

May 12, 2011

SERVICE MEMORANDUM NO. SM1004 Revised

**MEMO TO: All Blue Bird Dealers** 

**SUBJECT: Air System Check and Leak Test Procedures** 

**MODEL YEAR: 1992 - Present** 

**MODELS AFFECTED: All** 

## Test One (system check)

- 1. Park the vehicle on level ground, set the parking brake, and chock at least two wheels on both front and rear sides. Ensure that the vehicle will not roll.
- 2. Drain the air from all tanks to 0 psi. Parking brake will automatically set.
- 3. Start the engine and run at high idle. Is the low air pressure buzzer working?
- 4. Observe the low pressure warning light on the dash. Does it turn off at or above 60 psi?
- 5. Release the parking brake.
- 6. Time how long it takes to build air pressure from 85 psi to 100 psi. For buses with Diesel engines it should take 40 seconds or less. For buses with GM 8.1 engines it should take 55 seconds or less.
- 7. Monitor the air pressure gauge until the governor cuts out. Does the governor cut out at 120 +/- 5 psi?
- 8. Reduce reservoir pressure by repeatedly applying service brakes until governor cut-in. Is the difference in cut-in and cut out pressure 20 +/- 5 psi?



If the answer to all of the above questions is "yes", the system is working as designed. For any question(s) answered "no", follow normal troubleshooting methods to identify and correct the source of the problem(s). Retest to check out all items repaired or replaced. Proceed to Test Two.

## Test Two (leak check) for D3 and BBCV's after 11/2009

- 1. Park the vehicle on level ground and chock at least two wheels both front and rear sides. Ensure that the vehicle will not roll.
- 2. Start the engine and access the "Settings and Diagnostics menu by pressing the lower button on the Instrument Cluster for >5 sec. Once this menu is entered, select menu item 1 (Air Brake PSI) to show the front and rear brake system air pressure. If air pressure is above 40 psi, release the parking brake. If not, let the system pressure build to more than 40 psi so the parking brake can be released and stay released.
- 3. Let system pressure build to governor cut-out and allow to stabilize for approx. one minute.
- 4. Apply the service brakes firmly and allow the pressure to stabilize again. Observe the pressures displayed on the instrument cluster message display.
- 5. Continue holding the pedal for two minutes [a block of wood may be used to hold the pedal in position], and observe the dash gauges again. If there is a pressure decrease of more than 4 psi for either air tank during the two minutes find the source of the leak using a leak detector or soapy water, repair the leak(s), and retest to confirm the leak(s) has been repaired. If the decrease is 4 psi or less over two minutes, the system is working as designed.

## Test Two (leak check) for A3

- 1. Park the vehicle on level ground and chock at least two wheels both front and rear sides. Ensure that the vehicle will not roll.
- 2. Start the engine. Observe the front and rear brake system air pressure displayed on the dash gauges. If air pressure is above 40 psi, release the parking brake. If not, let the system pressure build to more than 40 psi so the parking brake can be released and stay released.



- 3. Let system pressure build to governor cut-out and allow to stabilize for approx. one minute.
- 4. Apply the service brakes firmly and allow the pressure to stabilize again. Observe the pressures displayed on the dash gauges.
- 5. Continue holding the pedal for five minutes [a block of wood may be used to hold the pedal in position], and observe the dash gauges again. If there is a pressure decrease of more than 10 psi for either air tank during the five minutes find the source of the leak using a leak detector or soapy water, repair the leak(s), and retest to confirm the leak(s) has been repaired. If the decrease is 10 psi or less over five minutes, the system is working as designed.

Sincerely,

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