to your computer using a USB connection (# 8211, 8221, 8225, 8241, 8245) or using a serial port connection (# 8210, 8220). See Connecting CarChip Pro to a Computer if you have a CarChip Pro or CarChip Fleet Pro (# 8226, 8246).

Note: The CarChip data logger does not have to maintain a constant connection with your computer. The CarChip can be connected and disconnected at any time the CarChip software is not downloading information from the CarChip data logger.

To connect the CarChip data logger to your computer using a USB connector:
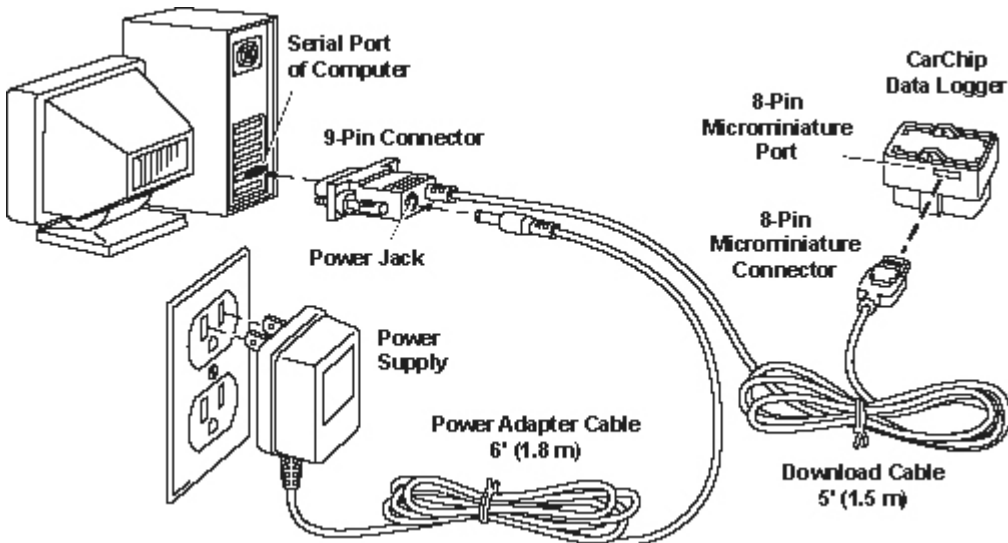
1. Locate a free USB port on the front or back of your computer and insert the USB connector of the download cable into the USB port.
2. Plug the microminiature connector into the port on the CarChip data logger.

To connect the CarChip data logger to your computer using a serial port:

The following instructions for connecting earlier versions of the CarChip (products # 8210, # 8220) to a serial port connection:

1. Locate a free serial port on the back of your computer and insert the 9-pin connector of the download cable into the port.

2. Plug the power adapter cable into the power jack on the 9-pin connector.

3. Plug the power supply into an AC outlet.

4. Plug the 8-pin microminiature connector into the port on the CarChip data logger.



# More Information Menu

Click on a topic below to view help for a particular menu:

CarChip User's Guide

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CarChip Specifications

Prior Release Notes

Incompatible Vehicle List

What is OBDII?

One Year Limited Warranty

Contacting Davis Instruments

# CarChip Online Help Printable Document

A printable version of the online help is provided in the Adobe Acrobat file carchip.pdf located on the CarChip software CD. The manual is also provided as a short cut on the **Start** Menu.

# CarChip Pro and CarChip Fleet Pro Specifications

The following specifications pertain to the CarChip Pro (# 8226) and CarChip Fleet Pro (# 8246) models of the CarChip. See CarChip (# 8211), CarChip E/X (# 8221) and CarChip E/X with Alarm (# 8225) Specifications for specifications on older and discontinued CarChip Models. Also, check www.davisnet.com for updated specifications on all of our products.

Note: CarChip Software version 2.3 or later is required for both the CarChip Pro and CarChip Fleet Pro models of CarChip.

General

| Operating Temperature | -40° to +185°F  (-40° to +85°C) |
|---|---|
| Primary Power, Connected to Vehicle | 9 to 16 VDC, 80 mA with vehicle running, 17 mA with vehicle's power off |
| Primary Power, Connected to Computer | USB powered |
| Backup Power | Internal battery, minimum of 5 years total, with data logger not powered by vehicle or computer; 10-15 year life in normal use |
| Memory | 512KB for CarChip Pro, 2MB for CarChip Fleet Pro |
| Data Logging Capacity for CarChip Pro | 300 hours maximum, depending on logging intervals and number of optional parameters selected |
| Data Logging Capacity for CarChip Fleet Pro | 1200 hours maximum, depending on logging intervals and number of optional parameters selected. Data logging capacity is determined by a combination of factors, such as logging intervals, number of optional parameters selected,and, if optional GPS is used, the logging interval used for GPS. Please see the CarChip Fleet Pro specification sheet on our website at www.carchip.com. |
| Time & Date | Accurate to +/- 2 seconds per day |
| Vehicle Interface | 16-pin OBDII connector |

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| Computer Interface | USB |
| --- | --- |
| Computer Cable Length | 4' (1.2 m) |
| Alarm | Adjustable, audible alarm for exceeding speed, acceleration, and deceleration limits, when enabled in software. |
| Indicator Lamp | LED, flashes to indicate CarChip status, when enabled in software |
| Dimensions | 1.80" x 1.00" x 1.32" (46 mm x 26 mm x 34 mm) |
| Weight | 0.7 oz. (20.5 g) |

Software Requirements

| Operating System | Windows 98SE, ME, NT 4.0, 2000, XP, Vista |
| --- | --- |
| Disk Space | 5 MB free disk space |
| Display | Windows-compatible VGA minimum |

OBDII Compatibility

| Supported Protocols * | J1850-41.6, J1850-10.4, ISO9141, KWP2000 (ISO 14230), CAN (Control Area Network ISO 11898) |
| --- | --- |
| CarChip Compatible Vehicles: | |
| US-Market | Most domestic and import vehicles, 1996 or later. |
| European-Market | Some vehicles model years 1996 - 1999 and most vehicles model year 2000 and later vehicles compliant with the supported protocols listed above. |
| Elsewhere | Undetermined. Some 1996 and later vehicles that are compliant with the supported protocols may be CarChip Compatible. |
| Incompatible US Market Vehicles * | CarChip meets and complies with most of the supported protocols used with US market vehicles. Despite this, incompatibilities still exist. See the Incompatible Vehicle List to see the known exceptions, exclusions and anomalies.* |
| *As of publication date. | |

Data Display

| Trip Log Summary View | Start date and time, duration, distance, max speed, time in top speed band, number of hard braking events, number of extreme braking events, number of hard acceleration events, number of extreme acceleration events, vehicle ID.. |
| --- | --- |
| Trip Log Report View | Vehicle ID, CarChip data logger ID, start time, end time, duration, time spent at idle, time spent in first speed band, time spent in second speed band, time spent in third speed band, time spent in fourth speed band, distance, average speed, maximum speed, number of hard braking events, |

CarChip Online Help Printable Version

|  | number of extreme braking events, number of hard acceleration events, number of extreme acceleration events, list of logged parameters. |
| --- | --- |
| Trip Log Plot View | Line graph for vehicle speed, and line graphs for up to four additional parameters |
| Trip Log Table View | Elapsed time for trip and speed every 1, 5, 10, 20, 30, or 60 seconds. Up to four other parameters every 5, 10, 20, 30 or 60 seconds. |
| Activity Log Summary View | Date and time, CarChip ID, description of event |
| Activity Log Event View | Date and time, CarChip ID, description of event, and comments |
| Accident Log Summary View | Date and time, CarChip ID, maximum speed in log |
| Accident Log Stop View | Date and time, CarChip ID, maximum speed in log, comments |
| Accident Log Plot View | Date and time, and corresponding line graph of vehicle speed for 20 seconds prior to stop. |
| Accident Log Table View | Vehicle speed for each of the 20 seconds prior to the stop. |
| Trouble Log Summary View | Date and time, vehicle ID, trouble code, problem description |
| Trouble Log Problem View | Date and time, vehicle ID, CarChip ID, trouble code, problem description, comments, OBDII freeze frame info (parameters included in freeze frame vary from car to car) |

Data Options

| Supported Unit Systems | U.S., Metric, S.I., custom |
| --- | --- |
| Vehicle Speed Sampling Interval | 1, 5, 10, 20, 30 or 60 seconds |
| Other Parameters Sampling Intervals | 5, 10, 20, 30, or 60 seconds |
| Number of Optional Engine Data Parameters | 23 total possible as supported by vehicle, up to 4 can be selected at a time. |
| Vehicle Speed Bands | 4, user configurable, use to identify typical vs atypical vehicle operation |
| Calculated Data | Hard and extreme braking, hard and extreme acceleration |

Data Parameters

| Parameter | Range* | Resolution* |
| --- | --- | --- |
| Vehicle Speed: | 0 to 158 mph, 0 to 255 kph, 0 to 70 m/s | 0.6 mph, 1 kph, 0.3 m/s |
| Trip Distance Traveled: | 0 to 10,000 miles, 0 to 16,000 km | 0.1 m, 0.1 km |

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| Acceleration/Deceleration Threshold | 0 to 3 G, 0 to 30 m/sec$^2$ | 0.03 G, 0.3 m/sec$^2$ |
|---|---|---|
| Engine Speed | 0 to 16,384 rpm | 1 rpm |
| Throttle Position | 0 to 100% | 0.1% |
| Coolant Temperature | -40° to +420°F, -40° to +215°C | 2°F, 1°C |
| Engine Load | 0 to 100% | 0.1% |
| Air Flow Rate | 0 to 8714 lb/min, 0 to 655.35 gm/sec | 0.1 lb/min, 0.01 gm/sec |
| Intake Air Temperature | -40° to +420°F, -40° to +215°C | 2°F, 1°C |
| Intake Manifold Pressure | 0 to 75 in. hg., 0 to 255 kPaA | 0.3 in. hg., 1 kPaA |
| Fuel Pressure | 0 to 110 psiG, 0 to 765 kPaG | 0.5 psiG, 3 kPaG |
| O2 Sensor Voltage (B1-2, S1-4, 8 total) | 0 to 1.275 V | 0.005 V |
| Ignition Timing Advance | -64° to 63.5° | 0.5° |
| Short Term Fuel Trim | -100% to 99.22% | 0.8% |
| Long Term Fuel Trim | -100% to 99.22% | 0.8% |
| Battery Voltage | 6 to 16 VDC | 0.1 VDC |

*Range and resolution of sensor measurements only. Accuracy is dependent on the accuracy of the vehicle's sensors.

See also:

Incompatible Vehicle List

# Prior Release Notes

CarChip Software version 2.2 includes the following changes:

- The Tools Menu has been added to the menu options on the tool bar. The **Tools** Menu contains three new options for organizing trip data and keeping track of readiness code information. These options are.

    - Fuel Entry - Lets you enter information about fuel usage and costs for every vehicle you have added to the CarChip software. Fuel entry information is used to calculate the price you pay per mile for fuel and is displayed in the CarChip Home Page and Vehicle Summary View.

    - Emissions Readiness - Displays the last recorded status of the emissions readiness codes for every vehicle in the CarChip Database. Use this dialog box to view whether or not a particular readiness code is supported for the vehicle and whether or not the monitor completed its test for each of the available readiness codes.

    - Trip Type Entry - Lets you categorize the all the recorded trips by trip type and provides a mileage analysis of the types of trips taken.

CarChip Software version 2.1 includes the following changes:

- New Option in the **Setup** Menu's [Walkthrough](). The Walkthrough process has been divided into two different processes: [Express Setup]() and [Full Setup](). The Full Setup option provides all the same functionality of the Walkthrough process available in previous versions of the CarChip software. The Express Setup option is a shorter, quicker version of the walkthrough.

- Updated the software and firmware to support the European version of Windows OS.

- Anytime a new driver or vehicle is added in the Add Driver or Add Vehicle dialog box, it is now assigned a sequentially numbered ID.

- CarChip software automatically saves program data without being prompted by the user.

CarChip Software version 2.0 includes the following changes:

- This version of the software changed to add USB support.

- The audible alarm available on the CarChip with Alarm (# 8225) and CarChip Fleet with Alarm Models (# 8245) can be toggled on an off from the **CarChip** Menu.

- The Enable VIN feature can now be toggled on and off from the **CarChip** Menu.

# Incompatible Vehicle List

Davis Instruments keeps an updated listing of all the US market vehicles that are currently not compatible with the CarChip. See the **[CarChip Compatibility List]()** for more information on the vehicles exclusions and conflicts for the CarChip model you are currently using.

# What is OBDII?

OBDII, or "on-board diagnostics two", is the on-board automotive diagnostics system that has been required by the EPA on every new motor vehicle sold in the USA since 1996. OBDII is also found on many vehicles sold internationally since 1996. The on-board diagnostics monitors virtually every component that can affect vehicle emissions and many other vehicle functions and operations as well. Any detected problems will be recorded by the system and will cause the vehicle's check engine light to be illuminated.

OBDII is an outgrowth of earlier similar diagnostic systems which were created in the 1980's to monitor vehicle emission controls.

See Also:

[OBDII Freeze Frame]()

[CarChip Specifications]()

# One Year Limited Warranty

We warrant our products to be free of defects in material and workmanship for one year from the date of original purchase. While we make every effort to carefully manufacture our products to the highest standards of quality, occasionally parts may be found to be missing, defective, or damaged.

If you have a defective part, return the product to us, shipping charges prepaid. Include proof of purchase and a written explanation of the trouble. During the warranty period, we will, at our option, either repair or replace the product free of charge.

This warranty does not cover damage due to improper installation or use, negligence, accident, or unauthorized service, or incidental or consequential damages beyond Davis products themselves. Implied warranties are limited in duration to the life of the limited warranty.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state to state and country to country.

# Safety Notice

CarChip has been carefully designed and tested to comply with OBDII protocols J1850-41.6, J1850-10.4, ISO 9141, and KWP2000 (ISO14320), and CAN (ISO 11898) which are used on most cars and light trucks sold in the USA, model-year 1996 or later. However, some vehicle models are not in full compliance with these protocols. In addition, the computer control systems on any given vehicle may be malfunctioning or out of spec, as may be the sensors used by these systems.

Before installing CarChip, be sure to review the list of known vehicle exclusions and anomalies on our website at www.carchip.com, where you'll also find the latest software and firmware downloads. For more information on OBDII issues and anomalies in general, we recommend The Equipment and Tool Institute's website at www.etools.org.

While our testing and the experience of thousands of CarChip users have shown the unit to be safe and reliable, there is an inherent risk in adding any aftermarket product that may potentially affect the operation or drivability of your vehicle. Should you be concerned about the operation of your vehicle at any time while using CarChip, you should pull over, off the roadway, immediately or as soon as it is safe to do so. Remove CarChip from the OBDII port and consult a licensed mechanic or automobile service center.

Report any issues or concerns to our Technical Support Dept. at (510) 732 7814 or support@davisnet.com. We are open Monday through Friday, 7:00 a.m. to 5:30 p.m. Pacific Time. We maintain an active database of the feedback we receive, and your comments can help us continuously improve the product.

# Contacting Davis Instruments

Please contact Davis Technical Support if you have questions about your CarChip, or encounter problems installing or operating the CarChip.

**Phone**

(510) 732-7814 – Monday – Friday, 7:00 A.M. – 5:30 P.M. Pacific Time

(510) 670-0589 – Technical Support Fax

**Email**

support@davisnet.com – Technical Support email

info@davisnet.com – Davis Instruments General email

**Web**

www.davisnet.com – Copies of User Manuals are available on the "Support" page. Watch for FAQs and other updates. Subscribe to the e-newsletter.

**Mail**

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