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PRODUCT INFORMATION BULLETIN		
DATE ISSUED		PIB #
03/01/2011	AM EQUIPMENT P2 INSTALLATION INSTRUCTIONS	016
YEAR / BRAND / TYPE / MODEL #		
<p>This information is for all High Line Coaches that have AM Equipment's Wiper System installed.</p>		
PRODUCT INFORMATION		
<p>AM Equipment's Wiper System is installed on the following coaches:</p> <ul style="list-style-type: none">• 2008-2010 MADP• 2008-Current EXDP• 2008-Current KGDB <p>Please review the attached installation and torque instructions when servicing and installing AM Equipment's Wiper System.</p>		

If you have any questions regarding this P.I.B., please contact a Warranty Service Representative at Newmar Corporation.

Installation Instructions

AM Equipment Windshield Wiper System

2P Two-Pivot Tubular Bracket Motor Assembly



1. Visually inspect the motor assembly for shipping/storage damage & for completeness
 - a. Nothing broken or disconnected.
 - b. Nothing in the mechanism to interfere with operation.
 - c. Connecting Links nearly aligned to one another.
 - d. No slop in linkage side to side, no slop in pivot shaft in and out.
 - e. Pivot shaft hardware, mounting support bracket w/ hardware, & bulkhead fittings (optional) are on-hand.
2. Mark location of pivot shaft holes, if not already part of the gel-coat.
 - a. Refer to the AM Equipment pattern layout for the location of the passenger side pivot hole in relationship to the centerline, and from the edge of the glass.
 - b. With a tape measure, determine the center-to-center distance of the pivot shafts at the threaded end of the black, aluminum shaft body.

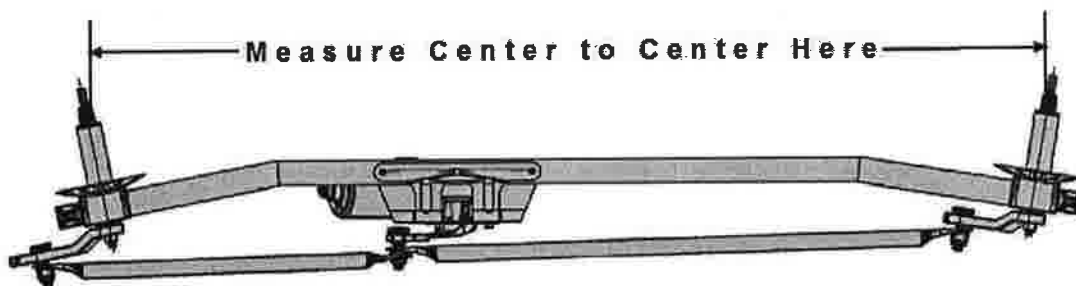


Fig. 1

- i. The c-c value on the pattern layout print is a value BEFORE the tubular stringer bracket is bent to fit the front cap radius.
 - ii. The c-c value then will be wider at the threaded end of the shaft body than it will be at the backside, where the lever is attached.
 - c. The location of the driver's side pivot shaft hole will be determined from the location of the passenger side pivot the distance found in step 2b, and for most vehicles, parallel to the road. This means that the distance from the pivot shaft on the driver's may be different than that on the passenger side if the bottom of the glass is curved.

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3. Drill holes using 1.375" hole saw, perpendicular to the front surface of the cap at hole location.

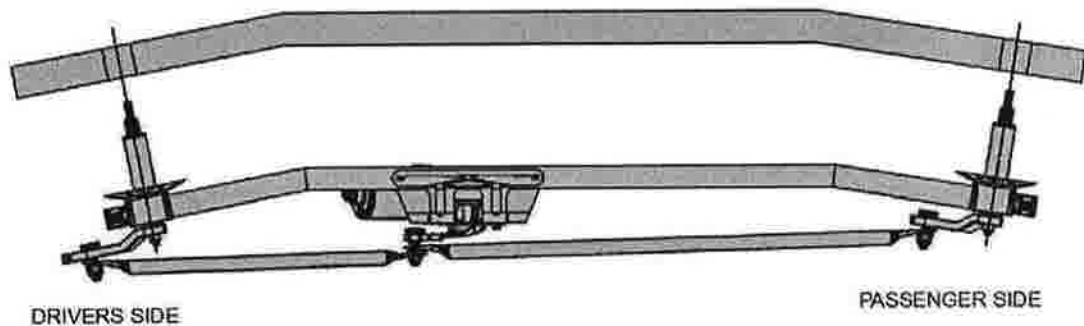


Fig. 2

4. Fit the motor assembly onto the cap with the pivot shafts protruding through the drilled holes. Holes should be aligned so that the black coating on the shaft bodies is not rubbed off. If the holes are too tight, enlarge them.
 - a. The backer board/fiberglass thickness should be approximately 1.125" thick if using the round or tear-drop shaped outer disc. It should be approximately 1.250" if using the fibre washer.
 - b. The inner disc, 407-1102 must be fitted with the convex surface mating to the concave face of the pivot shaft body. The flat surface mates to the inner cap surface.

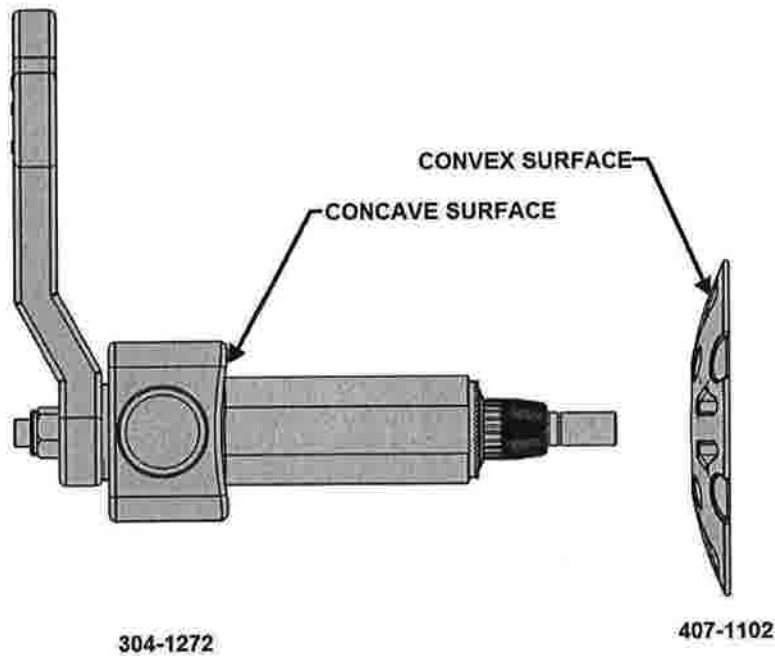


Fig. 3

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2P Two-Pivot Tubular Bracket Motor Assembly



5. Loosely install the pivot shaft hardware to secure the assembly onto the cap.
6. Using the two "L" shaped motor support brackets, (pn 306-1228) arrange them in such a way to support the motor mounting bracket by securing to some structure.
 - a. Arrange brackets forward to the cap above or below the assembly. Secure to the backer board. Or -
 - b. Arrange brackets upward to bottom of dash support. Or -
 - c. Arrange brackets rearward to the firewall or other support above or below the assembly.
 - d. Use the 5/16 – 20 machine screws (414-1161) and nyloc nuts (pn 414-1162) provided to fix the support brackets to each other and to the motor mounting bracket.
 - e. You must provide fasteners to attach the support bracket to the vehicle.
7. Using a template, mark the location of the bulkhead fitting hole. From the outside looking in, the hole should be to the right and slightly below the pivot shaft. Drill a 3/16" hole for either the brass bulkhead fittings, or the round or teardrop shaped outer disc.
8. Fit the bulkhead fittings into the drilled hole, rotating the inner disc to line-up the cutouts for the fittings. If brass bulkhead fittings, pn 313-1017 are used instead of the outer disc, the rubber washer goes on the outside of the cap while the stainless steel washer goes to the inside.
9. Connect the 3/16" ID washer hose, pn 314-1008.
 - a. From a single pump washer bottle to a 3/16" x 3/16" x 3/16" tee, pn 404-1001, and connect hose leads to each bulkhead fitting, or to each disc.
 - b. From a two pump washer bottle, run a single 3/16" ID hose, pn 314-1008 to each bulkhead fitting.
 - c. For motor assemblies with optional washer check valves installed, connect the hose ends at each pivot shaft to the bulkhead fitting or outer disc nipple. Then connect one hose to the washer bottle pump.
10. Plug in the motor to the wiring harness.
11. Ensuring that nothing is being pinched (wiring or hoses, etc. . .) Tighten down each pivot shaft nut to 20 foot pounds ± 1.5 using the supplied socket, part number 344-1003.

Installation Instructions

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2P Two-Pivot Tubular Bracket Motor Assembly



12. Install wiper blade onto wiper arm.
 - a. Washer nozzle should be installed on the up side of the saddle.
 - b. Nyloc nut should face down, head of bolt should be on the nozzle side.
 - c. If using 32" European style blade, use the brass spacer supplied with the blade and the longer saddle bolt.
 - d. The end of the blade with the retainer clip must be installed toward the driver's side when parked, or down when running across the glass.
 - e. Tighten the saddle bolt until the shoulder bolt is seated for the 32" blade. Tighten the saddle bolt for shorter blades until there is no sideways movement, but allowing the blade to rock forward and back.
13. Install the arm/blade assembly onto the pivot shaft, aligning the blade parallel to the ground, as low as possible. Tighten the cap nut, 407-1010 over the starloc washer, pn. 407-1023, and torque to **20 foot pounds**.
14. For wiper systems with washer hoses attached to the wiper arms, please follow these steps to insure that the hose is routed correctly.
 - a) Cut hose between 6 to 8 inches measured from the end of the wiper arm mounting head.
 - b) Route the hose as shown in figure 4 and figure 5.
 - c) Follow the arrow for correct hose route.

NOTE: Hose is shown colored red for clarity.

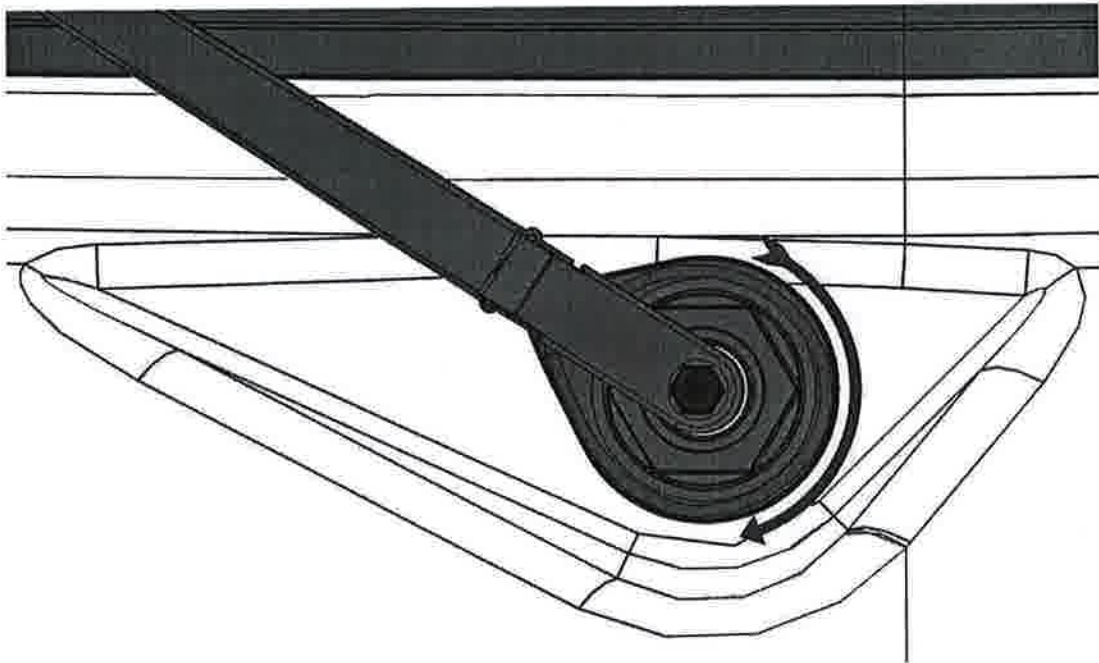


Fig. 4

Installation Instructions

AM Equipment Windshield Wiper System

2P Two-Pivot Tubular Bracket Motor Assembly

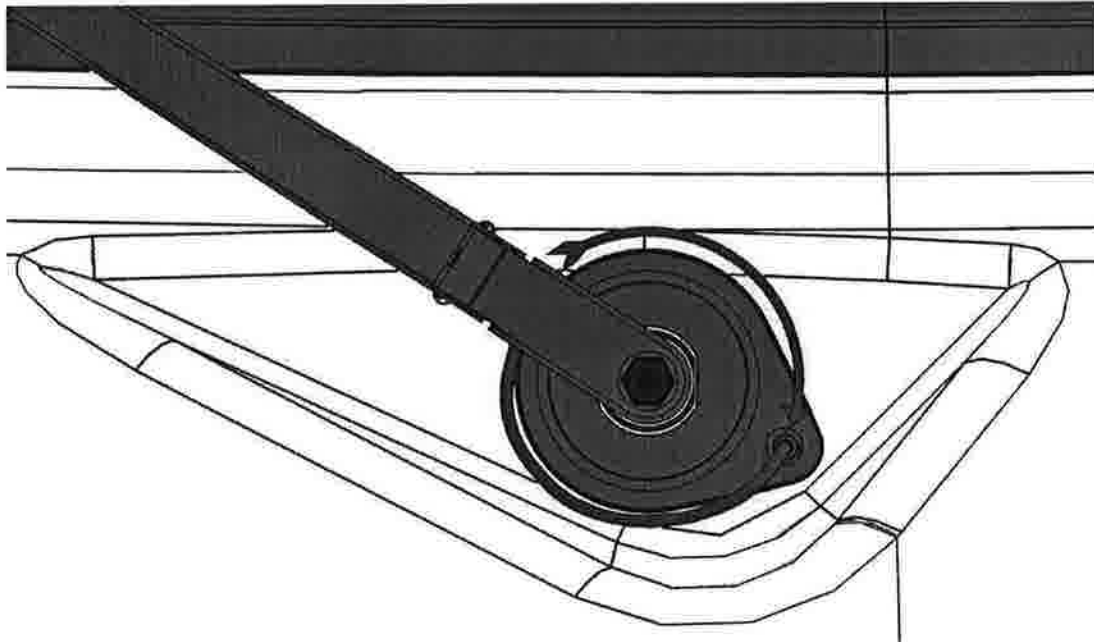


Fig. 5

15. After the washer bottle is installed and filled with fluid, run the system on low and high speeds on wet glass. Check the proper park position when switched off. Adjust as necessary.
16. For wiper systems with hook slot arms a three (3) orifice washer nozzle is provided. To aim the nozzle, complete the following steps.
 - a) The outer orifice (A) should be aimed approximately two (2) inches from the end of the blade.
 - b) The middle orifice (B) should be aimed approximately one (1) inch away from the center toward the center toward orifice (A).
 - c) The inside orifice (C) should be aimed approximately two (2) inches from the end of the blade.

CAUTION:

If the middle orifice (B) is aimed directly at the middle of the blade, a fluid pool may occur during use, which could cause the blade to hydroplane and cause poor visibility.

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2P Two-Pivot Tubular Bracket Motor Assembly

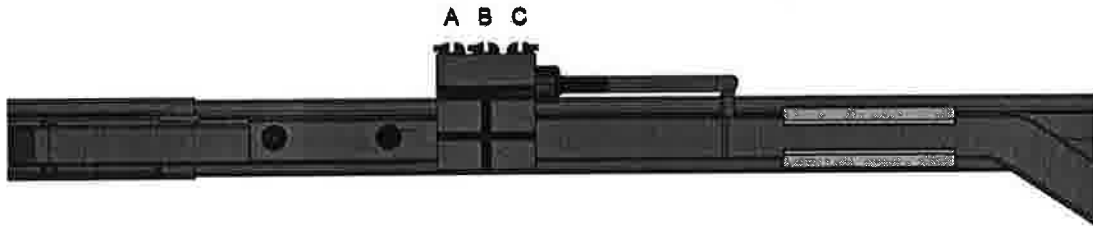


Fig. 6

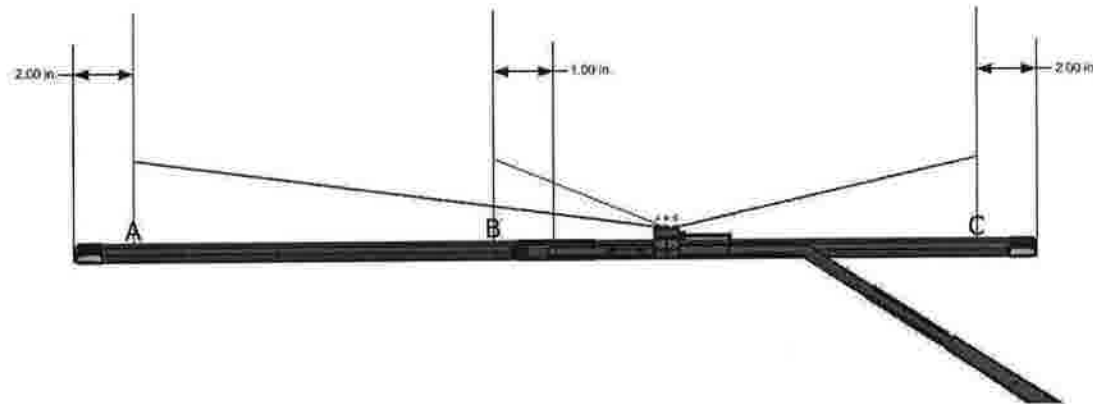


Fig. 7

15. Call 541-327-1546 for technical assistance.