



Service Bulletin

File In Section: 8 - Chassis/Body Electrical

Bulletin No.: 73-82-05A

Date: April, 1998



**Subject: Windshield Wiper Arms/Blades Park at Incorrect Location
(Replace Wiper Motor Crank Arm Assembly, Install Deflector and Seal Crank Arm Cover)**

**Models: 1997-98 Buick Century, Regal
1998 Oldsmobile Intrigue
1997-98 Pontiac Grand Prix**

This bulletin is being revised to add the 1998 model year, the Oldsmobile Intrigue, additional part numbers, revised repair procedures and labor times. Please discard Corporate Bulletin Number 73-82-05 (Section 8 - Chassis/Body Electrical)

Condition

Some owners may comment that the windshield wiper arms or blades intermittently stop (park) in a vertical position, rather than at the base of the windshield, when the wiper switch is placed in the "OFF" position. They may comment that the condition usually occurs after a heavy rain or car wash followed by cold (below freezing) temperatures.

Cause

During heavy rains or car washing environments, water entering the cowl (plenum) through the leaf screen may accumulate and later freeze on the depressed park actuator arm which is located on the bottom side of the wiper motor crank arm. If this occurs, the actuator arm may not come in contact with the metal tab on the wiper motor mounting bracket when the wiper switch is turned off, resulting in the arms parking in a vertical position.

Correction

To correct this condition, replace the wiper motor crank arm with P/N 12367235 and install water deflector P/N 10411068. Also, additional sealing material must be added to the crank arm cover to improve the deflection and channeling of the water away from the crank arm assembly.

Use the following service procedure when replacing the crank arm assembly, installing the new water deflector/retainer and to improve the sealing of the crank arm cover.

Important: Some vehicles may have already had the wiper motor crank arm replaced. These vehicles can be identified by the barrier material already applied over the hole in the crank arm cover. See Figure 3. If the crank arm cover already has the barrier material applied, then it is only necessary to install the new water deflector. Do not replace the crank arm assembly on those vehicles. If there isn't any barrier material already applied over the hole in the crank arm cover, then the crank arm assembly must be replaced and the new water deflector installed.

Service Procedure

1. Turn ignition switch to the "Accessory" position.
2. Set wiper switch to the maximum "Delay" position.
3. Wait for the wiper arms to cycle once and stop in the "Pause" or "Innerwiper" position.
4. Turn the ignition switch to the "Off" position when the wiper arms are in the "Pause" or "Innerwiper" position and not moving.

Important: Before disconnecting negative battery cable, record radio station pre-sets.

5. Disconnect negative battery cable.
6. Place a piece of masking tape on the windshield at the tip of both wiper blades. The tape will be used for determining correct wiper arm/blade positioning during reinstallation.
7. Disconnect washer hose from both wiper arms.

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8. Remove attaching nut from each wiper arm and remove arms using a standard battery cable puller.
9. Remove rear hood to cowl seal.
10. Disconnect washer hose from leaf screen and remove leaf screen.
 - On Buick and Oldsmobile models with a two-piece leaf screen, it is only necessary to remove the left (driver's) side.
 - On Pontiac models with a one-piece leaf screen, it is necessary to remove the complete leaf screen.
11. Inspect for barrier material on crank arm cover as shown in Figure 3.
 - If barrier material is NOT present, continue to Step 12.
 - If barrier material IS present, proceed to Step 22.
12. Disconnect the wiper linkage from the ball stud on the crank arm using J 39232. See Figure 1.
13. Remove plastic crank arm cover.
14. Remove wiper motor crank arm assembly retaining screw and remove the crank arm from the wiper motor shaft.
15. To properly align the new crank arm on the motor shaft, gently place "new" crank arm on the wiper motor shaft. Do not apply any downwards pressure.

Important: Crank arm must rotate freely on motor shaft during next step. If the crank arm does not move freely, remove it and re-perform Step #14.
16. Install new crank arm assembly on the wiper motor shaft while maintaining a 4 - 6 mm gap between the end of the depressed park actuator arm and the metal tab. See Figure 2. Proper positioning has been achieved if a 13/64 drill bit can be inserted down through the center of the hole in the top of the crank arm and into the threaded hole in the motor housing. See Figure 1.

Important: Firmly hold crank arm in position to prevent the wiper motor shaft from rotating when tightening the retaining screw in the next step.
17. Install crank arm retaining screw and tighten to 14 - 17 N.m (124 - 150 lb in.).
18. Install plastic crank arm cover on crank arm assembly.
19. Apply a bead of sealant, P/N 12345739 or equivalent, along the gap between the crank arm cover and the crank arm as shown in Figure 3.
20. Cut a 30 mm (1 & 3/16 inch) square piece of barrier material, P/N 11515174 or equivalent, and place it over the hole in the crank arm cover as shown in Figure 3. Apply light pressure to the material to ensure a good seal.
- Important:** When used as instructed, the sealant and barrier material listed above can repair approximately 50 vehicles.
21. Install the wiper linkage on the crank arm ball stud using J 39529.
22. Remove the push-in plastic retainer from the new water deflector and install the deflector over the wiper motor. See Figure 4. When properly installed, the top edge of the deflector will fit below the bottom edge of the windshield.
23. Using a pencil or scribing tool, mark the location of the hole to be drilled in the wiper motor mounting bracket for the deflector push-in retainer. See Figure 4.
24. Remove the water deflector and cover the wiper motor, bracket and plenum with shop towels to catch the metal debris when drilling in the next step.

Important: To avoid damaging the wiper motor housing in the next step, a drill bit travel stop set to a depth of 1/2 inch should be used. If one isn't available, slide a piece of 1/4 inch inside diameter vacuum hose over the drill bit leaving only 1/2 inch of the bit exposed.
25. Drill a 1/4 inch diameter hole at the location marked on the wiper motor mounting bracket.
26. Remove the shop towels and metal debris from the wiper motor, bracket and plenum.
27. Install the new water deflector as shown in Figure 4 with the push-in retainer in the new hole.
28. Reinstall leaf screen.
29. Reconnect washer hose to leaf screen.
30. Reinstall rear hood to cowl seal.

Important: Before installing the wiper arms on the wiper transmissions, the knurls on the transmissions must be clean. Use a suitable wire brush for cleaning.
31. While aligning the tip of the wiper blade with the masking tape on the windshield, install the wiper arms on the wiper transmissions and tighten the attaching nuts to 27 N.m (20 lb ft). Remove masking tape.
32. Reconnect negative battery cable, and reset clock and radio pre-sets.
33. Turn the ignition switch to the "Accessory" position.
34. With a "Dry" windshield, turn wiper switch to the "Off" position and verify that wipers park correctly.
35. Verify that all wiper functions (delay, low, high, wash, etc.) operate correctly.

Parts Information

P/N	Description
12367235	Wiper Motor Crank Arm Assembly
10411068	Deflector, Wiper Motor Water (includes push-in retainer)
12345739	RTV Silicone Rubber Sealant (3.35 oz tube)
11515174	Barrier Material

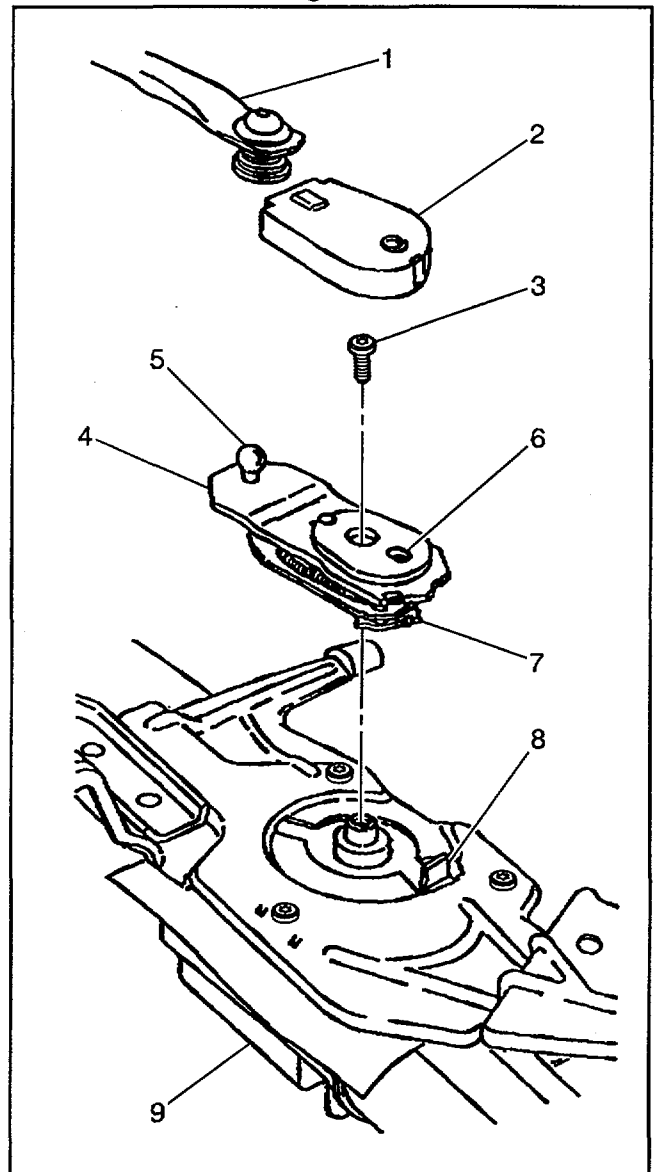
Parts are currently available from GMSP0.

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
N3595	Windshield Wiper Motor Crank Arm Assembly	0.4 hr
Add	For Drilling Hole in Wiper Motor Bracket and Installing New Wiper Motor Water Deflector	0.1 hr
N3598	Deflector, Windshield Wiper Motor Water - Install/Replace (Labor time includes for drilling hole in wiper motor bracket as necessary)	0.3 hr

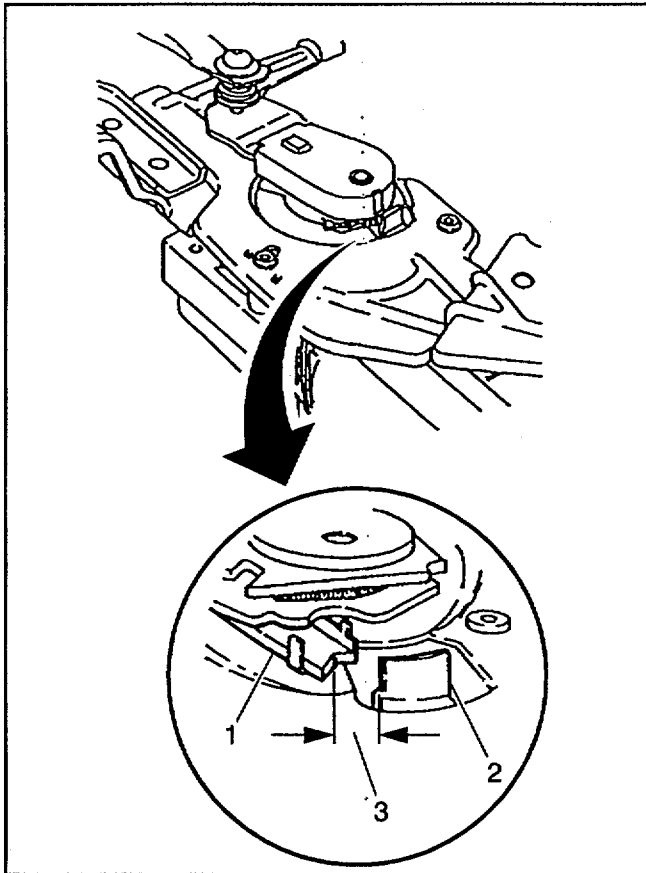
Figure 1



Legend

- 1. Wiper Arm Linkage
- 2. Crank Arm Cover
- 3. Wiper Motor Crank Arm Retaining Screw
- 4. Wiper Motor Crank Arm Assembly
- 5. Crank Arm Ball Stud
- 6. Hole in Crank Arm for Checking Alignment with 13/64 Drill Bit
- 7. Depressed Park Actuator Arm
- 8. Metal Tab
- 9. Wiper Motor

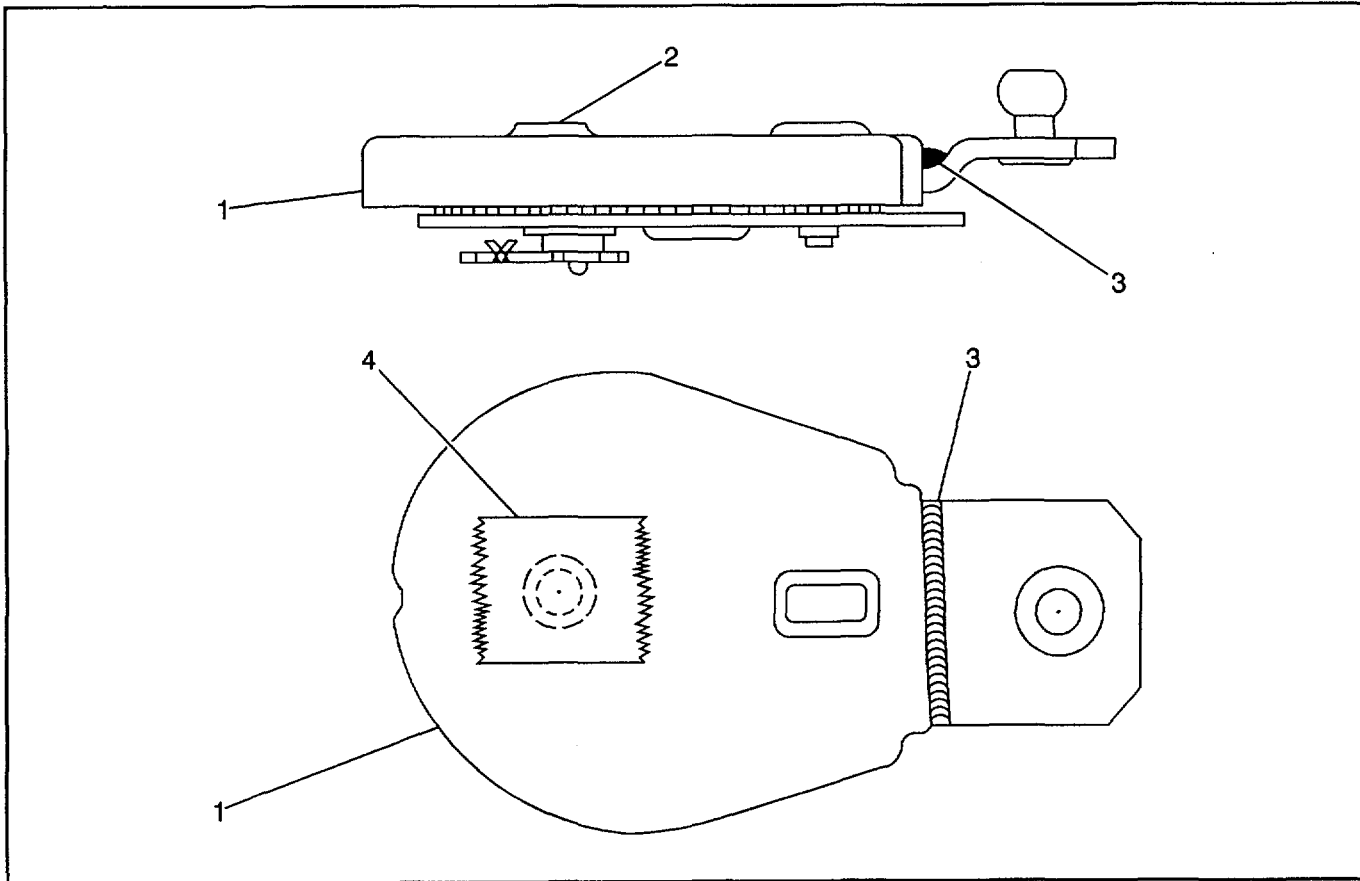
Figure 2



Legend

- 1. Depressed Park Actuator Arm
(part of crank arm assembly)
- 2. Metal Tab
- 3. 4 - 6 mm gap

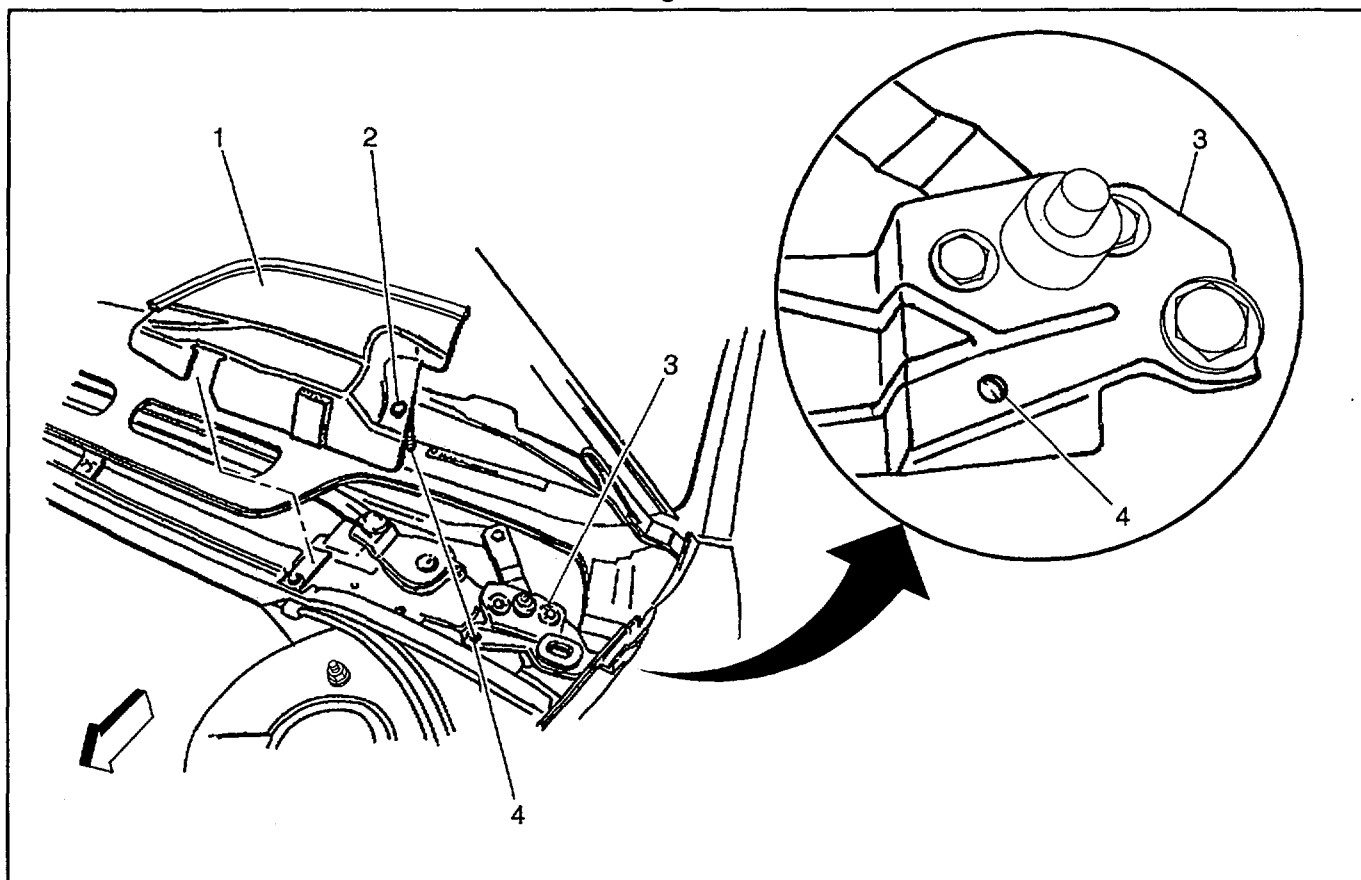
Figure 3



Legend

- 1. Crank Arm Cover
- 2. Hole in Crank Arm Cover
- 3. Sealant in gap between Crank Arm and Cover
- 4. Barrier Material covering hole in Crank Arm Cover

Figure 4

**Legend**

1. Water Deflector
2. Water Deflector Retainer
3. Wiper Motor Mounting Bracket
4. Location for 1/4 inch hole