



Worldwide Supplier to Automotive Electrical Rebuilders

[Open Orders](#)

[Ship Tracker](#)

[WAI Part Lookup](#)

[Cross Reference](#)

[Vehicle Lookup](#)

[Electrical System](#)

[Bill Of Materials](#)

[Home](#)

[Company Info](#)

[Employment](#)

[Products](#)

[Tech Info](#)

[Publications](#)

[Login](#)

Technical Update

#49, February 2007 Keeping Up With Changes

By Mark Tillotson
Technical Services

Automotive Electrical Technicians are faced with many more challenges today than the technician of the past. As the OEM manufacturers change, the technician needs to meet these changes in order to stay well informed and knowledgeable.

The technician needs to have the resources necessary to meet the challenges that are increasingly coming their way. Technical articles in flyers, such as this one, and the ERE Newspaper publication, are a good means to gather information. Another way is to attend technical seminars provided by such leading members of the automotive field as Joe Davis, Mohammad Samii, Dick Vensel, and Alan Melton, to name a few.

Many of the Automotive Electrical shops now have computers with internet access, giving technicians the ability to gather immeasurable information by logging on to sites such as WAI's internet sites www.transpo-usa.com & www.waiglobal.com, at no cost to them or subscribing to sites such as www.kwikfinder.net, by Lester Catalog Company and www.electricalrebuilders.org, from the ERE for a minimal fee. In addition to keeping themselves knowledgeable, the technician needs to know what they are working on. That isn't as straightforward as it sounds. Many applications today use units from different manufacturers. GM uses Delco, Bosch and Valeo units in their applications. Ford has the 3G, 4G and 6G units. The technician needs to have the knowledge and the resources to do the investigation to ensure that the right part is being used.

Other units that need to be followed carefully are the D-P (D=Driver; P=Phase) units used in Mazda Protégé (IM345), 2000-2002 Mazda MPV's (IM465) & 1999-2000 Mazda Miata 1.8L (IH758). Many technicians have tried to use identical units with an S-L Plug which has caused costly damage to the PCM when applied to the vehicle. Trying to test the D-P type units using an S-L plug configuration will cause damage to the D-P unit. To avoid damaging these D-P units, use the VRC101-26 Test Adaptor, manufactured by Transpo Electronics to test on the Alternator test bench or at the regulator tester level. Basically these types of regulators are only half the circuit and the other half is incorporated in the vehicle's PCM.

Over the years as our industry has changed so has the test equipment. Alternators that have much higher output require more power in the alternator test benches. With variable speed, test benches you can now determine what speed the alternator will cut in. Regulator testers have changed as well, such as the Transpo Electronics VRC1000A which incorporates a Field Diode Test, Overvoltage Test, and a Choke Drive Test for sorting Nippondenso regulator that have High "L" or Choke Drive. Additionally it carries a 0.5 amp, 3amp and 5amp load.

So what is the moral of this story? As an Automotive Electrical Technician, you have to always grow, adapt, and learn. Continuous training has to be a way of life in order for you to keep up with today's ever shifting industry.



[Information or questions:](#)

copyright © 2002 Wetherill Associates, Inc.
All rights reserved.