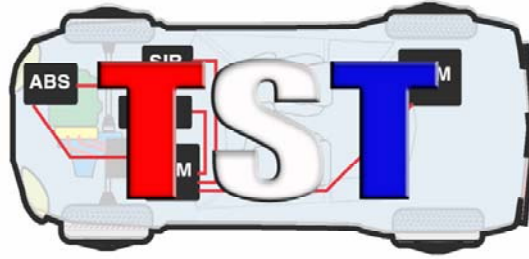


April 2012



Technicians Service Training

INSIDE THIS ISSUE:

*2006 Honda Pilot Electrical
Diagnostics*
P. 1 - 12

*Thousands of Dollars of
Tools Given Away...*
P. 16 - 18

Congratulations 2012 Big Event Winners!



*Terry Carolan wins a \$6,000
iScan II wt complete with
Autoland's Scientech's pro-
totype PC based interface
capable of emulating OEM
tools.*

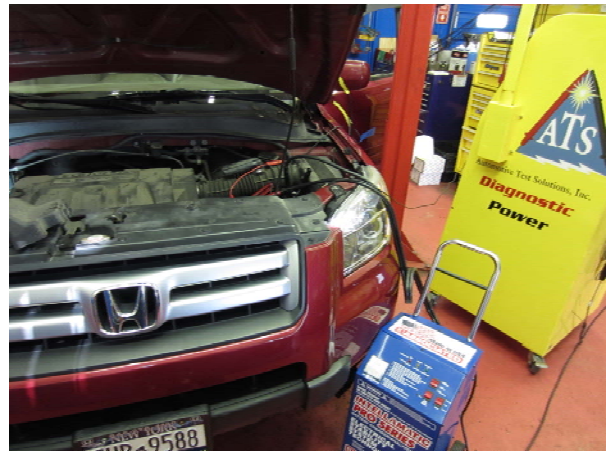
Editor

Jerry "G" Truglia

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2006 Honda Pilot Electrical Diagnostics

This car was a real nightmare. Here's how it all began: a veterinarian wanted to add his own tow hitch, because if you works on animals you can splice wires, right?



So, after cutting up a bunch of wires in the rear he inspected the fuse box. He didn't find a fuse for the daytime running lights which was listed in his manual but not found in his model. So he took apart the fusebox and put it back together, which resulted in a burning smell, a no start, and inoperative windows.

A body shop that worked using barter took on the challenge. They replaced the body control module and fuse box, and then gave up. Then they towed the vehicle to Car Clinic, my shop.

The master technician was able to confirm that whenever he plugged in his scan tool the horn honked. Obviously, there was a short circuit. ***(Con't on page 3)***

Technicians Service Training

11 Lupi Plaza

Mahopac, NY 10541

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Currently there are **TST chapters in Connecticut, Massachusetts, New Jersey, New York** and membership continues to grow. For more information you can call

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Technicians Service Training



www.TSTseminars.org

What is TST?

TST is a group of dedicated technicians and instructors committed to the continuing education of our fellow technicians. We provide once a month training seminars to technicians at a reasonable price. TST brings our members nationally known instructors and state of the art training.

Our Goal & Mission Statement

- *Keep our fellow technicians up to date with the latest technology.*
- *Provide training seminars for a reasonable price.*
- *Deliver information that the technician can use now.*
- *Keep technicians informed of information affecting our industry.*
- *Increase consumer awareness of what a good technician is.*

Why join TST?

TST membership includes special pricing on once a month week-day night seminars and the occasional full Saturday seminar. With a **\$75.00 yearly membership, the monthly seminars are only \$65.00.** **TST classes are NOT sales or product seminars.** The instructors that TST brings in are all “hands-on” industry experts with up to date, cutting edge knowledge that you can use in your shop the next day. That’s 65 dollars for a seminar in which you are able to learn something useful, for fixing those tough jobs that we all see on a regular basis. Our instructors are masters at making the complex understandable. Membership also includes a Monthly Newsletter full of real world technical articles, diagnostic case studies, and solutions to the kinds of problems you see in your bays each week.

The following are some of TST’s regular instructors:

Bernie Thompson of ATS

John Thornton of Autotrain Inc.

Wayne Colonna of ATSG

Jorge Menchu the “Labscope Guru,” AES Wave

John Anello of Auto Tech On Wheels

Mark Warren of Motor Magazine

Bob Pattengale of Bosch

Peter Meier of Motor Age Magazine

Ken Zanders of Illinois Air Team

Jerry “G” Truglia of National Instructor & owner of A.T.T.S. Inc.

2006 Honda Pilot Electrical Diagnostics (con't from p. 1)

He decided to start with solving the mystery of the honking horn, figuring that if he solved that then everything else would make sense. After inspecting fuses he moved onto checking the engine wiring harness. He found melted wires so he changed two out of three of the engine wiring harnesses (excluding a third on the driver's side.

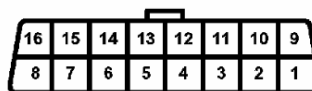
The horn still honked with the scan tool plugged in, however. So, prompted by the customer not wanting to pay for additional diagnosis the multiplexer and the fuse-box was changed again, and the vehicle still did the same thing. He had communication to the PCM and did not know where else to go. Before regrouping he took a job at another shop, leaving the car with me.

I was always the B-tech—tires, brakes, front end, simple diagnostics. I was never given the tough cars, but now it was my turn. It was time to start all over again and diagnose the issue from scratch.

First, I knew that the customer cut some wires open in the rear of the truck for the trailer lighting. I found that he disconnected the brake light failure sensor and cut the wires so he could plug his trailer harness. After testing with my powerprobe that the wires were not shorting the multiplexer in the passenger fuse box I decided to get the wiring schematics for the horn circuit and the computer data lines.

Pin #5 of the DLC is the signal ground for the communication network and when it was grounded the horn was going off. I confirmed this with my powerprobe, so I started with that

wire and was curious to see where it led.



- 1 —
- 2 —
- 3 —
- 4 BLK
- 5 BRN/YEL
- 6 —
- 7 GRY
- 8 —

2WD: (G401) (Ground for HDS tester)
 4WD: (G401) (Ground for HDS tester)
 2WD: (Signal ground for communication network)
 4WD: (Signal ground for communication network)
 2WD: (DLC input/output circuit)
 4WD: (DLC input/output circuit)

- 9 BRN
- 10 —
- 11 —
- 12 RED/WHIT
- 13 —
- 14 LT BLU
- 15 —
- 16 WHT/GRN

2WD: (Service check signal circuit)
 4WD: (Service check signal circuit)
 2WD: (Write enable)
 4WD: (Write enable)
 2WD: (Input/output)
 4WD: (Input/output)
 2WD: (Fuse 46 – Under-hood) (Power for HDS tester (B+, 4 amps max))
 4WD: (Fuse 46 – Under-hood) (Power for HDS tester (B+, 4 amps max))

(Con't on p. 7)

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Jim Bradanini
Program Administrator

QUOTE

Hey: To all my tool carrying friends,

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Anyway, I figured whoever needs insurance on your tools against theft, flood, fire, etc.... blanket coverage. The people are really nice and you can do it over the phone. You don't have to have a tool inventory list, though you will need one if you have a claim so do one up front anyway.

They offer \$50,000 for \$250 but we upped it to \$70,000 for \$350. <http://www.mechanicsinsurance.com>. The guys name is Jim Bradanini and his email address is: JimB@cpminsurance.com. Their phone is 203-439-2810. I had left a message and he got back to me within the hour.

Thank you so much for making your process so smooth and painless, kind and professional.

Jo



SOCIAL MEDIA



BLOG

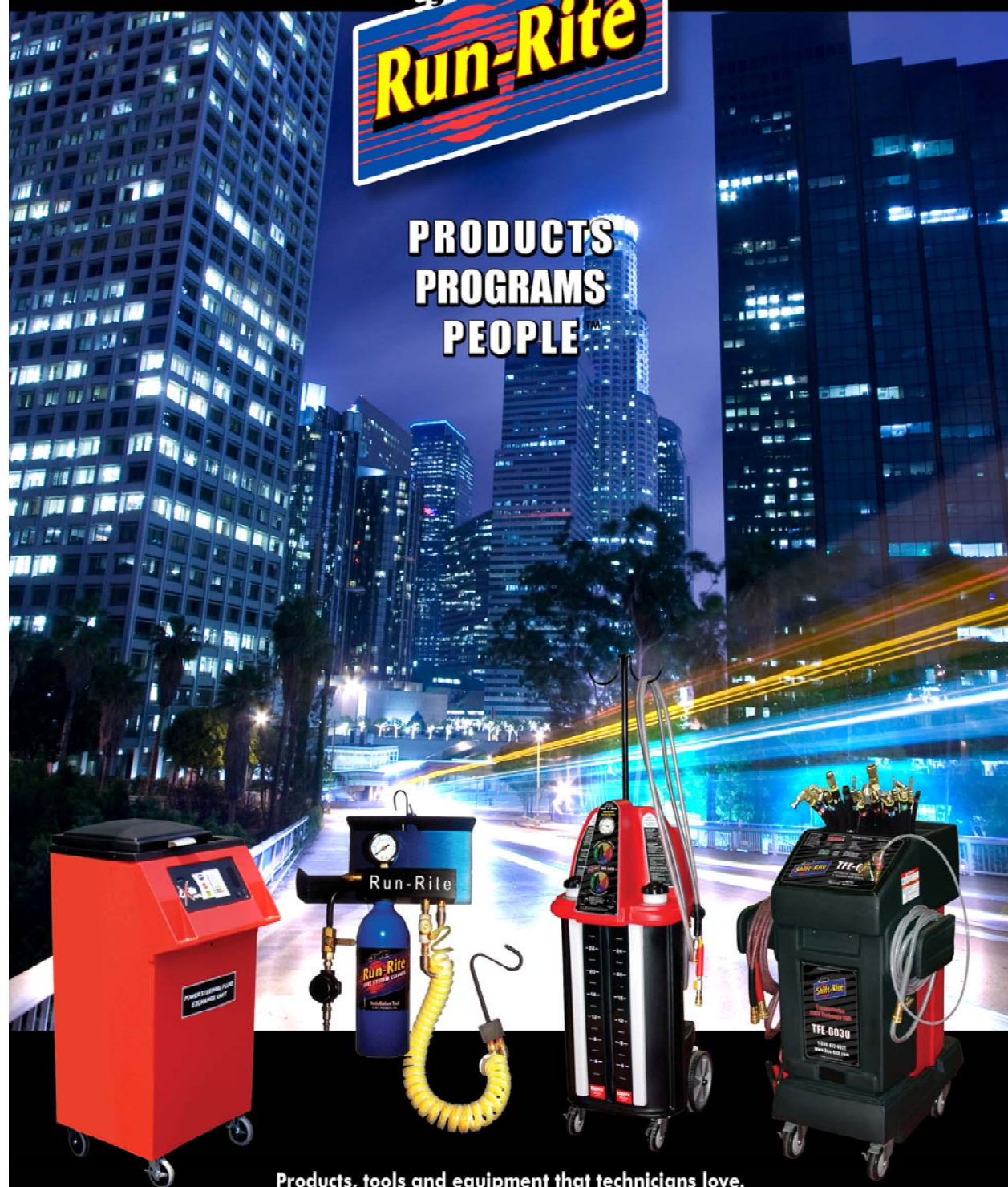
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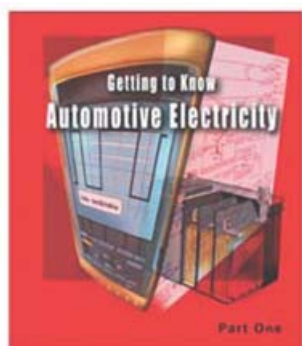
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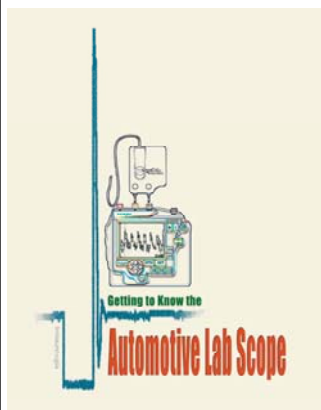
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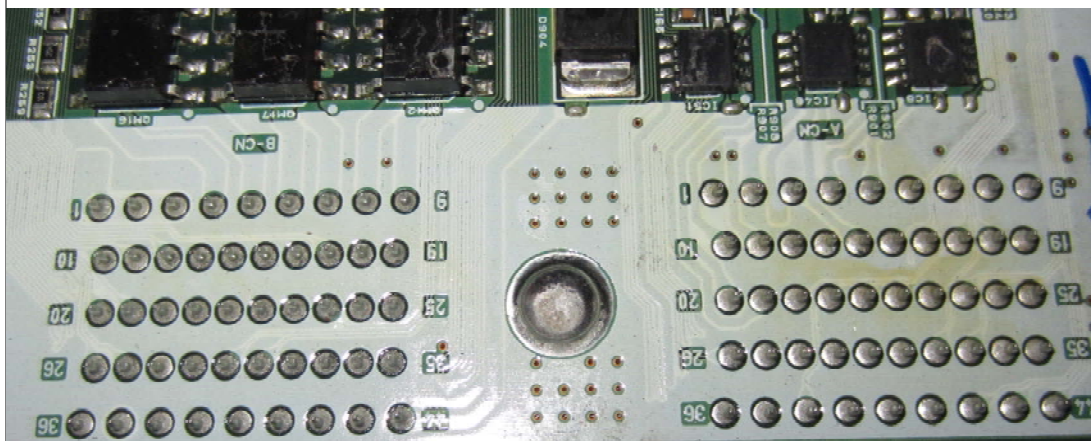
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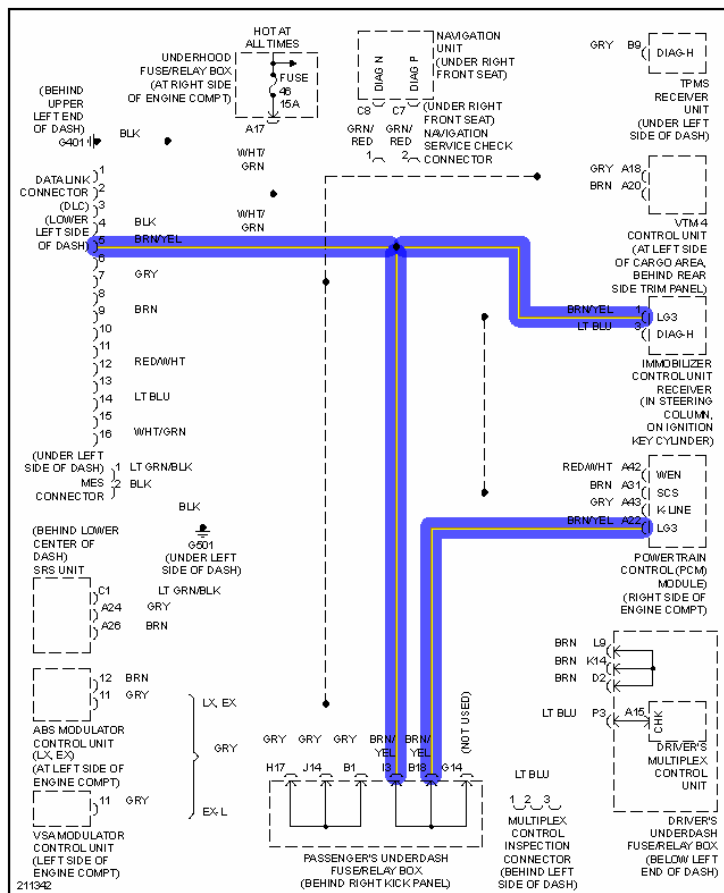
Honda Pilot Electrical Diagnostics (con't from p. 3)

The wire for pin #5 is brown/yellow and I saw that it connected to the immobilizer, fuse box, and PCM. I immediately suspected a damaged PCM (though not totally bad, I still had communication) and an immobilizer issue. I opened up the PCM and I noticed that it had internal burn spots.



The old engine wiring harness must have caused this, but the PCM later proved good enough to start the car, so let's move on.

I studied the DLC schematic and I noticed that it was passing by the passenger multiplexer and it had the letter "B18." The horn circuit happened to have a light green/blue wire with the letter "B14." What's "B" anyway?



(Con't on page 9)

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2006 Honda Pilot Electrical Diagnostics (con't from page 7)

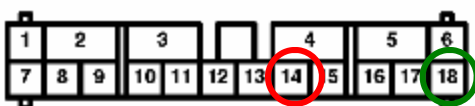
I looked on AllData and "B" apparently stands for "connector B."

The horn relay gets power from fuse 47 in the underhood fuse box, but the control side for the horn relay is the light green/blue wire from the passenger multiplexer. The passenger multiplexer has 16 fuses and 11 connectors. The light green/blue wire was the control side for the horn in connector B.

I still had the old multiplexer and noticed it also had a B in the connector slot. However, there were more letters (A through K) and numbers (1 through 11). The wires all fit into the same connectors. Take a look how similar they all look and

Connector B

— On right engine compartment wire harness



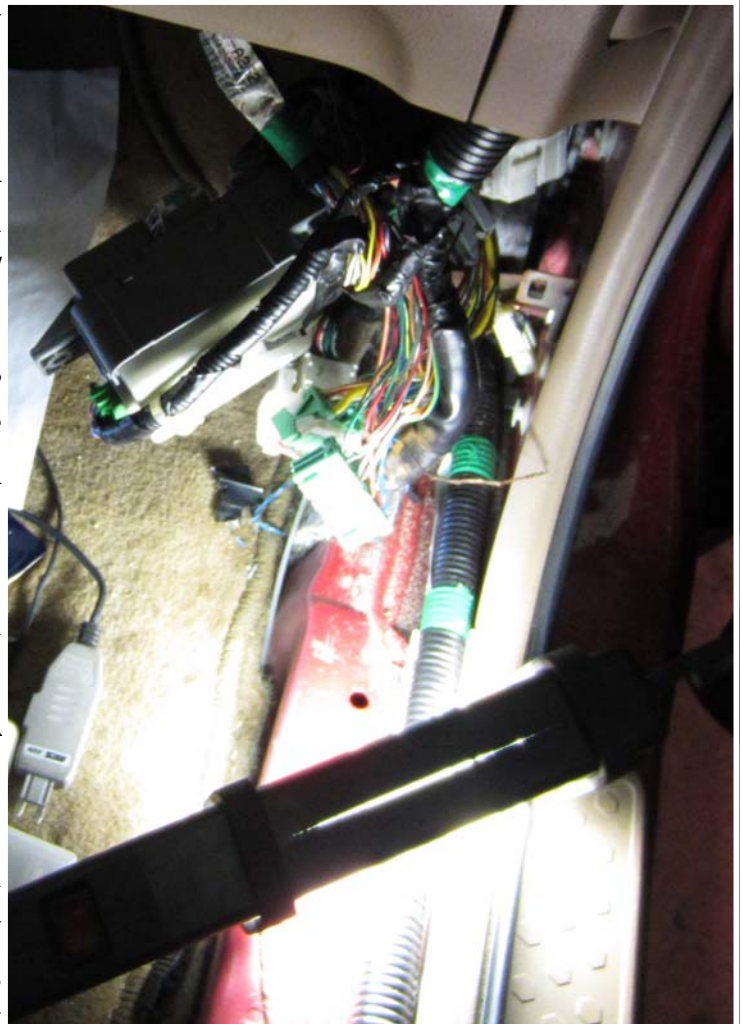
- 1 RED/YEL (Fuse 45 – Under-hood)
- 2 RED/YEL (Fuse 45 – Under-hood)
- 3 BLU/BLK (A/T park position circuit)
- 4 EX-L: BLU (Moonroof)
- 5 YEL (Fuse 54 – Under-hood)
- 6 —
- 7 GRN/RED (Front wiper/washer)
- 8 BLK/YEL (Fuse 3 – Driver's)
- 9 WHT/GRN (Fuse 49 – Under-hood)
- 10 BLU/BLK (A/T park position circuit)
- 11 YEL/GRN (Fuse 7 – Driver's)
- 12 GRN/YEL (Rear wiper/washer)
- 13 GRN (Headlights)
- 14 T GRN/BLU
except Navigation: (Horn relay control circuit)
Navigation: (Horn relay control circuit)
- 15 —
- 16 WHT/BLK (Brake pedal position circuit)
- 17 RED/BLK (Illumination (positive) circuit)
- 18 GRN/YEL
2WD: (DLC circuit)
4WD: (DLC circuit)

how many connectors there are! I

theorized that maybe the wrong wire was plugged in.

Mitchell has great wiring diagrams and AllData has good schematics. I printed out all the connector views and I inspected the multiplexer to see if the right connector was there. I was able to see that connector B had the color wires I was dealing with.

Then I realized that the connectors so close, that the fuse box sockets looked identical and allowed the wrong connectors to plug in.



(Con't on page 12)

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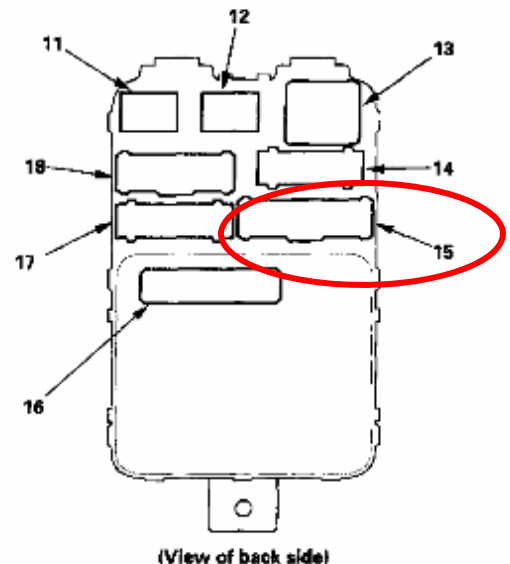
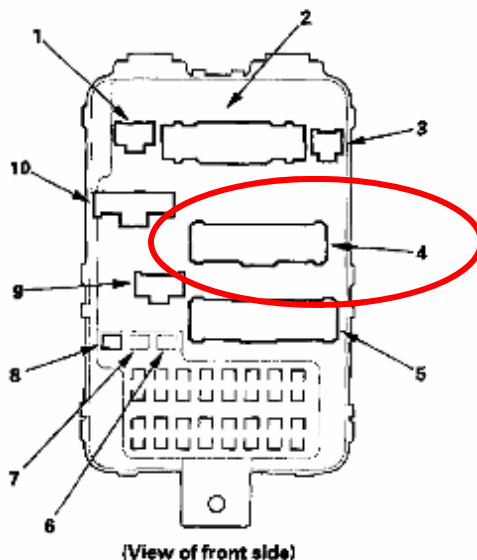
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2006 Honda Pilot Electrical Diagnostics (con't from page 9)

Passenger's Under-dash Fuse/Relay Box

Socket	Ref	Terminal	Connects to
A	10	3	Right engine compartment wire harness
Accessory power socket relay	12	4	
B	4	18	Right engine compartment wire harness
C	5	20	Right side wire harness
D	9	4	Front passenger's door wire harness
Diode	6	—	Not used
Diode	7	—	Not used
Diode	8	—	Front passenger's door courtesy light
E	2	20	Front passenger's door wire harness
F	3	2	Front passenger's door wire harness
G	15	18	Dashboard wire harness A
H	17	18	Dashboard wire harness A
I	14	16	Dashboard wire harness B
J	18	16	Dashboard wire harness B
K	1	3	Right engine compartment wire harness
Multiplex control unit, passenger's, connector A	16	24	(Plugs directly into the fuse box)
Power window relay	11	4	
Rear window defogger relay	13	4	



The sockets for the connectors looked identical and allowed the wrong connector to be plugged in.

Connectors B and G were flipped! The body shop simply plugged the harness into the wrong spot and when the fuse box was replaced again by my shop, he put the wires back to where they were originally. I put the connectors where they were supposed to be and the car started! Even though I diagnosed a vehicle that an ASE master technician gave up on, all of which was really done with God's help. The lesson? Don't get phased out from the vehicle and always double check EVERYTHING the other shop touched.

Article by Alex Portillo

Questions:

1. Do you want seminars to continue in your area?

2. Do you find the seminars useful?

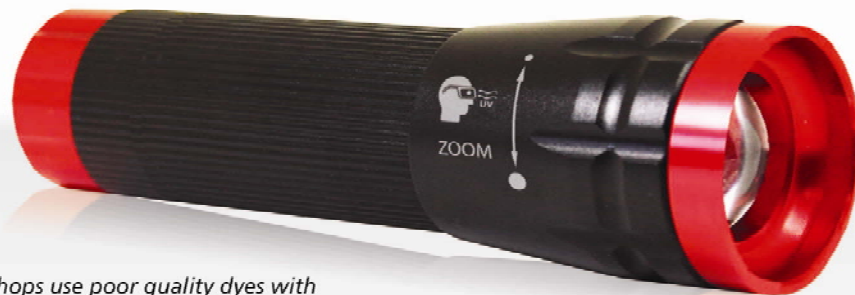
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Thank you, G Truglia

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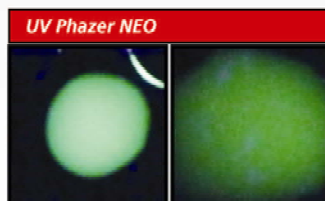
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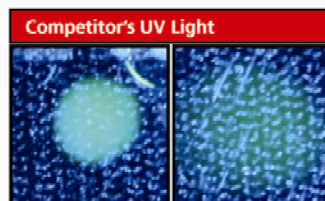
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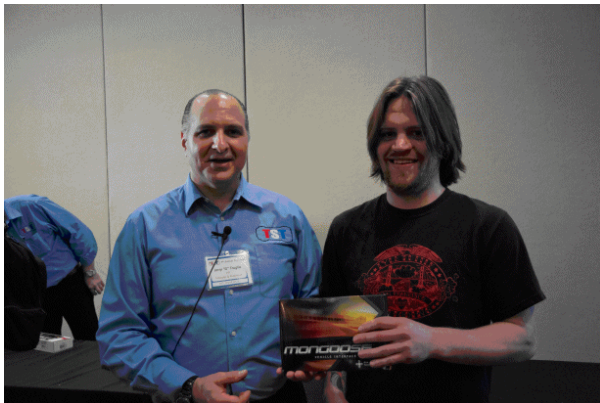


...At the 2012 TST Big Event

Were you at the TST 2012 big event? No!?! Well, you missed great seminars, networking with 160 techs, and great prizes with over \$25,000 worth of tools, books and other prizes given away.



Mary Partington receiving her OTC Genisys EVO scan tool worth over \$3,000 (left) and Ron Regan (right) receiving his Thompson Automotive Labs Fuel Zapp fuel pressure/volume tester valued over \$1,300.



Gar Tompkins (left) proudly displaying his Drew Technologies Mongoose Cable and Bob Powell (right) receiving his Smoke Wizard.

(Con't on page 18)

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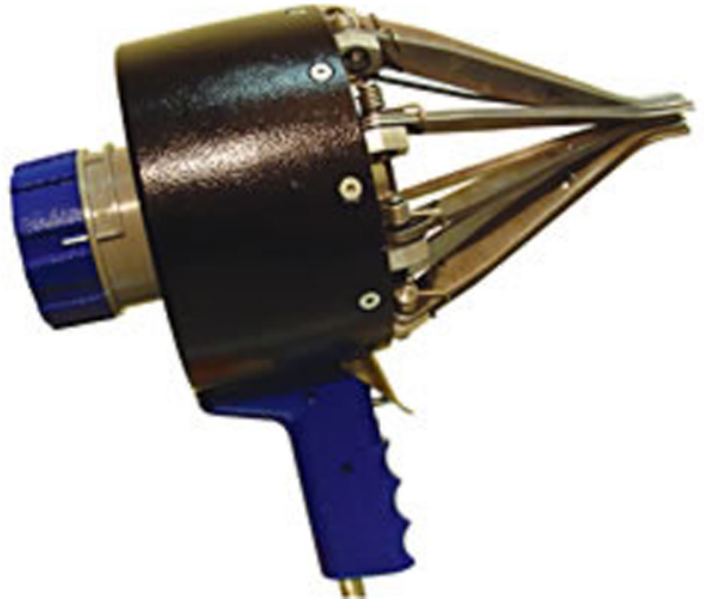
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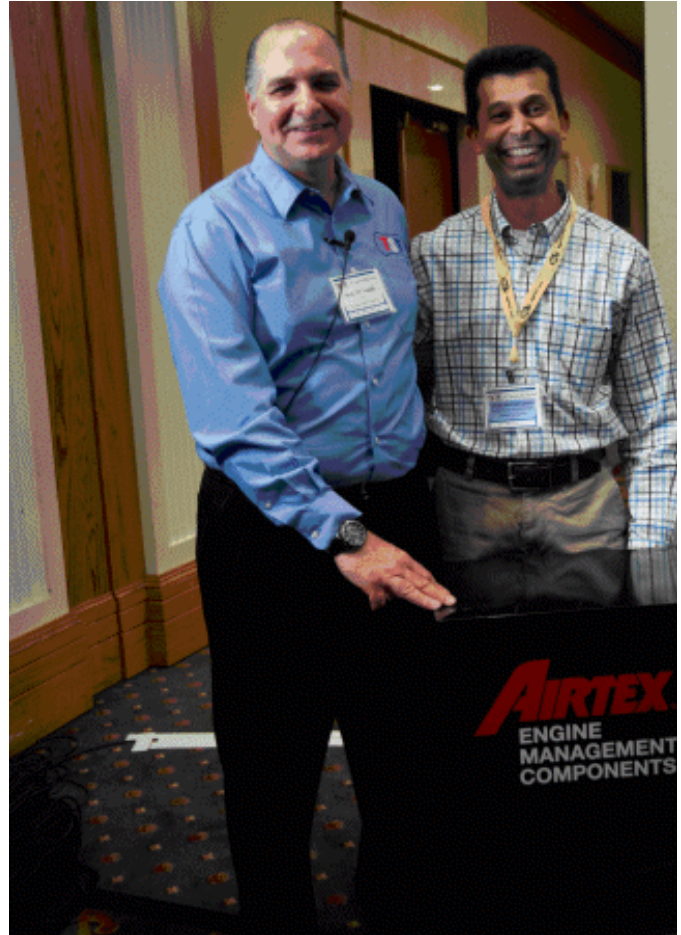
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...At the 2012 TST Big Event (con't from page 18)



A Flo-Dynamics Power Steering Flush machine, \$500 of Wells Vehicle Electronic parts (and a box), a Power-Max battery maintainer, a Mini Inductor II and much more was given away. The Big Event had 160 registrants and an attendance of about 180 people including the editor of Motor Age, his boss, and his boss's boss! *Boy, that's a lot of important people!*

Big News coming up about future Big Events. Stay Tuned!

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Peter Meier - Technical Editor, Motor Age Magazine

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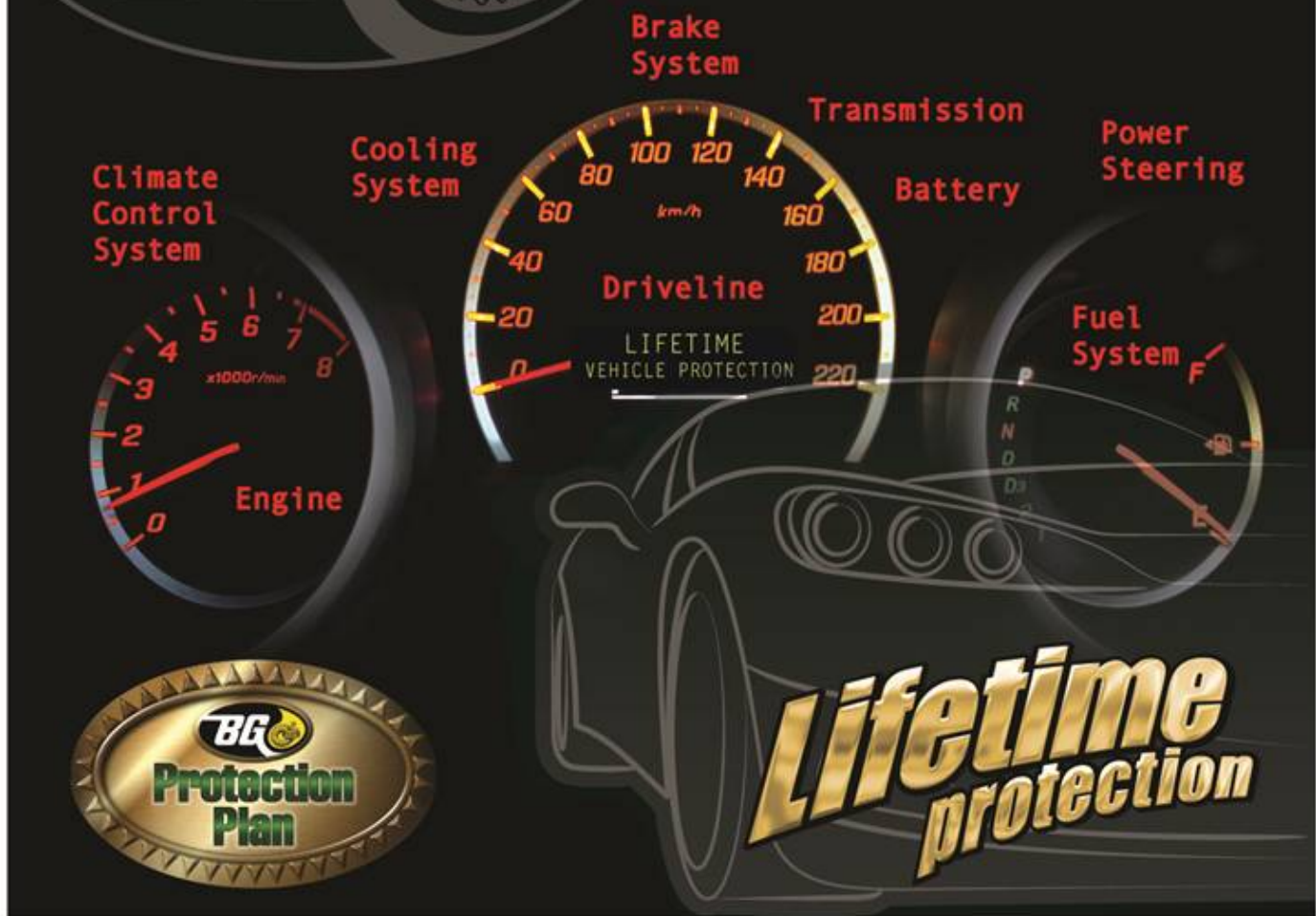


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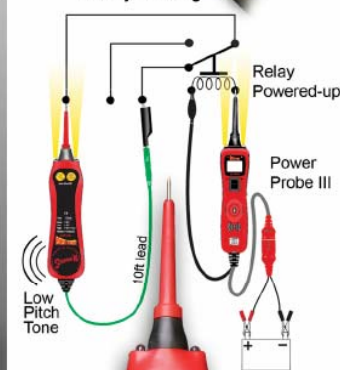
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