



# Replacement Wiper Motor Installation Guidelines

SD.9001.061213

## DISCLAIMER

Wiper systems play a major role in the safe operation of motor vehicles. Regular inspection and maintenance of this system, as well as other safety critical items, should only be performed by qualified service centers with well-trained repair specialists. Maintenance and service procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Intercompany, local, and federal regulations may apply specifically for your place of business and all applicable safety standards should be observed and supersede any statements or procedural advice presented here. Standard safety procedures and precautions should be followed at all times, including use of safety goggles and use of the proper tools and equipment, to minimize the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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Outside of the product replacement warranty, CVG Alabama, LLC. is not responsible for any losses incurred by installation or use of this product.

## !!WARNING!!

Installation should only be performed by qualified service personnel familiar with and properly trained on the maintenance for the particular motor vehicle being serviced. Damage to property, personal injury, or loss of function during operation may result if not installed following applicable regulatory guidelines. Use of this procedure is only permitted provided the above 'disclaimer' and 'limitation of liability' is read, understood and accepted.

## !!WARNING!!

It is possible the motor being replaced could activate unexpectedly. Assure power is not available to the motor being serviced. Disconnect the battery, any backup power systems and the wiper motor connector. Failure to do so may result in injury.

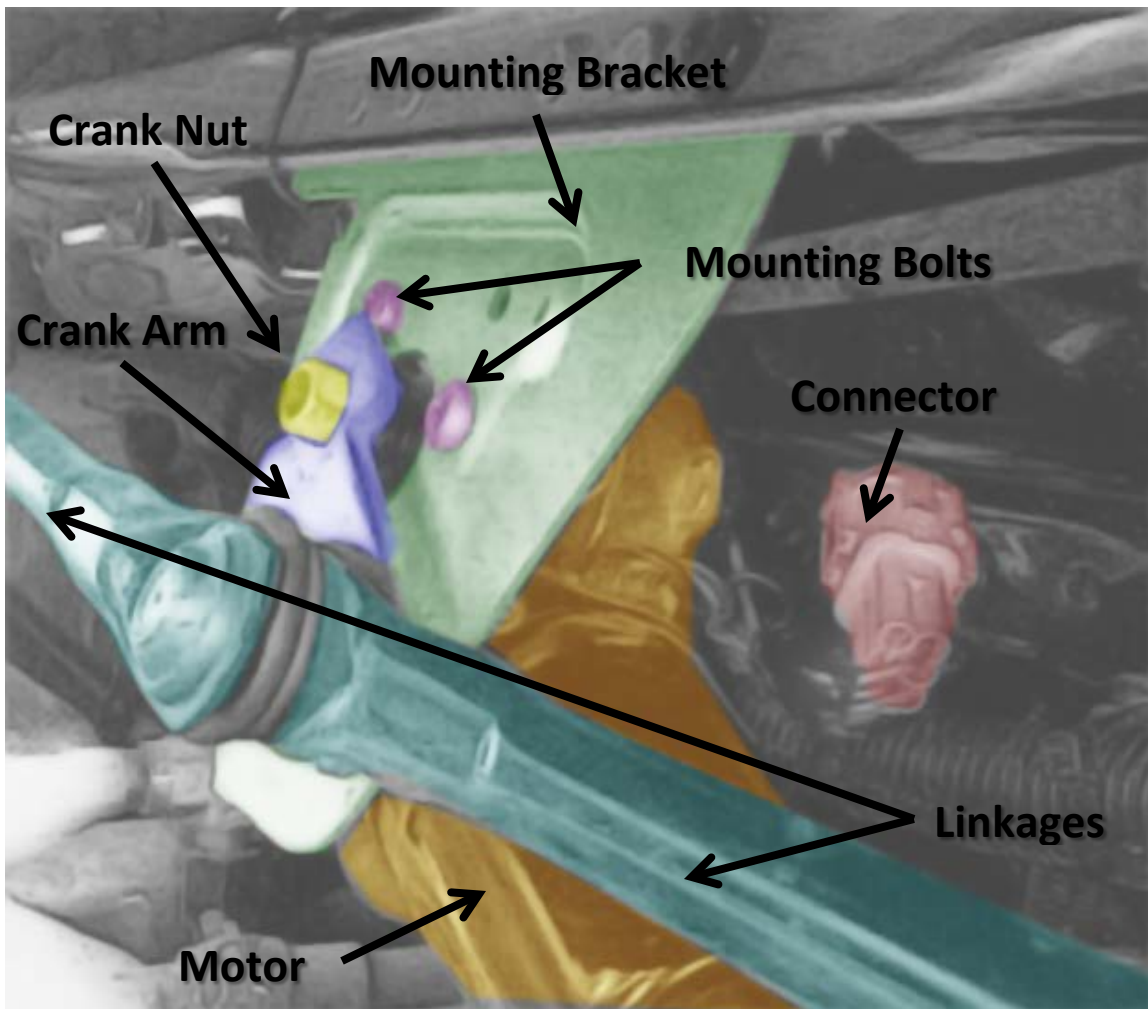
## !!CAUTION!!

Every effort has been made to assure your replacement motor matches the make, model and year for your particular vehicle. It is possible that your vehicle contains non-standard or running change variations with slight to major differences in physical mounting or electrical connection types. Before you begin this procedure you should inspect the old motor mounting style and electrical connections. If differences are suspected, compare the old motor part number with the replacement guide or remove the motor and take it to the parts center to obtain the correct part. Attempting to install the incorrect part may cause damage to the wiper system or other vehicle systems.

## CONTENT

The replacement wiper motor kit contains the following items:

Description	Quantity	Comments
Wiper Motor	1	
Mounting Bolts	3	Special mounts may include 4 bolts
Crank Lever Nut	1	
Adapter Mounting Plate	0	Sold separately; Required only for certain models/years
Adapter Cable	0	Sold separately; Required only for certain models/years



## INSTALLATION STEPS

1. Assure the wiper system is in the park position
2. Disconnect the electrical power
3. Open and secure the hood
4. Find and release the connector lock
  - a. Gently pull and rock to disconnect the wiper motor electrical connector

### **!!CAUTION!!**

Avoid pulling the wires by firmly grasping the two connector housings

5. Make note of the wiper motor crank arm angle position on the motor shaft – photograph if needed
6. Remove the crank lever nut and pull the crank shaft away from the motor.
7. Using a clamp, adjustable wrench or tape, fix the location of the crank arm to hold it in the park position
8. Remove the mounting bolts and remove the motor from the mount  
Note: You may have to move the linkage slightly to gain easier access to the mounting bolts
9. Compare the old and new wiper motors
  - a. Inspect the mounting hole locations and number of mounting bolts
  - b. Inspect the connector types and pin-outs
    - i. Changes in wire colors may not indicate incompatibilities.
  - c. Should differences be found, you may require non-standard mounting provisions.
    - i. Visit our website or contact customer service for adapters or hole mounting templates
    - ii. Contact maintenance supervisor for approval before proceeding
10. Install the new motor using the new mounting bolts provided with the motor kit
  - a. Start all bolts a few turns before fully tightening
  - b. Refer to the OEM service manual for bolt torques requirements  
(*11.5 Nm or 100in-lb typical*)
11. Fasten the electrical connector
12. Secure the wiring harness using cable ties, sleeving or straps
13. Assure the new motor is in the park position
  - a. Check that the wiper linkage is free from the motor shaft
  - b. Reconnect vehicle power
  - c. Using wiper controls, advance the motor position to the park position by turning the wipers on then off
  - d. Disconnect power
14. Align the crank arm to the original position noted in step 5
  - a. Remove the crank nut provided with the motor
  - b. Slide the crank arm over the motor shaft
  - c. Fasten the crank nut on the motor shaft
  - d. Assure arm is still in the correct park position
  - e. Hold the crank lever with an adjustable wrench to prevent it from turning when the retaining nut is tightened.
  - f. Torque the nut to the OEM service manual torques requirements  
(*24 Nm or 212 in-lb typical*). Reconnect power
15. Close the hood
16. Operate the wiper system and assure sweep coverage area is correct
  - a. Should park angle need adjusted, remove crank arm and reposition as needed