

March 08, 2007

Dear Blue Bird Owner,

You will find enclosed a copy of Service Bulletin S07LM regarding reduced wiped area of the driver's windshield on your Blue Bird "Vision" conventional bus(es). On some buses, the wiped area of the driver's side windshield may be reduced due to a component (bicycle crank arm) in the wiper arm assembly being out of design specification.

The original bicycle crank arm in the wiper assembly must be replaced with a new corrected bicycle crank arm according to Service Bulletin S07LM. Instructions and parts requirements for replacing the bicycle crank arm are provided in Service Bulletin S07LM.

Your buses requiring replacement of the bicycle crank arm are identified on the enclosed cover sheet.

Labor time to replace bicycle crank arm and package and ship defective bicycle crank arm to Wexco is one (1) hour per bus. Parts required are available from your usual Blue Bird Service Parts source.

**Note: The original bicycle crank arm must be returned to Wexco Industries. A return goods authorization (RGA) form along with instructions is included with this bulletin.**

Service Bulletin S07LM expires one (1) year from date of issue.

Should you have any questions concerning this bulletin, please contact your Blue Bird distributor or factory service representative.

Sincerely,



Bill Coleman  
Blue Bird Corporation



BLUE BIRD

# BBCV Left Wiper Sweep

# BULLETIN

Revised 3/05/07

MODELS AFFECTED: 2008 BBCV

## ISSUE

Due to noncompliance with design specification of a bicycle crank, the sweep of the driver's-side windshield wiper may be reduced.

## CORRECTIVE ACTION

This procedure replaces the original bicycle crank with one which meets the design specification.

## PROCEDURE

**WARNING** Always follow all federal, state, local and shop safety standards, and use proper safety equipment when performing this procedure.

**1** Park the bus on a level surface. Apply the parking brake. Operate the windshield wiper motor for several cycles, turn off the wiper switch, and allow the wipers to park. Remove the ignition key. Chock all wheels.

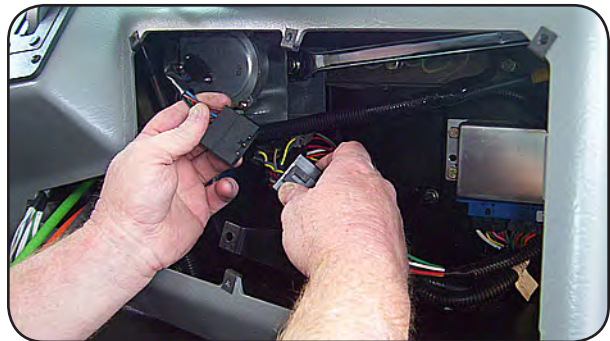
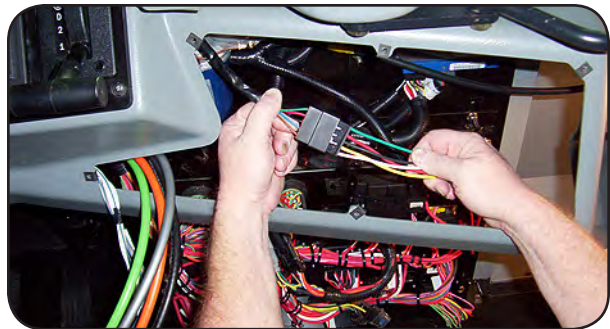
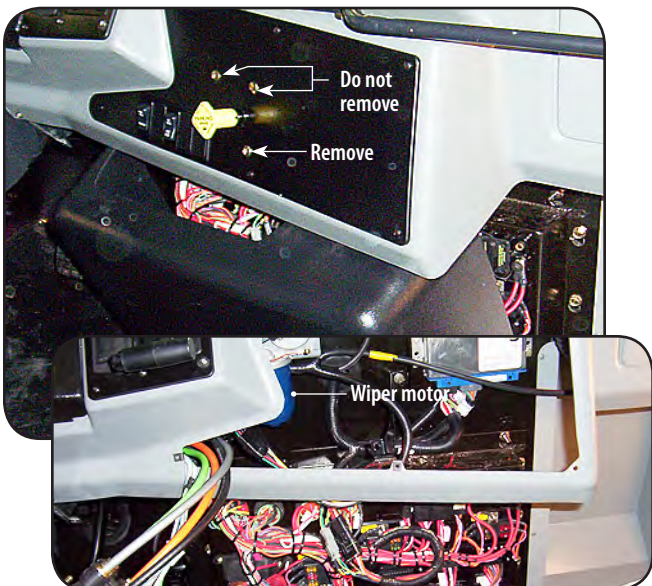
**2** Remove the PDU cover and the driver's center switch panel:

2.1 Remove the thumbscrews which secure the PDU cover, and set the cover aside.

2.2 Remove the screws around the perimeter of the driver's center switch panel. On buses equipped with air brakes, the bottom parking brake release valve mounting screw threads into a support bracket, and must also be removed to remove the panel. Do not remove the other two park brake valve screws. Carefully move the panel assembly toward the driver's seat sufficiently to gain access to the wiper motor.

**3** Locate and disconnect the windshield wiper motor harness connector and disconnect the wiper motor harness from the vehicle harness.

**WARNING** The wiper motor must be disconnected from the vehicle harness when working on the wiper system linkage. Otherwise, if the motor were rotated even a small amount, the automatic park feature can activate the motor without warning, and result in severe injury to hands.



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S E R V I C E B U L L E T I N

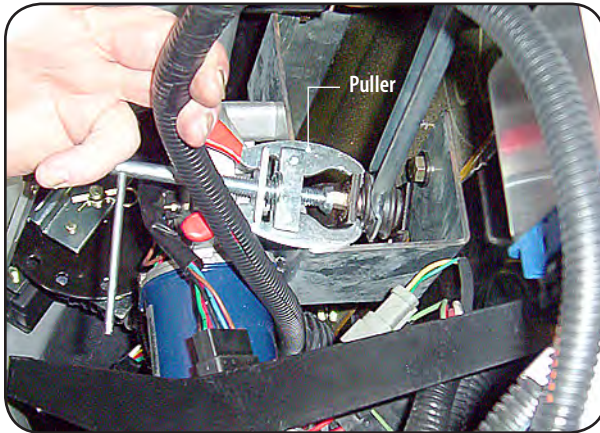


**4** Disconnect the bicycle crank from the wiper motor shaft:

- 4.1 Remove the 13 mm hex nut attaching the bicycle crank and linkage assembly to the wiper motor. With an open end wrench, pry the assembly off of the shaft.
- 4.2 Move the assembly toward the right to gain access to the attaching nut which holds the bicycle crank together.

**5** Remove the original lower short crank plate:

- 5.1 Using a  $\frac{5}{16}$ " socket or wrench, loosen the attaching nut. There is no bolt head on the front of the assembly; a 1" open end wrench may be used to hold the bicycle crank while loosening the nut.
- 5.2 Using a small battery terminal puller, remove the lower, short crank plate from the bicycle crank. To start the removal, do not completely remove the nut—the puller should press against the hex nut, not the threaded stud. When the lower crank plate pops loose, remove the nut and lower plate. Discard the plate.



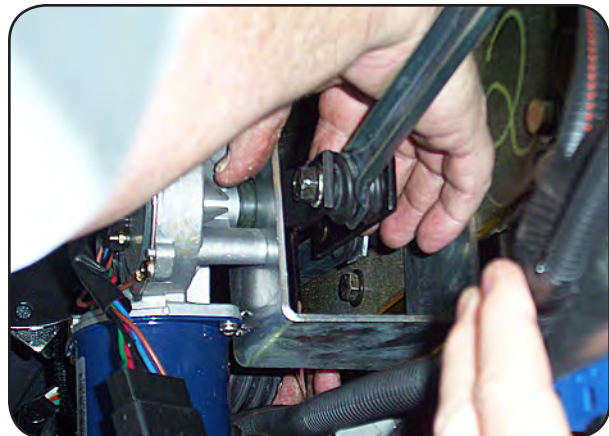
**6** Install the new replacement lower crank plate onto the threaded stud of the bicycle crank. Install and hand tighten the  $\frac{5}{16}$ " hex nut. Using a  $\frac{5}{16}$ " wrench for the hex nut and a 1" open end wrench to hold the crank plate, tighten the hex nut until the new crank plate bottoms out on the stud. The bicycle crank is now assembled.

**7** Park the wiper motor and reinstall the bicycle crank:

- 7.1 With the bicycle crank still removed from the motor shaft, plug in the wiper motor, insert the ignition key and turn it to the accessories position, and activate the wiper motor momentarily with the wiper switch. Then turn the wiper switch off. Wait 5 seconds to allow the wiper motor to run and park. Turn off the ignition switch and remove the key. Unplug the wiper motor harness.

**WARNING** Do not fail to unplug the wiper motor harness. The wiper motor must be unplugged before continuing with this procedure.

- 7.2 Rotate the bicycle crank by hand so that the wiper arms and blades are all the way down and parked parallel to the bottom edge of the windshield. *The long lever of the bicycle crank must be positioned exactly horizontally.*
- 7.3 Slide the bicycle crank onto the motor output shaft and install the M8 nut snugly by hand. Recheck that the long lever on the bicycle crank is still horizontal. Rotate to correct if necessary.



- 7.4 Using the 1" open end wrench to prevent the long lever from turning, tighten the M8 nut on the motor shaft with the 13mm wrench. Make sure the M8 nut is tight.
- 7.5 Check the entire wiper linkage area to ensure that all wires, hoses, and other objects are clear of the wiper linkage path.



BLUE BIRD

Revised 3/05/07

# BULLETIN

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## 8 Test operation and wiper park position:

8.1 Reconnect the wiper motor harness to the vehicle harness.

**WARNING** *Keep hands away from the wiper linkage path after the wiper harness is connected.*

8.2 Insert the ignition key and turn it to the Accessories position. Operate the wipers for several cycles, turn off the wiper switch and allow the wipers to park. Check the alignment of the wiper blades, as was done in step 2. If the wipers are not aligned to each other, and parallel to the bottom of the windshield, it will be necessary to reposition one or both wiper arms on the pivot shafts.



*Wipers not properly aligned*



*Wipers properly aligned*

## 9 If the wiper park position requires adjustment:

9.1 Remove the ignition key.

9.2 Remove the wiper arm(s) and separate the knurled driver from the wiper arm.

9.3 Reinstall the knurled driver onto the pivot shaft, install the wiper arm in the proper position, and then reinstall the lock washer and domed nut. The wiper system should now be correctly timed and parked.



9.4 Insert the ignition key and turn it to the Accessories position. Operate the wipers for several cycles. If one wiper runs below the final parallel park position, this indicates the bicycle crank was not installed with its long linkage arm exactly horizontal after the motor was parked. Repeat steps 3, 4, 6, 7 and 8.

**10** If after performing this procedure, the wiper park position is found to be correct, reinstall the center switch panel and PDU cover. The procedure is complete and the bus may be returned to normal service.

### TOOLS REQUIRED

- 13mm box end wrench
- 9/16" box or open end wrench or socket, extension and ratchet
- 1" open end wrench
- Battery terminal puller (provided)

PART NUMBER	QUANTITY	DESCRIPTION
0102280	1	Lever, Crank, 5.102" Ctr to Ctr, W/S Wpr Motor, Wexco
0117332	1	Battery terminal puller

**INSTRUCTIONS TO COMPLETE RGA  
AND RETURN PART**

**Complete company information at the top of form.**

**List each vehicle serial number**

**Inventory # will be "crank"**

**Package and ship via FedEx Ground "Collect" preferred**

**Use UPS "Collect" if FedEx is not available**

