NEW BRAKES ARE NOT WORKING

Question: Last month I removed all four of the brake backing assemblies on my 2001 Classic Airstream Trailer and replaced them with NEW Dexter backing plates. I also had the brake drums turned down both the brake surface and the magnet surfaces. I stopped at Master Mechanics for the Pennsylvania Inspection. When they jacked up the trailer to check the brakes there was almost no brakes on one wheel and the other wheel had some brake but it was weak. When I moved the emergency lever on the controller it stopped and locked the wheel. However using the brake peddle it did not have much brake and would not lock the wheels. All controls on the Prodigy controller were set at maximum. They then jacked up the second side and the rear wheel was checked with the same results weak brakes with peddle but locked when the emergency cable was pulled or the manual slide control was used. They then attempted to adjust the brakes but no difference. The mechanic suspected that the magnets were defective, or possibly the controller is faulty. Do the brakes need a brake-in? The prodigy has a led read out for error messages but everything reads normal. Can I test the voltage coming from the tow vehicle plug? Is there a simple test for magnets?

The new magnets are brown and shaped like a football. Is there a re-call on magnets? Is this a magnet problem?

Answer: Brakes should be adjusted after the first 200 miles of operation when the brake shoes and drums have "seated" and at 3000 mile intervals, or as use and performance requires. The brakes should be adjusted in the following manner:

1. Jack up trailer and secure on adequate capacity jack stands. Follow trailer manufacturer's recommendations for lifting and supporting the unit. Check that the wheel and drum rotate freely. WARNING ***Do not lift or support trailer on any part of the axle or the suspension system.***
2. Remove the adjusting hole cover from the adjusting slot on the bottom of the brake backing plate.
3. With a screwdriver or standard adjusting tool, rotate the starwheel of the adjuster assembly to expand the brake shoes. Adjust the brake shoes out until the pressure of the linings against the drum makes the wheel very difficult to turn. ***Note: With drop spindle axles, a modified adjusting tool with about an 80 degree angle should be used.***
4. Then rotate the starwheel in the opposite direction until the wheel turns freely with a slight lining drag.
5. Replace the adjusting hole cover and lower the wheel to the ground.
6. Repeat the above procedure on all brakes. WARNING ***Never crawl under your trailer unless it is resting on properly placed jack stands.***

Follow the trailer manufacturer's recommendations for lifting and supporting the unit. Do not lift or place supports on any part of the suspension system. **Note: Trailer Brake Adjustment procedures courtesy Dexter Axle.

Adjusting the Power to the Trailer Brakes (Prior to setting Boost) Once the control has been securely mounted in the direction of travel, it is necessary to set the power needed to stop the trailer during a braking event.

1. Connect trailer to tow vehicle.

2. With engine running hold manual full left and set Power Knob to indicate approximately 6.0.

3. Drive tow vehicle and trailer on a dry level paved surface at 25 mph and fully apply manual knob. If trailer brakes lock up: Turn power down using power knob. If braking was not sufficient: Turn power up using power knob.

4. Repeat Step (3) until power has been set to a point just below wheel lock up or at a sufficient force so as to achieve maximum braking power.

5. Using the brake pedal, make a few low speed stops to check the power setting. Trailer braking is initiated and terminated via the stoplight switch. When the brake pedal is released, trailer braking will cease.

The above procedures are from the Prodigy P2 Electronic Brake Control Instruction Manual. Your Prodigy indicates the voltage at the output of the brake cable going to the trailer. In manual mode you should be reading slightly less than the battery voltage (12 to 12.8 volts) depending on the charge state of the battery. Since this locks all of the brakes this indicates that your brake job is fine. When you press the brake pedal you should get a voltage of from 3.5 to 12 volts depending upon your settings and the speed of the vehicle. A quick call to Prodigy yielded an excellent test method. Remove the controller from its brackets. Tilt the controller toward the front of the tow vehicle while pressing on the brake pedal. The maximum tilt will yield the maximum voltage sent to the breaks. You cannot lock the wheels with the brake pedal with no forward tilt on the controller. This is how the proportional control system works. The faster you are going the more your tow vehicle front end tilts down and the higher the brake voltage will be.

Your brakes are fine and working as they should be. You should re-adjust the brake shoes using the above procedure, so they are all adjusted correctly. Then do the Power to the Trailer adjustment and you will be ready to go. Don’t forget the 200 mile check. You do have to bed-in the brake shoes and drums for several thousand miles before they provide maximum braking power.