Innovative Tools for

FLEET
Management

Telematics for the Working Fleet

- Track driver performance
- Compare drivers and vehicles
- Retrieve vehicle info wirelessly

DAVIS INSTRUMENTS CATALOG

DAVIS ®

WWW.DAVISNET.COM

How to Reach Us

We invite you to contact one of our customer service representatives if you have any questions. We're glad to help.

(510) 732-9229
Main telephone line

(510) 732-7814
For answers to technical questions or assistance with troubleshooting

(510) 670-0589
Fax to Customer Service or Tech Support

www.davisnet.com
Visit our website

sales@davisnet.com
Email to Customer Service

support@davisnet.com
Email to Technical Support

info@davisnet.com
General email

Actual size

Why choose CarChip Fleet Pro or DriveRight?

We know that managing a fleet is a complex job. You need to improve safety, keep costs down and worry about driver acceptance—all at the same time. Davis can help. Field-proven in fleets around the world, our fleet management systems give you the tools and the information you need.

Actively oversee driver safety.
- Set safety limits for speed, acceleration and deceleration.
- Improve driver performance with both short-term and long-term feedback.
- Reduce accidents, encourage seatbelt and headlight use.

Reduce wear and tear on the vehicle.
- Discourage jackrabbit starts, speeding and hard braking.
- Log engine performance and troubleshoot engine repairs.
- Track unauthorized out-of-area, night or weekend driving.

Keep costs down.
- Low initial capital outlay, no ongoing fees.
- Add to your system as your fleet grows.
- Our tech support staff has firsthand product knowledge, so you get the support you need in a timely manner.

Three simple steps

1

Select one or more installation methods

DriveRight 600E with interactive console

OBD II
Quickest installation. Plugs into the onboard diagnostics port found on cars, vans and pickup trucks, model years 1996 and later. **Page 4**

VSS
Taps into the vehicle's speed sensor signal. For passenger cars model years 1992 and later, and some earlier model years with cruise control. **Page 4**

Driveshaft or CV Joint
For vehicles in which OBD or VSS installation is not possible. Mounts next to the driveshaft or CV joint. Choose general duty for passenger cars or light duty trucks, heavy duty for tractors, big rigs or buses. **Page 4**

Magnet Assembly
Speed Sensor
Driveshaft or CV Joint
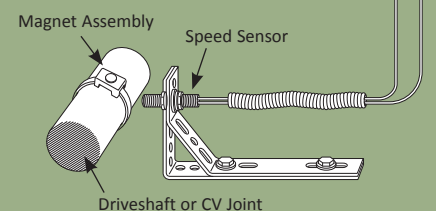
CarChip

CarChip Fleet Pro
Plugs quickly and unobtrusively into the OBD II port found on cars, vans and pickup trucks, model years 1996 and later. **Page 5**

to building your own fleet management system

2 Choose one or more download methods

DriveRight 600E

SmartCard
Issue a credit card-sized SmartCard to each driver, then use it to identify and authorize the driver and download the driving data. **Page 13**

Serial Port
Download directly from the console to your PC via serial port. The serial port cable is included with the Fleet Management Software. **Page 9**
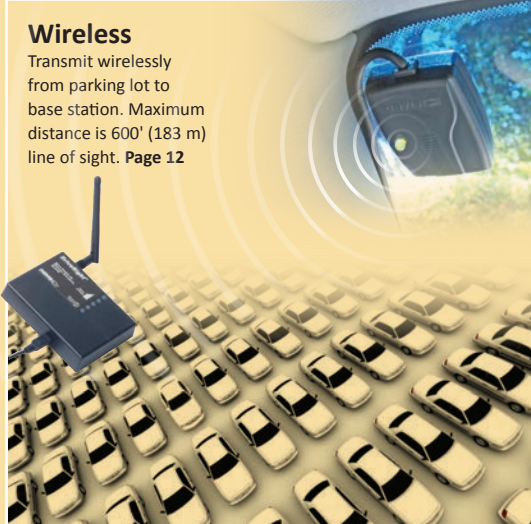
CarChip or DriveRight

USB
For CarChip, download directly to your PC via the USB cable included with the Fleet Management Software. For DriveRight, add our optional USB-to-serial cable. **Page 9**

Wireless
Transmit wirelessly from parking lot to base station. Maximum distance is 600' (183 m) line of sight. **Page 12**

3 Get the info you need

CarChip or DriveRight

GPS
Continuously collect data on the vehicle's location, then use Google Earth or other third-party mapping software to view the driver's route and each start and stop. **Page 10**

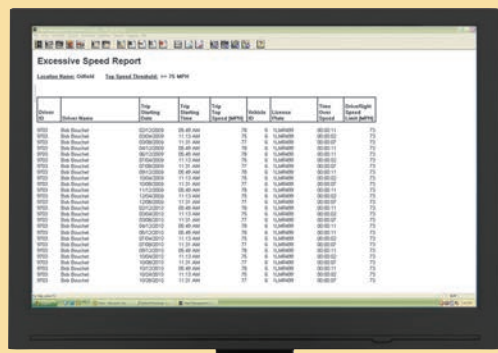GPS Module
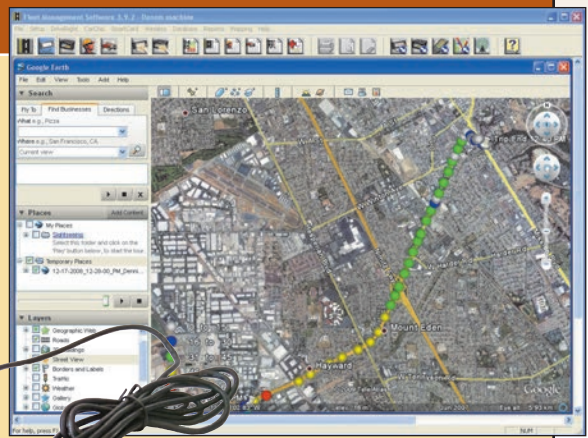
CarChip or DriveRight

Fleet Management Software
Use Fleet Management Software to quickly and easily analyze the data. View trends and give feedback to both drivers and top management. **Page 6**

DriveRight®

Interactive onboard console gives instant feedback to drivers

Like an onboard coach, DriveRight 600E gives instant feedback to drivers, improving their performance with every mile. Set the audible alarms and the driver will know instantly whenever he has exceeded company safety limits for speed, acceleration and hard braking. After the trip, query the console for details on time, speed, distance and more. Download to Fleet Management Software to compare driver performance and track improvement over time. Easily mounts on the dashboard or sun visor.

- Current speed
- Starting time for trip
- Maximum speed for trip

- Current time & date
- Time & date for trip

Use PLUS and MINUS buttons to:
- Enter driver ID at beginning of trip
- Specify trip type: business, personal, commute or other

- Distance traveled
- Ending time for trip
- Number of times deceleration safety limit was exceeded

- Current acceleration or deceleration rate
- Amount of time over speed safety limit
- Number of times acceleration safety limit was exceeded

Press SET to change format for:
- Speed (mph or km/h)
- Time (12- or 24-hour)
- Date (month/day or day/month)

Press MODE to cycle through:
- Current readings
- Details for each trip
- Driver safety limits

Available in four different models

DriveRight 600E is available in four different models. Each includes an interactive onboard console and vehicle installation hardware. Hardware varies to meet the needs of specific vehicle types and model years.

8126OBD DriveRight 600E with OBD II Installation Kit...$395
Includes OBD II connector with 6' (1,8 m) cable. For cars, vans and pickup trucks, model years 1996 and later.

8126VSS DriveRight 600E with VSS Installation Kit...$375
Includes wires and splice connectors to tap into the vehicle's speed sensor. For cars, vans and pickup trucks, model years 1992 and later, and some earlier model years with cruise control.

8126GD DriveRight 600E with General Duty Installation Kit $375
Includes reed switch sensor, magnet and nylon mounting strap. For older model cars, vans, pickup trucks and for other vehicles in which OBD II or VSS installation is not possible.

8126HD DriveRight 600E with Heavy Duty Installation Kit...$395
Includes reed switch sensor, magnet, heavy-duty stainless steel mounting strap and extra-long cables. For tractors, big rigs or other large trucks or buses.

Installation Options For DriveRight 600E

Extra Installation Kits
To use a single console in multiple vehicles, purchase an extra installation kit for each vehicle instead of a complete system.

8160OBD OBD II Kit $120
8160VSS VSS Kit...............................$100
8160GD General Duty Kit..................$100
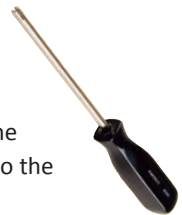**8160HD Heavy Duty Kit $120**

Extra Display Consoles
Give drivers their own onboard display console, and then use the 4-digit "driver ID code" to track project or address codes instead of driver IDs. Compatible with all our DriveRight 600E models.

8179 Extra Console $295

Tension Tool
Use to install the DriveRight 600E heavy-duty model. Tightens the stainless steel strap onto the driveshaft or CV joint.

8196 Standard Tension Tool $20

8160VSS VSS Kit

Plugs instantly and unobtrusively into the OBD II port in your car or truck.

Simple installation, loads of information

With CarChip Fleet Pro, installation is as simple as "plug and go." Just plug the compact data logger into the OBD II (onboard diagnostics) port and begin recording trip details immediately. CarChip Fleet Pro stores all the same driver-performance data as the DriveRight 600E onboard console. Plus, you'll benefit from these CarChip-only features:

- Engine performance monitoring to keep your vehicles in top running condition.
- Diagnostic trouble code alerts, freeze-frame sensor readings and the ability to clear the vehicle's check engine light.
- Emissions readiness reports to check the status of the vehicle's smog-control systems.

To monitor engine performance, use a CarChip Fleet Pro in each vehicle. To monitor driver performance, issue each driver his own CarChip with a unique ID number. Drivers can quickly and easily take their CarChip with them from one vehicle to the next. Stores up to 1200 hours of driving data depending on the logging interval and number of parameters selected. You can download at any time and clear the memory, or simply let the newest data overwrite the oldest. Requires Fleet Management Software; sold separately.

8246 CarChip Fleet Pro **$149**

Engine Performance Monitoring

Monitor any 4 out of 23 possible parameters including:

- Air flow rate
- Battery voltage
- Coolant temperature
- Engine load
- Fuel pressure
- Fuel system status
- Intake air temperature
- Intake manifold pressure
- Long-term fuel trim (2 ea)
- Oxygen sensor output voltage (8 ea)
- RPM
- Short-term fuel trim (2 ea)
- Throttle position
- Timing advance

Mix and Match DriveRight 600E & CarChip Fleet Pro

Fleet Management Software uses data from both the DriveRight 600E onboard console and the CarChip Fleet Pro data logger—so you can create the driver safety or vehicle monitoring system you need.

- **Choose CarChip Fleet Pro** for quickest installation and engine performance monitoring.
- **Choose DriveRight 600E** for enhanced security and for use in vehicles without OBD II ports.
- **Mix and match to suit your needs.** Put CarChip Fleet Pro in some vehicles, DriveRight 600E in others.

|		CarChip Fleet Pro 8246	DriveRight 600E OBD II 8126OBD	DriveRight 600E VSS 8126VSS	DriveRight 600E General Duty 8126GD	DriveRight 600E Heavy Duty 8126HD
Installation Method	Quickest installation. Plugs into the onboard diagnostics port found on cars, vans, and pickup trucks, 1996 and later.	●	●			
	Uses the vehicle's speed sensor signal. For vehicles 1992 and later, and some earlier model years with cruise control.			●		
	Mounts next to driveshaft or CV joint. For tractors, big rigs and buses, and for older-model cars, vans and pickup trucks.				●	●
Onboard Feedback	Interactive console gives instant feedback to drivers during and after each trip.		●	●	●	●
	Onboard alarms alert the driver to excessive speed, acceleration, or deceleration.	●	●	●	●	●
Download to Software	Download directly to PC via USB or serial port.	●	●	●	●	●
	Transmit wirelessly from vehicle to office computer with optional wireless download system (see page 12).	●	●	●	●	●
	Other download option: SmartCard System (see page 13).		●	●	●	●
Other Features	Monitor engine performance, view diagnostic trouble codes and reset check engine light.	●				
	Monitor seatbelt and headlight usage with optional digital inputs.		●	●	●	●
	Enhanced security options include driver ID and optional Starter Interrupter Kit (see page 13).		●	●	●	●

The info you need to manage your fleet — where you need it, when you need it

When you download the data from CarChip Fleet Pro and DriveRight 600E, you'll have all the information you need to provide feedback to your drivers, make decisions about performance and report back to top management. Our Fleet Management Software lets you track and/or compare drivers and vehicles in summary or detail form for your entire fleet or just selected groups.

You can also use the software to:

- **Set vehicle or driver IDs** for CarChip Fleet Pro data loggers and DriveRight 600E onboard consoles.

- **Set the unit of measure** for speed and distance (miles or kilometers) and the format for time and date (U.S. or international).

- **Set multiple levels of corporate structure** for reporting purposes.

- **Set onboard safety alarms** for speed, acceleration and hard braking.

- **View security reports** showing unsuccessful log in or security code attempts and the times and dates the units were disconnected.

- **Select engine monitoring parameters** and logging intervals and reset the check engine light in vehicles with CarChip Fleet Pro.

- **Use a SmartCard** or set alarms to remind drivers using DriveRight 600E to log in manually before each trip.

- **See the routes your drivers took**, the speeds they drove and the location of any accidents or near-accidents when using the optional GPS system with Google Earth or other third-party mapping software.
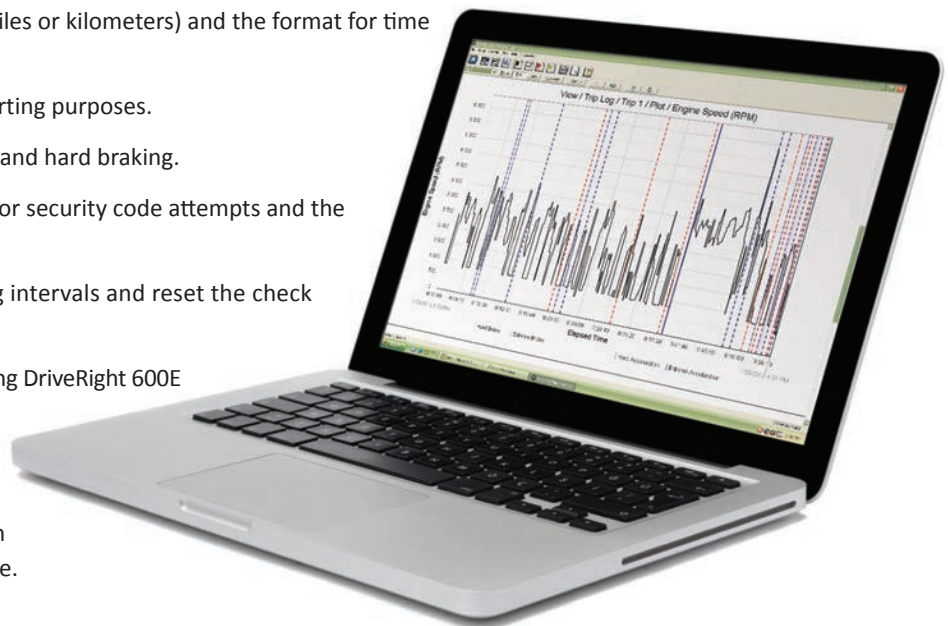
With our Fleet Management Software, you can view, track and compare both drivers and vehicles through a variety of reports. The following are just a few examples of what you can expect.

Vehicle Activity Report

Lets you see how much your vehicles are being driven and when. Use to monitor excessive idle time, when vehicles reach certain mileage milestones or to monitor driving outside of authorized hours.

- Display distance in miles or kilometers.
- Provide reports for selected vehicles by date range.
- Set targets for defined use and see how individual drivers compare to fleet averages.

Vehicle Activity Report

Location Name: Davis   Date Range: 04/01/2012 to 04/30/2013

Night: 06:00:00 PM to 06:00:00 AM   Weekend: Friday 06:00:00 PM to Monday 08:00:00 AM

Driver	License	Start Odometer (Miles)	End Odometer (Miles)	Distance (Miles)	Number of Days Driven	Max Speed (mph)	Driving Time (hh:mm)	Idle Time (hh:mm)	Stop Time (hh:mm)	Night Time (hh:mm)	Weekend Time (hh:mm)	Time Over Speed (hh:mm)	Accel/ Decel Events
Glenn Frye	5DSG891	141886.9	142864.5	615.1	18	107	1:23	0:00	3:44	0:56	2:12	0:01	9.9
Roy Davis	3TBD776	12536.2	12551.4	15.2	3	78	0:09	0:03	2:12	0:00	0:00	0:00	1.7
Henry Taylor	5ATF357	194.9	240.1	45.2	6	87	0:12	0:01	0:05	0:01	0:00	0:00	0.8
Hoss Amundson	4QVS221	15084.7	15087.4	2.7	12	45	0:03	0:05	2:41	0:00	0:02	0:00	0.8
Tatum Cooper	4OUJ544	23348.9	23350.9	2.0	1	50	0:04	0:00	0:00	0:00	0:00	0:00	2.0
Eric Kim	5WNH308	338028.0	399023.6	60995.7	342	255	1:00	0:10	0:00	0:30	1:00	0:08	240.6
Ho Lee	3DFP942	62343.7	67977.6	5631.8	76	84	2:00	0:16	7:49	0:20	1:34	0:00	
Sanjay Ansari	5KRD672	5280.3	5289.7	9.4	3	42	0:09	0:01	0:04	0:00	0:00	0:00	
Pat Samuelson	4RDB478	67828.1	72144.8	4316.7	126	85	1:13	0:00	7:22	0:1			
Charles Parker	3CGR969	102443.5	102445.7	2.5	1	48	0:05	0:00	0:00				
Totals:				71636.4	588		6:48	0:21	23:57	2			
Averages:				7163.6	59	88	6	0:02	2:23	0			

Daily Averages (column group header spanning Driving Time through Accel/Decel Events)

Actual screens may vary.

> Set or change the definitions for "weekends" and "nights" as needed.

> See the various categories where driving times and events occur.

> Values in red highlight exceptions that are outside of company parameters.

Driver Performance Reports: Compatible with CarChip Fleet Pro and DriveRight 600E

Driver Safety Score

Ranks driver safety performance using a single concise score. You choose the factors you want to include in the safety score and how much to weigh each.

- Choose a detailed or summary report.
- Select starting and ending dates.
- Sort by current score, cumulative score or driver name.

> Compare current and cumulative safety scores to see how drivers are doing over time.

> Weigh each factor appropriately by changing the safety score formula as needed.

> Group drivers in color bands by high, medium and low safety scores.

Driver Safety Score Report

Current Score: 2/8/2013 to 3/8/2013
Cumulative Score: 1/3/2013 to 3/8/2013

Oilfield

Drivers	Current Score	Cumulative Score	Max. Download Days	Total Distance Driven (Miles)	Accel Counts per 100 Miles	Decel Counts per 100 Miles	Maximum Speed (MPH)	Speed Limit (MPH)	Driving Time over Threshold	Accel	Decel
Light Vehicle Drivers											
Roger Larson	95	98	11	3437.5	0	0.1	72	70	0	100	99
Alberto Velasquez	95	88	21	1663.9	0	0	72	70	0	100	100
Joe Judah	94	90	5	2017.4	0	4.1	70	70	0	100	75
Deborah Billings	93	86	16	1706.8	0.1	0.2	73	70	0	100	99
Jim Perkins	90	92	9	2269.1	0	0	74	70	0	100	100
Ronnie Jacobson	90	91	35	2050.3	0.1	0.2	74	70	0	100	99
Michael Jax	89	88	6	3011.3	0.2	0.6	74	70	0	99	96
Bernie Woodward	89	89	40	1296.5	0.1	0.8	74	70	0	100	95
Joe Illin	88	85	32	3959.8	0	0.1	75	70	0	100	100
Poe Villamont	84	86	7	2652.1	0.1	1.1	76	70	0	99	93
Edward Michaels	84	81	15	1015.2	0.1	0.6	76	70	0.1	100	97
Joey Dubonnet	83	85	22	1030.8	0.8	0.9	76	70	0	95	95
Ed Buckhalter	81	76	46	1781.9	0	0.2	78	70	0	100	99
Roy Rogers	79	79	38	5772	0.9	0.6	78	70	0	95	96
Clay Cotton	78	76	4	3501.4	0.1	0.3	78	70	0.2	99	98
Jed Buechler	78	81	33	2381.3	0.1	0.2	79	70	0	100	99
Michael Vick	79	74	37	1560.6	0.2	0.3	79	70	0	99	98

Exception Reports

Make it easy to pay attention to what matters most. No need to sort through reams of data for each driver—simply enter your selected criteria and let the software do the work.

- Excessive speed and amount of time over speed.
- Number of hard braking events.
- Driving at night or outside of authorized hours.

> Compare the driver's top speed with your company's established speed safety limit.
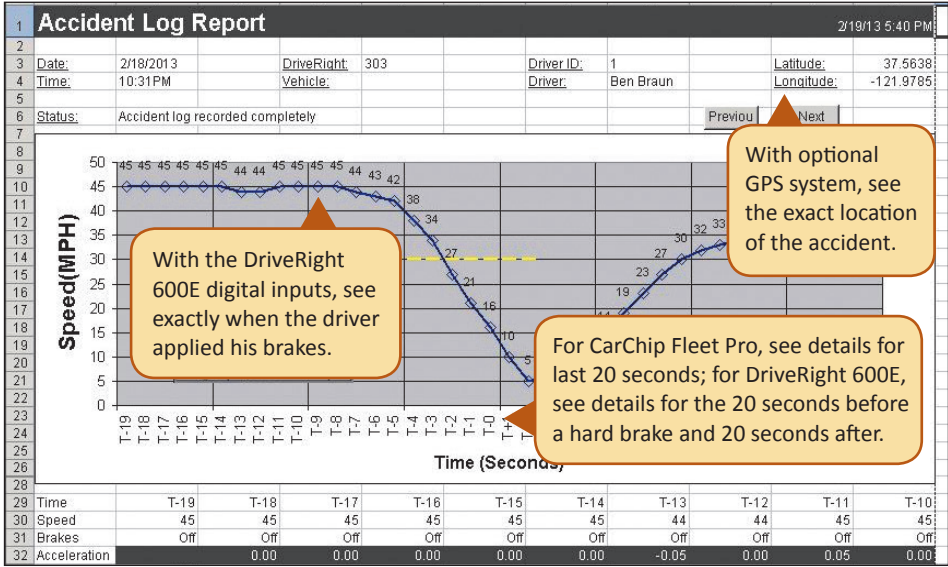
> View only those drivers who exceeded your selected criteria.

> Determine the appropriate action by reviewing how much time was spent over the limit.

Excessive Speed Report

Location Name: Oilfield   **Top Speed Threshold:** >= 75 MPH

Driver ID	Driver Name	Trip Starting Date	Trip Starting Time	Trip Top Speed [MPH]	Vehicle ID	License Plate	Time Over Speed
9703	Bob Bouchet	02/12/2012	05:49 AM	78	6	1LMR499	00:00:11
9703	Bob Bouchet	02/19/2012	11:13 AM	75	6	1LMR499	00:00:02
9703	Bob Bouchet		11:31 AM	77	6	1LMR499	00:00:07
9703	Bob Bouchet		05:49 AM				00:00:11
9703	Bob Bouchet		05:49 AM				00:00:11
9703	Bob Bouchet		11:13 AM				00:00:02
9703	Bob Bouchet		11:31 AM				00:00:07
9703	Bob Bouchet		05:49 AM				00:00:11
9703	Bob Bouchet		11:13 AM				00:00:02
9703	Bob Bouchet		11:31 AM				00:00:07
9703	Bob Bouchet	05/15/2012	05:49 AM				00:00:11
9703	Bob Bouchet	05/22/2012	11:13 AM				00:00:02
9703	Bob Bouchet	06/03/2012	11:31 AM				00:00:07
9703	Bob Bouchet	06/10/2012	05:49 AM	78	6	1LMR499	00:00:11
9703	Bob Bouchet	06/17/2012	11:13 AM	75	6	1LMR499	00:00:02
9703	Bob Bouchet	07/05/2012	11:31 AM	77	6	1LMR499	00:00:07
9703	Bob Bouchet	07/12/2012	05:49 AM	78	6	1LMR499	00:00:11
9703	Bob Bouchet	07/21/2012	05:49 AM	78	6	1LMR499	00:00:11

Accident Log

Whether the driver slammed on the brakes or hit an immovable barrier, CarChip Fleet Pro and DriveRight 600E provide the detailed, moment-by-moment information you need to help reconstruct the accident.

- Select specific CarChip or DriveRight ID and date.
- Export to the included Excel template to view in graphic format.
- View using Google Maps, Google Earth or other third-party mapping software with optional GPS system.

> With the DriveRight 600E digital inputs, see exactly when the driver applied his brakes.

> With optional GPS system, see the exact location of the accident.

> For CarChip Fleet Pro, see details for last 20 seconds; for DriveRight 600E, see details for the 20 seconds before a hard brake and 20 seconds after.

Accident Log Report   2/19/13 5:40 PM

| Date: | 2/18/2013 | DriveRight: | 303 | Driver ID: | 1 | Latitude: | 37.5638 |
| Time: | 10:31PM | Vehicle: | | Driver: | Ben Braun | Longitude: | -121.9785 |

Status: Accident log recorded completely   Previous | Next

Time	T-19	T-18	T-17	T-16	T-15	T-14	T-13	T-12	T-11	T-10
Speed	45	45	45	45	45	45	44	44	45	45
Brakes	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Acceleration	0.00	0.00	0.00	0.00	0.00	-0.05	0.00	0.05	0.00	

Engine Monitoring: CarChip Fleet Pro Only

Diagnostic Trouble Codes

Helps take the guesswork out of diagnosing engine problems.

- Read the diagnostic trouble code and its description whenever the check engine (or malfunction indicator) light comes on.
- Get detailed "freeze-frame" sensor readings—a snapshot of what was happening at the time.
- Clear the check engine light yourself.

View / Vehicle Trouble Log / Problem 1

Overview
Time .... 4/18/2013 6:50 AM
Vehicle .... Ford F-150
CarChip .... Matt Black
Trouble Code P0010
Description .... "A" Camshaft Position - Actuator Circuit (Bank 1)
Comments ....

Engine Status
Fuel Pressure (Gage) .... 1.1 psi
Intake Manifold Pressure (Absolute) .... 9.8 psi
Engine Coolant Temperature .... 103.0 °F
Calculated Load Value .... 40.0 %
Engine Speed .... 2,100 RPM
Vehicle Speed .... 18 MPH

Fuel Trim Status
Short-Term Fuel Trim (Bank 1) .... 52.00 %
Short-Term Fuel Trim (Bank 2) ....
Long-Term Fuel Trim (Bank 1) .... 49.30 %
Long-Term Fuel Trim (Bank 2) ....

> Log is generated whenever the vehicle's check engine light comes on.
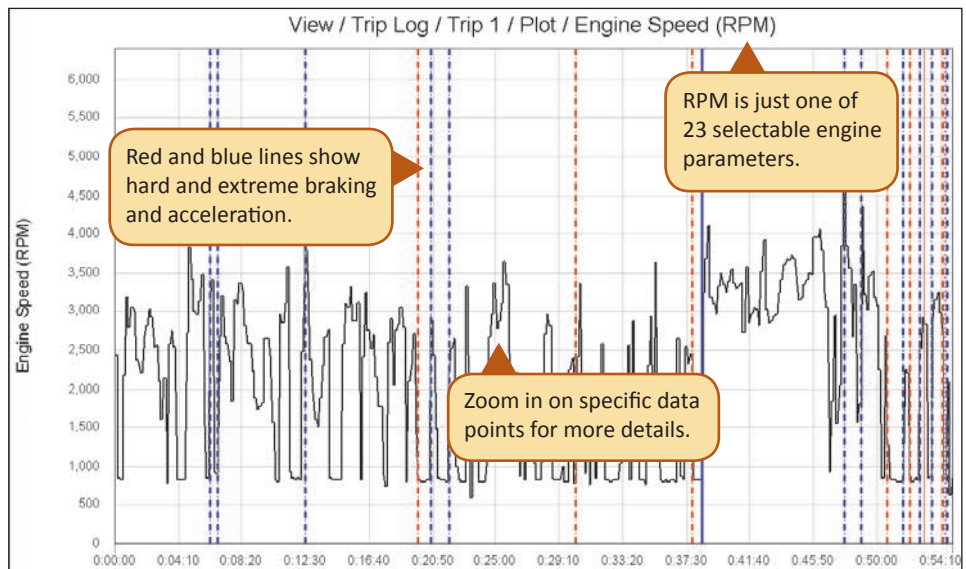
> Trouble code and description help mechanics zero in on problems.

> Freeze-frame sensor readings give additional details about engine performance.

Engine Monitoring

Lets you see how your vehicles are performing under normal driving conditions, not just when they're in the shop. Log any 4 out of 23 parameters at intervals from 5 to 60 seconds.

- Air flow rate
- Battery voltage
- Coolant temperature
- Engine load
- Fuel pressure
- Fuel system status
- Intake air temperature
- Intake manifold pressure
- Long-term fuel trim (2 ea)
- Oxygen sensor output voltage (8 ea)
- RPM
- Short-term fuel trim (2 ea)
- Throttle position
- Timing advance

View / Trip Log / Trip 1 / Plot / Engine Speed (RPM)

> Red and blue lines show hard and extreme braking and acceleration.

> RPM is just one of 23 selectable engine parameters.

> Zoom in on specific data points for more details.

Emissions Readiness

Shows which emissions control systems have been tested by the vehicle's OBD II system. You'll know whether or not a vehicle will pass a smog test so you can take action to keep it in top-running condition.

- Records misfires, fuel trims and other comprehensive emissions monitors in OBD II-compliant vehicles.
- May record other emissions monitors depending on vehicle manufacturer, make and model.
- Monitors some systems continuously; others only when specific operating conditions occur.

Vehicle: Ford Focus

Status as of: 4/18/2013 07:14 AM

Monitor	Supported	Status
Catalyst	Supported	Complete
Heated Catalyst	Not Supported	------
Evaporative System	Supported	Complete
Secondary Air System	Not Supported	------
A/C System Refrigerant	Not Supported	------
Oxygen Sensor	Supported	Complete
Oxygen Sensor Heater	Supported	Complete
EGR System	Not Supported	------
Misfire Monitoring	Supported	Complete
Fuel System Monitoring	Supported	Complete
Comprehensive Monitoring	Supported	Complete

OK   Help

> Shows whether or not the monitor is present in this vehicle.

> 11 possible monitors listed; some may not be supported in every vehicle.

Multiple download options offer ultimate flexibility

Davis knows that different fleets have different needs. Whether you manage a fleet of a dozen vehicles in a single location or hundreds of vehicles across the globe, our data-download options give you the flexibility you need to receive your data quickly and easily.

Download Options		CarChip Fleet Pro	DriveRight 600E
Serial Port	In the office, download directly from console to PC via serial port.		●
USB	For CarChip Fleet Pro, download directly to PC via the USB cable. For DriveRight 600E, add our optional USB-to-Serial cable.	●	●
SmartCard	Issue a credit card sized SmartCard to each driver, then use it to authorize the driver and download driving data.		●
Wireless	Transmit wirelessly from vehicle to computer up to 600' (183 m) away. (See page 12.)	●	●

Fleet Management Software

Includes software CD, serial port cable for downloading from the DriveRight 600E onboard console and a USB cable for downloading from CarChip Fleet Pro. Reports for diagnostic trouble codes, engine monitoring and emissions readiness require the use of CarChip Fleet Pro. All other reports are available whether you use CarChip Fleet Pro or any of our DriveRight 600E models.

8186 Fleet Management Software $395

USB-to-Serial Cable

Use with DriveRight 600E to connect the included serial port cable to the USB port on your PC.

8434 USB-to-Serial Cable $20

Use the included serial port cable with DriveRight 600E.

Use the included USB cable with CarChip Fleet Pro.

Optional USB-to-serial cable.

Fleet Management Software System Requirements

• Windows XP and above.

Works with:

• **MS Excel**. Use our included templates or create your own reports from tab-delineated text files.

• **MS Outlook**. Place the report in the body of the e-mail (if HTML-enabled) or send as an Excel attachment.

• **Google Earth, Google Maps, Microsoft MapPoint** or other third-party mapping software. Use with our GPS Module to see where your vehicles are being driven.

• **FTP Client/Server.** For secure transfer of large amounts of data from remote sites via the Internet.

Runs on Multiple Database Platforms

• For smaller fleets, includes Microsoft Access and MSDE databases; no additional software or licenses required.

• For larger fleets, use with MySQL, MS SQL Server or Oracle.

See where your vehicles are being driven.

Add a GPS system to the DriveRight 600E or CarChip Fleet Pro in each vehicle and you can see not only how your vehicles are being driven—but where. Download the data to our Fleet Management Software, then use Google Earth, Google Maps, Microsoft MapPoint or other third-party mapping programs to create detailed maps showing each driver's routes, the speeds driven and the locations of any accidents or near-accidents.
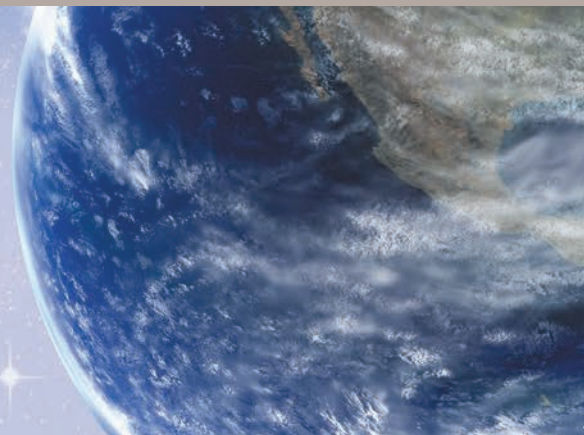
GPS Module

Plugs quickly and easily into the GPS/Wireless Interface Module. For maximum visibility to GPS satellites, position the module on the dashboard or windshield. Works with both CarChip Fleet Pro and DriveRight 600E.

8128 GPS Module $100
Includes a 6.5' (2 m) cable to connect to the GPS/Wireless Interface Module.

GPS/Wireless Interface Module *for DriveRight 600E*

Connects the GPS Module and Wireless Onboard Module to your DriveRight 600E onboard console. You'll need one per vehicle. Easily mounts under dashboard using the included Velcro® strips or double-sided foam tape. A single Interface Module can be used to install both a GPS system and a wireless download system.

8127 GPS/Wireless Interface Module for DriveRight 600E.............................$80
Includes a 2' (0,6 m) cable to connect to the console or SmartCard Onboard Reader, and a shorter, 14" (0,3 m) cable to connect to the optional digital input cable used to monitor seatbelt or headlight use.

GPS/Wireless Interface Module *for CarChip Fleet Pro*

Connects the GPS Module and Wireless Onboard Module to the CarChip Fleet Pro data logger. You'll need one per vehicle. Easily mounts under dashboard using the included Velcro strips or double-sided foam tape. A single Interface Module can be used to install both a GPS module and a wireless download module.

8251 Interface Module for CarChip Fleet Pro................................. $65
Includes a 2.5' (0,7 m) cable to connect to CarChip Fleet Pro.

More About the GPS Module

- Location accuracy to 30' (9 m).
- Logging interval from 1 second to 15 minutes for DriveRight and 30 minutes for CarChip Fleet Pro.
- DriveRight 600E stores 43 hours of GPS data at 1-minute intervals and 650 hours at 15-minute intervals.
- CarChip Fleet Pro stores last 520 hours of all data when GPS is logged at 1-minute intervals (assuming speed logged every 5 seconds, other engine parameters every 60 seconds); last 700 hours at 15-minute intervals.
- Works with Google Earth, Google Maps, Microsoft MapPoint or other third-party mapping programs and allows you to see photographic images of your drivers' routes and stops.
- Outside North America and Europe, export data into other third-party GPS mapping software.
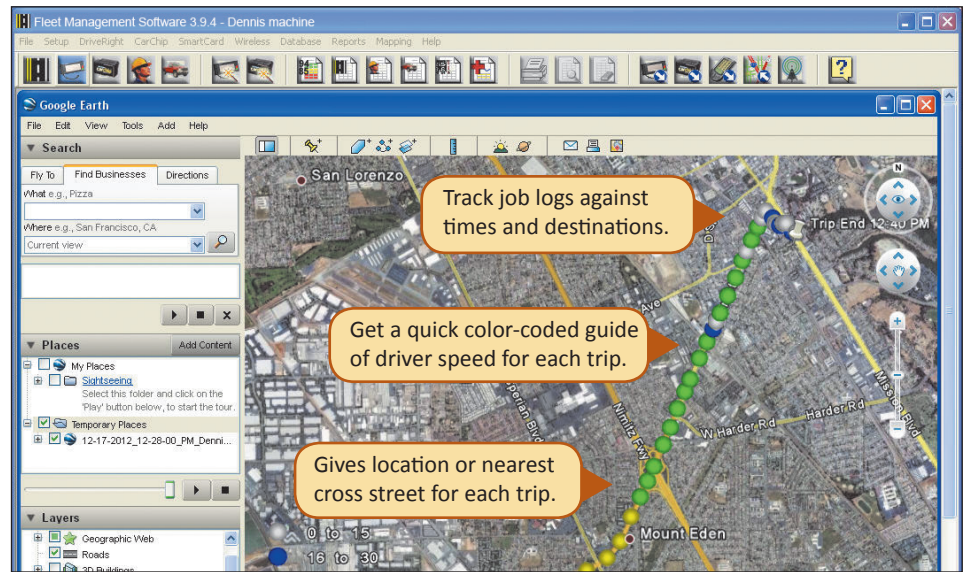
GPS Mapping: *For CarChip Fleet Pro and DriveRight 600E*

Trip Map

GPS trip map works with Google Earth, Google Maps, Microsoft MapPoint or other third-party mapping programs to get a bird's-eye view of drivers' routes.

- Query each dot for details on time, speed and direction.
- Set speed ranges and ID according to color codes.
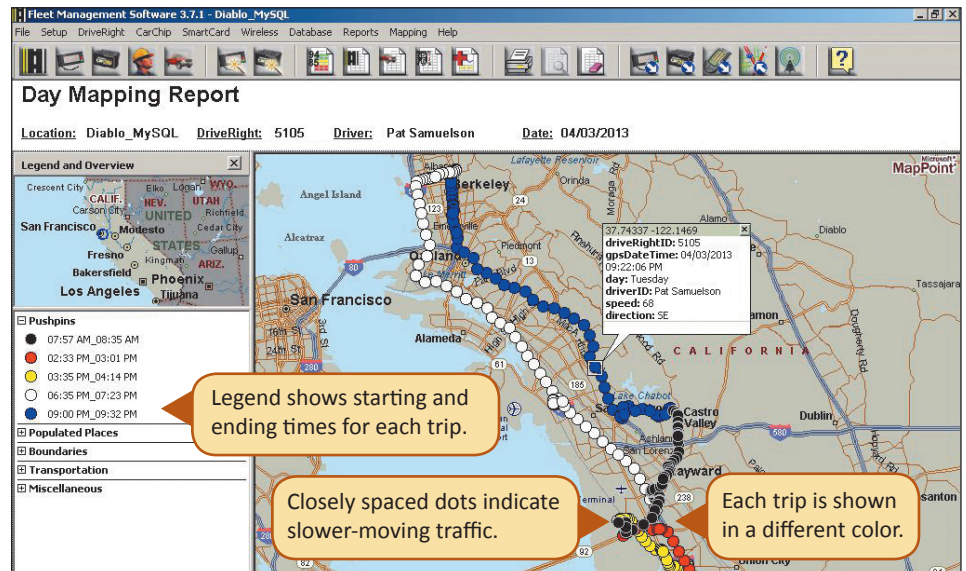- Zoom in to see streets and intersections; zoom out to see the broader geographical area.

Track job logs against times and destinations.

Get a quick color-coded guide of driver speed for each trip.

Gives location or nearest cross street for each trip.

© GOOGLE MAPS 2013

Day Map

See where your drivers went each day, each place they stopped and the routes they took.

- Select for specific DriveRight or CarChip IDs, drivers, dates and speeds.
- Query each dot for details on time, speed, and direction.
- Zoom in for a closer view of the route or to see the details of each trip.

Legend shows starting and ending times for each trip.

Closely spaced dots indicate slower-moving traffic.

Each trip is shown in a different color.

© GOOGLE MAPS 2013

Accident Map

FMS details accident data by capturing the data before and after hard braking events. With CarChip Fleet Pro, you can see a 20-second snapshot of speed surrounding the event. With DriveRight 600E, you can see details for 20 seconds *before* and 20 seconds *after* a hard braking event.

- View the location of each hard braking event.
- Query each triangle for details on time and date.
- Zoom in to see exact location or to see details on the entire trip.

View all hard braking events for selected drivers and date ranges.

Yellow triangles show location of each hard braking event.
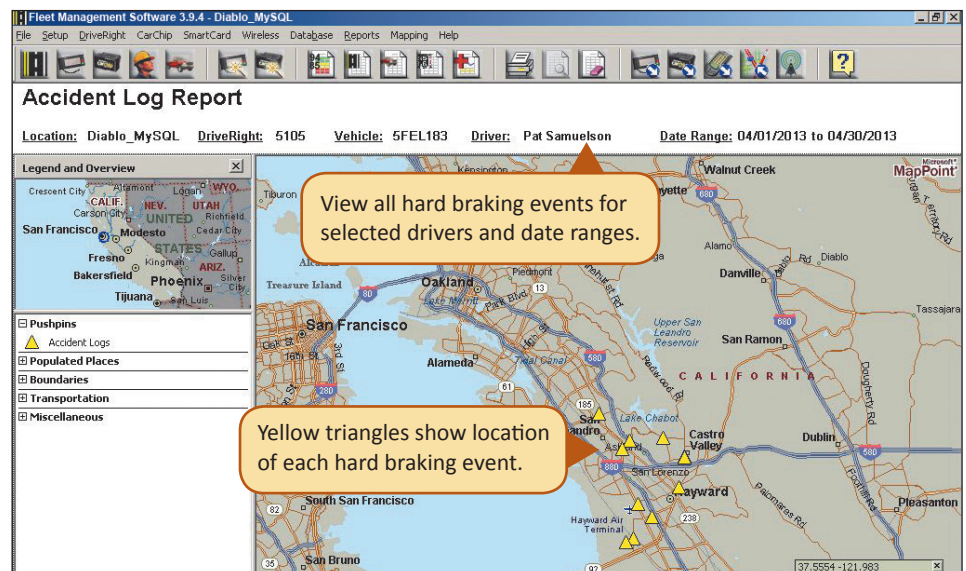
© GOOGLE MAPS 2013

Makes data download automatic — and effortless!

Retrieve your drivers' data without removing the device.

Downloading driver or vehicle data is easy and efficient with Davis' wireless onboard module. No buttons to push or complex instructions to follow—your drivers simply return to the fleet's home base and the data from each DriveRight 600E or CarChip Fleet Pro is transmitted to the base station. The base station passes the information to the Fleet Management Software on your office computer for you to view. Transmission distance is maximum 600' (183 m) line of sight.

Wireless Onboard Module

Transmits the data collected by a DriveRight 600E or CarChip Fleet Pro to a Wireless Base Station. You'll need one per vehicle. Before installation, complete a few simple steps using our Configuration Cable and Fleet Management Software. Then, plug the module into the DriveRight 600E onboard console or CarChip Fleet Pro using the appropriate GPS/Wireless Interface Module. Mounts in window of vehicle using the included Velcro strips or double-sided foam tape.

8129 Wireless Onboard Module $120

Configuration Cable For Wireless Onboard Module

Connects the Wireless Onboard Module to the USB port on your PC for configuration before initial use. Includes 8' (2,4 m) cable. You'll need one per office or fleet location.

8131 Configuration Cable for Wireless Onboard Module $65

GPS/Wireless Interface Module

Connects the Wireless Onboard Module to either your DriveRight 600E onboard console or the CarChip Fleet Pro data logger. You'll need one per vehicle. Easily mounts under dashboard using the included Velcro strips or double-sided foam tape. Available in two models. A single Interface Module can be used to install both a wireless download system and a GPS system. See page 10 for details on our GPS system.

8127 Interface Module for DriveRight 600E............................$80
Includes a 2' (0,6 m) cable to connect to the console or SmartCard Onboard Reader, and a shorter, 14" (0,3 m) cable to connect to the optional digital input cable used to monitor seatbelt or headlight use.

8251 Interface Module for CarChip Fleet Pro $65
Includes a 2.5' (0,7 m) cable to connect to the CarChip Fleet Pro data logger.

Wireless Base Station

Receives data from the Wireless Onboard Module and passes it on to the Fleet Management Software (FMS). You'll need at least one Base Station per parking lot or office. Businesses with larger parking lots may require more than one Base Station; maximum five per FMS package. Includes 8' (2,4 m) cable to connect to the USB port on your PC. For longer distances, add one of these third-party solutions (not sold by Davis Instruments):

- A standard USB extension cable. Maximum total cable length is 16.5' (5 m).
- A USB extender. Maximum distance is 150' (45 m).
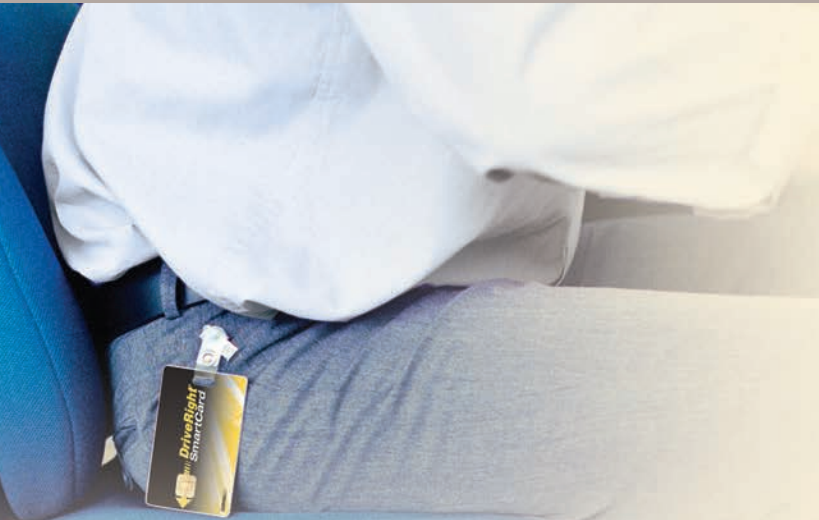- A USB device server connected to your company intranet, for virtually unlimited distances.

8130 Wireless Base Station for DriveRight 600E & CarChip Fleet Pro $200

Universal Shelter

For outdoor installations, mount the Base Station in our Universal Shelter. Measures 13.75" × 10" × 4.18" (0,35 m × 0,25 m × 0,1 m).

6618 Universal Shelter............................$75

Easy download, enhanced security — all in one smart package.

Used with the DriveRight 600E, Davis' SmartCard system offers you an economical way to set driver safety limits and ensure your vehicles are driven by authorized personnel. Drivers simply insert their cards into the onboard reader at the start of their shifts. The data is automatically downloaded upon their return with the easy press of a button.

- **Use the Desktop Reader** and our Fleet Management Software to program an administrative SmartCard with driver IDs, authorized vehicles and your company's driver safety limits for speed, acceleration and deceleration.

- **Use the Onboard Readers** to quickly and easily transfer the information from the administrative SmartCard to the DriveRight 600E onboard consoles, right in the parking lot. No need to bring the consoles into the office!

- **Issue a personalized SmartCard** to each driver. At the end of the day, the driver just presses a button to transfer data to the SmartCard and it's ready to be turned into the office.

SmartCard

Convenient, credit card sized SmartCard can be worn on a lanyard, clipped to a belt, or carried in a wallet. You'll need one for each driver. Available in packs of ten.

8112 SmartCard, Pack of 10 ....$80

SmartCard Desktop Reader

For programming SmartCards with driver ID and safety limits and for downloading driving data. Connects quickly and easily to a USB port on your PC. Includes 4.5' (1,3 m) cable. You'll need one per download location.

8108 Desktop Reader $80

SmartCard Onboard Reader

Allows drivers to be individually identified and logs them into the system. The DriveRight 600E console then transfers driving data onto the SmartCard that's returned to the supervisor. The administrative SmartCard can be inserted into the reader to transfer settings onto the DriveRight unit. Mounts to the dashboard using the included Velcro strips or double-sided foam tape. Onboard reader includes one SmartCard to help you get started. Additional SmartCards are sold separately.

8105 Onboard Reader.......................$120

SmartCard Starter Interrupter Kit

With our optional Starter Interrupter Kit, the vehicle won't start until the driver inserts his SmartCard and the system verifies his ID. Provides a way to prevent unauthorized drivers from using certain vehicles.

8116 Starter Interrupter Kit $20

Here's what Fleet Managers are saying about CarChip Fleet Pro and DriveRight 600E:

"When my drivers saw how they were breaking the law, it woke some of them up. CarChip has helped us to remind them that sometimes you forget how fast you are really driving."
Roadside Assistance Manager, Arizona

"It's not an exaggeration to say that for this project, CarChip provided a more reliable and cost-effective means to obtain vehicle operating data than any other approaches that we know."
Air Pollution Researcher, California

"Recently had a customer ring me about an incident involving one of their motor vehicles. Using information from their DriveRight 600, I was able to redirect their culpability of involvement. The cost of the DriveRight was repaid just on this occasion alone."
Driver's Training Manager, Australia

In the first year of using DriveRight, our company achieved its goal. Over the two-year period, corporate officials reported zero accidents.
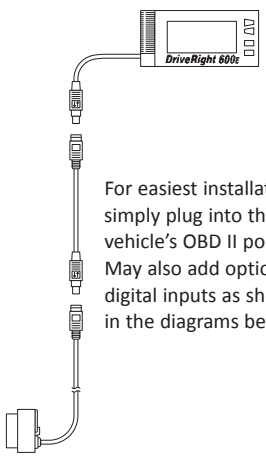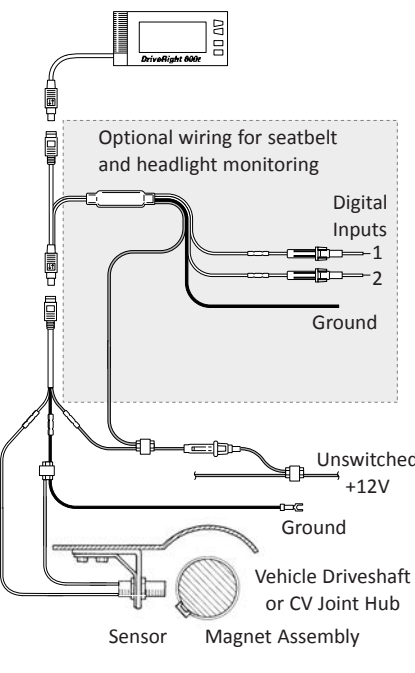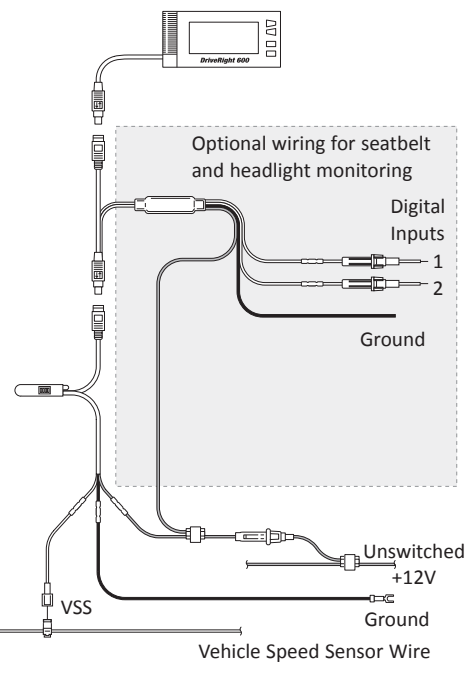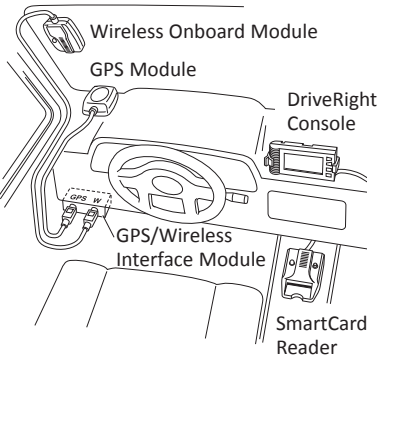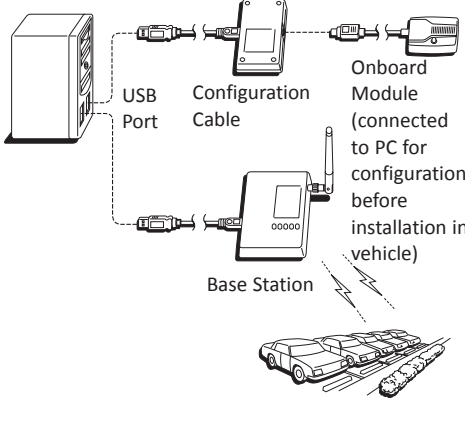*Fleet Operations Manager, Algeria*
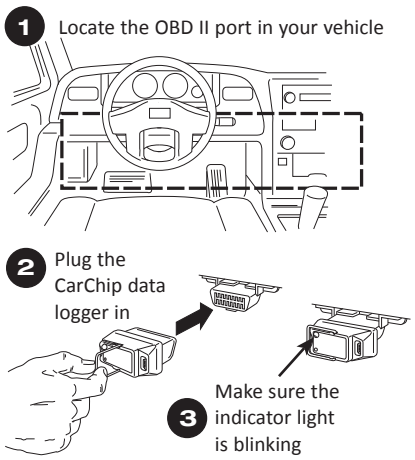
"CarChip is a simple tool every fleet manager can use. Ever since we began using it and informing drivers that their vehicle 'may' have a vehicle data recorder installed, citizen complaints have decreased."
University Fleet Manager, Nebraska

Feature Comparisons

			8246 & 8186 CarChip Fleet Pro with Fleet Management Software	8126 & 8186 DriveRight 600E with Fleet Management Software
FEATURES & OPTIONS	**List Price**	Data logger or onboard display console	$149	$375–395
		Software (requires just one software package per fleet)	$395	$395
	Installation	Installs using	OBD II connector	OBD II, VSS, driveshaft, or CV joint
		For model years	1996 and later	Any
		For cars, vans, and pickup trucks	●	●
		For tractors, big rigs or other large trucks, and buses		●
		Professional installation recommended (for GD, HD, or VSS)		●
		Estimated installation time	Less than a minute	10 min (OBD) to 1–2 hrs (GD, HD, VSS)
	Download to Computer	Using included USB cable	●	
		Using the included serial-port cable or optional USB cable		●
		Wireless using optional system (additional $450)	●	●
		Via SmartCard using optional system (additional $280)		●
	Backup Battery	Battery type	Internal	3-volt lithium
		Expected battery life if unit not in vehicle	10–15 years	2–4 months
		Expected battery life under normal usage	10–15 years	3–5 years
DRIVER PERFORMANCE	**Acceleration & Deceleration**	Hard accelerations	●	●
		Hard decelerations	●	●
		Onboard alarms for hard accelerations and decelerations	●	●
	Accident Log	After hard deceleration, speed every second for the last 20 seconds before a complete stop.	●	
		Speed every second for 20 seconds before and 20 seconds after hard deceleration.		●
	Distance	Distance traveled per trip	●	●
	GPS	Optional GPS position logging (additional $165)	●	●
	Trip Time	Starting and ending time for each trip	●	●
		Total elapsed time for each trip	●	●
		Engine idle time	●	
		Weekend/night driving time	●	●
	Trip Type	Specify trip type using onboard console		●
	Speed	Top speed	●	●
		Average speed	●	●
		Time over safety limit for speed	●	●
		Time within user-specified speed ranges	●	
		Onboard alarm for high speed	●	●
	Seatbelt Use	If selected as one of two digital inputs		●
ENGINE		Diagnostic trouble code with "freeze-frame" sensor readings	●	
		Ability to reset "check engine" light	●	
		Logging of user-selectable engine parameters (see list on page 5)	●	
SECURITY		Security code to change settings on onboard console		●
		Driver ID code and vehicle log in restrictions		●
		Tamper indicator shows on onboard console		●
		Tamper log may be viewed in software	●	●

Data Logging Intervals

Hours of data varies depending on the logging interval. GPS logging requires optional components.

Product	Logging Interval			Hours of Data
	Speed	**GPS Location**	**Engine Parameters**	
CarChip Fleet Pro	1 second	1 second	5 seconds	23 hours
	5 seconds	60 seconds	60 seconds	520 hours
	5 seconds	Not logged	Not logged	1200 hours
DriveRight 600E *	1 second	1 second	N/A	1 hour
	30 seconds	30 seconds	N/A	30 hours
	15 minutes	15 minutes	N/A	650 hours

* For DriveRight 600E, the hours of speed data stored does not vary whether or not GPS location data is stored. DriveRight 600E also stores data for up to 600 trips in a separate trip log. Each trip log includes starting and ending time and date, distance, top speed, average speed, and more. Engine parameter logging is not available with DriveRight 600E; to log these, use CarChip Fleet Pro. Details, specifications and prices are subject to change at any time without notice.

CarChip Fleet Pro

1 Locate the OBD II port in your vehicle

2 Plug the CarChip data logger in

3 Make sure the indicator light is blinking

DriveRight 600E OBD II Installation

For easiest installation, simply plug into the vehicle's OBD II port. May also add optional digital inputs as shown in the diagrams below.

Connect to OBD II port

DriveRight 600E General Duty/ Heavy Duty

Optional wiring for seatbelt and headlight monitoring

Digital Inputs
1
2

Ground

Unswitched +12V

Ground

Vehicle Driveshaft or CV Joint Hub

Sensor   Magnet Assembly

DriveRight 600E VSS Installation

Optional wiring for seatbelt and headlight monitoring

Digital Inputs
1
2

Ground

Unswitched +12V

VSS

Ground

Vehicle Speed Sensor Wire

DriveRight 600E with Optional Components

Wireless Onboard Module

GPS Module

DriveRight Console

GPS/Wireless Interface Module

SmartCard Reader

Wireless Download System

USB Port   Configuration Cable

Onboard Module (connected to PC for configuration before installation in vehicle)

Base Station

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 to incidental or consequential damages beyond the Davis products themselves. Implied warranties are limited in duration to the life of this 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.

Licensed under one or more of the following U.S. patents: 6,629,029 & 6,832,141.

Important Safety Notice

CarChip and DriveRight 600E have been carefully designed and tested to comply with the OBD II protocols used on vehicles 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.

While our testing and the experience of thousands of CarChip and DriveRight OBD users have shown the units 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 any of our products, you should pull over, off the roadway, immediately or as soon as it is safe to do so. Remove the unit from the OBD II port and consult a licensed mechanic or automobile service center. For an in-depth discussion of OBD II anomalies, we recommend The Equipment and Tool Institute's website at www.etools.org.

Report any issues or concerns to our Technical Support Department 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 help us continuously improve the product.

Three reasons

why **CarChip Fleet Pro** is the
best tool to manage your fleet:

1 Easy-to-Afford:
Monitors driving and
engine performance.

2 Easy-to-Use:
Automatically records driving.
Simple to download data —
remove the device or use our
wireless option.

3 Easy-to-Install:
Installs in seconds by plugging
into the vehicle's OBD II port.
GPS and wireless options install
easily as well.