



# Vehicle Modification Order

UNITED STATES POSTAL SERVICE VEHICLE MAINTENANCE

## REPOSITIONING OF LLV RIGHT SIDE MIRRORS

### I. Objective

This procedure is to reposition the long-life vehicle (LLV) right side flat and convex rear view mirrors to improve vehicle operator sight lines and minimize blind spots.



Date August 1, 2009  
 Number VMO-01-09  
 Subject Reposition LLV Right Side Mirrors  
 To: Mangers, Operations Programs Support  
 Attn: Mangers, Vehicle Maintenance  
 Managers, Vehicle Maintenance Facility

William W. Corey  
 Manger  
 Vehicle Operations

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### II. Vehicles Affected

M/Ms	Vehicle Number Range	Vehicle Type
10-70 thru 10-84 13-70 thru 13-76	All	LLV

### III. Category

This Vehicle Modification Order (VMO) is mandatory for all vehicles with makes/models listed under Section II, "Vehicles Affected". It is to be performed as part of the next scheduled maintenance.

## IV. Warranty Status

N/A

## V. Estimated Repair Time

0.2 hours

## VI. Materials Required

Basic hand tools and a ruler or tape measure

## VII. Installation Procedures

1. Remove the top flat and bottom convex mirrors.
2. Spread the mirror clamp tabs open and remove them from the mirror support loop.



3. Turn the clamps 180° and reinstall them over the mirror support loop. Apply hand force and squeeze clamp tabs together.

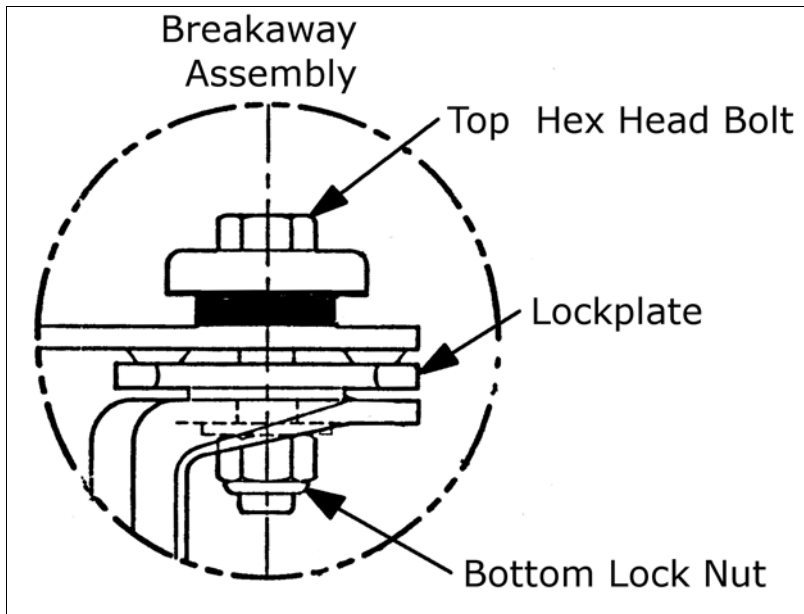
4. Loosen (but do not remove) the pivot bolt at top of the mirror support loop.



5. At the breakaway assembly, hold the top bolt head stationary and loosen the locknut 1/4 turn.

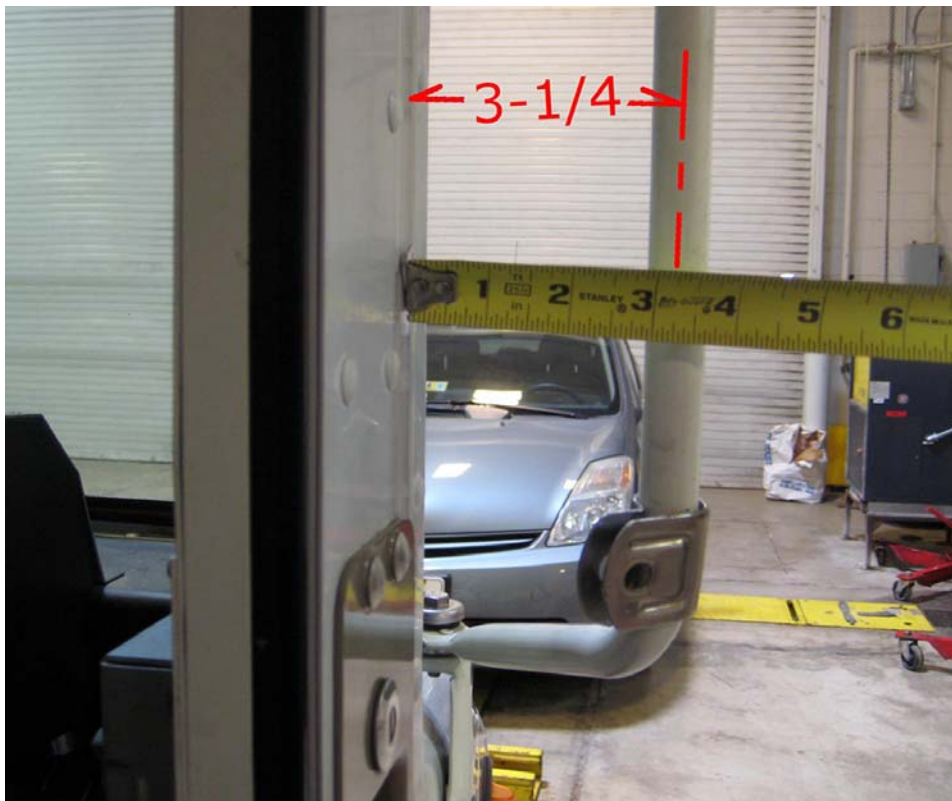


6. Rotate the mirror support loop rearward. If the lockplate remains stationary, loosen the bottom locknut an additional 1/4 turn and try again.



Continue this procedure until the lockplate rotates with the mirror support loop. Count the 1/4 turns required for tightening the locknut later.

7. Move the mirror support loop rearward until the centerline of the support loop is 3-1/4 inches  $\pm$  1/8 from the right side B pillar.



At the breakaway assembly, hold the top bolt head stationary and tighten the bottom locknut the same number of 1/4 turns counted in step 5.

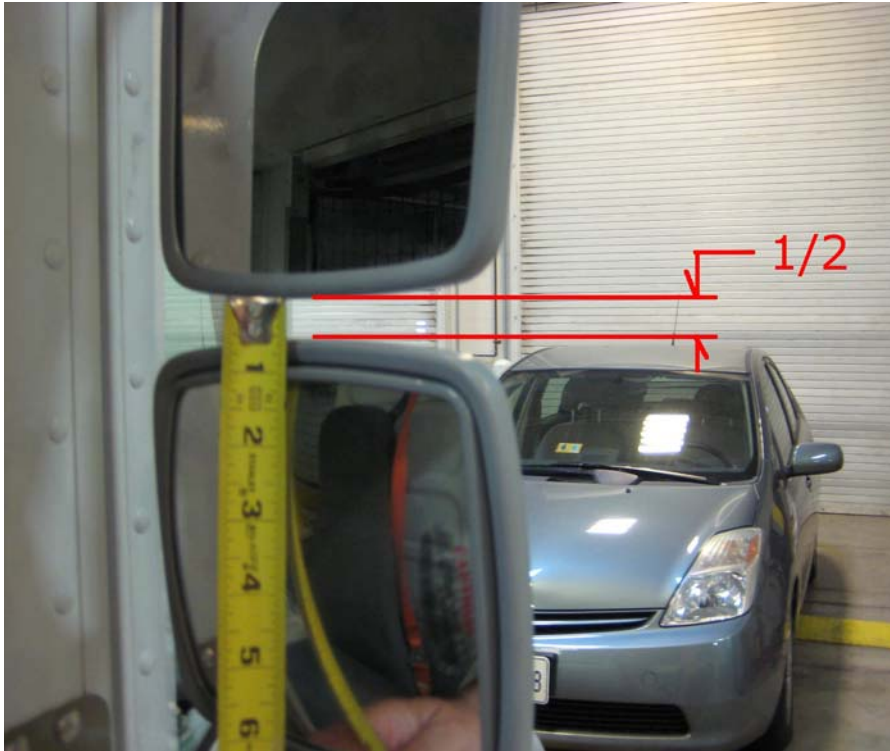
Test the breakaway assembly by moving the mirror support loop forward. The lockplate should remain stationary. If the lockplate moves, recheck the 3-1/4 inch dimension positioning the support loop. Tighten the bottom locknut an additional 1/4 turn and attempt to move the support loop forward again. Repeat procedure until the lockplate remains in position.

8. Tighten the pivot bolt at the top of the mirror support loop (Ref. step 4). Torque to 100–150 in-lbs.
9. Close the right side door if open. Attach the convex mirror to the bottom mirror clamp using the original hardware. The mirror should be oriented to the outside of the support loop. Position the bottom of the convex mirror so that it is horizontally in line with the top of the right side door lockplate as shown.





10. Attach the top flat mirror to the top mirror clamp using the original mounting hardware. Position the mirror  $1/2$  inch  $\pm$   $1/8$  above the top of the convex mirror.



11. Torque both mirror mounting fasteners to 150–175 in-lbs.
12. Clean mirrors if required.
13. Adjust mirror viewing angle from drivers seat:
  - a. Turn the bottom convex mirror so the rear right side wheel and bumper area is viewable.
  - b. Turn top flat mirror so that the rear right side running light is viewable in the lower left portion of the mirror.

## VIII. Recording into VMAS

### When work is performed at the VMF:

1. Access the Work Order screen.
2. In the “Account/Description” column, enter **92** and press the Enter key.
3. In the “Action Code” column, enter **92** and press the Enter key.
4. In the “VMRS Code & Description” column, enter **02000xx1** for the labor code and press the Enter key.
5. In the “Employee Number” column, enter the number of the employee who worked on this modification and press the Enter key.
6. In the “Hours” column, enter the actual hours worked on this modification and press the Enter key.
7. In the dialogue box that appears, select *VMO number 0109* from the drop-down list, press the Enter key, and select (*Done*).
8. Enter other information as required.

**When work is performed by a contractor:**

1. Access the Commercial Work Order Screen.
2. In the "Account/Description" column, enter **92** and press the Enter key.
3. In the dialogue box that appears, enter **VMO number 0109**, press the Enter key, and click *Done*.
4. In the "Action Code" column, enter **92** and press the Enter key.
5. In the "VMRS Code & Description" column, enter **02000xx1** for the labor code and press the Enter key.
6. Enter other information as required.