



Thor Motor Coach Technical Service Bulletin

TSB #	TSB 20-06		
Description/Title:	Axis/Vegas Wipers		
Affected Product Line(s):	Certain model year 2016-2018 Axis and Vegas motorhomes equipped with a Wexco butterfly wiper system (<i>TMC Part #0299496</i>)		
Service Campaign # :	RC000194	Released Date:	12/7/2020
Codes:	TMCTS80262W	Document Date:	12/7/2020
Time Allowed:	1.4	Document Revision:	A

Issue:

It has been determined that certain 2016-2018 XS/VS equipped with a Wexco butterfly wiper system may experience a wiper sweep angle that does not fully clear the field of view for the driver. This TSB and how-to video is being provided to assist in increasing the wiper sweep angle as needed.

Tools Required:

- 3/8" drive ratchet
- 3/8" drive torque wrench
- 13 mm socket
- 1" open end wrench
- needle nose pliers
- channel lock pliers
- large standard screw driver
- 27 mm deep wall socket

Part(s) Required:

TMC Repair Kit #0487968

Kit Includes:

One (1) new crank arm

Three (3) M8 serrated flange nuts

One (1) E-clip (+ an extra if needed)

Three (3) flat washers



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Instructions:

Instructional Video Link:

https://www.youtube.com/watch?v=LQfK_FsdnOw&feature=youtu.be

*NOTE: IN THE VIDEO, WE PROVIDE THE PRECISE MEASUREMENT FOR THE PARKED BLADES.
VIDEO DOES NOT SHOW RE-INSTALLING COWL BOARD AND HOSES*

1. From inside the vehicle, run vehicle wipers for a few cycles and then switch off allowing them to park.
2. Lift the hood up and there is an ABS cowl cover that will need to be removed. There is two bolts (one at each of the lower end) and two body pin clips at the top of the cowl board (one on each end). Remove the hoses using a Philips screwdriver. Remove the two clips, then remove the bolts at the lower end of the cowl board.
3. Under the hood, disconnect the wiper motor from the vehicle harness.
IMPORTANT: DO NOT service the wipers with the motor harness connected to the vehicle harness.
4. On the outside of the vehicle, remove the wiper arms & blades-
 - a. Flip open the plastic caps on the lower end of the wiper arms and remove the two (2) retaining nuts with a ratchet and 13 mm socket. Discard the nuts.
 - b. Unplug the wiper arm washer hoses from the vehicle hose fittings.
 - c. Position channel lock pliers with one jaw underneath the wiper arm and the other on the threaded shaft where you removed the nut. Squeeze the pliers to pop the wiper arm off the shaft. Set the arms & blades aside.
5. Pull off the rubber caps on both pivot shafts to expose the jam nuts. Use a 27mm deep wall socket and ratchet to remove the nuts and flat washers and push the wiper module rearward a couple of inches. Save the rubber caps, nuts and washer for reuse.
6. Under the hood, locate where the wiper linkage attaches to the wiper motor. An E-clip holds the linkage to the wiper motor crank arm pin – remove it with needle nose pliers and discard.
7. The connection of the wiper linkage to the wiper motor crank arm pin uses three (3) flat washers-one each on top, in between and beneath the link arms. Remove the top washer and discard. Slide the upper link arm off the pin.
8. Remove and discard the next washer, slide the lower link arm off the pin and remove and discard the 3rd washer. You now have access to the motor crank arm retaining nut.



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9. Using the 1" open end wrench, restrain the motor crank arm from rotating and remove the crank arm retaining nut using a ratchet and 13 mm socket. Discard the nut.
10. You can now pry the crank arm off the wiper motor shaft with a large screwdriver. Discard the crank arm.
11. Reconnect the wiper motor harness and run the wipers a few cycles and park. DISCONNECT the wiper motor harness again.
12. Position the new crank arm from the kit on the motor shaft pointing horizontally towards the vehicle right and install a new retaining nut HAND TIGHT.
13. Place one of the new flat washers on the crank pin and slide the lower link arm back on the crank pin.
14. Slightly rotate the crank arm so that it lies in a straight line with the lower link arm.
15. While restraining the crank arm from rotating with the 1" open end wrench, torque the crank arm nut to 23 ± 3 Nm or 17 ± 2 ft-lbs. DO NOT allow the motor to rotate. If it does, reconnect the motor harness and repark the wiper motor. Disconnect the motor from the vehicle harness again before proceeding. **NOTE:** Be sure to keep fingers safely away from the crank arm if you run the motor.
16. Add another new flat washer on top of the lower link arm and slide the upper link arm back on the crank pin.
17. Add the last new flat washer on top and reinstall a new E-clip on the crank pin with needle nose pliers. Make sure it is fully seated in the pin groove.
18. Push the wiper module forward and reinstall the pivot jam nuts and flat washers on the outside. Torque to 23 Nm or 17 ft-lbs. Reinstall the pivot rubber caps.
19. Reinstall both wiper arms, making sure the driver arm is below the passenger arm-
 - a. Blades should be positioned horizontal and parallel
 - b. Torque the new retaining nuts to 20 ± 3 Nm or 15 ± 2 ft-lbs.
 - c. Retorque wiper arm nuts and flip caps closed
 - d. Reconnect the arm washer hoses to the hose fittings.
20. Plug the wiper motor back into the vehicle harness, close and secure the hood.
21. With the vehicle engine running, cycles the wipers on high and activate the washer and check that the wiper arms & blades are now sweeping further outboard without running off the glass or colliding with the A pillars. Switch off and allow to park. Blades should still be horizontal and parallel. **NOTE: IN THE VIDEO, WE PROVIDE THE PRECISE MEASUREMENT FOR THE PARKED BLADES. VIDEO DOES NOT SHOW RE-INSTALLING COWL BOARD AND HOSES**