



Simple Trouble Shooting

Product: *Reverse-A-Matic™*

Model: *RM-50/RM-60*

We have designed this document to assist with simple trouble shooting! If you are having a problem with a *Reverse-A-Matic™* system, please check the list below. This process can be made easier by purchasing a *Reverse-A-Matic™* Diagnostic Tool (PN# 200601) available at Wheel Monitor Inc. and distributors located across Canada.

1. APPLY +12 volts to the trailer, **DO NOT USE A BATTERY CHARGER.**
2. Is the Green LED ON? (This indicates the unit has +12 volts power.)
3. When the module powers up it will turn ON all of its relays for 1 second and turn them OFF. For safety reasons it will only do this when it is not moving. This will allow you to check the wiring.
4. THE **GREEN** LED - The **Green** LED on the module will help to determine if a problem exists and if it is the following;
 1. The **Green** LED can help with power input, ground connection, high current conditions, broken sensors and sensor operation.
 2. The **Green** LED will flash once per second when the trailer is not moving.
 3. The **Green** LED will be ON solid when the wheel revolves.
 4. The **Green** LED will flash 3 times per second if it has a problem.

The possible problems are:

- I. An output is using too much current.
- II. An output is short circuited.
- III. The ground connection is bad.
- IV. The sensor is broken.

If the **Green** LED is **not** ON, then the unit does not have power. Check power and ground connections and voltage.

NOTE: The LED may have been damaged while the unit is still working properly, Please check the relays outputs at power up.

If the LED flashes 3 times per second when the wheel is not moving, then the problem is too much current or and bad ground connection.

- A. Check if any of the outputs are shorted. If the module resets within one second, then the current is very high.

- B. Check that the unit is grounded to the harness. There can be a voltage difference between grounds on the trailer chassis.

TURN THE WHEEL

Find the wheel with the sensor on it. Jack up the axle.

Turn the wheel by hand.

The **green** LED will be ON when it reads wheel movement and has no problems.

If you move the wheel and the **green** LED remains flashing once per second, then it is not reading the ABS tone ring.

- A. Check the connection to the sensor, it may have been disconnected.
- B. Check the spacing and orientation of the sensor. It should be very close to the tone ring. It should be oriented with the arrow at the back of the sensor pointed outward from the center of the axle. This will require the tires and brake drum to be removed.

If you move the wheel and the LED flashes 3 times per second, it could be too much current draw or a broken sensor.

- A. Check the total current, the *Reverse-A-Matic*™ is rated for 5 amps, if it takes several second to reset the module then the current draw is too large. A shorted output should reset the unit when it powers up. A large current may take more than one second to trip the fuse.
- B. Check the connection to the sensor.
- C. The sensor or sensor wiring may be broken. Replace the sensor and redo the test. This will require the tires and brake drum to be removed. A diagnostic tool (PN#200601) is very helpful here.

Question: My Module does not have an LED?

Answer: *Older modules do not have the diagnostic LED light. The start up sequence of turning on the relays for one second will indicate if the unit has power. Disconnect and re-connect the blue wire to check for relays.*

1. *Check the input voltage on the blue and white wires. It should be 9 to 16 volts.*
2. *Rotating the wheel in reverse will activate the yellow wire. It is useful it connect a light to this output.*
3. *The Diagnostic tool will test the module and the sensor of any Reverse-A-Matic™ system.*

Other Questions:

Question: How do I test my Four Way Flasher connections to my RM-60 Module (PN# 200506-OEM)?

Answer: *The Diagnostic tool (PN# 200601) has a four-way flasher switch to test the system. A tractor may be used to test the connections.*

Question: How do I test the speed lock functions of the RM-60 module (PN# 200506-OEM)?

Answer: *The Diagnostic tool (PN# 200601) has high speed sensor simulations to test all functions. A light on the side of the trailer should be connected to the axle functions for road testing a module.*

Question: My system is operating backwards?

Answer: *The sensor (PN#200512) controls this. The sensor should be installed on the driver's side with the arrow pointing outward from the axle. The sensor should be mounted on a fixed axle.*

Question: My Sensor (PN#200512) has melted.

Answer: *The Reverse-A-Matic™ sensor may be damaged if the temperature from an overheated brake exceeds 300°F. Replace the sensor and check all other components on the wheel end.*

Question: My ABS light does not work?

Answer: *Check to ensure there is not a short circuit on the blue line. Check the connections of the dropout wiring harness (PN# 200514/15/21) if there is one. The Reverse-A-Matic™ module has an internal resetting fuse to ensure the module does not affect the blue line power.*

Question: I replaced the Module but it still does not work?

Answer: *All of our modules are tested before they leave our facility. A problem may exist with the trailer wiring, the ground connection or the sensor (PN#200512). It is likely that the module that was removed is working properly.*

Last Updated: October 24th 2008