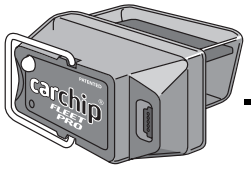
CarChip® Fleet Pro

OBDII-Based Vehicle Data Logger and Software



8246

The CarChip Fleet Pro (# 8246) logs vehicle trip and engine data to provide a detailed history of driver performance and vehicle operation. The logged data includes trip start and end times, vehicle speeds, rates of acceleration and braking, engine performance data, all detected OBDII trouble codes, and detailed "accident" data for all sudden stops, plus an adjustable audible alarm that can be used to alert drivers of unsafe driving. CarChip Fleet Pro plugs into your car's OBDII port and is compatible with most passenger cars and light trucks with model years 1996 and later.

All CarChip Fleet Pros require DriveRight® Fleet Management Software (FMS) version 3.8 or later, sold separately. Additional CarChip software included with DriveRight FMS allows you to view engine performance data and vehicle trouble codes.

General

Operating Temperature	-40° to +185°F (-40° to +85°C)
Primary Power, Connected to Vehicle	-9 to 16 VDC, 80 mA with vehicle running, 17 mA with the vehicle's power off
Primary Power, Connected to Computer	USB powered
Backup Power	Internal battery, minimum of 5 years total, with data logger not powered by vehicle or computer; 10-15 year life in normal use
Memory	2MB
Data Logging Capacity	Data logging capacity is determined by a combination of factors, such as logging intervals, number of optional parameters selected, and, if optional GPS is used, the logging interval used for GPS. Below is a chart of the approximate data logging capacity (in hours) available under various logging interval conditions. Results may vary.

Speed Logging Interval	1-4 Engine Parameters (with Logging Intervals)	Optional GPS (with Logging Intervals)	Hours Stored*
5 seconds	No Parameters Logged	No GPS Logged	1200 hours
5 seconds	No Parameters Logged	15 minutes	1000 hours
5 seconds	4 @ 60 seconds each	1 minute	520 hours
1 second	4 @ 5 seconds each	15 minutes	90 hours
1 second	4 @ 5 seconds each	1 second	24 hours

**The total hours stored are approximate values, since the exact values depend on trip length and other factors.*

Time & Date	Accurate to +/- 2 seconds per day
Mounting	16-pin OBDII connector
Computer Interface	USB
Computer Cable Length	4' (1.2 m)
Alarm	Adjustable, audible alarm for exceeding speed, acceleration, and deceleration limits, when enabled in software
Status LED	LED, flashes to indicate CarChip status, when enabled in software
Dimensions	1.80" x 1.00" x 1.32" (46 mm x 26 mm x 34 mm)
Weight	0.7 oz. (20.5 g)

Software System Requirements (for CarChip Software)

Operating System	Windows 98SE, ME, NT4.0, 2000, XP, Vista
Disk Space	5 MB free disk space
Display	Windows-compatible VGA minimum

Software System Requirements (for DriveRight Fleet Management Software)

Operating System	Windows 98SE, ME, NT4.0, 2000, XP
Disk Space	5 MB free disk space
Display	Windows-compatible VGA minimum

OBDII Compatibility

Supported Protocols	J1850-41.6, J1850-10.4, ISO9141, KWP2000 (ISO 14230), CAN (Control Area Network ISO 11898)
CarChip-Compatible Vehicles:	
US Market	Most domestic and import vehicles model years 1996 and later
European Market	Some vehicles model years 1996 - 1999 and most vehicles model year 2000 and later vehicles compliant with the supported protocols listed above.
Elsewhere	Undetermined. 1996 and later vehicles that are compliant with the supported protocols may or may not be CarChip Compatible.
Incompatible Vehicles	CarChip meets and complies with most of the supported protocols used with US market vehicles. Despite this, incompatibilities still exist. Review the General CarChip Pro Exclusions List to see the known exceptions, exclusions and anomalies on www.davisnet.com.

CarChip Data Display (in DriveRight Fleet Management Software)

Note: Most database and report views are location dependent, with the location listed as the first value.

CarChip Database View	DriveRight or CarChip ID, serial number assigned driver, hard and extreme braking and acceleration thresholds, parameters logged and sample intervals for each parameter
Trip Database View	DriveRight or CarChip ID, Start date and time, trip time, distance, Vehicle ID, average speed, top speed, time spent over set speed limit, number of hard braking events, number of hard acceleration events, trip type, to address, from address, trip reason
Trip Summary Report View	Driver name, driver ID, license plate, DriveRight ID, trip date, start time, end time, duration, distance per trip
Usage Report View	Driver name, mileage, average monthly mileage for the past three months, weekend driving mileage, percentage, night driving mileage, percentage
Tamper Log Report View	DriveRight or CarChip ID, driver name, tamper date and time, download date and time, time to reconnect, reason
Vehicle Database View	Vehicle ID, VIN number, fleet name, DriveRight ID or CarChip ID, default driver, make and model, license, color, purchase date, current odometer, vehicle type, digital inputs
Vehicle Odometer Report View	Vehicle ID, make and model, license, odometer reading, days since last download, Last odometer adjustment date, default driver
Accident Log Database View	Date and time, DriveRight ID, Driver ID, cause, speed for every second for 20 seconds before and after accident event, latitude, longitude (available if optional GPS module installed in vehicle
Accident Log Report View	DriveRight or CarChip ID, Vehicle ID, date and time of accident, driver ID, time, speed, and acceleration before and after event took place

Data Options

Supported Unit Systems	U.S., Metric, S.I., Custom (mix of U.S., Metric, and S.I.)
Vehicle Speed Logging Interval	1, 5, 10, 20, 30 or 60 seconds
Other Parameter Sampling Intervals	5, 10, 20, 30, or 60 seconds
Vehicle Speed Bands	4 user-configurable bands identify normal vs. excessive vehicle speeds
Calculated Data	Hard and extreme braking, hard and extreme acceleration
Number of Optional Engine Data Parameters	23 total possible as supported by vehicle, up to 4 selected at a time

Data Display (in CarChip Software, included with DriveRight FMS)

Trip Log Summary View	Start date and time, duration, distance, maximum 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 (up to 4 optional data parameters), comments
Trip Log Plot View	Line graph for vehicle speed and up to 4 optional data parameters
Trip Log Table View	Elapsed time for trip and speed every 1, 5, 10, 20, 30, or 60 seconds. Up to four other parameters every 5, 10, 20, 30 or 60 seconds.
Activity Log Summary View	Date and time, CarChip ID, description of event
Activity Log Event View	Date and time, CarChip ID, description of event, comments
Accident Log Summary View	Date and time, CarChip ID, maximum speed in log
Accident Log Stop View	Date and time, CarChip ID, maximum speed in log, comments
Accident Log Plot View	Date and time, and corresponding line graph of vehicle speed for 20 seconds prior to stop
Accident Log Table View	Vehicle speed for each of the 20 seconds prior to the stop
Trouble Log Summary View	Date and time, vehicle ID, trouble code, problem description
Trouble Log Problem View	Date and time, vehicle ID, CarChip ID, trouble code, problem description, comments, OBDII freeze-frame info (parameters included in freeze-frame vary from vehicle to vehicle)

CarChip Fleet Pro Parameters

Parameter	Range*	Resolution*
Vehicle Speed	0 to 158 mph, 0 to 255 km/h, 0 to 70 m/s	0.6 mph, 1 km/h, 0.3 m/s
Trip Distance Traveled	0 to 10,000 miles, 0 to 16,000 km	0.1 mile, 0.1 km
Acceleration/Deceleration Threshold	0 to 3 G, 0 to 30 m/sec^2	0.03 G, 0.3 m/sec^2
Engine Speed	0 to 16,384 rpm	1 rpm
Throttle Position	0 to 100%	0.1%
Coolant Temperature	-40° to +420°F, -40° to +215°C	2°F, 1°C
Engine Load	0 to 100%	0.1%
Air Flow Rate	0 to 8714 lb/min, 0 to 655.35 gm/sec	0.1 lb/min, 0.01 gm/sec
Intake Air Temperature	-40° to +420°F, -40° to +215°C	2°F, 1°C
Intake Manifold Pressure	0 to 75 in. hg., 0 to 255 kPaA	0.3 in. hg., 1 kPaA
Fuel Pressure	0 to 110 psiG, 0 to 765 kPaG	0.5 psiG, 3 kPaG
O2 Sensor Voltage (up to 8 monitored)	0 to 1.275 V	0.005 V
Ignition Timing Advance	-64° to 63.5°	0.5°
Short Term Fuel Trim (up to 2 monitored)	-100% to 99.22%	0.8%
Long Term Fuel Trim (up to 2 monitored)	-100% to 99.22%	0.8%
Battery Voltage	6 to 16 VDC	0.01 VDC

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

Package Dimensions

Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
8246	2.00" x 2.00" x 2.00" (51 mm x 51 mm x 51 mm)	1.3 oz. (0.037 kg)	0 11698 00881 0
8246 (10-Pack)	10.00" x 4.00" x 4.00" (254 mm x 102 mm x 102 mm)	1.0 lbs. (0.454 kg)	3 0011698 00881 1