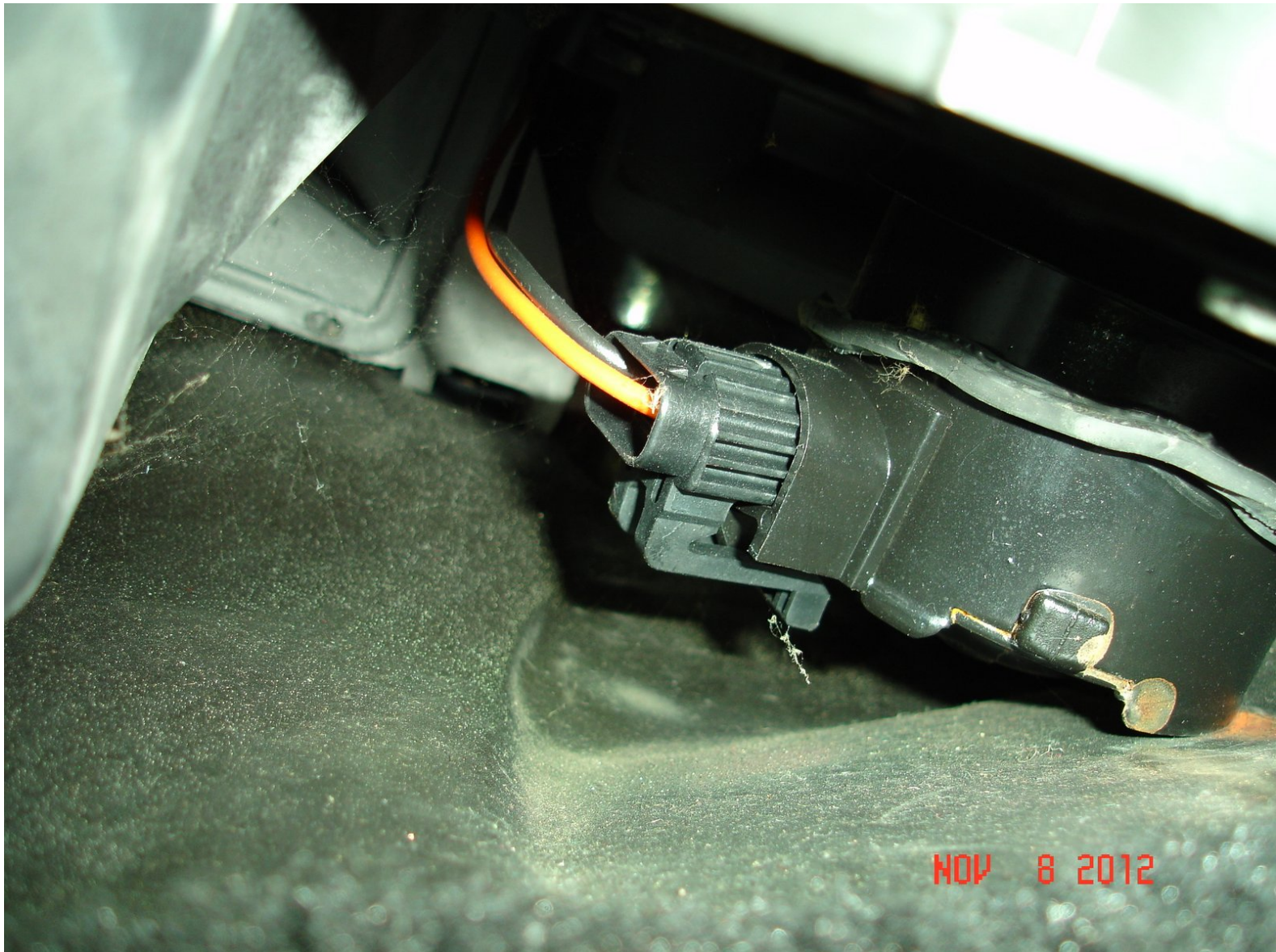




# 1991 Mustang HVAC Blower Motor Replacement

Replace HVAC blower motor.

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## INTRODUCTION

This guide was written for my 1991 Mustang, but the steps could be similar for other Ford vehicles. The steps are not hard to do if you have basic tools and skills. Start by turning the HVAC controls to the “OFF” position. The fan motor is energized if the HVAC controls are in any other position AND if the ignition is also in the “ON” position. There is no need to disconnect the battery or pull the fan motor fuse, unless you are into that sort of thing .

## Step 1 — Unplug the Fan Motor



- 1. Reach back behind the fan motor and disconnect the two pin power plug.

## Step 2 — Mounting Details



- 2. Squeeze the glove compartment sides inward to disengage the retaining tabs. Let the compartment door hang in front of the dash.
- 3. Remove the upper air inlet duct housing to bracket screw. A 7/16" ratcheting wrench works well since clearances are tight. A socket will not fit.

### Step 3 — Disconnect Vacuum Motor



- 4. Disconnect the white recirc vacuum motor vacuum line from the top of the vacuum motor.

### Step 4 — Duct Fastener Removal



- 5. Close the glove compartment door and remove the lower two 5/16" screws from under the air inlet duct housing.

## Step 5 — Remove the Fan Assembly



- 6. The housing is now free to be removed from the dash. Gently lift the housing and tilt it clockwise to gain enough clearance to pull it free from the dash. I did not remove the lower right trim panel since it did not cause any interference.
- 7. Disconnect the rubber cooling tube (recirc line) from the blower housing and the blower motor case.

## Step 6 — Replace the Fan Motor



- 8. Remove the four 5/16" screws that hold the blower motor assembly in the housing and gently pull the motor assembly free from the housing. Note that there is a foam gasket between the motor flange and the duct housing. Also note the orientation of the flat edge of the flange. It faces the outlet of the housing.

- 9. Remove the metal pushnut from the blower motor and wheel assembly. I used a pair of needle nose pliers. The pushnut will likely be destroyed during removal. The replacement motor should come with a new pushnut.
- 10. Separate the wheel assembly from the blower motor shaft by gently prying between the two with a suitable tool. Carefully pry around the two until you can slide the wheel off the shaft. Note that the shaft has a flat side that keys to the wheel.
- 11. You may want to clean the ducting and wheel at this time. I used Clorox wipes for the inside of the ducting and a mixture of bleach and dish soap for the plastic blower wheel.
- 12. Install the blower wheel onto the blower motor shaft by matching up the flats and pressing it into place by hand. Once the wheel is fully inserted, secure the wheel with a new metal pushnut.
- 13. Apply some Permatex black gasket maker (or equivalent) around the motor cutout and gently slip the replacement motor and wheel assembly into place.
- 14. Install the four 5/16" motor flange screws into the housing and tighten them. Do not over-torque.

## Step 7 — Custom Recirc Hose



- 18. My replacement fan motor did not have the motor cooling hole oriented in right location, so I modified it with Dorman PN: 47062 (universal 90 degree 5/8" heater hose elbow). The Dorman plastic elbow ends have to be cut back with a hacksaw about 3/4" from each end. The rubber hose can be cut with a pair of sharp scissors.
- 19. Flip the motor end of the hose 180 degrees (backwards) so the 90 degree elbow will allow it to mate up with the housing end of the hose. Use a pair of hose clamps to secure the rubber hose to the 90 degree elbow. Do not overtighten the hose clamps as the hose rubber is quite thin. Measure twice, cut once.
- 20. Take the completed air inlet duct housing with the motor installed back to the car.

## Step 8 — Splice the Wires



- 20. Since the replacement does not come with a power plug installed, you will have to cut the factory plug off (sorry). Connect the blower motor power leads to the factory wires with suitable electrical connectors. I used 12GA solder splices. Keep in mind that the motor will pull 16 to 22 amperes continuously when running in HIGH speed.

To reassemble your device, follow these instructions in reverse order.