

Online Help

Printable Version

For CarChip, CarChip E/X,
& CarChip E/X with Alarm

TM
carchip
carchip



8210, 8211, 8220, 8221, & 8225

Product Numbers: 8210, 8211, 8220, 8221, 8225

Part Number: 7395.064

CarChip Online Help Printable Version

(July 16, 2004)

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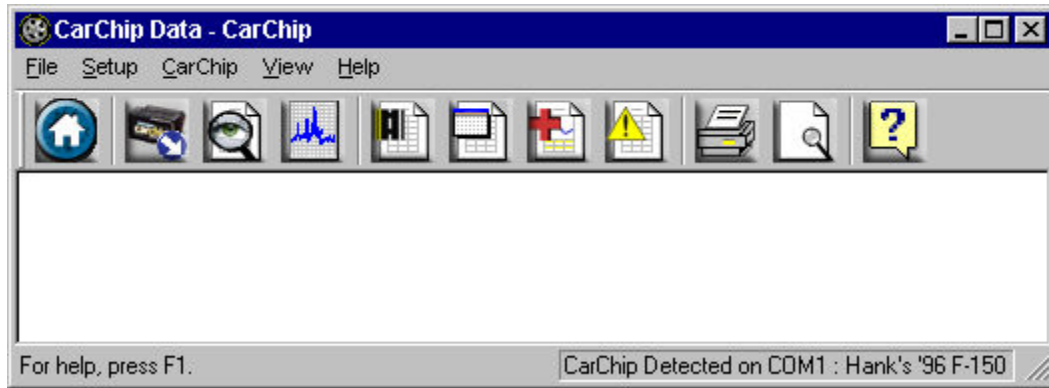
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Welcome to CarChip

Welcome to CarChip!



Click on one of the following topics to find out more information on using the CarChip system:

Getting Started Topics

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

How CarChip Works

CarChip Installation

Example File

Walkthrough Setup

Downloading CarChip Data

Viewing Data

Exporting Data

Printing

Tool Bar

Using CarChip Help

Menu Commands

Use the following topics to learn more about the menus available in the CarChip software:

File Menu Commands

Setup Menu Commands

CarChip Menu Commands

View Menu Commands

Help Menu Commands

More Information

CarChip User's Guide

CarChip Specifications

Incompatible Vehicle List

One Year Limited Warranty

Contacting Davis Instruments

July 16, 2004

Getting Started

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

How CarChip Works

CarChip Installation

Example File

Walkthrough Setup

Downloading CarChip Data

Viewing Data

Exporting Data

Using the File Menu

Printing

Tool Bar

Using CarChip Help

How CarChip Works

The CarChip 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 more powerful CarChip E/X 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 (products 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 (products 8220, 8221) for:

- **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 (product 8225) for:

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

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 to a Car

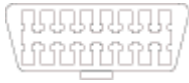
Connecting the CarChip to a Computer

Installing CarChip Software

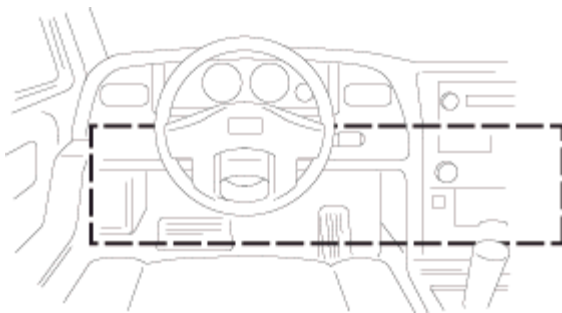
Installing CarChip in your Car

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.



Note: Use the Davis Instruments' **CarChip** web site to locate the OBDII connection on your car.

2. Check the following areas for the OBDII port:

Under the Dash

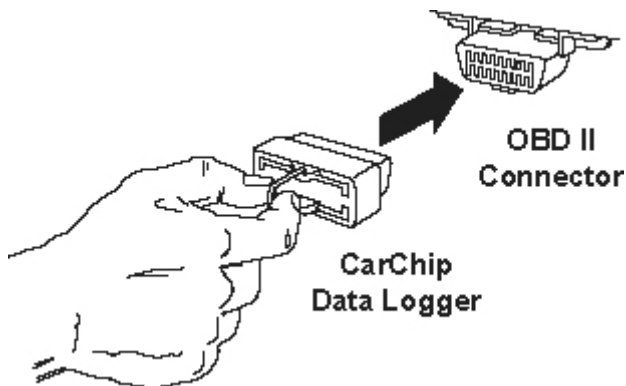
Behind a small access panel in the dash

In front of the passenger seat

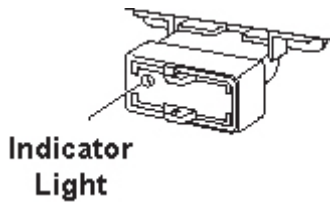
In or around the center console

Behind the ash tray

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



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.



Note: The indicator light blinks continuously when the CarChip is initially connected to a vehicle, before the vehicle has started. Unless the indicator has been enabled via the software, blinking stops once the vehicle has started and the CarChip has established communications with the OBDII computer.

Installing CarChip Software

Follow the steps provided below to install the CarChip software. Detailed instructions on how to use the CarChip software are provided in the software help file "CarChip.chm" included with the installation CD. CarChip software is compatible with computers running Windows™ 95, 98, ME, NT 4.0, 2000 or XP.

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 CarChip to a Computer

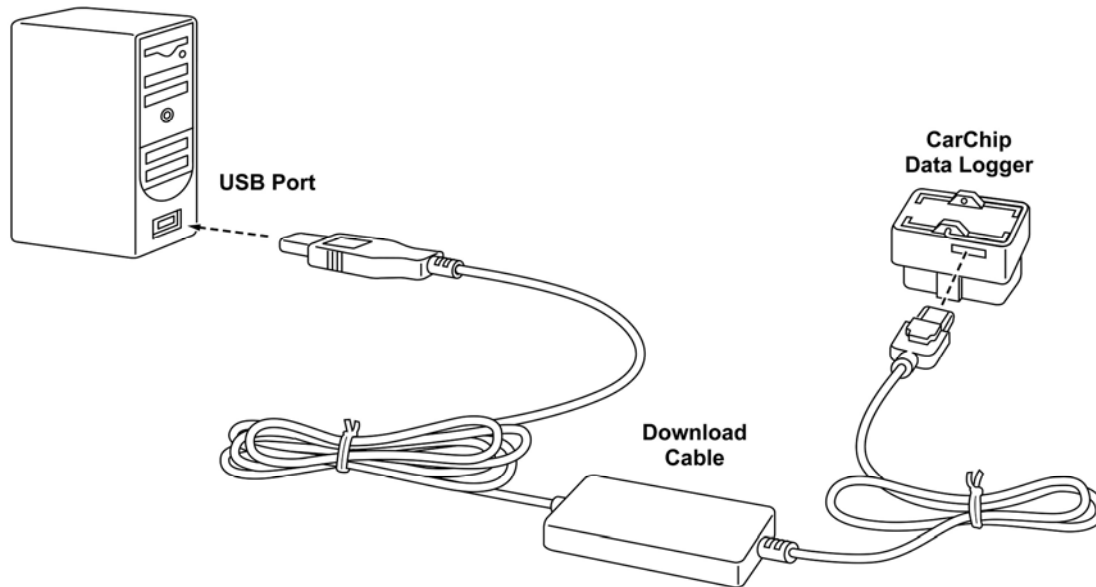
The CarChip data logger connects to your computer using a USB connection (for product 8211, 8221, 8225) or serial port connection (for products 8210, 8220).

Note: A special serial port to USB adapter can be purchased from the [Davis company web site](#) if you have purchased a CarChip product with a serial port connection (8210, 8220) and your computer requires a USB connection.

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.

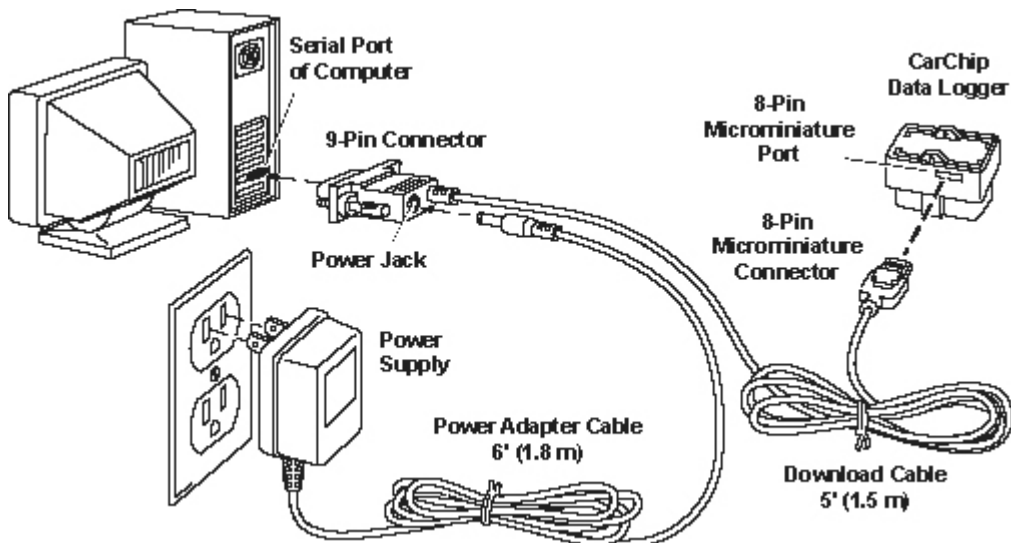
To connect the CarChip data logger to your computer using a USB connector:

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:

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.

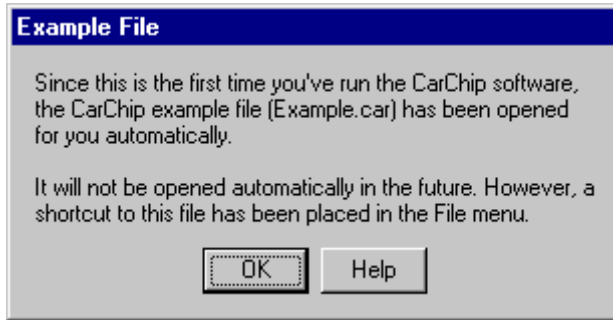


Example File

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.

Walkthrough Setup

The CarChip software includes a CarChip walkthrough that steps you through the process of configuring your CarChip data logger and CarChip software configurations. After installing the CarChip software on your computer and opening the program, the **Walkthrough** dialog box automatically displays. By clicking **OK**, the 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. A Walkthrough command is included in the **Setup** menu so that you can access the walkthrough at any time.

Note: The CarChip data logger does not have to be connected to your computer to use the Walkthrough Setup command. When the CarChip data logger is connected, more **Setup** menu commands display during the walkthrough process.

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 Walkthrough for your CarChip vary depending on the CarChip data logger model you have and if your CarChip is connected to your computer.

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.

Communication Port Settings - Select the COM port that your data logger is connected to.

Note: The **Serial Port Settings** dialog box does not display in the Walkthrough if a CarChip data logger has been automatically detected.

Plots - Select the options for displaying plots and graphs.

Select Units - Select the units of measure that the data and information are displayed in.

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.

Anomalous Vehicles - Specify the vehicle using the CarChip data logger. 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.

Miscellaneous - Select an option for clearing your CarChip's memory.

Downloading CarChip Data

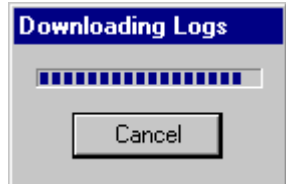
Once you have connected your CarChip data logger to your computer, you are ready to download data from any of the CarChip models.

To download data:

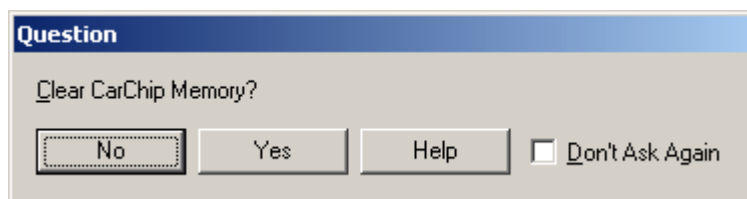
1. Click the **Download CarChip** icon or select Download CarChip Data from the **CarChip** menu.

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 current 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 to the downloaded trip data, the Activity Log Summary view automatically displays the downloaded data once the download is completed.

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 made on the CarChip device, with the date and time the connection occurred. From this dialog box, select the drivers and vehicles associated with every event.

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.

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.

2. 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.

3. 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**.

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

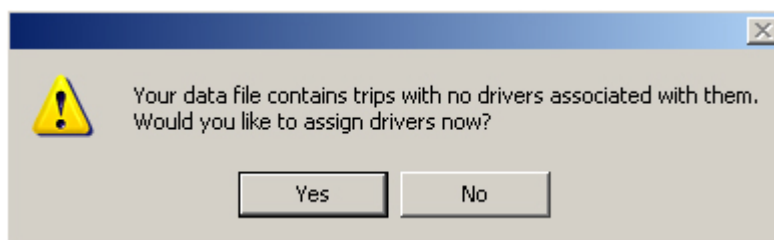
Assign Drivers

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:

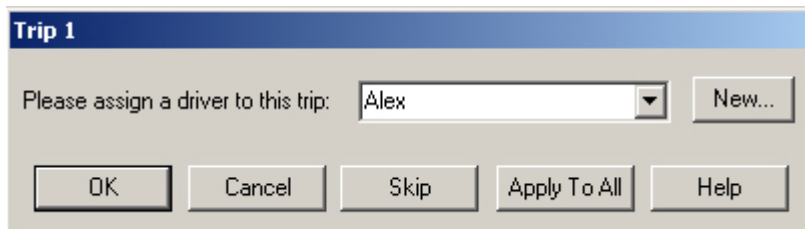
1. Open a .car file from an earlier version of the CarChip Software.

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

Trouble Log

Summary Log

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.

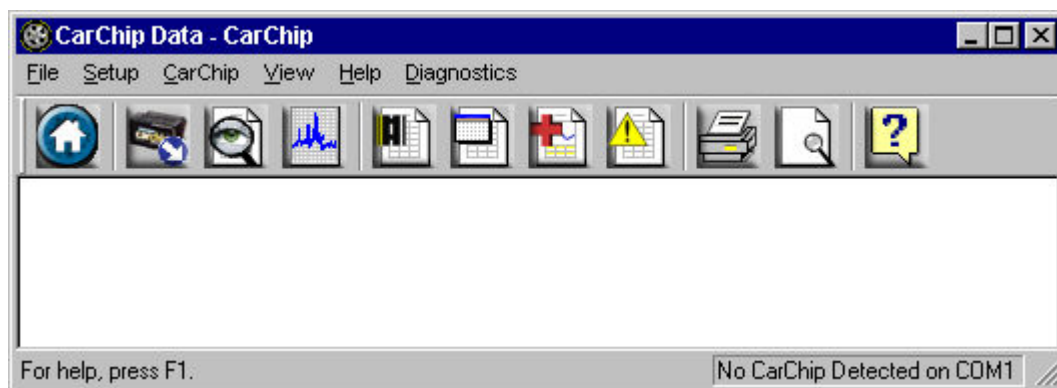
File Menu Commands

With the options in the **File** menu you can save your uploaded 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.

Tool Bar

The Tool Bar 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.



Print - Prints the current open displayed page.



Print Preview - Previews the current open page.

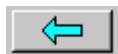


Help - Opens the CarChip Help file.

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 report.

Up cursor key - Move to the previous report.

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

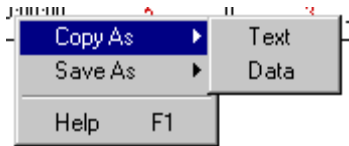
The following buttons are navigation aids that are only available in Trip Log View Plots. Use these buttons to:

Up - Scrolls up to the next plot.

Down - Scrolls down to the next plot.

Right Click 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.

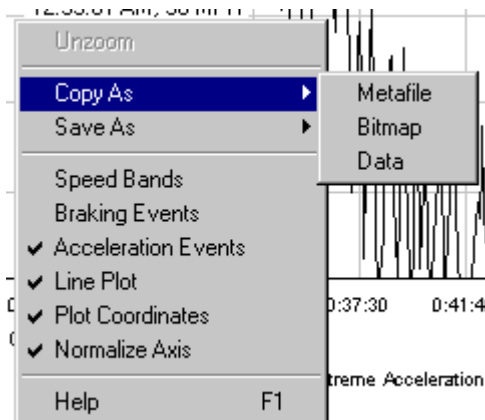


- **Copy As > Text** - Pastes the displayed information as text in another application.
- **Copy As > Data** - Paste the displayed information as tab delimited text in a spreadsheet program.

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.

- Use the **Copy As > Metafile** option if you want to paste the plot into another application as a vector graphics file.
- Use the **Copy As > Bitmap** option if you want to paste the plot into another application as bitmapped paint file.
- Use the **Copy As > Data** option if you want to paste the plot data as tab delimited text into a spreadsheet program.



Right Click Menu Options

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

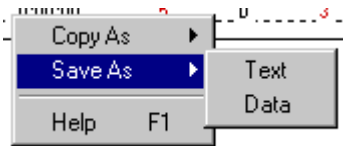
Copy As

Save As

Help F1

Right Click Save As

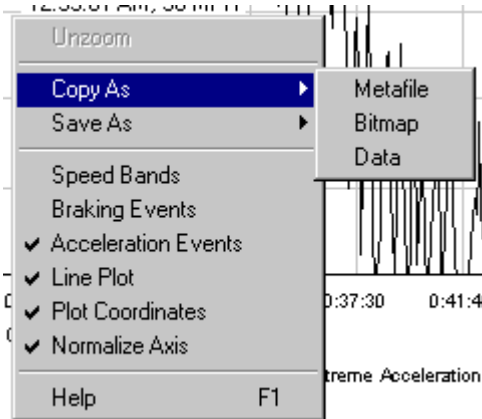
The **Save As** command available in the **Right-Click** menu for the Summary, Record, and Table Views offers two file formats for saving the displayed information: text and data.



- **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.

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 its 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 uploaded 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 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.

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

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

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.

Import Log File - Lets you select an existing file you want to import into the CarChip software.

Walkthrough Setup

The CarChip software includes a CarChip walkthrough that steps you through the process of configuring your CarChip data logger and CarChip software configurations. After installing the CarChip software on your computer and opening the program, the **Walkthrough** dialog box automatically displays. By clicking **OK**, the 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. A Walkthrough command is included in the **Setup** menu so that you can access the walkthrough at any time.

Note: The CarChip data logger does not have to be connected to your computer to use the Walkthrough Setup command. When the CarChip data logger is connected, more **Setup** menu commands display during the walkthrough process.

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 Walkthrough for your CarChip vary depending on the CarChip data logger model you have and if your CarChip is connected to your computer.

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.

Communication Port Settings - Select the COM port that your data logger is connected to.

Note: The **Serial Port Settings** dialog box does not display in the Walkthrough if a CarChip data logger has been automatically detected.

Plots - Select the options for displaying plots and graphs.

Select Units - Select the units of measure that the data and information are displayed in.

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.

Anomalous Vehicles - Specify the vehicle using the CarChip data logger. 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.

Miscellaneous - Select an option for clearing your CarChip's memory.

Anomalous Vehicles

The **Anomalous Vehicles** dialog box lets you configure your CarChip data logger to meet any unique specifications present on the OBDII 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 radio button next to the Anomalous Vehicle list if your vehicle is present in the list and select the vehicle name, or click Miscellaneous/Other 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.

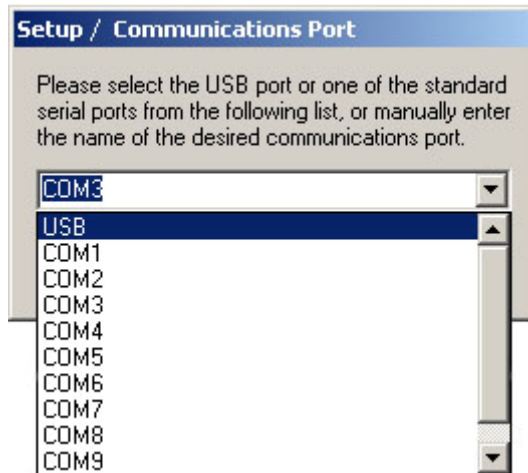
Communications Port

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.

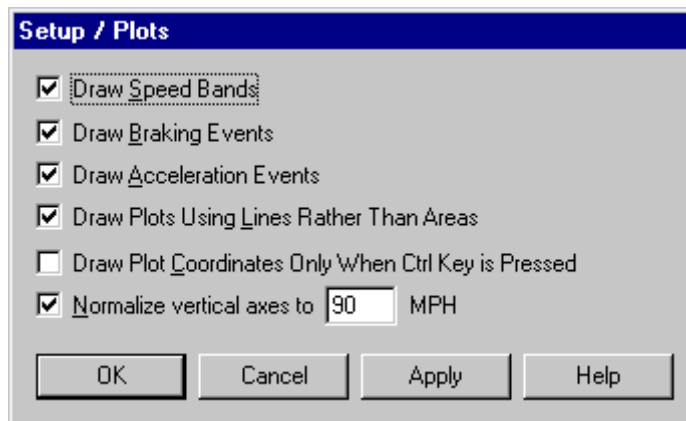
3. Click **OK** to save the new port selection, or click **Cancel** to exit the dialog box and retain the previous port selection.

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.

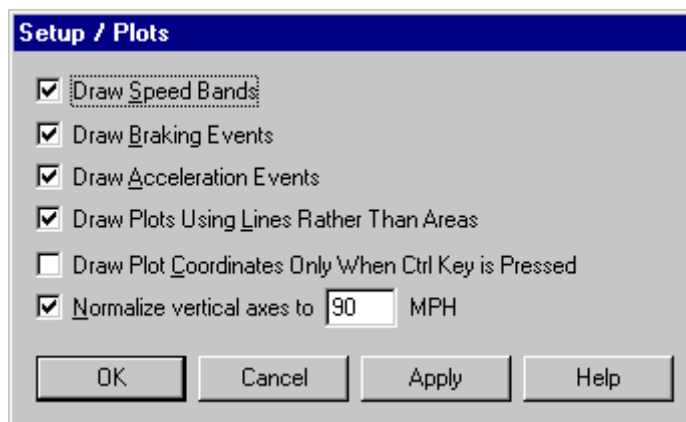
Draw Acceleration Events

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.



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.

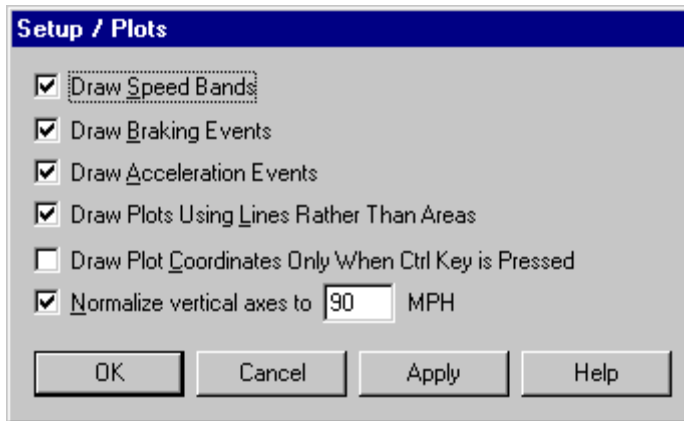
Draw Braking Events

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.

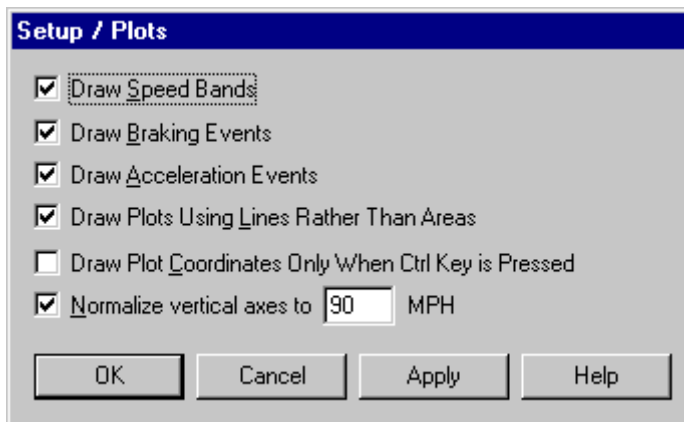
Draw Plots As Lines

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.

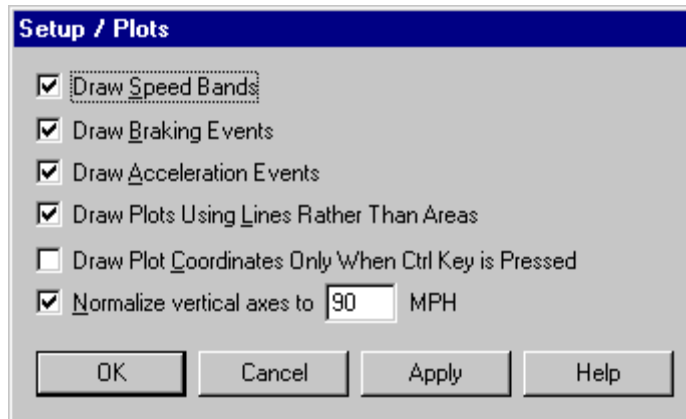
Draw Speed Bands

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.



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.

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.

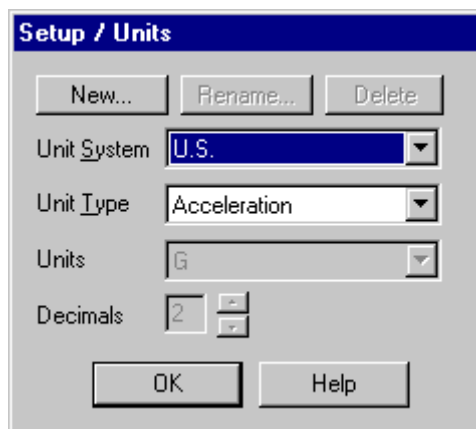
Three Unit Systems are included with the CarChip software:

- 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 **Unit** 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.

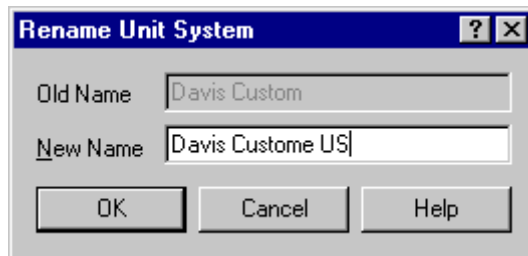
1. Select Units from the **Setup** menu. The **Setup / Units** dialog box displays.
2. Click **New** on the **Setup / Units** dialog box. The **New Unit System** dialog box displays.



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 **Unit** drop down box.
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.

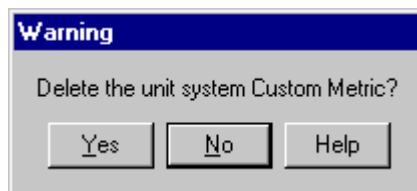


4. Type the new name for the custom unit system in the **Name** box.
5. Click **OK** to rename the custom unit system, or click **Cancel** to exit the dialog box without making any changes. The **Setup / Units** dialog box displays with the new custom unit name.

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.

Name	Threshold	Name	Threshold
Vehicle Speed	31.7 m/s	Long Term Fuel Trim (B1)	0.00 %
Engine Speed	67.00 Hz	Long Term Fuel Trim (B2)	0.00 %
Throttle Position	60 %	O2 Sensor Voltage (B1,S1)	0.00 V
Coolant Temp	368.15 K	O2 Sensor Voltage (B1,S2)	0.00 V
Engine Load	80.00 %	O2 Sensor Voltage (B1,S3)	0.00 V
Intake Manifold Pressure	0 Pa	O2 Sensor Voltage (B1,S4)	0.00 V
Air Flow Rate	0.000 kg/s	O2 Sensor Voltage (B2,S1)	0.00 V
Intake Air Temp	255.37 K	O2 Sensor Voltage (B2,S2)	0.00 V
Timing Advance	0.0000 rad	O2 Sensor Voltage (B2,S3)	0.00 V
Fuel Pressure	0 Pa	O2 Sensor Voltage (B2,S4)	0.00 V
Short Term Fuel Trim (B1)	0.00 %	Battery Voltage	11.00 V
Short Term Fuel Trim (B2)	0.00 %	Fuel System Status	Not Supported

OK Cancel Default Help

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 to can monitor.

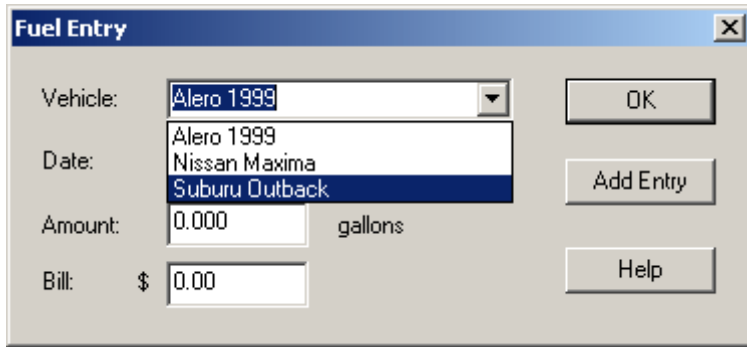
3. Click **OK** to save your parameter threshold changes, click **Cancel** to exit the dialog box without saving your changes or click **Default** to display the default parameter threshold values.

Fuel Entry

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

To add a fuel entry:

1. Select Fuel Entry from the **Setup** menu. The **Fuel Entry** dialog box displays.



The **Fuel Entry** dialog box contains the following fields and buttons:

- Vehicle:** A dropdown menu with "Alero 1999" selected.
- Date:** A date selection field with "Alero 1999" displayed.
- Amount:** A text box containing "0.000" followed by the unit "gallons".
- Bill:** A text box containing "\$ 0.00".
- Buttons:** "OK", "Add Entry", and "Help".

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 gallons 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 **Add Entry** to add the fuel entry.

Note: The fuel entry information is based on the U.S. system of measurement and on U.S. currency. The measurement units displayed in this dialog box do not change when another measurement system is selected from the **Units** dialog box.

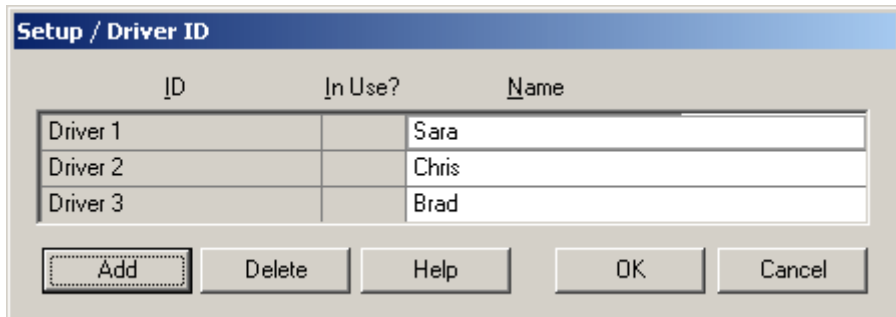
Driver ID

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.



The **Setup / Driver ID** dialog box displays a table of existing drivers:

ID	In Use?	Name
Driver 1		Sara
Driver 2		Chris
Driver 3		Brad

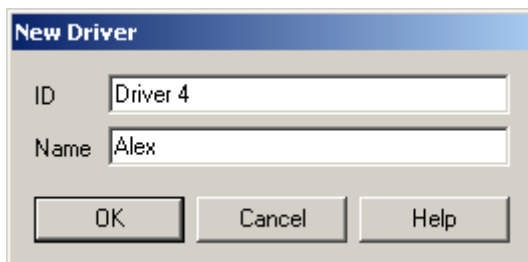
Buttons at the bottom: **Add**, **Delete**, **Help**, **OK**, and **Cancel**.

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.



The **New Driver** dialog box contains the following fields and buttons:

- ID:** A text box containing "Driver 4".
- Name:** A text box containing "Alex".
- Buttons:** "OK", "Cancel", and "Help".

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.

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.

VIN	In Use?	Name
01234567890123456		Nissan Maxima
98765432109876543		Subaru Outback
Oldmobile	Yes	Alero 1999

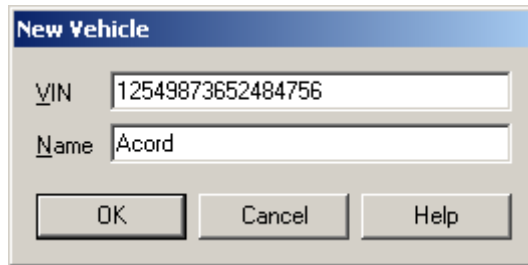
Buttons: Add, Delete, Help, OK, Cancel

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.



The 'New Vehicle' dialog box has a title bar 'New Vehicle'. It contains two text input fields: 'VIN' with the value '12549873652484756' and 'Name' with the value 'Acord'. Below the fields are three buttons: 'OK', 'Cancel', and 'Help'.

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 driver ID and add a new driver ID.

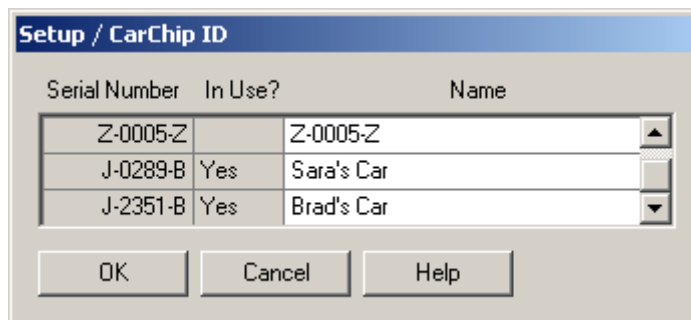
CarChip ID

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.



The 'Setup / CarChip ID' dialog box has a title bar 'Setup / CarChip ID'. It contains a table with three columns: 'Serial Number', 'In Use?', and 'Name'. The table has three rows of data. Below the table are three buttons: 'OK', 'Cancel', and 'Help'.

Serial Number	In Use?	Name
Z-0005-Z		Z-0005-Z
J-0289-B	Yes	Sara's Car
J-2351-B	Yes	Brad's Car

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.

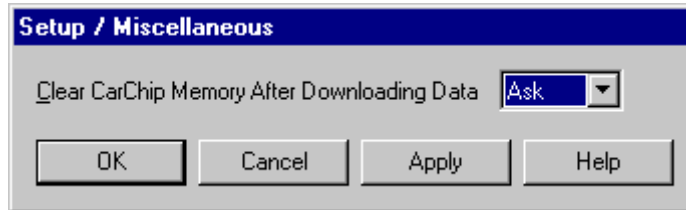
2. Edit the CarChip name.
3. Click **OK** to accept the changes to the Driver ID, or click **Cancel** to exit the **Driver ID** dialog box without saving changes.

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.



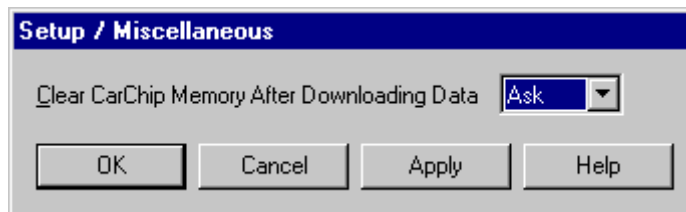
2. Select one of the following options from the drop-down box:
 - **Always** - The CarChip data logger memory is automatically cleared after each download.
 - **Never** - The CarChip's memory is not cleared after every download and you will not be prompted if you want to clear the memory. Use the **Clear 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 **Car Chip 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.

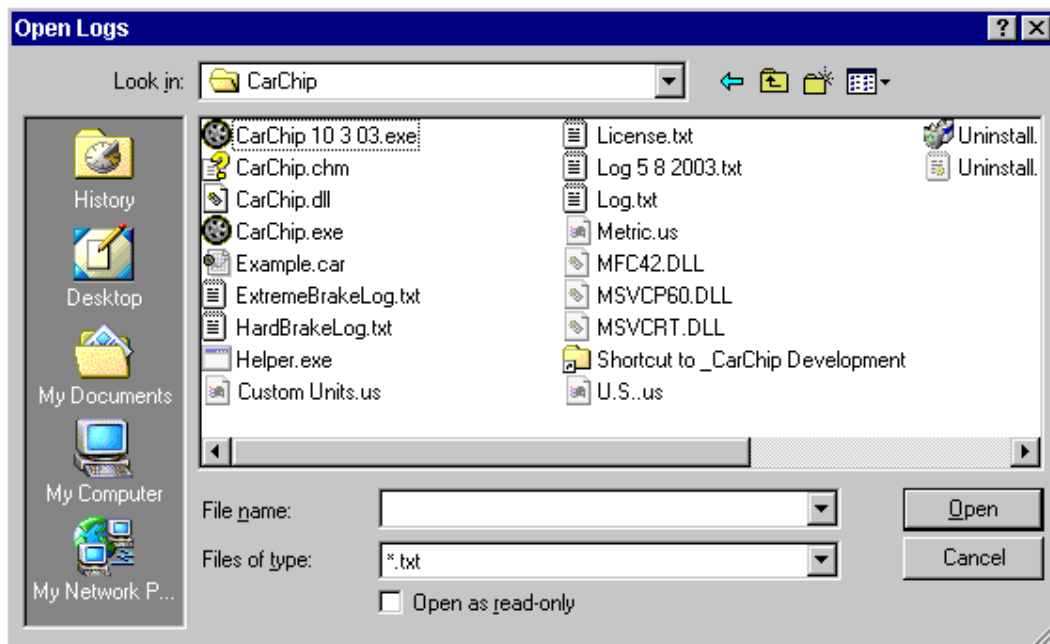
Note: This dialog box contains a **Don't Ask Again** check box. By Checking this option and clicking **Yes**, the CarChip's memory is automatically cleared after every download. By clicking **No**, the CarChip's memory is never cleared after download. To change your CarChip memory clearing options, see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

Import Log File

When you download information from your CarChip data logger to your computer, a log.txt file is created from the data. This file is over-written each time you download information from your CarChip data logger and will always contain data from your last download.

To import the log file:

1. Select Import Log File from the **Setup** menu. The **Open Logs** dialog box displays.



2. Navigate to the folder containing a Log.txt file, select the file, then click **Open**. The log file is imported into the software.
3. View the data or save it as a CarChip (.car) data file.

CarChip Menu Commands

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

Note: The data logger must be connected to your computer to access any of these commands.

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.

Note: This command is only available for CarChip E/X (product 8220, 8221) and CarChip E/X Alarm (product 8225) models.

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

Note: This command is only available for the CarChip E/X Alarm (product 8225) 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 newer CarChip models (products 8211, 8221 and 8225)

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

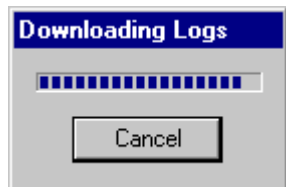
Once you have connected your CarChip data logger to your computer, you are ready to download data from any of the CarChip models.

To download data:

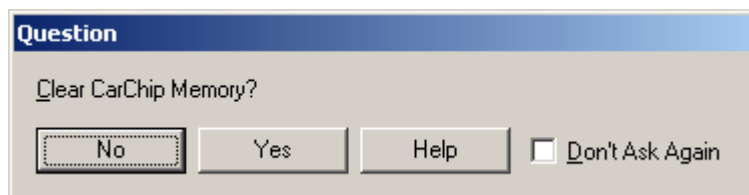
1. Click the **Download CarChip** icon or select Download CarChip Data from the **CarChip** menu.

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.



2. The **Question** dialog box displays. The **Question** dialog box asks if you want to delete the current 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 to the downloaded trip data, the Activity Log Summary view automatically displays the downloaded data once the download is completed.

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.

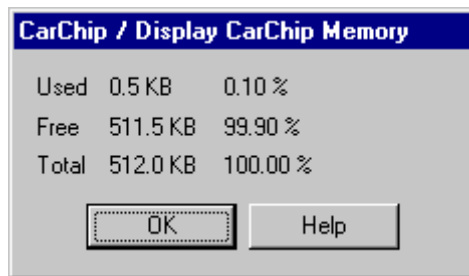
To display CarChip memory information:

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.

Clear CarChip Memory

The **Clear CarChip Memory** dialog box lets 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 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.

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.

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 reappears 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 displays on the **CarChip** menu only when a CarChip E/X with Alarm (product 8225) is connected to your computer and has an established connection with the CarChip software. The CarChip E/X with Alarm emits an audible alarm in your vehicle when speed band thresholds, acceleration and braking thresholds have been exceeded.

The Enable Alarm command toggles the CarChip Alarm on and off. When a check box displays next to the Enable Alarm command, 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 CarChip Alarm is now on.

2. Select Enable Alarm a second time.

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

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.

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.

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, do not enable 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 only available for products 8211, 8221, and 8225.

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.

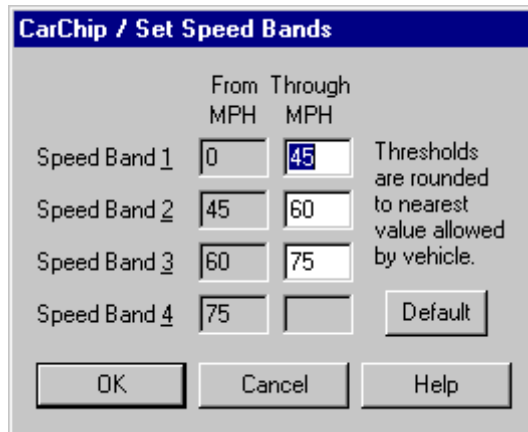
If a check displays next to the command, the CarChip VIN Mode has been enabled on the CarChip data logger. If a check does not display, the CarChip VIN Mode is turned off.

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 is 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.



The dialog box titled "CarChip / Set Speed Bands" contains a table for setting speed bands. The table has columns for "From MPH" and "Through MPH". The first three rows are for Speed Band 1, 2, and 3, with values 0, 45, 60, and 75 respectively. The fourth row is for Speed Band 4, with a value of 75. To the right of the table, there is a note: "Thresholds are rounded to nearest value allowed by vehicle." Below the table is a "Default" button. At the bottom of the dialog box are "OK", "Cancel", and "Help" buttons.

	From MPH	Through MPH
Speed Band 1	0	45
Speed Band 2	45	60
Speed Band 3	60	75
Speed Band 4	75	

Thresholds are rounded to nearest value allowed by vehicle.

Default

OK Cancel Help

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. The default speed thresholds are: 45, 60, and 75 mph (US); 72, 97, and 121 kph (Metric); and 20.1, 26.8 and 33.5 m/s (S.I.).
3. Click **OK** to save the new speed band settings. Click **Cancel** to exit the dialog box without saving changes to the settings.

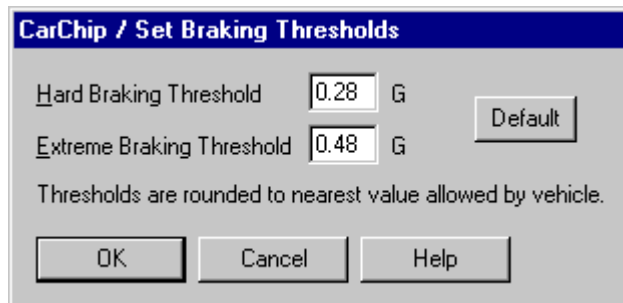
Note: The speed threshold displaying in the fourth speed band is also the threshold that triggers the audible alarm on the CarChip E/X with Alarm (product 8225) model. When this speed band is exceeded in a vehicle, the alarm sounds until the vehicle is no longer over the speed band threshold. See [Enable CarChip Alarm](#) for more information on using the CarChip Alarm feature.

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.

To set braking thresholds:

1. Select Set Braking Thresholds from the **CarChip** menu. The **CarChip / Set Braking Thresholds** dialog box displays.



The dialog box titled "CarChip / Set Braking Thresholds" contains two input fields: "Hard Braking Threshold" and "Extreme Braking Threshold". The first field has a value of 0.28 G, and the second field has a value of 0.48 G. To the right of the fields is a "Default" button. Below the fields, there is a note: "Thresholds are rounded to nearest value allowed by vehicle." At the bottom of the dialog box are "OK", "Cancel", and "Help" buttons.

Hard Braking Threshold 0.28 G

Extreme Braking Threshold 0.48 G

Default

Thresholds are rounded to nearest value allowed by vehicle.

OK Cancel Help

2. Enter your desired hard and extreme braking thresholds or click **Default** to use the software default threshold settings. The default braking thresholds are: 0.28 and 0.48 G (US & Metric) and 2.8 and 4.7 m/s² (S.I.).
3. Click **OK** to save the new settings. Click **Cancel** to exit the dialog box and retain the previous settings.

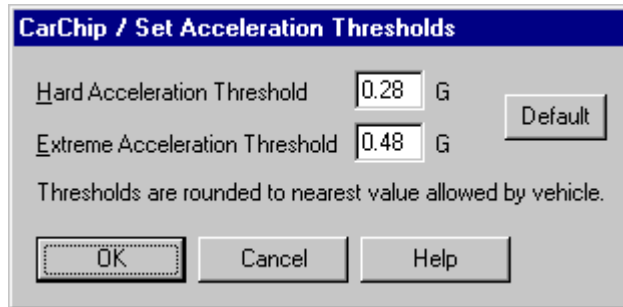
Note: Note: The extreme braking threshold is also the threshold that triggers the audible alarm on the CarChip E/X with Alarm (product 8225) model. When this braking threshold is exceeded in a vehicle, the alarm sounds until the vehicle is no longer exceeding the braking threshold. See [Enable CarChip Alarm](#) for more information on using the CarChip Alarm feature.

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 Thresholds** 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: 0.28 and 0.48 G (US & Metric) and 2.8 and 4.7 m/s² (S.I.).
3. Click **OK** to save the new settings. Click **Cancel** to exit the dialog box and retain the previous settings.

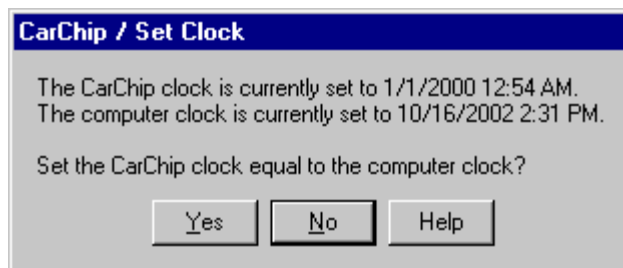
Note: The extreme acceleration threshold is also the threshold that triggers the audible alarm on the CarChip E/X with Alarm (product 8225) model. When this acceleration threshold is exceeded in a vehicle, the alarm sounds until the vehicle is no longer exceeding the threshold. See Enable CarChip Alarm for more information on using the CarChip Alarm feature.

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.



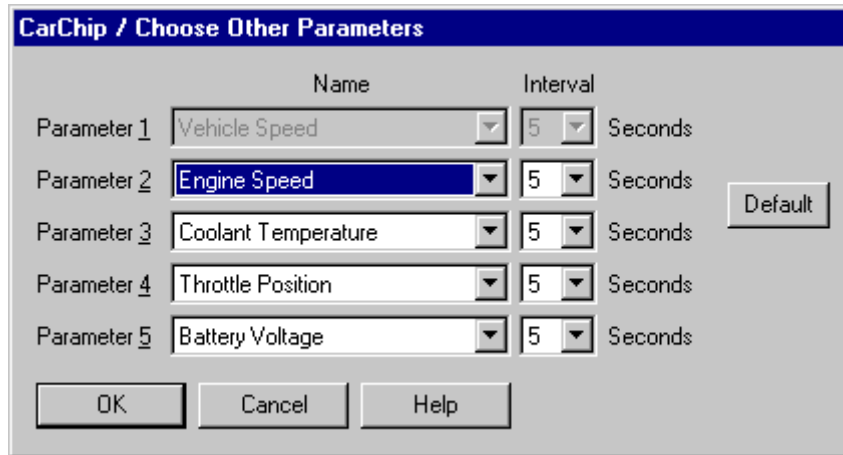
2. Click **Yes** to set the clock on the CarChip to match the clock on your computer, or click **No** to exit the dialog box and retain the CarChip's previous clock settings.

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.

To choose other parameters:

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



The dialog box titled "CarChip / Choose Other Parameters" contains a table with two columns: "Name" and "Interval". It lists five parameters for selection. Each parameter has a dropdown menu for the name and a spinner box for the interval, followed by the unit "Seconds". A "Default" button is located to the right of the table. At the bottom are "OK", "Cancel", and "Help" buttons.

	Name	Interval	
Parameter 1	Vehicle Speed	5	Seconds
Parameter 2	Engine Speed	5	Seconds
Parameter 3	Coolant Temperature	5	Seconds
Parameter 4	Throttle Position	5	Seconds
Parameter 5	Battery Voltage	5	Seconds

Buttons: OK, Cancel, Help, Default

2. Use the drop down list to select up to four additional vehicle data parameters.
3. For each parameter, select a sampling interval.
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.

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

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.
Overall MPG	Displays the average miles per gallon for the vehicle for the selected month. The Overall MPG for your vehicle is determined by the information you enter in the Fuel Entry dialog box.
Price/Mile	Lists the price per mile it costs to fuel the vehicle for the selected month. The Price/Mile for your vehicle is determined by the information you enter in the Fuel Entry dialog box.

Note: The Overall MPG and Price/Mile fields are based on the U.S. system of measurement and on U.S. currency. These units do not change if you select another system of measurement from the **Units** 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 Rate	Displays the average of all the hard and extreme accelerations recorded for the selected month. The average is calculated by adding all the hard and extreme acceleration events and dividing them by distance traveled.
Deceleration Rate	Displays the average of all the hard and extreme decelerations recorded for the selected month. The average is calculated by adding all the hard and extreme deceleration events and dividing them by distance traveled.
Top Speed Band	Displays the total time the driver spent driving over the top speed band

limit for the selected month.

Note: The Acceleration Rate and Deceleration Rate fields are based on the G-force measure type. These units do not change if you select another system of measurement from the **Units** dialog box.

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 select month displayed on the CarChip Home page.

The Driver Summary contains the following information:

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: This Month Last Month Last 3 Months Last 6 Months 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 Rate	Displays the average of all the hard and extreme accelerations recorded for the driver during the displayed time periods.
Deceleration Rate	Displays the average of all the hard and extreme decelerations recorded for the driver during the displayed time periods.
Top Speed Band	Displays the total time the driver spent driving over the top speed band limit during the displayed time periods.

Note: The Acceleration Rate and Deceleration Rate fields are based on the G-force measure type. These units do not change if you select another system of measurement from the **Units** dialog box. You are responsible for your conversions.

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.

The Vehicle Summary contains the following information:

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: 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.
MPG	Displays the average miles per gallon for the vehicle for the time interval. The MPG for your vehicle is determined by the information you enter in the Fuel Entry dialog box.
Price/Mile	Lists the price per mile it costs to fuel the vehicle for the time interval. The Price/Mile for your vehicle is determined by the information you enter in the Fuel Entry dialog box.

Note: The MPG and Price/Mile fields are based on the U.S. system of measurement and on U.S. currency. These units do not change if you select another system of measurement from the **Units** dialog box. You are responsible for your conversions.

Parameter Summaries

The Parameters summary displays available parameter statistics for your 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

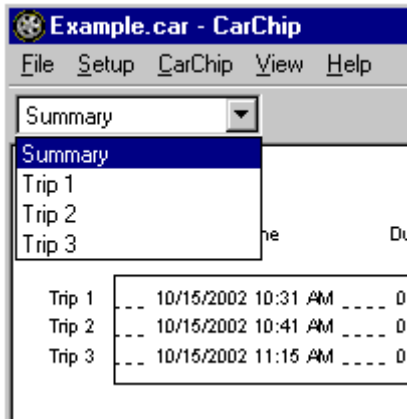
Trip Log Plot View

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

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

To view the Trip Log Plots:

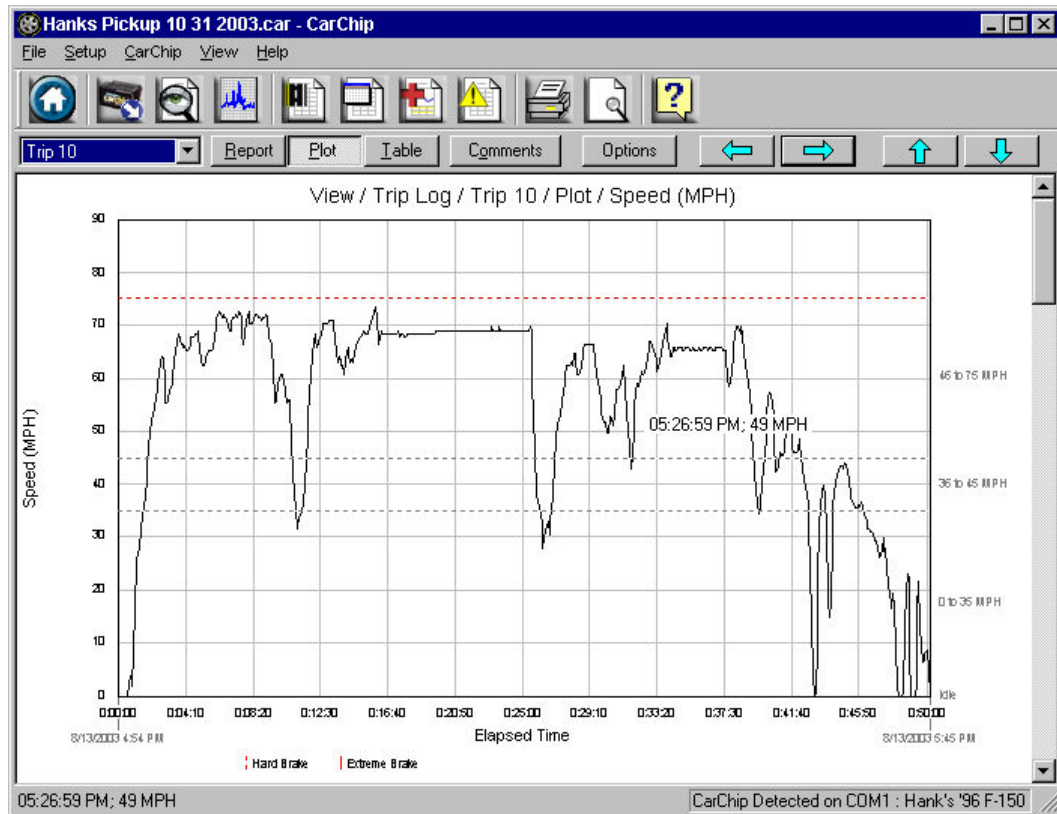
1. Click on the **Trip Log View** icon or select Trip Log from the **View** menu. The Trip Log Summary view displays.
2. Click on the **Trip Log** drop-down box to display a list of all the trips recorded in the Trip Log. The drop-down list box always begins with the Summary view, with each recorded 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.



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.

Trip Log Plot View Mouse Commands

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

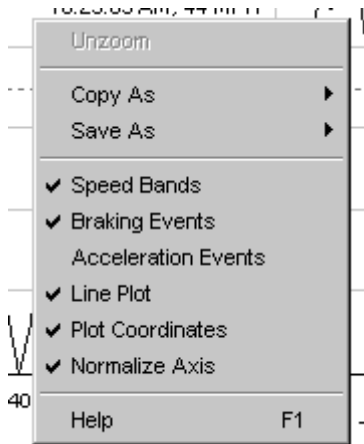
Left Button Commands:

The following commands are available using the Left Mouse button:

Zoom

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

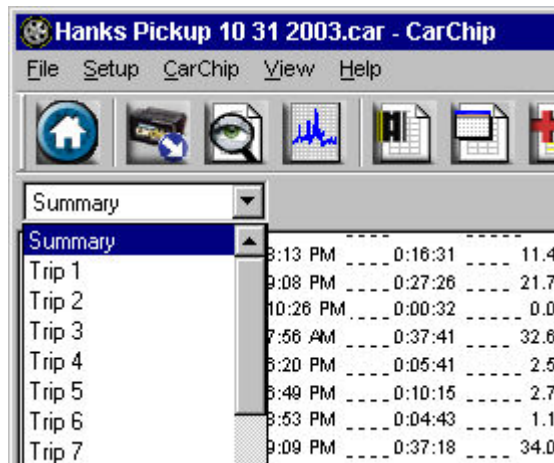
The Trip Log Table view displays the all the values, including vehicle speed and any other selected parameters, that were sampled by the CarChip data logger through the duration of the trip.

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.

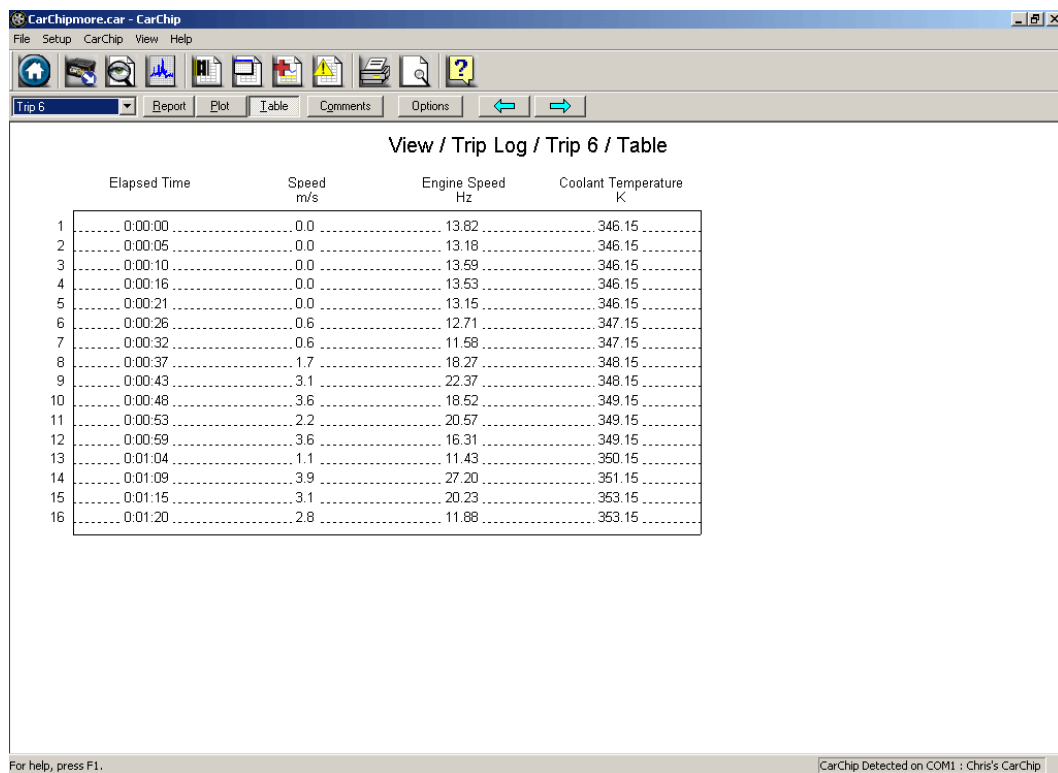
To view the Trip Log Table:

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.



- Select one of the trip 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.
- 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.



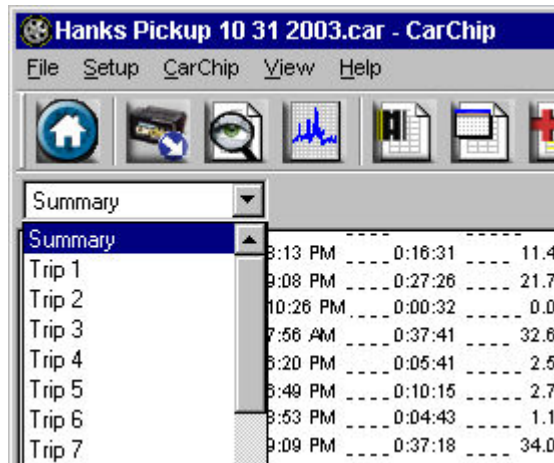
- Click on the **Right Arrow** button or press the **Down** cursor key to display the new Trip Log record.
- Click on the **Left Arrow** button or press the **Up** cursor key to display the previous Trip Log record.
- Use the **Right** and **Left** cursor keys to select the Plot and Report views of the record, or, just click the **Plot** or **Report** button.
- Click on **Comments** to either view or edit a comment for the current record.
- Click on **Options** to change the Trip Log Plot View setup options.

Trip Log Report

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

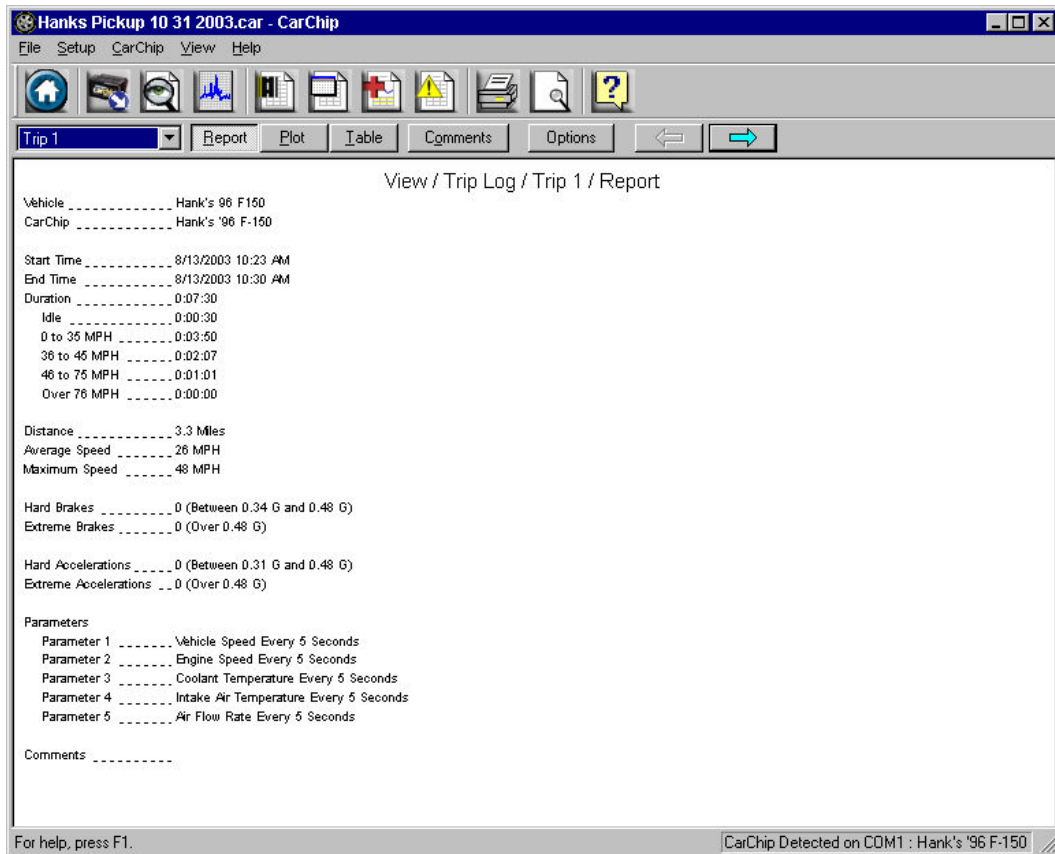
To view the Trip Log Report:

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.



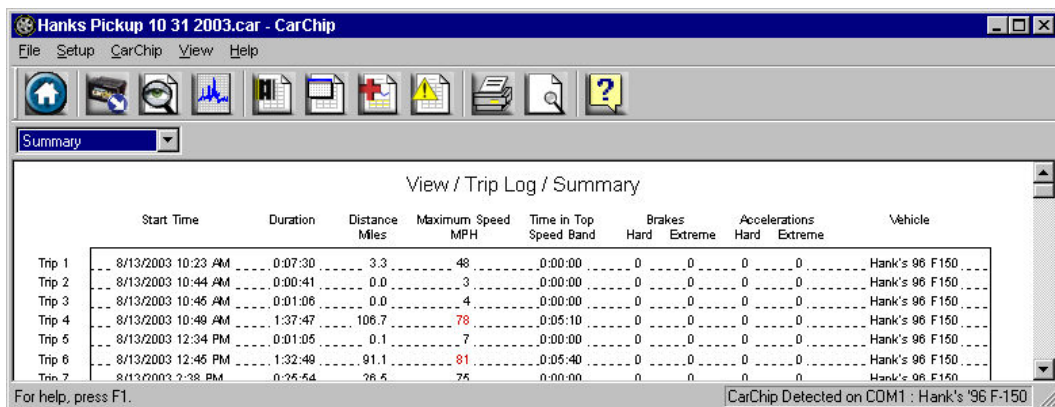
4. Click on the **Right Arrow** button or press the **Down** cursor key to display the next Trip Log report.
5. Click on the **Left Arrow** button or press the **Up** cursor key to display the previous Trip Log report.
6. Use the **Left** and **Right** cursor keys to select the Plot or Table views of 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.

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.



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

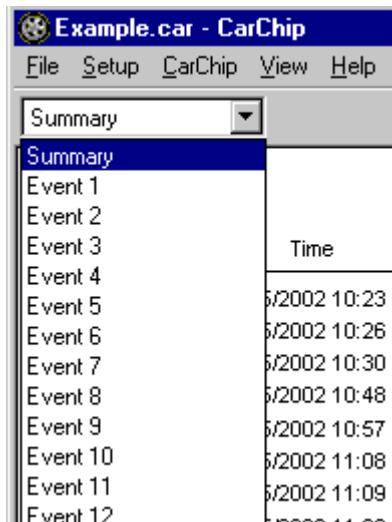
Activity Log Event View

Activity Log Event View

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

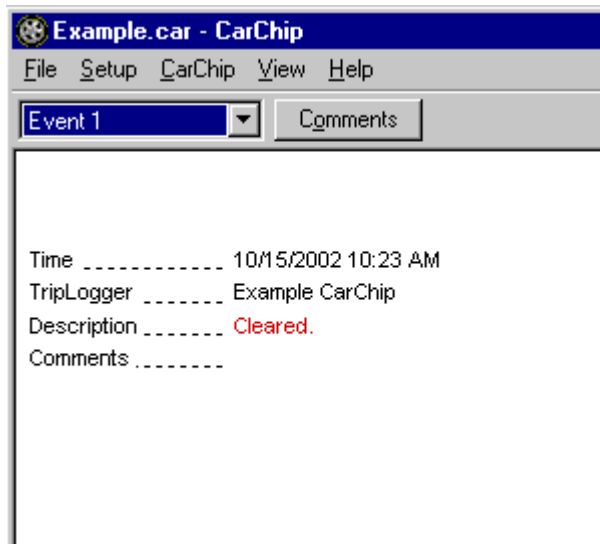
To view an Activity Log Event:

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



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

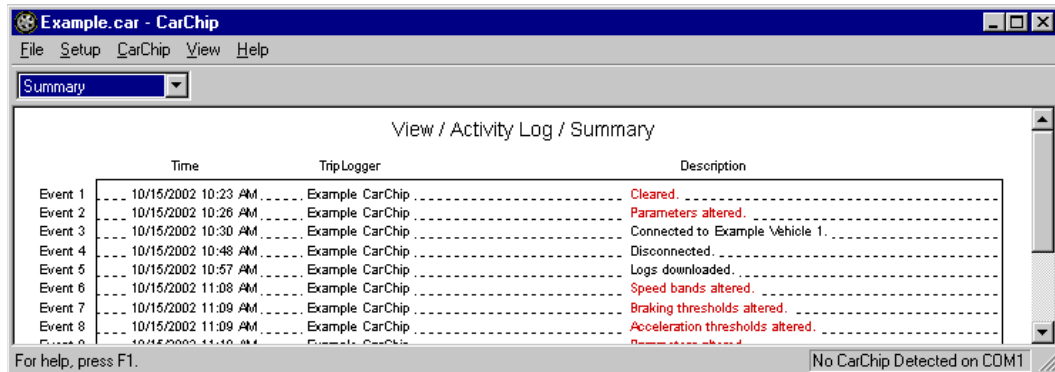
The Accident Log Plot View displays a line graph of the vehicle speed data recorded during the 20 seconds prior to the stop.

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:

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



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

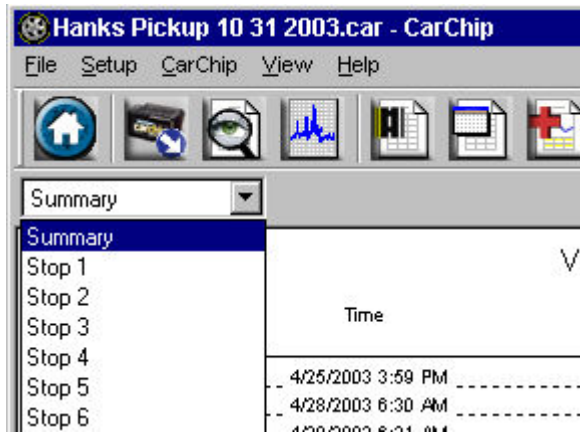
Accident Log Table View

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:

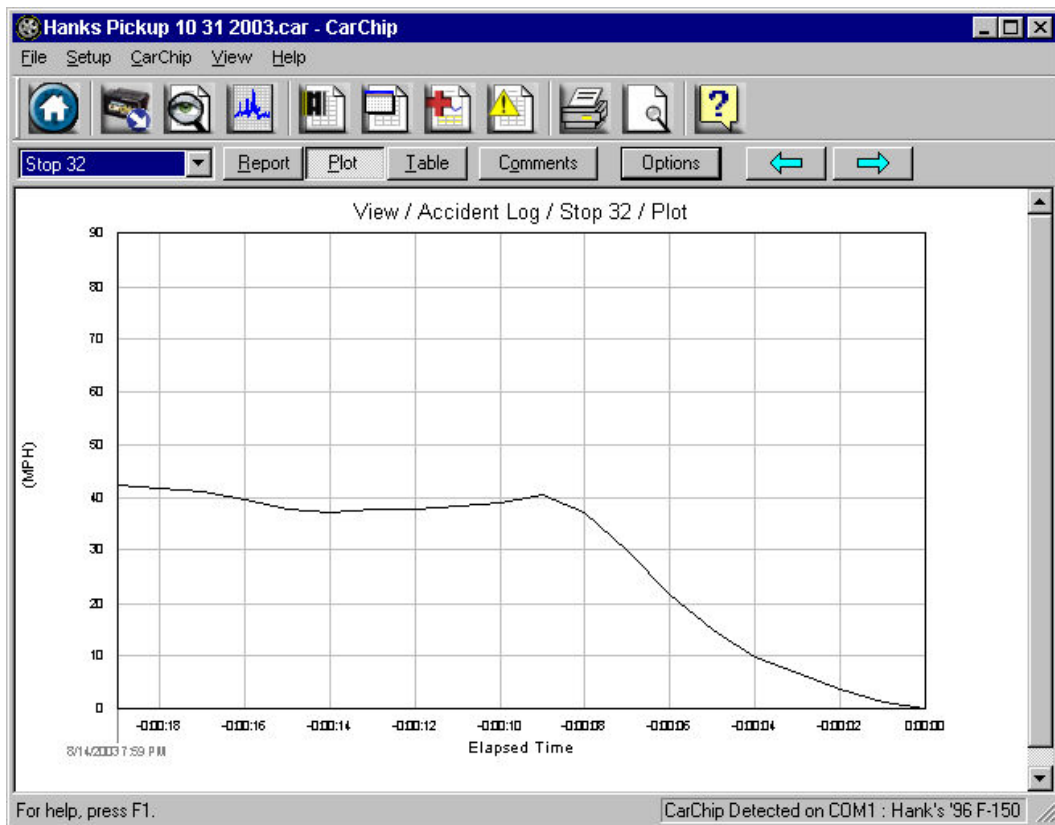
- Click on the **Accident Log View** icon or select Accident Log from the **View** menu. The Accident Log Summary view displays.
- Click on the **Accident Log** drop-down box to display a list of all stops recorded in the Accident Log. The drop-down list box always begins with the Summary view, with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



3. Select one of the stop records listed in the drop-down 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 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 Accident Log Plot view displays.



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.

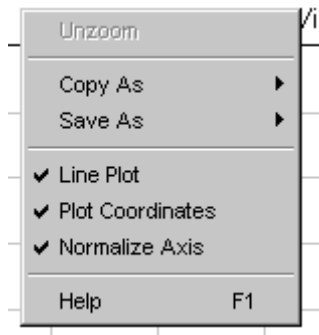
Accident Log Plot View Mouse Commands

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.

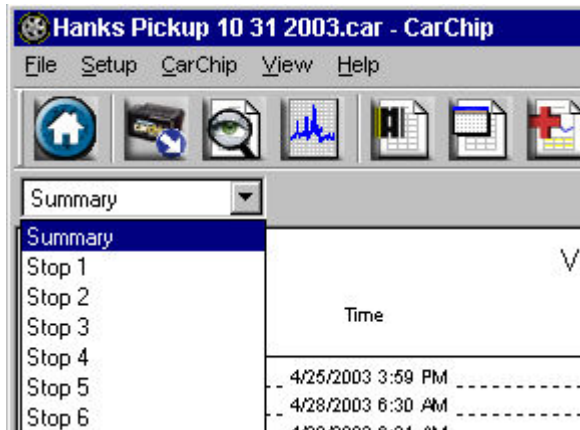
- Help F1

Accident Log Report View

The Accident Log Report view displays the vehicle speed for the 20 seconds prior to a stop sudden enough to register as either a hard braking event or an extreme braking event.

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.

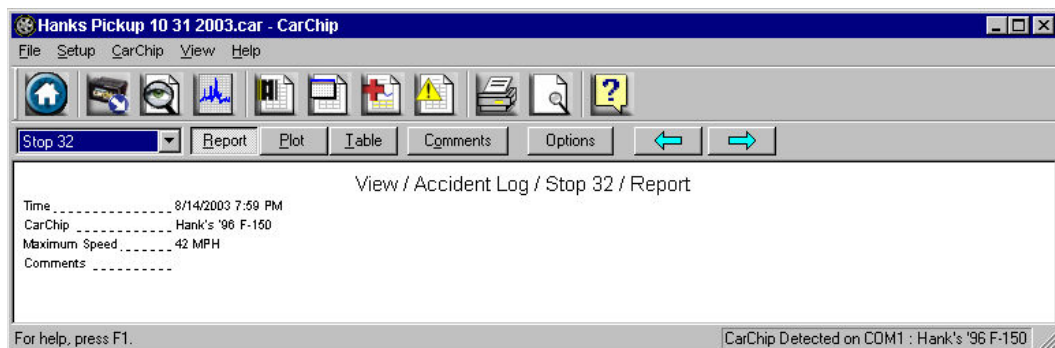


3. Select one of the stop records listed in the drop-down box by placing the cursor over it to highlight the stop, then clicking with the left mouse button. You can also scroll through stop records by using the **Up** and **Down** cursor keys.

The screen displays the Accident Log Report view which displays the vehicle speed for each of the 20 seconds prior to the stop.

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.



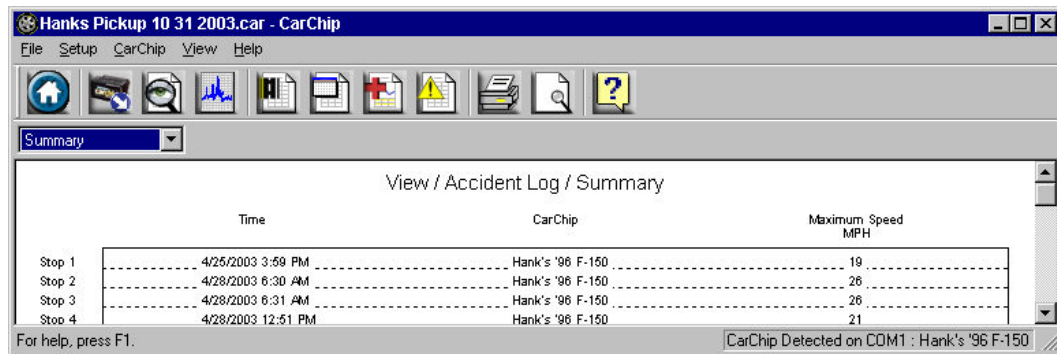
4. Use the **Left** and **Right** cursor keys to select the Plot or Table views of the record.
5. Click on **Comments** to either view or edit a comment for the current record.
6. Click on **Options** to change the Accident Log Plot View setup options.

Accident Log Summary View

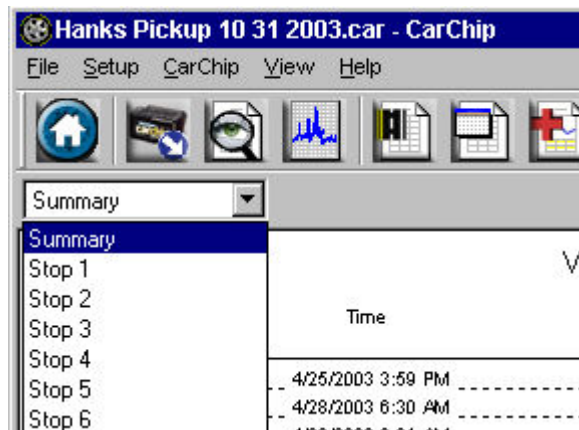
The Accident Log Summary view displays the date and time, the CarChip ID, and the maximum speed recorded for each stop in the Accident Log.

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.



- 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.



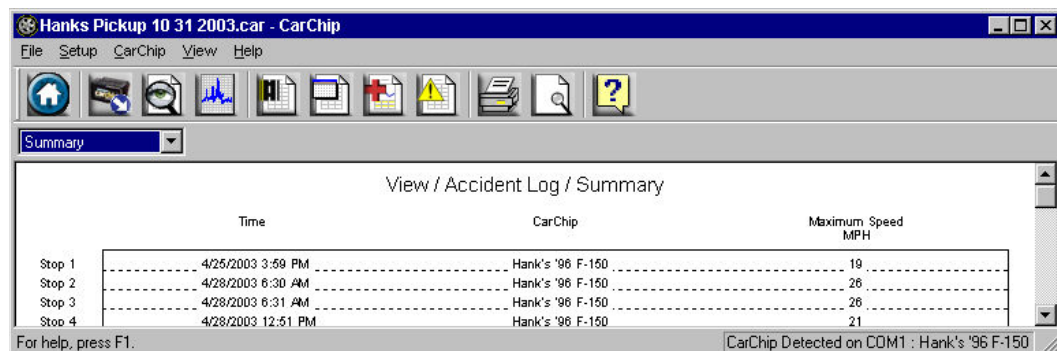
- Select a stop record by placing the cursor over it to highlight the stop, then clicking with the left mouse button. You can also scroll through stop records using the **Up** and **Down** cursor keys or using the wheel on your mouse.
- The selected record is displayed in the Accident Log Report view.

Accident Log Table View

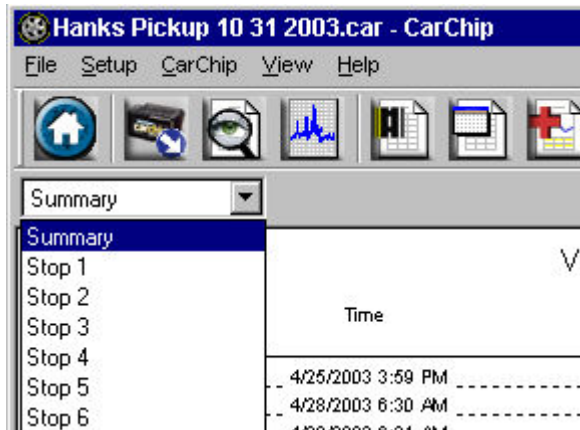
The Accident Log Table view displays the vehicle speed over the 20 seconds prior to the stop.

To view the Accident Log Table:

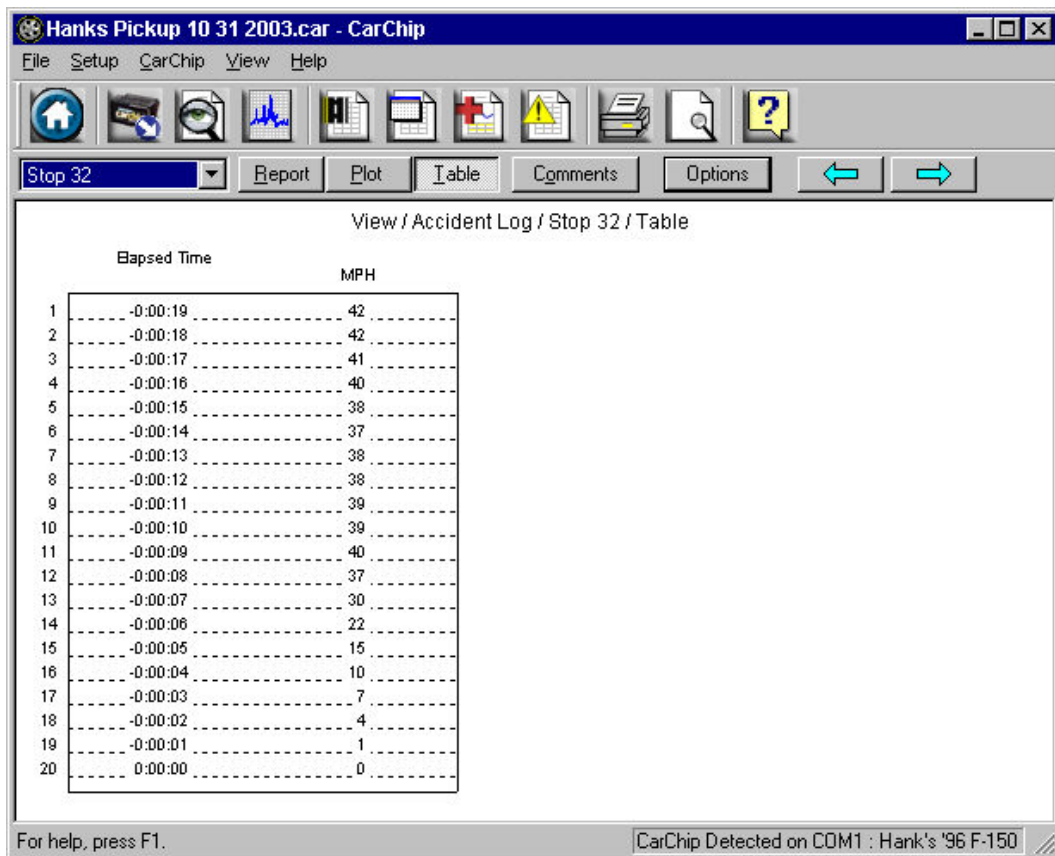
- Click the **Accident Log View** icon or select **Accident Log** from the **View** menu. The Accident Log Summary view displays.



- 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 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.

Trouble Log View

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

Trouble Log Summary

Trouble Log Event View

Trouble Log Problem View

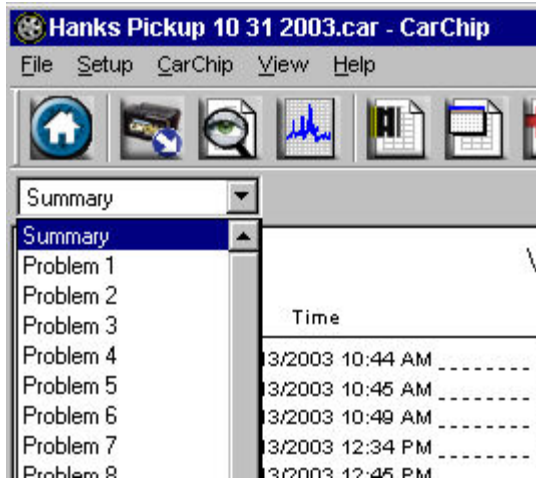
The Trouble Log Problem View displays any problems detected with the vehicle or vehicles the CarChip data logger has been connected with. Any problem that is detected includes a trouble code and a brief description.

To view the Trouble Log Problem View:

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

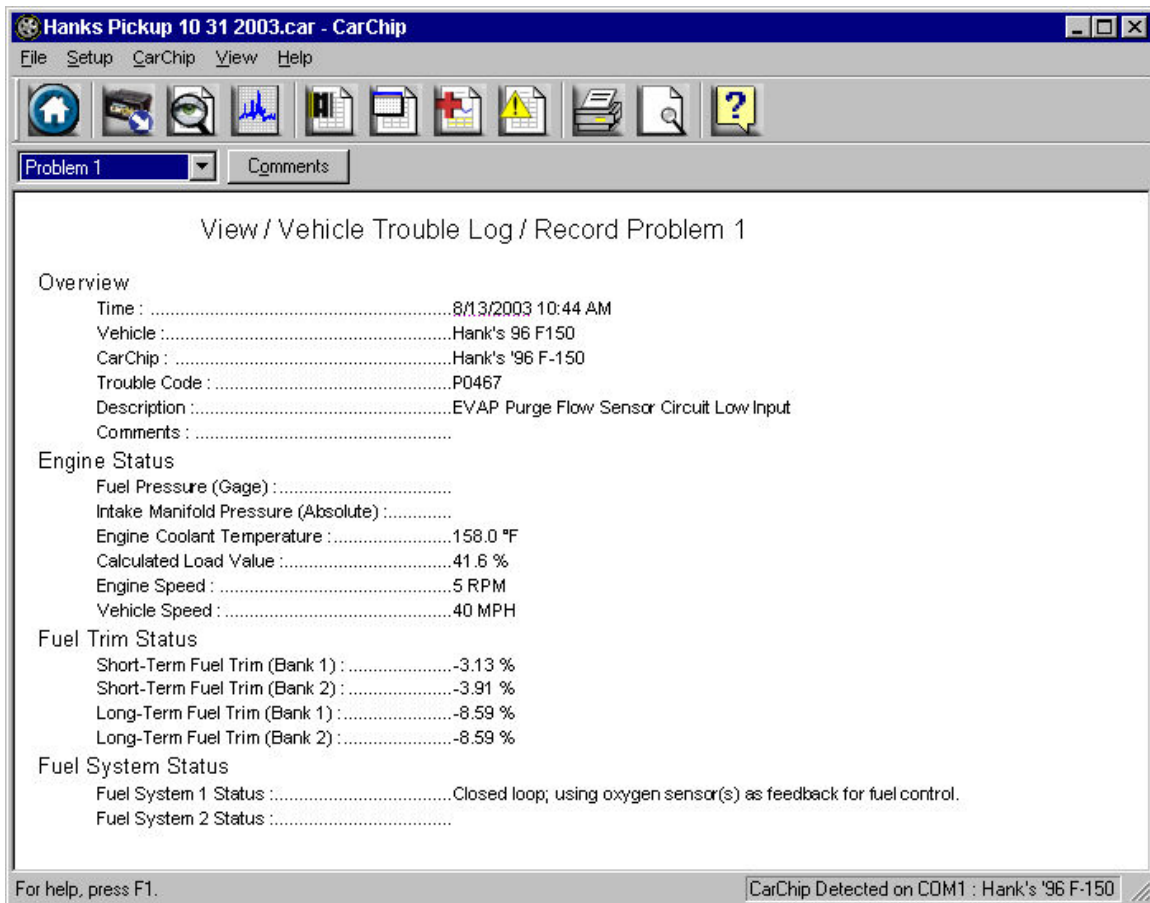


2. Click the **Trouble Log** drop-down list box to display a list of all problems recorded in the Trouble Log. The drop-down list box always begins with the Summary view, with each detected problem listed in order below the Summary.



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.

The Trouble Log Problem view displays. The Problem View includes a "freeze frame" snapshot of the vehicle data at the time the problem was detected.



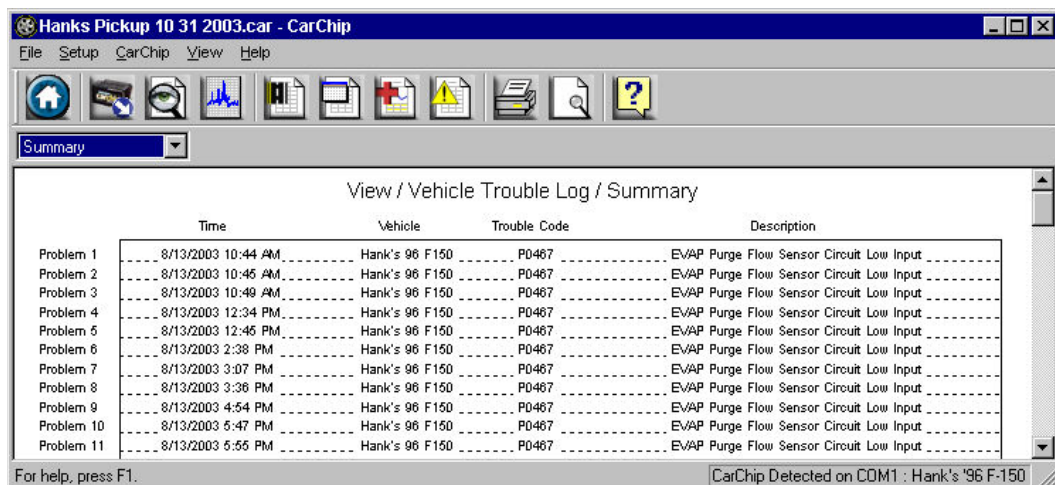
4. Select **Comments** to either view or edit the comments for the problem.

Trouble Log Summary View

The 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.

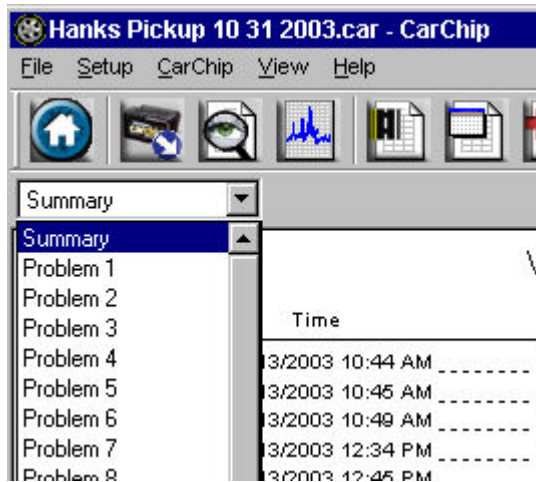
To view the Trouble Log Summary:

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





2. Click on the **Trouble Log** drop-down list box to display a list of all problems recorded in the 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 Trouble Log Problem view displays.

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.

Summary Database (Advanced Models)

Record: 9/31

Driver: Sara

Vehicle: Alero 1999

CarChip: Chris's CarChip

Start Time: 5/2/2004 11:47 AM

End Time: 5/2/2004 12:01 PM

Duration: 0:13:46

Distance: 6.1 Miles

Avg Speed: 27 MPH

Max Speed: 84 MPH

Vehicle Parameters

Parameter 1: Vehicle Speed Threshold: 71 MPH
 Max Value Above Thresh: 83 MPH Time Above Thresh: 0:01:38
 Min Value Below Thresh: 1 MPH Time Below Thresh: 0:12:07

Parameter 2: Engine Speed Threshold: 4,020 RPM
 Max Value Above Thresh: not found Time Above Thresh: 0:00:00
 Min Value Below Thresh: 579 RPM Time Below Thresh: 0:13:46

Parameter 3: Coolant Temperature Threshold: 203.0 °F
 Max Value Above Thresh: not found Time Above Thresh: 0:00:00
 Min Value Below Thresh: 185.0 °F Time Below Thresh: 0:13:46

Parameter 4: none Threshold: -----
 Max Value Above Thresh: ----- Time Above Thresh: -----
 Min Value Below Thresh: ----- Time Below Thresh: -----

Parameter 5: none Threshold: -----
 Max Value Above Thresh: ----- Time Above Thresh: -----
 Min Value Below Thresh: ----- Time Below Thresh: -----

OK Delete All Go To Previous **Next** Help

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 VIN number or 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 Threshold	Displays the value the CarChip recorded that was over the set 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.

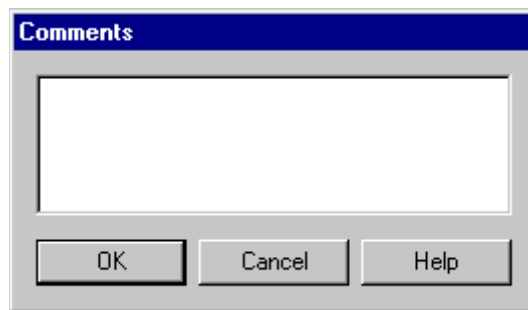
Note: Deleting all the records displayed in the Summary Log may impact the information displayed in the CarChip Home Page and corresponding pages. Review the statistics and data displayed in these pages before deleting all the summary log information.

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.

Help Menu Commands

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 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.

More Information Menu

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

CarChip User's Guide

CarChip Specifications

Incompatible Vehicle List

One Year Limited Warranty

Contacting Davis Instruments

CarChip User's Guide

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 Specifications

General

Operating Temperature	-40° to +185°F (-40° to +85°C)
Primary Power, Connected to Vehicle	12 VDC
Primary Power, Connect to Computer	9 VDC, AC-Power Adapter Provided
Backup Power	Internal battery, 10-15 year life in normal use
Memory	128K for CarChip, 512K 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	Serial, DB9
Computer Cable Length	5' (1.5m)
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)
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 Protocols *	CAN (Controller Area Network - ISO 11898)
Incompatible US Market Vehicles *	See the Incompatible Vehicle List
* As of publication date.	

Software Requirements

Operating System	Windows 95, 98, ME, NT 4.0, 2000, XP
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 every 5 seconds. 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.
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	5 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	0 to 3 G, 0 to 30 m/sec ²	0.03 G, 0.3 m/sec ²

Threshold		
*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.		

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.

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), 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.etoools.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.

Note: Do not return items to the factory for repair without prior authorization.

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

Davis Instruments
3465 Diablo Avenue
Hayward, CA 94545
USA

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