



Countries:	AUSTRALIA, BRAZIL, CANADA, UNITED STATES, MEXICO, SOUTH AFRICA	Document ID:	IK0800139
Availability:	ISIS, FleetISIS	Revision:	5
Major System:	ELECTRICAL SYSTEM	Created:	7/2/2008
Current Language:	English	Last Modified:	5/14/2013
Other Languages:	Français , Español ,	Author:	Rob Marvel
Viewed:	2737		

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Coding Information

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Title: Remote Engine Speed Control Module (RESCM) Troubleshooting

Applies To: All trucks with RESCM

DESCRIPTION

The Remote Engine Speed Control Module can be used to perform the same functions as the engine harness remote engine speed control.

The RESCM communicates on the Bodybuilder 1939 data link. The 7 packs and RPMs communicate the same way. You can use the same data link troubleshooting for all modules on the Bodybuilder Data Link. There are basically 3 reasons that you will get communication error codes for these modules.

1. There's a problem in the Bodybuilder Data Link.
2. The module is missing power or ground signals.
3. The address jumper is in the wrong place or missing.

For Installation Instructions, [click here](#).

Follow the procedure below for diagnostics.

POSSIBLE DIAGNOSTIC TROUBLE CODES

SPN	FMI	Byte 7	Byte 8	Description
1231	14	225	1	RPM #1 not communicating with the ESC
1231	14	225	2	More than one RPM responds back as RPM #1
1231	14	226	1	RPM #2 not communicating with the ESC
1231	14	226	2	More than one RPM responds back as RPM #2
1231	14	228	1	RPM #4 not communicating with the ESC
1231	14	228	2	More than one RPM responds back as RPM #4
1231	14	231	1	RPM #7 not communicating with the ESC
1231	14	231	2	More than one RPM responds back as RPM #7
1231	14	34	1	RASM #1 not not communicating with the ESC
1231	14	34	2	More than one RASM responds back as RASM #1
1231	14	234	1	RASM #2 not not communicating with the ESC
1231	14	234	2	More than one RASM responds back as RASM #2
1231	14	209	1	Remote engine speed control module is not communicating with the ESC
1231	14	209	2	More than one Remote engine speed control module with the same source address is responding to the ESC

PARTS INFORMATION

Click here for the [Bodybuilders Quick Reference](#)

Click here for the [Diamond Logic Body Integration Quick Reference Parts Guide](#) (This is a very good parts guide with pictures)

TROUBLESHOOTING

1. Don't worry about power on pin 1 at the RESCM or pin A at the 4004 of the ESC. This is power for the air solenoid module and is not used for the RESCM.
2. You should have battery voltage on pin 6 at the RESCM.
3. You should have a good ground on pin 2.
4. Make sure that the address jumper wire is in the right place, also remove connector and check terminals for being pushed back. For example, the address jumper for RESCM 1 should be between pins 1 and 2 of the J3 (input) connector of the RESCM. The RESCM remote throttle input is preloaded with a resistor

fixed in connector J3, pins 17 and 14. This resistor fixes the input at 0%. If using a remote throttle pedal of any kind, remove this resistor when installing the remote throttle connections. If not installing a remote throttle, leave this resistor in place. **Do not remove the jumper in J3 pins 1-2, if it is installed.**

5. Check voltage from pin 34 to ground and from pin 35 to ground at the 4004 connector of the ESC while the connector is disconnected from the ESC, we're measuring the voltage coming from the RESCM, with the key on.
 - You should have approximately 5v total when you add the voltages from each wire together, on the body builder data link both circuits will have 2.5v.
 - If you get 0v or close to it on either wire, you probably have a short to ground on that wire.
6. Check resistance between pins 34 and 35 of the 4004 connector at the ESC with the key off.
 - You should have approximately 60 ohms
 - There are two 120 ohm resistors in the data link.
 - If you get 0 ohms, then you have a short between the 2 wires.
 - If you get 120 ohms, you have an open somewhere in the data link or you're missing one of the resistors.
7. Check the resistance from pin 34 to ground and from pin 35 to ground at the 4004 connector of the ESC connector with the key off.
 - Resistance should be greater than 1,000 ohms.
 - If resistance is less than a 1,000 ohms, then you have a short to ground.
8. Measure resistance between pin 34 at the 4004 connector and pin 3 at the RESCM and between pin 35 at the 4004 and pin 4 at the RESCM.
 - You should have less than 1 ohm resistance. If you have more than that, you either have a bad connection somewhere or you have an open in that wire.
9. If you still can't find the problem, enter your codes and measurements from the steps above into a Tech Service case file.

CIRCUIT DIAGRAMS

- For circuit diagrams, [click here.](#)



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