Make sure which motor you are dealing with before you start connecting test jumper wires. The two-speed reversing motor has only one brass connector terminal, the non-reversing motor has two brass connector terminals.

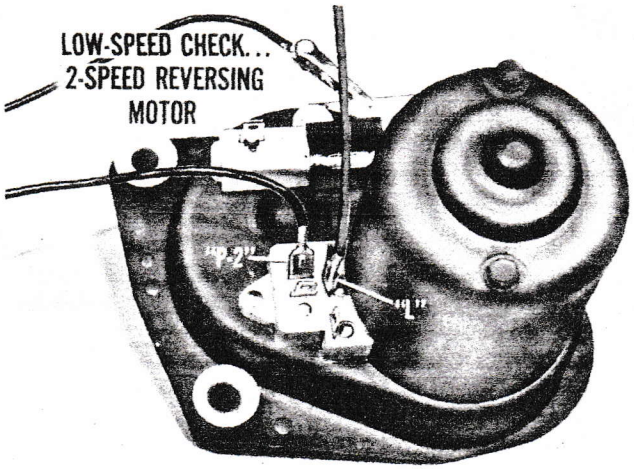


Fig. 30—Low-speed test of 2-speed reversing motor

For a check of low-speed operation, connect a negative jumper to the "P-2" terminal and a positive lead to the "L" terminal. If the motor operates at low speed, the motor and internal circuit is okay and the trouble is external.

To check high-speed operation, the negative jumper remains connected to the "P-2" terminal. Move the positive lead from the "L" terminal to the "H" terminal and motor speed should be higher.

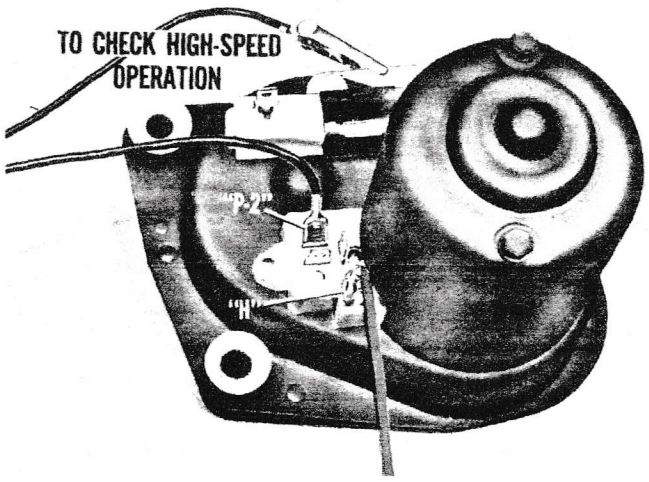


Fig. 31—High-speed test connections

To check out the park cycle, connect one negative lead to the "L" terminal and another negative lead to the motor ground strap. A positive lead is then connected to the "P-1" terminal. The motor should reverse and then stop in the park position. Of course, the ground strap jumper isn't needed when checking a motor on the car if you are sure the motor ground is good.

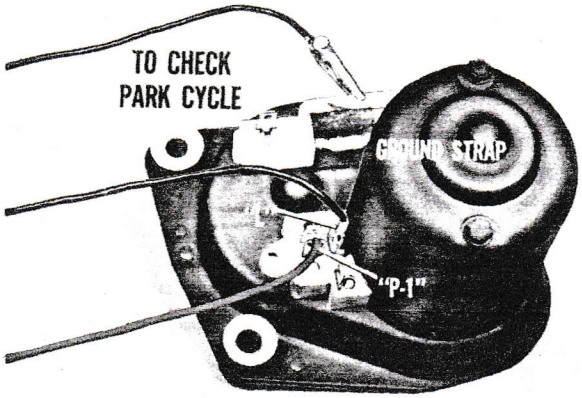


Fig. 32—Connections for testing the park cycle

And don't forget, if you don't have a good ground at the wiper switch, a two-speed reversing motor won't run on high or low. If the ground at the motor is bad, it won't reverse and move into depressed park.

THREE-SPEED OR VARIABLE-SPEED MOTOR TESTS

Since the wiring harness is part of the three-speed motor assembly, you'll have to remove the harness connector from the bulkhead disconnect to get at the motor leads. Three-speed and variable-speed

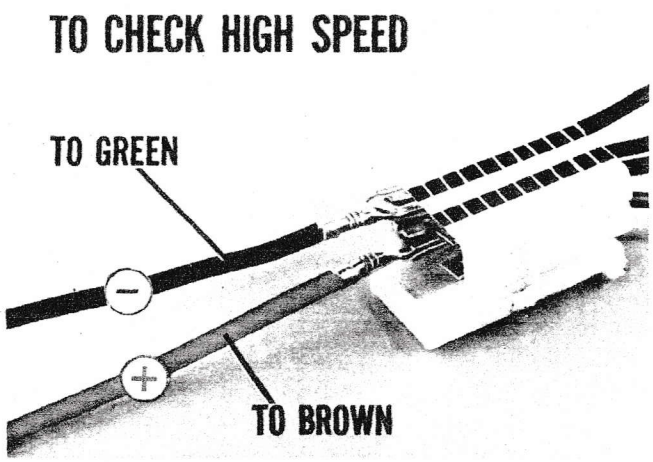


Fig. 33—High-speed check of 3-speed motor

applications use different bulkhead connectors, however, the same wire color code is used for the motor leads in all applications. So, the tests described in the following paragraphs will work regardless of the shape of the connector used.

To check high-speed operation, connect a negative jumper to the green-wire terminal and a positive lead to the brown-wire terminal. These connections supply current to the series field and to the armature but not feed current to the shunt field. As a result, the motor should operate at high speed.

TO CHECK LOW SPEED

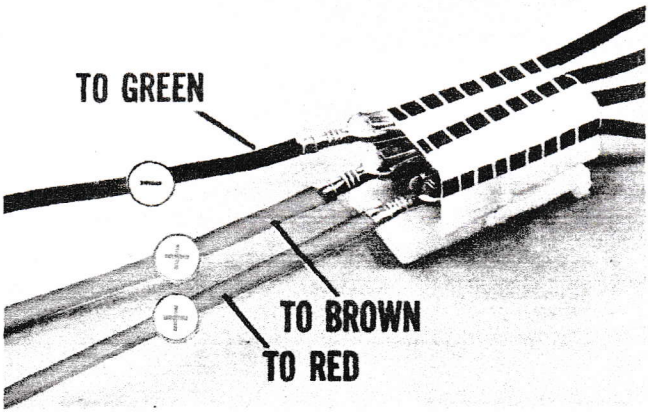


Fig. 34—Low-speed check of 3-speed motor

To check low speed, leave the jumpers connected to the green and brown wire terminals. Connect a second positive jumper to the red wire terminal. This feeds current to the shunt field. As was pointed out earlier, increasing the total field strength reduces motor speed. So, connecting the positive jumper to the red-wire terminal should cause the motor to slow down.

FOR THE PARK TEST

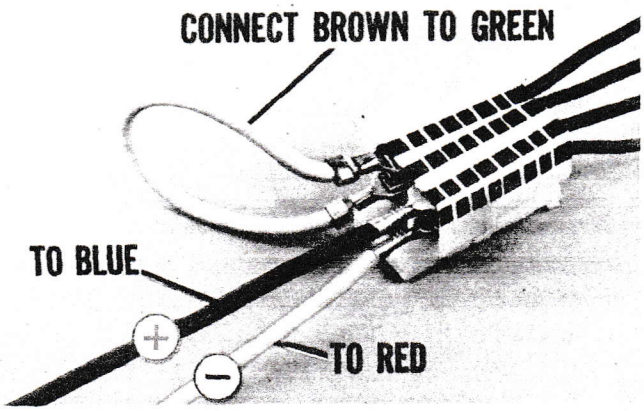
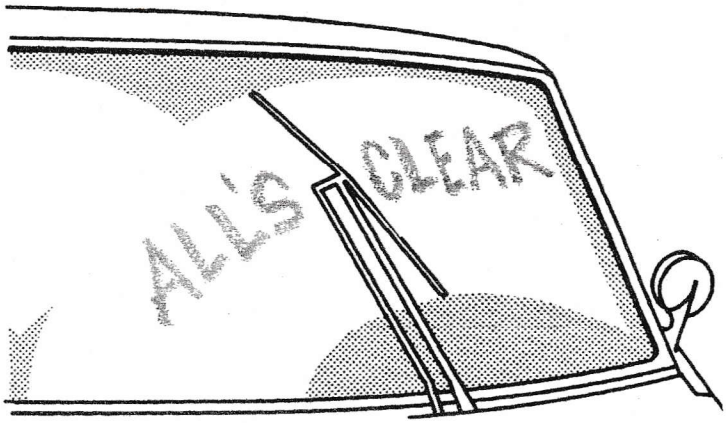


Fig. 35—Connections for testing the park cycle

For the park test, a positive jumper is connected to the blue-wire terminal and a negative lead is connected to the red-wire terminal. The green-wire and the brown-wire terminals are connected together by a short, third jumper. These connections duplicate the circuits provided when the wiper switch is turned off and should cause the motor to go through the complete park cycle.



HOT LINE NEWS FLASH

As you probably know, parts for repairing the 3-speed or variable-speed wiper motor have been available for some time. Just before press time Tech learned that parts packages for servicing both the 2-speed reversing and the 2-speed non-reversing motors have been authorized. Service instructions and service part numbers will be announced in a Service Bulletin as soon as material for these service packages is available.

Use the diagnosis and motor testing information in the Reference Book to determine whether or not the windshield wiper trouble is actually in the motor. As soon as service parts are available, you'll be able to make the necessary repair, whenever you find that the trouble is actually in the motor, instead of replacing the entire assembly. So keep your eyes open for that windshield wiper service bulletin and keep this Reference Book handy.