

NEWMAR CORPORATION

WARRANTY

DEPARTMENT

TECHNICAL SERVICE BULLETIN

DATE ISSUED	MODEL YEAR(S) AFFECTED	TSB #
12/27/2017	2018	500

MODEL

Bay Star Sport	<input type="checkbox"/>	Ventana	<input type="checkbox"/>	Essex	<input type="checkbox"/>
Bay Star	<input type="checkbox"/>	Dutch Star	<input type="checkbox"/>	King Aire	<input checked="" type="checkbox"/>
Canyon Star	<input type="checkbox"/>	Mountain Aire	<input type="checkbox"/>	New Aire	<input type="checkbox"/>
Ventana LE	<input type="checkbox"/>	London Aire	<input type="checkbox"/>	Other	<input type="checkbox"/>

DESCRIPTION

Newmar has determined that the push button switches used during early production of the 2018 King Aire coaches have experienced a high failure rate in the field. The replacement switch is more robust than the previous version.

Issue: The original switch installed during earlier production may fail.

Correction: For coaches produced before the switch change, Newmar recommends replacing the switch on each compartment door. The new switch requires modifications to the compartment door and wiring harness.

Affected Units: Refer to the attached population list for the affected coach and VIN numbers.

RECOMMENDED ACTION

Contact your Service Account Manager for authorization and parts. Follow the attached work instructions to modify the door, wiring, and complete the switch replacement.

Flat Rate Code: TSB 500

Labor Time: .7 per switch (includes all necessary modifications)

Please read this bulletin in its entirety prior to beginning any diagnosis or repairs.

How to Remove and Replace King Aire Push-Button Cargo Door Switches

Relevant Coaches

Model: 2018
Year(s): King Aire Diesel Bus
Floorplan: All Floorplans

Issue

TSB 500 provides instructions for removing and replacing the baggage door switches. The original switch installed during earlier production may fail. The replacement switch is more robust than the previous version.

Action

Follow the service procedure below to correct the condition. The approximate time to complete this repair is seven-tenths of an hour (.7hr) per door.

Necessary Tools & Replacement Parts

Drill with Step-Style Drill Bit
Dynafile (or Similar) Grinding Tool
3/4" and 7/8" Wrenches or Deep-Well Sockets and Ratchet
Screw Gun
Wire Stripper
Wire Crimper

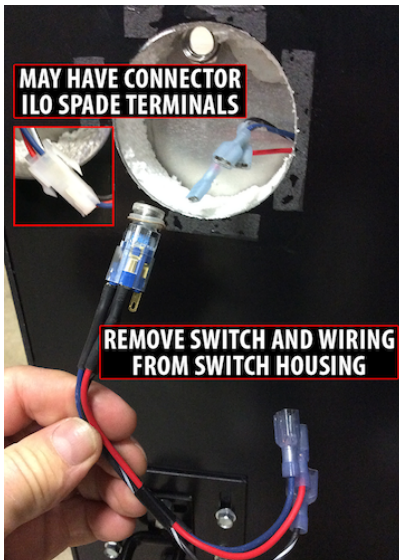
Part Name	Part Quantity	Newmar Part Number
Push Button Switches with Harness	15 ea.	141078
Push Button Switch Covers	11 ea.	140251
Black Quick Thread Screws	.045 ea.	22473
Blue Female Connectors	45 ea.	107187
Red Male Connectors	45 ea.	026695
Black Rivets	.008 ea.	07306E
Dielectric Silicone Compound	1 tube	026702

Service Procedure

How to Remove the Old Switches and Covers



1. Remove the cover from the inside of the door. Some covers will be flat and are installed with double-faced foam tape. Other covers may contain the power cargo tray switch and are installed with screws.



2. Unplug the switch wires from the harness inside the door.
3. Pull the switch and wires out of the housing (to make it easier to work on the switch housing).
4. Using a 3/4" wrench or deep socket, loosen and remove the nut from the back of the push button switch housing.
5. Carefully remove the switch housing from the front of the door.

How to Drill the Door Skin for the New Switch

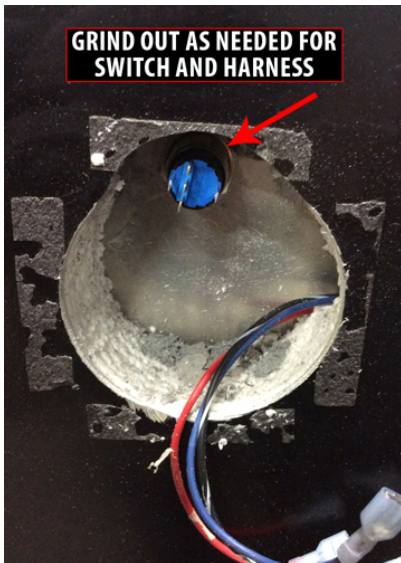


6. Using the drill and a step bit, start drilling the hole for the switch from the painted side of the door. Drill slow to prevent damage to the paint.

Helpful Hint: Drill a piece of scrap metal or plastic as a test, and mark your bit so you will know when you are getting close to the proper hole size.

7. Check the hole size and button fit frequently as you drill the hole to 3/4" to prevent over drilling. Drilling the hole too big will ruin the baggage door.

How to Enlarge the Opening on the Back Side of the Compartment Door



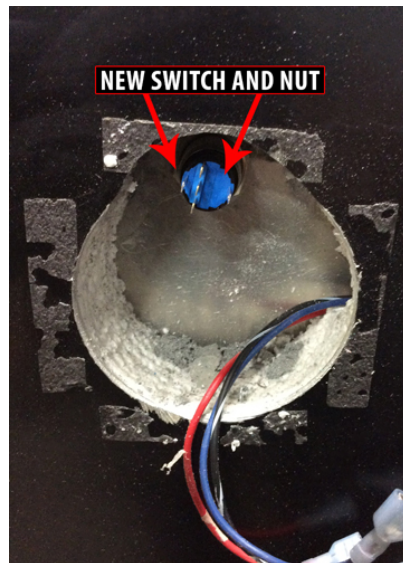
8. The hole in the front of the door may be slightly higher than the opening on the back side of the door. As needed, take the Dynafile to the top center of the large hole on the back side of the door.

9. Remove roughly 3/16 of the material in an arch-shape roughly one inch wide.

10. Test fit the new switch and plug on the back to make sure the plug has a little clearance from the opening on the backside of the door.

11. Once the harness connector clears the hole, while connected to the switch, the Dynafile is no longer needed. Do not make the hole too large for the new round cover.

How to Install the Door Switch



12. Make sure the rubber gasket is installed on the switch.

13. Push the switch inside the door through the front, making sure the gasket is in contact with the door.

14. Start the nut on the back of the switch with your fingers.

15. Tighten the nut with a 7/8" wrench or deep socket.

How to Modify the New Harness



16. Remove the conduit from the new harness.

17. Cut the harness plug off leaving approximately four inches of wire attached to the plug.

18. Fold over the white wire approximately half-way, and tape it along with the other wires.

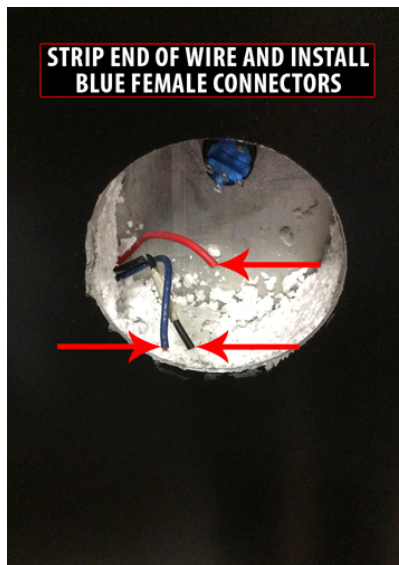
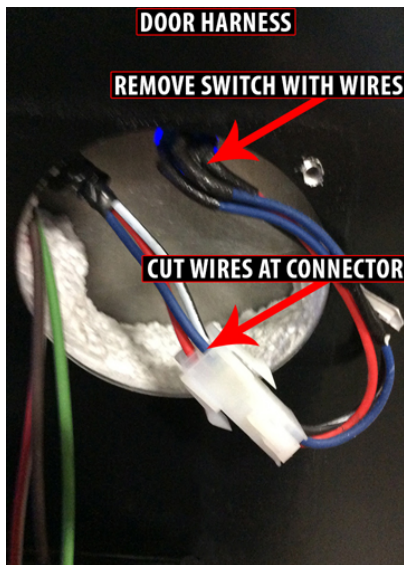
19. Strip approximately 3/8" from the ends of the remaining four wires.

20. Twist the red and blue wires together, and attach a red male connector.

21. Install a red male connector on the green wire.

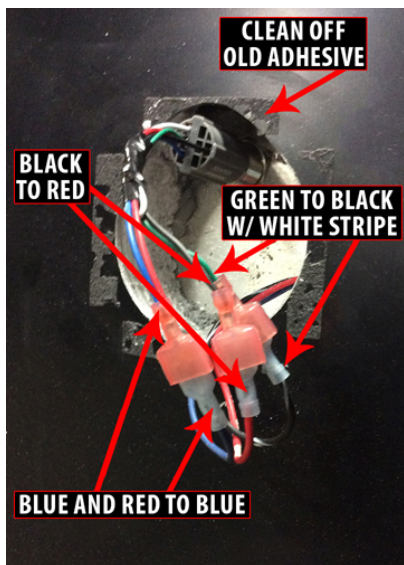
22. Install a red male connector on the black wire.

How to Modify the Old Harness in the Door



23. Cut the three-wire plug one wire at a time off while leaving as much wire as possible.
24. Strip approximately 3/8" from the ends of the remaining four wires.
25. Twist the end of the blue wire, and install a blue female connector.
26. Twist the end of the black (or black with white stripe) wire, and install a blue female connector.
27. Twist the end of the red wire, and install a blue female connector.

How to Connect the Modified Harnesses



28. Connect the red terminal on the combined blue and red wire from the short modified harness to the door harness' blue wire.
29. Connect the red terminal on the green wire from the short modified harness to the door harness' black with white stripe wire.
30. Connect the red terminal on the black wire from the short modified harness to the door harness' red wire.

How to Connect to the New Switch



31. Apply dielectric grease to the back side and inside of the harness connector that connects to the switch, as well to the terminals on the switch that plugs into the connector.
32. Look inside the harness, and make sure that the harness connector terminals line up with the push button switch terminals.
33. Plug the new harness connector into the switch.

How to Test the Operation of the System

34. Open all of the doors by pushing one door at a time, making sure that only the correct door is opening.

Note: If operating one compartment door switch opens a different compartment, note it, and perform bulletin 499 to repair the ID issue.

35. Test all of the doors by cycling the park brake several times, making sure that no doors open.

36. Cycle the lock and unlock using the switch inside the coach, as well as from the key fob several times to complete the testing.

How to Install Covers with Switches



37. Clean any remaining adhesive or double-faced tape around the hole on the back side of the door where the cover was removed.

38. Covers containing the power cargo tray switch will need to be rotated 90 degrees out toward the edge of the door.

39. In order for the text on the switch to be upright, the switch may need to be removed and turned in the cover.

40. Once the switch is oriented correctly, the wiring may need to be flipped so that when the arrow is pushed up, the cargo tray retracts, and when pushed down, the cargo tray extends.

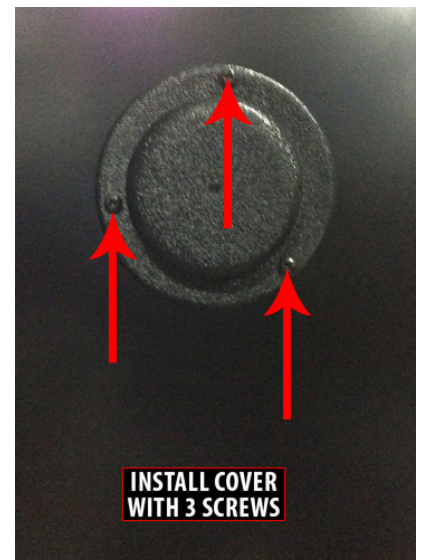


41. Fill any remaining holes with black rivets.

How to Install Covers Without Switches

42. For the remaining compartments, use three self-tapping screws to install a switch cover over the hole on the back side of each door.

43. Make sure to place the screws in locations where they will not interfere with the push button switch or any other wiring in the door.



Prod#	VIN Number	Year	Brand	Type	Floor	Chassis	Date In	Date Off
530407	4VZVU1E99JC082865	2018	KG	DB	4534	S	1/16/2017	1/24/2017
530414	4VZVU1E92JC082867	2018	KG	DB	4531	S	2/21/2017	3/1/2017
530421	4VZVU1E9XJC083779	2018	KG	DB	4531	S	5/23/2017	6/5/2017
530426	4VZVU1E91JC084335	2018	KG	DB	4553	S	9/21/2017	9/29/2017
530427	4VZVU1E91JC083881	2018	KG	DB	4531	S	6/9/2017	6/19/2017
530428	4VZVU1E90JC083788	2018	KG	DB	4531	S	6/2/2017	6/12/2017
530429	4VZVU1E91JC083900	2018	KG	DB	4531	S	6/19/2017	6/28/2017
530430	4VZVU1E90JC083953	2018	KG	DB	4531	S	7/14/2017	7/27/2017
530431	4VZVU1E98JC084011	2018	KG	DB	4534	S	7/24/2017	8/1/2017
530432	4VZVU1E99JC084180	2018	KG	DB	4531	S	8/25/2017	9/1/2017
530433	4VZVU1E91JC084089	2018	KG	DB	4553	S	8/9/2017	8/17/2017
530434	4VZVU1E95JC084306	2018	KG	DB	4531	S	9/15/2017	9/25/2017
530437	4VZVU1E95JC084077	2018	KG	DB	4531	S	7/31/2017	8/8/2017
530439	4VZVU1E92JC084179	2018	KG	DB	4534	S	8/22/2017	8/30/2017
530442	4VZVU1E93JC083901	2018	KG	DB	4531	S	6/26/2017	7/12/2017
530443	4VZVU1E9XJC084155	2018	KG	DB	4553	S	8/17/2017	8/24/2017
530444	4VZVU1E99JC083966	2018	KG	DB	4531	S	7/17/2017	7/25/2017
530445	4VZVU1E92JC083954	2018	KG	DB	4534	S	7/10/2017	7/18/2017
530446	4VZVU1E9XJC084088	2018	KG	DB	4534	S	8/8/2017	8/15/2017
530450	4VZVU1E93JC084188	2018	KG	DB	4553	S	8/30/2017	9/8/2017
530452	4VZVU1E98JC084154	2018	KG	DB	4531	S	8/14/2017	8/21/2017
530453	4VZVU1E90JC084245	2018	KG	DB	4553	S	9/6/2017	9/14/2017
530455	4VZVU1E99JC084244	2018	KG	DB	4531	S	8/31/2017	9/11/2017
530457	4VZVU1E91JC084187	2018	KG	DB	4598	S	8/25/2017	9/5/2017
530458	4VZVU1E93JC084305	2018	KG	DB	4534	S	9/8/2017	9/18/2017