

CHRYSLER CORP. NON-CONCEALED SYSTEM

Chrysler (LeBaron)
Dodge (Diplomat, Omni)
Plymouth (Horizon)

DESCRIPTION & OPERATION

Windshield wiper motors are two-speed design. Both intermittent and standard systems use the same motor. The optional intermittent system allows a 2 to 15 second delay between sweeps and is controlled by a variable resistor in the wiper switch and an external control unit.

The two-speed wiper system on the Omni and Horizon has a pulse-wipe feature. The wipers operate when the control lever is depressed, and stop when the lever is released.

TESTING

MOTOR AND LINKAGE

1) Place wiper switch in "LOW" position. If motor can be heard running, check output shaft. If output shaft is not turning, replace gearbox. If output shaft is turning, check wiper linkage.

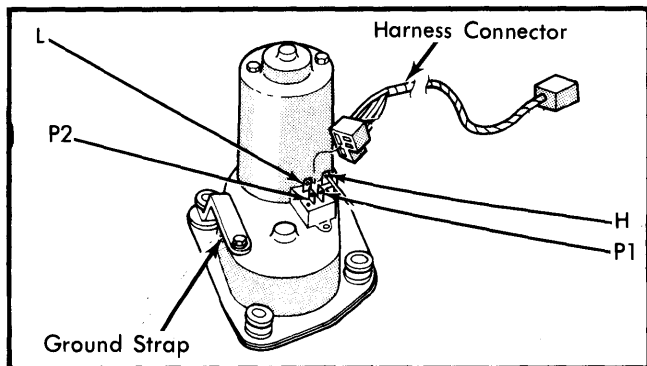


Fig. 1 Chrysler 2-Speed Motor Terminal Identification

2) Connect a voltmeter to terminal "L" at motor with switch in "LOW". If 12 volts present and motor not running, check ground connections, motor brushes, and armature. If 12 volts present intermittently, check for short circuits in motor, wiring, and switch with the following procedure.

3) Disconnect wiring connector at motor and remove wiper arms. Connect an ammeter between battery and terminal "L". Be sure motor is grounded. If motor operates and current draw is less than 6 amps, problem is in switch and wiring. If motor does not run or draws more than 6 amps, problem is in motor and linkage.

4) Disconnect motor from linkage. If motor now runs and draws less than 3 amps, repair linkage. If motor does not run or draws more than 3 amps, replace or repair motor and gearbox.

WIRING AND SWITCH

1) Leave wiring harness connected at motor for the following tests. Connect a test lamp between terminal "L" and ground with switch in "LOW" and ignition "ON". Test lamp should light and motor should operate. Connect test lamp between

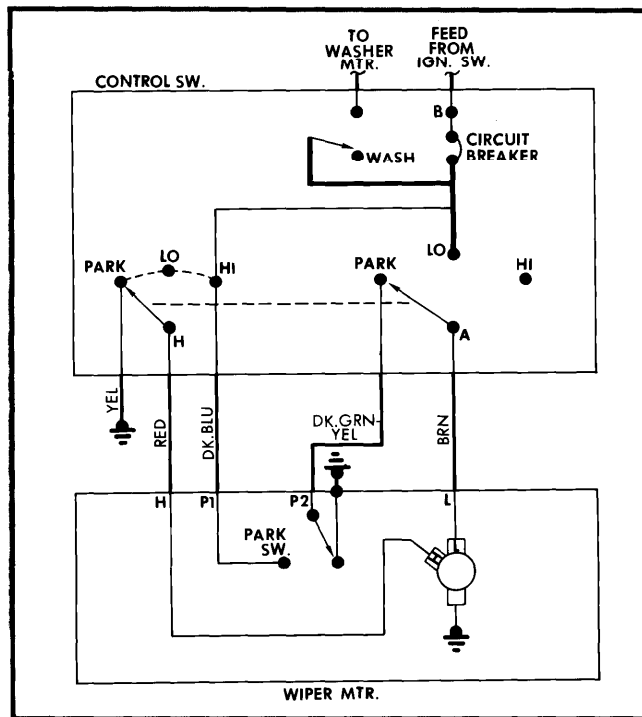


Fig. 2 Chrysler 2-Speed Wiper Wiring Diagram (Diplomat & LeBaron)

terminal "H" and ground with switch in "HIGH". Test lamp should light and motor should operate.

2) If motor does not operate and lamp does not light, short is in switch or wiring. If motor does not operate but test lamp lights, motor brushes need cleaning or repair.

3) Remove wiring connector at motor. Connect a jumper wire from "P2" to "L", and another jumper from "P1" to battery. Motor should run to park position and stop. If not, replace gearbox assembly. If motor parks properly with jumper wires, original problem was in control switch.

4) If wipers stop at any position when switch is turned "OFF", clean connections at motor and retest. If problem still exists, connect voltmeter between "P1" and "L". If voltage is present, check voltage between "L" and "P2". If no voltage at "P2", motor park switch is bad and gearbox must be replaced. If voltage at "P2", wiper control switch is bad and must be replaced.

5) Disconnect wiring harness at wiper switch connector. Test terminals of switch for continuity, using the following chart.

2-Speed Standard Switch Continuity

Switch Position	Continuity
Off	B to P1, A to P2
Pulse (Omni-Hor. Only)	B to P1, B to A
Low	B to P1, B to A
High	B to P1, B to H

Wiper/Washer Systems

CHRYSLER CORP. NON-CONCEALED SYSTEM (Cont.)

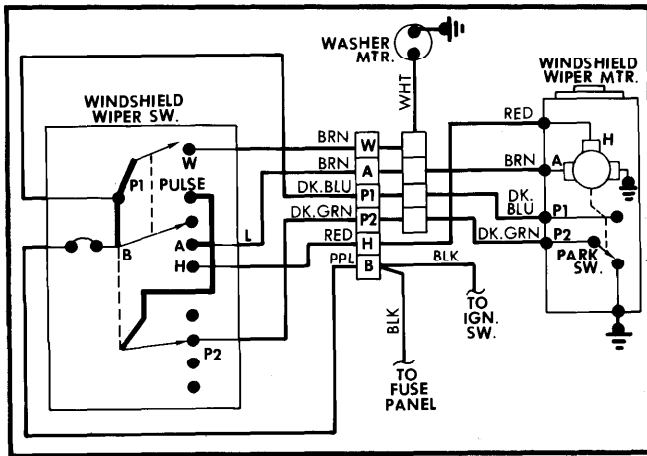


Fig. 3 Chrysler 2-Speed Wiper Wiring Diagram (Omni, Horizon)

INTERMITTENT SYSTEM

1) If wipers do not delay with switch in the correct position, place switch in "LOW" and disconnect wiring connector at delay unit. Check contacts for dirt and damage. Connect test lamp between cavities 1 and 3 of connector. The lamp should flash once each cycle. If lamp flashes periodically, replace delay unit. If not flashing periodically, check with test lamp between terminals "P1" and "P2" at motor. If lamp flashes periodically at motor, check wiring.

2) If wipers do not operate when switch is in delay position, place switch in maximum delay position and remove connector from delay unit. Connect voltmeter between cavity 4 and 6. If no voltage is present, check switch and wiring. If 10 to 15 volts are present, place switch in "LOW" position. Connect voltmeter between cavity 3 and 4. If 10 to 15 volts are present, replace delay control unit. If not, check wiring.

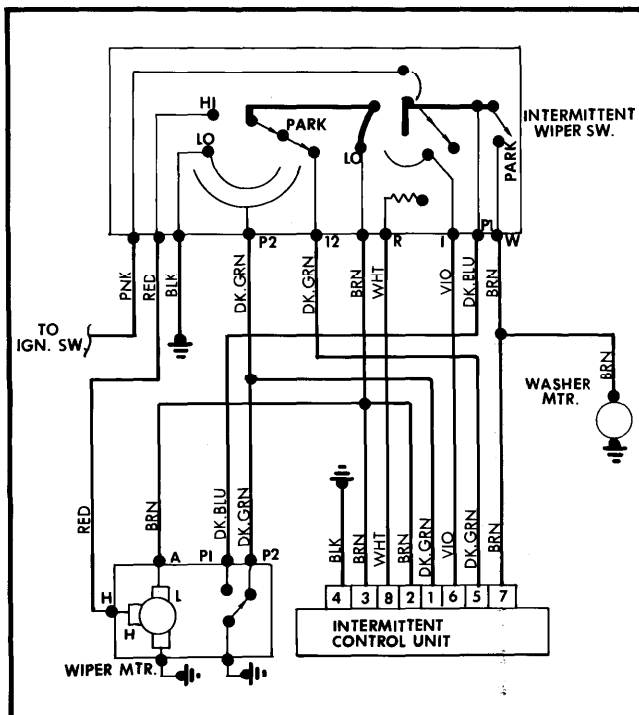


Fig. 4 Chrysler Intermittent Wiper Wiring Diagram

3) If wipers only operate once when in intermittent mode, place switch in maximum delay position and test between cavities 4 and 8. If no voltage, check switch and wiring. If 10 to 15 volts are present, replace control unit.

4) If delay does not vary with control setting, or exceeds 30 seconds, replace switch. If wipers do not operate continuously when in delay mode with washer operating, disconnect connector at delay unit. Connect voltmeter between terminals 4 and 7 and depress "WASH" switch. If voltage is 0, check wiring; if voltage is 10-15 volts, replace control unit.

5) Disconnect wiring harness at wiper switch connector. Test terminals of switch for continuity, using the following chart.

2-Speed Intermittent Switch Continuity

Switch Position	Continuity
Off	B to P1, A to P2
Delay	B to P1, B to I1, R to I1, I2 to Ground
Low	B to P1, B to A
High	B to P1, B to H

① — Resistance at maximum delay: 270K to 330K ohms. Resistance at minimum delay: Zero with ohmmeter set on high ohm scale.

REMOVAL & INSTALLATION

MOTOR

Removal (Omni and Horizon) — Remove wiper arms and nuts from pivots. Open hood, remove plastic motor cover shield, and disconnect wiring. Remove mounting bolts, disconnect pivots from cowl top mounting positions, and remove motor, bracket, cranks, pivots and drive links assembly.

Removal (All Other Models) — Disconnect battery and remove cowl screen. Hold drive crank with wrench while removing crank nut. Remove drive crank and wiring harness. Remove mounting bolts and motor.

Installation (All Models) — Reverse removal procedure.

WIPER SWITCH

Removal (Omni and Horizon) — Disconnect battery cable. Remove horn button, electrical lead, and horn switch from steering wheel. Remove steering wheel nut and wheel, using suitable puller (C3428B). Remove 4 screws and steering column lower cover. Remove wiper/washer switch screw and remove switch.

Installation — To install, reverse removal procedure and torque steering wheel nut to 60 ft. lbs.

Removal (All Other Models) — Remove mounting screws around bezel, place gear selector in "1", and remove bezel. Remove switch module mounting screws, pull module out, and remove switch knob. Remove mounting screws and wiper switch.

Installation — To install, reverse removal procedure.