Ralph's Crash Reconstruction Newsletter: Volume 13, Number 7—Late Autumn 2014

This is my last newsletter of 2014. I hope everyone had a safe and pleasant Thanksgiving holiday and that the upcoming holiday season is joyous for all of you. This has been an extremely slow year for me business wise, so I have had time to write, print, and mail a few extra newsletters. If next year's volume isn't better, I may have to consider a new career! ☺

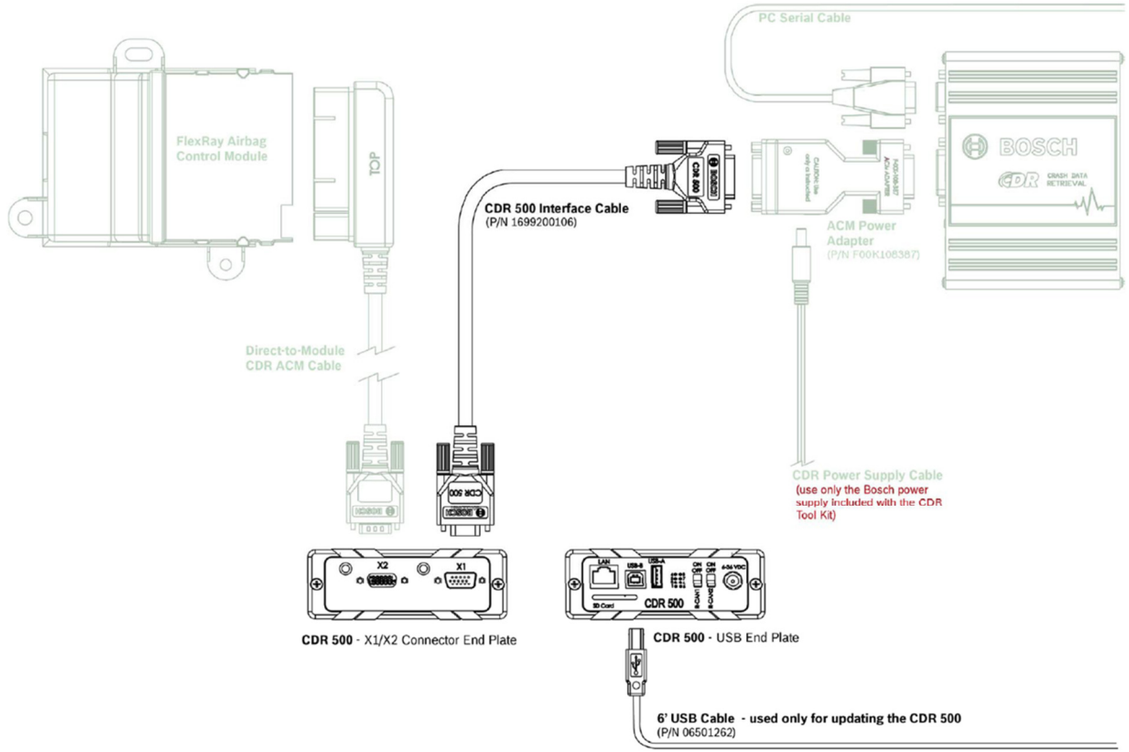
Just when I thought that big expenses for the year were over, Bosch announced a new interface adapter as part of the Crash Data Retrieval system. The new adapter, to be called the Bosch CDR 500, will enable direct-to-module access to modules with a FlexRay communications network, which is supposedly ten times faster than the CAN or K-Line networks currently supported by the Bosch CDR system. FlexRay communications protocols are currently in use in many BMW, Audi, Mercedes-Benz, Bentley, and Rolls-Royce vehicles currently on the road. Initial software support will be for the BMW i3, BMW i8, and the Mini Cooper Hardtop. The adaptor will cost $2500, and it will not include the FlexRay direct-to-module cables, the first of which will cost $200. Bosch is apparently hoping to provide year-end bonuses to its employees! ☺

The CDR 500 kit is shown to the left. The first of the FlexRay cables to be made available is shown to the left, below the image of the kit. The diagram at the top of the column to the right shows the installed use of the kit. I found the notice in red to be interesting: "use only the Bosch power supply included with the CDR Tool Kit." There have been many Bosch CDR users who have discovered that their F00K-108387 adapters no longer function correctly, and Bosch has "suggested" that 12VDC batteries are supplying "too much power" and damaging the adapter.

Bosch is not required to recall and repair or replace components like motor-vehicle manufacturers are; the "requirement" to use the Bosch power supply, which converts 120VAC to 12 VDC with a 3-ampere limit, means that practitioners will now have to carry inverters to conduct field downloads which require that adapter.

I already have an inverter, and I have ordered the CDR 500 kit and the FlexRay cable. They are both supposed to be available by the time this newsletter is released. As I write this newsletter, I still have not received either, but I should be one of the first to obtain those components, since I pre-ordered in early October.

Perhaps some of you know that I occasionally do criminal defense work relating to crashes where a driver has been charged with a serious violation, like vehicular homicide. I never take a case of that type unless I feel that the police have erred in their analysis. I am not meaning to denigrate police in any way—the problem usually is that they have not been given proper training and don't have the knowledge or skills to properly address certain crash circumstances, but they want to do what they think is right with respect to victims and the motoring public. One such case involved a crash where a vehicle had left some curved tire marks during a passing maneuver, and



the police had measured the curvature of the marks and calculated the vehicle's speed using critical-speed yaw (CSY) procedures. No one had ever told them that CSY calculations only apply when a vehicle is actually in a critical speed yaw, not just a yaw during which a curved tire mark is left by a vehicle which is under control but probably being driven faster than it should be. When those officers were shown the correct interpretation of vehicle speed by two different reconstruction methods employed by two different people (both of which calculated exactly the same vehicle speed) while in the presence of the defendant's attorney and the prosecutor, they accepted that their calculations were wrong, and the charges against the driver of the vehicle were reduced. (The driver was exceeding the speed limit, but not by the 50+ mph the officers had calculated.)

Another case involved a crash in which a motorcyclist on a crotch rocket struck the side of a left-turning Jeep Grand Cherokee, flipping it over, on a street with a 45 mph speed limit. The investigating officers did a superb job of documenting and mapping the crash scene, but they charged the driver of the Jeep with vehicular homicide. I reconstructed the crash using conservation of energy principles and determined, first, that the motorcycle was traveling at twice the posted speed limit at impact, second, that it was at least 300 feet away from the Jeep when that driver began his turn, third, that 300 feet was a safe distance away for the Jeep to have safely

completed its turn if the motorcycle had been traveling at or near the speed limit, and fourth, that it is virtually impossible to judge the speed of an approaching motorcycle when it is 300 or more feet away and coming directly toward an observer. I have never understood why the police agency and the associated prosecutor charged the driver of the Jeep with failure to yield and vehicular homicide. But they pressed the case, and it was put on a trial calendar. Before the trial began, the prosecutor sent the file materials to a crash reconstruction officer at the Georgia Public Safety Training Center in Forsyth. That Georgia State Patrol officer used rotational mechanics to calculate the speed of the motorcycle at impact, also arriving at the conclusion that the motorcycle was traveling at twice the speed limit. But the prosecutor was unrelenting, and the criminal case went to trial. After the GSP officer testified, however, the defense attorney moved for a directed verdict of not guilty, without ever putting up any defense witnesses (I was one of them), and the judge ordered the requested verdict. How can you fail to yield to a vehicle that you have no way of perceiving is a crash hazard? Go figure! Worse things have happened; I have other stories I could write, but who would buy the book? ☺

About a year ago, I bought a new smartphone, supposedly one of the best on the market. The phone initially worked well, but, with passing time, its performance deteriorated to the point where it was almost totally useless. I apologize to any of you who tried to reach me on my cell phone and had any type of trouble. My frustrations included unresponsiveness of the phone when I tried to answer a call and untimely posting of messages—some messages did not appear on my telephone until a week after they were sent. I recently replaced it with a Samsung Galaxy S5, which has performed flawlessly so far. As always, the best number to use when trying to reach me is 770.918.0973, leaving a message if I don't answer. I should now be more accessible by cell phone at 770.378.5568, as long as I'm not in a location with no service. And my fax machine works very well when using 770.918.8076.

I wish all of you a joyous holiday season. This seems to me to be a time when we should review the year that is passing and be grateful for all the good things that have happened. In that spirit, I'd like to write that many good things have happened to me and to my family this year. As an example, I'll write about the time when the ambulance broke down near Waverly, Georgia, on a Sunday afternoon, and I had to leave it where it became disabled. But, from Conyers, I was able to find someone in that area who was able to haul it from its point of disablement (not an easy feat with a vehicle that weighs 10,000 pounds) and repair it. The ambulance had been fitted with a water-separating fuel filter with a petcock on the bottom to drain the water, and the petcock had snagged on something and had been pulled off, preventing any fuel from reaching the pump. After it was repaired, a friend drove me all the way to Woodbine, Georgia, just north of the Florida state line on I-95, for me to get the ambulance and drive it back to Conyers, then followed me all the way home—a huge favor. Other good things have happened to me and my family this year, and I am grateful for personal blessings and for your continuing consideration of my services. Happy New Year to all of you.

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