

Wiper/Washer Systems

GENERAL MOTORS PULSE CONTROL SYSTEM

Buick Skylark
Chevrolet Nova
Oldsmobile Omega
Pontiac Ventura & Phoenix

NOTE — For all other GM Models, refer to General Motors Modified Pulse System in this section.

DESCRIPTION

System consists of an electronic module with a control knob and is mounted on the instrument panel. The circuit within the module is designed to provide a delay of one to 24 seconds between wiper cycles. The module uses a jumper wire harness between the standard wiper/washer switch and the wiper motor harness, and it varies the resistance in the wiper motor feed circuit. Operation of the wiper/washer switch in any position will override the pulse delay module operation. The module is serviced only as a complete assembly.

OPERATION

When the pulse control knob is turned to "ON", current charges a capacitor. At a predetermined charge, the capacitor turns on a Silicone Controlled Rectifier (SCR), which in turn acts as a switch providing a path to ground so the wiper motor can begin to operate. As the motor rotates, the internal park switch of the wiper motor shunts the switch (SCR) circuit which turns off the resistor/capacitor timing circuit. As the motor continues to rotate, the park switch opens, the motor stops in park position, current is again supplied to the timing circuit, and another delay sequence begins.

TESTING

NOTE — Refer to General Motors — Square Motor windshield wiper story for testing of windshield wipers, washers, and motors.

WIPERS DO NOT DELAY

Check standard wiper operation. If wipers operate properly, replace pulse control module. If wipers do not operate properly, check windshield wiper electrical circuits.

WIPERS WILL NOT SHUT OFF - WIPERS WILL NOT OPERATE

Disconnect module wire harness and connect wiper switch directly to wiper motor harness. If wipers do not operate, check windshield wiper electrical circuits. If wipers operate

properly, check for an open or shorted condition in Lt. Blue and Black switch-to-motor leads, and Red and Black module leads. If wires are good, replace module.

OTHER WIPER, WASHER, OR DELAY MALFUNCTIONS

Disconnect module wire harness and connect wiper switch directly to wiper motor harness. If wipers and washers operate properly, replace module. If wipers and washers fail to operate properly, leave module out of circuit and check wiper and washer electrical circuits.

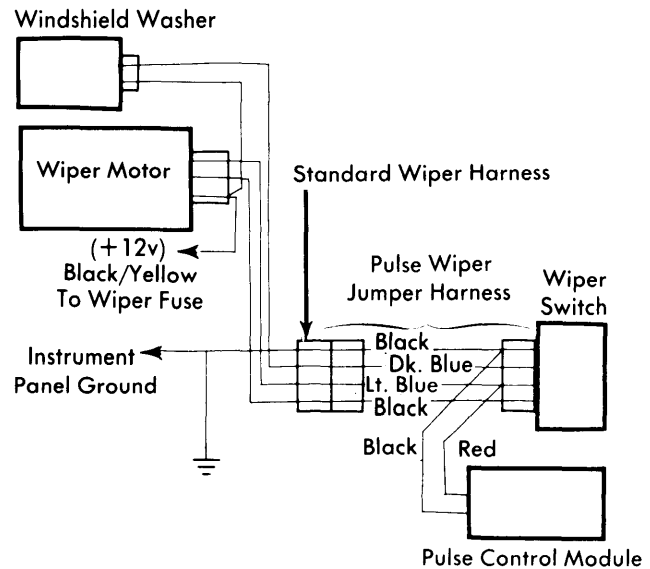


Fig. 1 General Motors Pulse Control Wiper System Wiring Diagram

REMOVAL & INSTALLATION

PULSE CONTROL SWITCH/MODULE

Disconnect battery ground cable and remove electrical connector from rear of wiper switch. Remove three retaining screws from wiper switch and pulse control switch/module assembly and remove switch/module from under instrument panel. To install, reverse removal procedure.