

**CSC-10043189-6408**

March 10, 2006

Dear Blue Bird Owner:

You will find enclosed a copy of Service Bulletin S06KJ regarding the potential for reduced power to operate coach accessories when coach is not connected to shore power on Wanderlodge 450LXi Motor Homes.

Vanner Incorporated, the manufacturer of the inverter, will be replacing the inverter circuit board with upgraded circuit boards to eliminate this potential. Both (the 450LXi is equipped with 2 inverters) inverters circuit boards must be replaced whether or not you have experienced any problems.

A repair technician qualified to perform repair procedures on high voltage inverters must perform this upgrade. Blue Bird Wanderlodge coach dealers have qualified personnel. Vanner Incorporated has service centers located throughout North America. A list of those service centers is attached.

Time required to perform Service Bulletin S06KJ is 1 hour.

If you no longer own the bus (es) identified on the enclosed cover sheet, please indicate new owner in the "sold to" section of the cover sheet and return to us at the address below:

BLUE BIRD BODY COMPANY  
P.O. BOX 937  
FT. VALLEY GA 31030  
ATTN: TECHNICAL PUBLICATIONS

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

Service Bulletin S06KJ expires one year from date of issue.

Sincerely,

Bill Coleman  
Blue Bird Corporation

# *Coachworks*

## *Technical Service Bulletin*

**DATE:** March 10, 2005

**BULLETIN NO.** S06KJ

**SUBJECT:** VANNER INVERTER CIRCUIT BOARD UPDATE

**MODELS  
AFFECTED:** WANDERLODGE 450LXi MOTOR HOMES

When the inverter-charger is connected to shore power and the battery charger for the house batteries is operational, the battery voltage may fluctuate causing an inverter circuit board failure. When an inverter circuit board fails there may not be sufficient power to operate all coach accessories when coach is not connected to shore power. Both (the 450 LXI is equipped with 2 inverters) inverters circuit boards must be replaced whether or not you have experienced any problems.

### **Parts Required:**

Vanner Incorporated will have replacement circuit boards available at participating Wanderlodge dealers and Vanner service centers.

### **Reimbursement for Labor:**

Estimated time required to perform Service Bulletin S06KJ is 1 hour. See attached Vanner Control Board Guidelines for details.

A repair technician qualified to perform repair procedures on high voltage inverters must perform this upgrade. Blue Bird Wanderlodge coach dealers have qualified personnel. Vanner Incorporated has service centers located throughout North America. A list of those service centers is attached.

Service bulletin S06KJ expires one year from date of issue.



**Wanderlodge SP00166 (IQC24-3600)  
Control Circuit Board Replacement Guidelines for Service Bulletin S06KJ**

To: Wanderlodge 450LXI Coach Owner  
Vanner Service Dealers (listed below)  
Vanner Factory; Darlene Dowell, Doug Dean, Jeff Carey  
Wanderlodge Factory

Regarding: Vanner Control Circuit Board Swap out for SP00166 (IQC24-3600) inverters (two inverters per coach)

This memo will serve as planning instructions for the coach owner, planning instruction for the service dealer, and work instructions for the technician.

Thank you in advance to everyone involved.

Wanderlodge Model 450LXI coach body numbers involved:

277	292	355	453
278	305	357	454
280	307	358	455
282	309	424	456
289	310	426	457
290	356	450	
291	347	451	

**To the Coach Owner:**

1. If your coach body number is listed above, please contact the nearest Vanner service dealer from the list at the end of these instructions.
2. Advise the Vanner service dealer that your coach needs to have the Wanderlodge Coach IQ Control Circuit Board swapped out.
3. Advise the dealer if either inverter is not working and describe the symptoms.
4. Provide the Wanderlodge Body Number found on the vehicle serial number plate.
5. Schedule an appointment. Allow approximately 10 days for the dealer to order and receive the replacement parts. The dealer will not have the replacement parts in stock.
6. The control board swap out will require approximately one hour of the service technician's time. This time will be billed to Vanner.
7. Plan accordingly for resetting of clocks, etc. Both Vanner inverters will be turned OFF during the control board replacement.

**To the Vanner Service Dealer:**

1. Upon being contacted by the owner of a Wanderlodge coach involved in the IQ Control Board Swapout, note the Wanderlodge Body Number found on the vehicle serial number plate.
2. Schedule an appointment approximately 10 days out for a minimum of one hour of service work. Allow 10 days to order and receive the replacement parts.
3. Order two Control Circuit Boards, Vanner part number D011947. Vanner will have these boards in stock.
4. If customer has advised that an inverter is not working, order relay board D011950 for that inverter.
5. Advise Darlene at Vanner that these boards are being used for the Wanderlodge IQ Control Board Swapout and furnish the Wanderlodge Body Number. Vanner will need to know the Wanderlodge body number to process this order.
6. After swapping the boards, return the old boards to Vanner for credit including approximately 1 hour of technician's time.

## To the Technician swapping the boards:

### Tool Required

1. Tools required include a voltmeter, phillips screwdriver and a 1/4" nut driver.

### Verify inverter and charger operation

2. Locate the two Vanner model SP00166 (IQC24-3600) inverters. Both inverters may be mounted in a compartment on the curbside of the coach. The inverters may be mounted in separate compartments, one on each side of the coach.
3. With shore power or generator power applied, verify that both inverters transfer to charger mode. In charger mode one of the charging LED's should be ON or blinking. The inverter LED should be flashing. AC power (shore or generator) should be present at the inverter's GFCI receptacle.
4. With shore power or generator power REMOVED, verify the inverter provides AC power. Remove AC input voltage source by turning OFF Inverter 1 and inverter 2 input breakers which are located within the shore power input cord compartment. Verify the inverters are producing AC power by measuring the AC voltage at the inverter GFCI receptacles.
5. If either inverter did not function as described, **STOP** and contact Doug Dean at Vanner, 1-800-237-6937 (1-800-ACPOWER). The inverter relay board may need to be replaced in addition to the control board.

### Remove AC and DC power

6. Verify both inverter AC input breakers are OFF, located in the shore power input cord compartment.
7. Turn OFF both inverters via the rocker switch on front of each inverter.
8. Turn OFF the House Battery DC disconnect switch located in the battery compartment. (curbside rear)
9. Turn OFF the Vehicle Battery DC disconnect switch located in the battery compartment. (curbside rear)
10. Verify DC is turned OFF by checking for DC voltage at the fuse blocks (near inverter) to ground.
11. Remove the two phillips screws in the front cover. Remove front cover. (Inverter serial number is on back of front cover therefore keep with correct inverter.) In some installations it will be necessary to temporarily remove the compartment light located in front of the inverter.
12. Using voltmeter, verify there is no AC voltage on the inverter's AC terminal blocks.

### Remove circuit board(s)

13. The inverter MAY contain a second circuit board (Intellitec board) located in front of the control board. The Intellitec board will be removed and there will be no replacement.
14. **To remove the Intellitec board;** remove the phillips screw(s), the three connectors and the short phone cable, if installed, from J1 on Intellitec bd. to J8 on inverter control board. Remove the Intellitec board by lifting it straight up.
15. **To remove the control board;** remove the 1/4" hex standoff or phillips screw (located in the top center of board), three connectors and the two pin connector. Remove the control board by lifting it straight up until it contacts the lid and then tipping the board slightly forward just to clear the lid.
16. Tag each removed board with the inverter serial number and Wanderlodge Body Number.

### Install control board

17. Install the replacement control board making sure that the bottom corners engage both notched mounting pegs. Install the phillips screw. (Do not reuse 1/4" standoff.)
18. Reconnect the 2-pin connector and the three ribbon cable connectors. Verify the latches are secure over the ribbon cable connectors. Reconnect the remote cable 8-pin modular connector. Reconnect the 4-pin Battery Temperature Sensor, if equipped, into Connector J1 located immediately above the 8-pin Remote Connector J9. The top 4-pin connector, J8, will not be used.
19. Set the DIP switches. Set Switches 10-7 (the top four) "pushed-in to the left." Set Switches 6-1 (the bottom 6) "pushed-in to the right."

### Verify inverter and charger operation

20. Turn ON the Vehicle Battery DC disconnect.
21. Turn ON the House Battery DC disconnect.
22. Turn ON both inverters via the rocker switch on front of each inverter.
23. Verify that the inverters are producing AC power by measuring the AC voltage at the GFCI receptacles.
24. Turn on AC input voltage source by turning ON Inverter 1 and inverter 2 input breakers which are located within the shore power input cord compartment.

25. With shore power or generator power applied, verify both inverters transfer to charger mode. In charger mode one of the charging LED's should be ON or blinking. The inverter LED should be flashing. AC power (shore or generator) should be present at the inverter's GFCI receptacle.

### **Remove power and install front covers**

26. Remove AC input voltage source by turning off Inverter 1 and inverter 2 input breakers which are located within the shore power input cord compartment.
27. Turn OFF both inverters with the power switch on front of the inverters.
28. Reinstall inverter front covers.

### **Finish**

29. Turn ON both inverters via the rocker switch on the front of each inverter. Turn ON AC input breakers.
30. Tag each removed circuit board with the inverter serial number and coach body number. Return the removed circuit boards to Vanner.

## **Vanner Service Dealer List for Circuit Board Swapout**

Fleet Electric  
324 Southwest Cutoff  
Worcester, MA 01613  
Contact: Mark Gibree / Bob Hanks  
ph 508-755-8666  
ph 800-422-6668

Van's Electrical  
2541 Kentucky Avenue  
Indianapolis, IN 46241  
Contact: Tom Sparks / Steve Kelshaw  
ph 317-240-5901  
ph 800-428-4049

Southeast Power Systems  
4220 North Orange Blossom Trail  
Orlando, FL 32804  
Contact: Dave Heisley, Service Manager  
ph 407-293-7971  
ph 800-733-6101

Diesel Injection Service  
6167 Pepsi Way  
Windsor, WI 53598  
Contact: Tim Harrison  
ph 608-842-5100  
ph 800-735-9774

P/G Auto Parts  
1313 National Avenue  
San Diego, CA 92101  
Contact: Wray Schott  
ph 619-236-1363  
ph 800-722-0840

B & C Truck Electric  
1600 Campbell Street  
Kansas City, MO 64108  
Contact: Steve Hillis  
ph 816-421-2782  
ph 800-821-5172

B & C Truck Electric  
3403 Herring Ave  
Irving, TX 75061  
Contact: Mark Krons  
866-434-2782

B & C Truck Electric  
8612 East 46<sup>th</sup> Street  
Tulsa, OK 74145  
Contact: Gene Collins  
866-878-2550