



Precision Parts

MAY. 2005

Volume 7, Issue 2

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Precision Parts & Remfg. Co.  
4411 S. W. 19th Street  
Oklahoma City, OK. U.S.A  
73108

**Technical Support:**  
(800) 654-3846, X243

**E-mail:**  
techsupport@pprok.com

**Website:**  
<http://www.pprok.com>

# LIVE WIRE

## Welcome

*Greg Stuart*  
*Engineering Manager*

Welcome to the May 2005 issue of our "Live Wire" newsletter.

Greg Stuart's **Technical** column this month addresses the ISA339 alternator used on the Honda Passport and Isuzu Rodeo.

Hot Stuff addresses the recent supersession of TOS740 to TOS742 and TOS743.

For more information on these articles or other information, I can be E-mailed directly at:

[gstuart@pprok.com](mailto:gstuart@pprok.com)

I look forward to hearing from you.

THANKS.

## Contact Us



By Phone: 1-800-654-3846 ext. 243  
Mon - Fri 7:00-4:30 Central Time  
Precision Parts Technical Support can answer your questions on cataloging and technical issues.



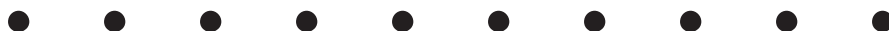
By Fax: **1-405-685-7215**  
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Precision Parts Technical Support can provide you with technical information via fax line. Call or fax in your request and we can respond by fax. We can supply catalog information, copies of technical articles and service bulletins.



By Email: [techsupport@pprok.com](mailto:techsupport@pprok.com)

Combined, our technical staff has hundreds of years of experience diagnosing and correcting electrical system problems. We also have numerous resources available to help research and solve your toughest problems.



# Technical

Greg Stuart  
Engineering Manager

## ISA339

**Application:** 1996 to 1997 Honda Passport, 3200cc engine  
1996 to 1997 Isuzu Rodeo, 3200cc engine

### Technical Service Bulletins:

**SB96-04-L002** -- This service bulletin was issued by Isuzu but will also pertain to the Honda Passport.

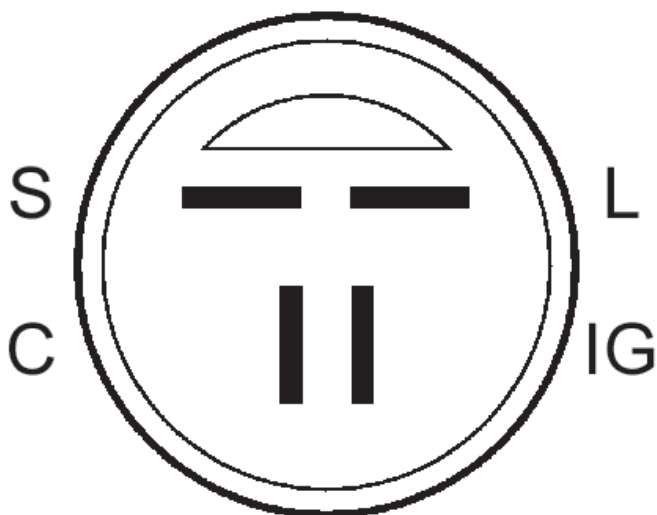
#### Voltmeter-Needle Dropping During Hard/Quick Acceleration

On all affected vehicles the voltmeter needle will drop during hard and quick acceleration. **This voltmeter drop is normal and does not indicate an alternator problem.**

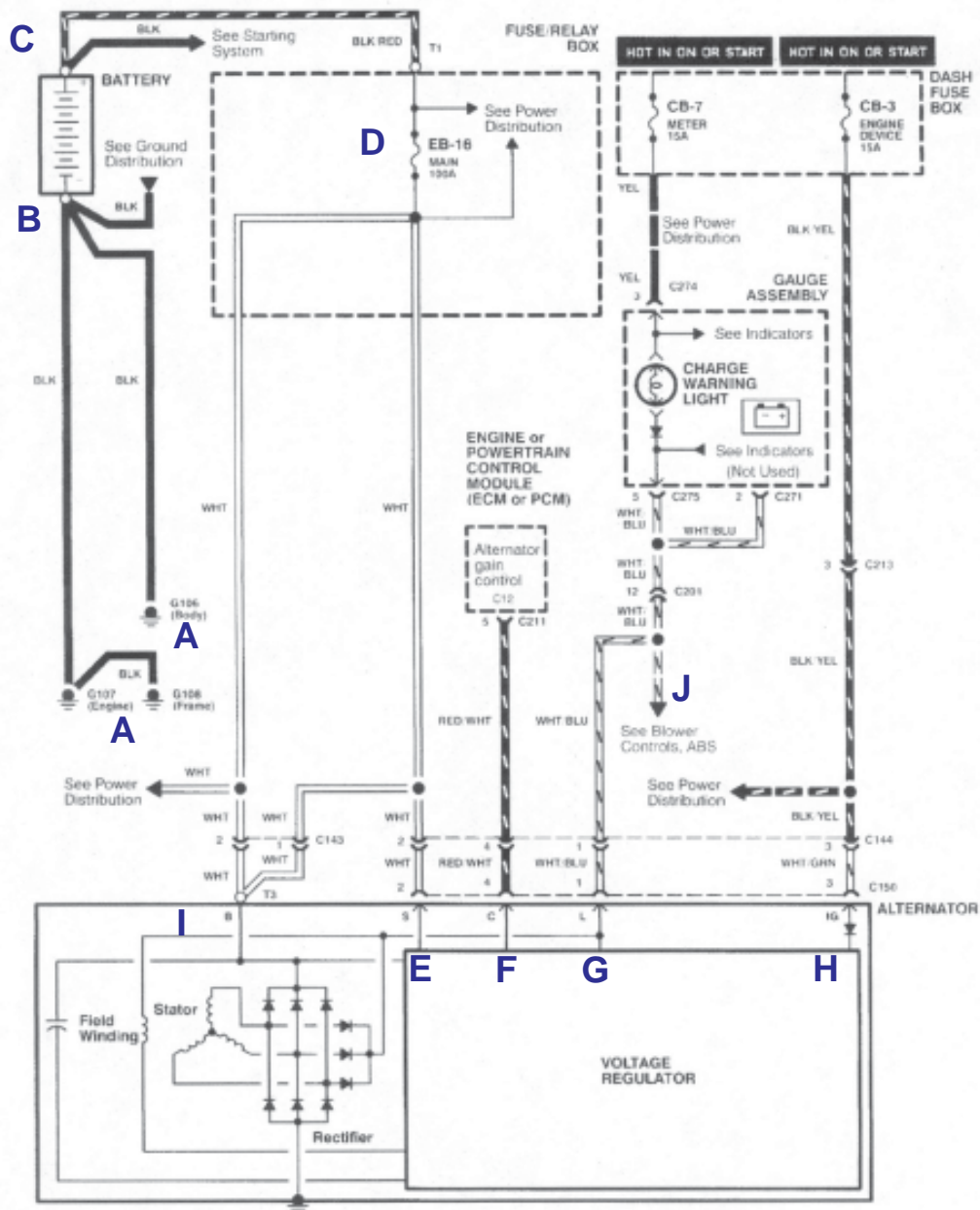
The alternator on these vehicles are designed to stop charging under certain engine /operation conditions. This feature is designed to reduce engine load and increase fuel economy. At idle the alternator will produce approx. 14.3 volts. The output voltage will remain at approx. 14.3 volts during slow and steady engine acceleration. But during a hard or quick acceleration the alternator output will drop to 12.7volts. The voltage will remain at 12.7 volts until the PCM (Powertrain Control Module) detects a drop in engine speed. At this time the voltage will be returned to approx. 14.3 volts.

This function of PCM control is activated thru the alternator harness connection. The PCM will ground the "C" terminal in the alternator vehicle harness. This may lead to other problems. If the wire connected to the "C" terminal becomes grounded or if there is a problem with the PCM control circuit for this function your alternator will only produce 12.7volts.

### Troubleshooting the ISA339



Typical Wiring Diagram:



**Trouble shooting information:**

- A. Check ground connections, must be tight and corrosion free.
- B. Check battery ground connection, must be tight and corrosion free.
- C. Check battery positive connection, must be tight and corrosion free.
- D. Check main fuse, voltage drop across fuse no more than .2V.
- E. "S" wire must have battery voltage at all times.
- F. "C" wire must not be grounded, check with key on engine off and engine on with headlights on.
- G. "L" wire key on engine off, must have battery voltage.
- H. "IG" wire key on engine off, must have battery voltage.
- I. "B" connection to alternator must be tight and corrosion free.
- J. "L" to Blower controls and ABS, check for excess current draw.



# HOT STUFF

## TOS740 is superseded

Effective 01-May-2005, PPR has superseded TOS740. In our system, a supersession usually occurs by one part number being superseded to another part number. In this instance, we have superseded TOS740 by splitting it into two new part numbers, based on power ratings of the starters (1.0 Kw, and 1.4Kw).

The TOS740 applications were split accordingly, with the 1.0Kw unit being applied to cars with 2000cc engines, and the 1.4Kw unit applied to the TOS740 applications with larger engines. The new part numbers are TOS742 (1.4Kw), and TOS743 (1.0Kw).

### TOS742 Interchange Information

<u>OE PN</u>	<u>Mfg.</u>	<u>PPR PN</u>	<u>OE PN</u>	<u>Mfg.</u>	<u>PPR PN</u>
128000-3480	ND	TOS742	28100-03010	TO	TOS742
128000-3481	ND	TOS742	28100-03020	TO	TOS742
128000-5921	ND	TOS742	28100-62020	TO	TOS742
128000-5941	ND	TOS742	28100-62021	TO	TOS742
128000-5950	ND	TOS742	28100-74020	TO	TOS742
128000-5951	ND	TOS742	28100-74021	TO	TOS742
128000-7390	ND	TOS742	28100-74050	TO	TOS742
128000-8400	ND	TOS742	28100-74060	TO	TOS742
128000-8410	ND	TOS742	28100-74070	TO	TOS742
128000-8430	ND	TOS742	28100-74090	TO	TOS742

### TOS742 Applications

<u>Car Mfg.</u>	<u>Model</u>	<u>Engine</u>	<u>Start Date</u>	<u>End Date</u>	<u>Notes</u>
Lexus	ES250	2508cc	1990	1991	2VZFE Engine
Toyota	Camry	2500cc	1989	1991	2VZFE Engine
Toyota	Celica	2200cc	1990	1993	5SFE Engine
Toyota	MR2	2200cc	1990	1995	5SFE Engine

<u>PPR PN</u>	<u>Mfg</u>	<u>Design</u>	<u>Motor</u>	<u>Power</u>	<u>Opening</u>	<u>Teeth</u>	<u>Rotation</u>	<u>Plug</u>
TOS742	ND	GI	FC	1.4kw	OS	13	CCW	910

### TOS743 Interchange Information

<u>OE PN</u>	<u>Mfg.</u>	<u>PPR PN</u>
128000-3470	ND	TOS743
128000-3471	ND	TOS743
28100-62010	TO	TOS743
28100-62011	TO	TOS743
28100-74010	TO	TOS743
28100-74011	TO	TOS743

### TOS743 Applications

<u>Car Mfg.</u>	<u>Model</u>	<u>Engine</u>	<u>Start Date</u>	<u>End Date</u>	<u>Notes</u>
Toyota	Camry	2000cc	1987	1991	3SFE Engine
Toyota	Celica	2000cc	1987	1989	3SFE Engine
Toyota	Celica Turbo	2000cc	1987	1989	3SGTE Engine
Toyota	MR2	2000cc	1990	1995	3SGTE Engine

<u>PPR PN</u>	<u>Mfg</u>	<u>Design</u>	<u>Motor</u>	<u>Power</u>	<u>Opening</u>	<u>Teeth</u>	<u>Rotation</u>	<u>Plug</u>
TOS743	ND	GI	FC	1.0kw	OS	13	CCW	910