

INSTALLATION INSTRUCTIONS

Intermittent Wiper Module – Part Number 13009HD

Thank you for your purchase of this Intermittent Wiper Module. Adding this module to a factory GM two-speed wiper switch/motor gives you three additional wiper settings: one swipe every eight seconds, once every five seconds, and once every three seconds. This wiper is designed to work with pre-1978 GM vehicles with two-speed, non-hiding wiper motors. (In 1978, GM changed the way the wiper motor operates and this module only works with the older style motor.)

Parts Included in this Kit

1-Controller Unit
1-T-tap
2-zip ties

1-Small crimp ring
1-1/4" male crimp connector
1-Jumper wire

THIS DRAWING IS ONLY A REPRESENTATION. BE SURE TO READ INSTALLATION INSTRUCTIONS ON PAGE 2.

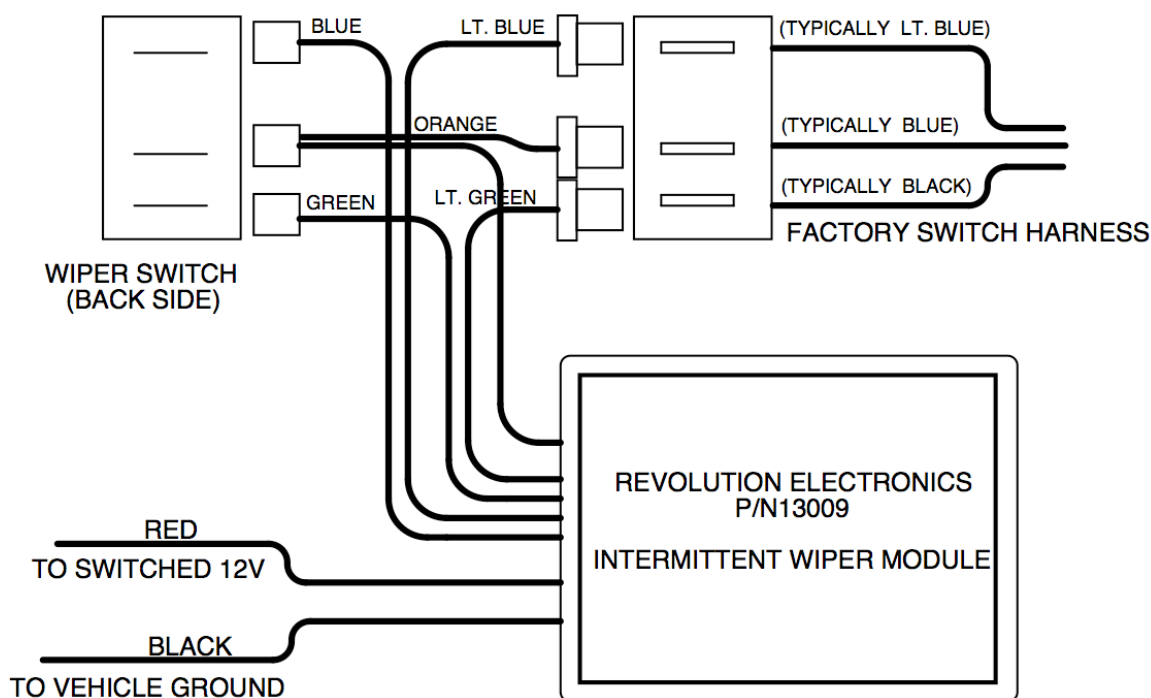


Figure 1

Electrical Connections

Figure 1 summarizes the connections necessary. The Intermittent Wiper Module needs connections to switched power and a good ground. It also needs to connect between the dash-mounted switch and its harness. We have provided a summary sheet with some typical switch connections. If your switch does not match up with any of those, you will need to use an ohm meter to determine which connection does

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what function. If you have a metal dash, you will need to set your meter to the resistance setting and measure resistance between the contacts and the switch housing. If your wiper switch connects to a plastic dash (such as '75-'77 trucks), you will first need to determine which of the contacts is the ground connection. Do not assume that the picture above shows the switch connections in the correct order or orientation. You must perform the resistance checks to be sure you get the wiring correct. You can also check the Support page at revolutionelectronics.com for pictures of some switches and their wiring.

Blue Wires - Turn the switch to the high-speed setting and, using an ohm meter, determine which switch terminal has continuity to the switch housing (shows zero or near-zero ohms resistance). Connect the blue wire to this terminal and the light blue wire to the corresponding wire on the harness side.

Orange Wire - If equipped with a washer function, activate the washer portion of the switch. Using your ohm meter again, determine which terminal has continuity with the switch housing. Connect the orange wire to this terminal and the corresponding wire on the harness side.

Green Wires — If you have a metal dash, there is only one switch terminal remaining. Connect it to the green wire and connect the light green wire to the corresponding wire on the harness side. If you have a plastic dash, you will also need to connect the jumper wire below.

Red Wire - Identify a source for power which switches on and off with the key switch. Very little current will be drawn from this wire so it is ok to tie it into another circuit. Use the included T-Tap to make the connection. Cut the red wire to length, strip insulation from the end, crimp on a male ¼" connector and connect to the T-Tap.

Black Wire - Connect this wire to a good vehicle ground. The small ring terminal can be used to attach this wire to a mounting bolt or another source of vehicle ground.

Jumper Wire — Some installations (such as '75-'77 Chevrolet and GMC trucks) will require installing a jumper wire between the switch and harness. This jumper supplies the ground connection which would have been supplied via the metal dash in older vehicles.

You must install the switch into the dash. The switch requires a ground connection and most vehicles get that connection through the metal dash.

Mounting the Unit

The Intermittent Wiper Module may be mounted in any location where the electrical connections are easily accessible. Mounting in a weatherproof location is recommended. Use two self-tapping screws, rivets, or zip-ties through the mounting tabs to securely mount the unit.

Operation

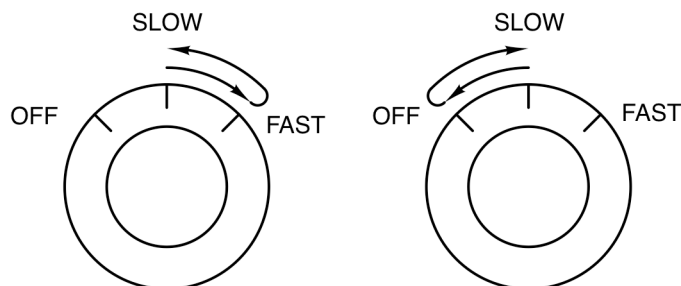


Figure 2: Advancing and delaying the intermittent settings

Cycle from: Off--8sec delay--5sec delay--3sec delay--continuous slow--continuous fast

The factory switch has three positions: off, slow, and fast. The Intermittent Wiper Module uses the factory switch to select between several modes of operation. The off and "fast" positions retain their functions while the "slow" position becomes a "neutral point" in the operation and can be one of many selections. Moving the switch from the "slow" position to the "fast" position and then back to slow (within about a half a second) will advance the operation one selection. Moving the switch from the slow position to the off position and back to the slow position (again within about a half a second) will step back the operation one selection. Within the slow position, you can operate the wipers once every 8 seconds, once every 5 seconds, once every 3 seconds, or continuous stock-slow setting.

When you first turn on the wipers by moving the switch from off to slow, the wipers will start off operating once every 8 seconds. Quickly moving the switch to the fast position and back to the slow position will cause the wipers to operate once every 5 seconds. Repeating this operation again will cause them to operate once every 3 seconds. One more time will advance them to the continuous "stock slow" setting. Just as moving the switch from slow to fast and back will advance one setting, moving the switch from slow to off and back will drop the wipers down one notch. At any time, moving the switch to the fast position and leaving it there will advance the mode directly to the "stock fast" operation. Likewise, moving the switch to the off position and leaving it there will change the mode immediately to off.

If equipped with washer control, pressing the wash button will operate the washer pump as normal. If the wipers are in an intermittent setting when the washer button is pressed, the speed will immediately advance to the "stock slow" setting.

Troubleshooting

There are 8 connections which must be correct for this module to operate properly. Before tearing into the connections at the switch and motor, check these items:

1. For most applications, the switch must be installed in the dash. The switch requires a ground connection which is accomplished by securely connecting the switch to the metal dash.
2. Make sure the power and ground connections are secure. This is especially true for the ground connection; make sure the ground point is not rusty or otherwise questionable.
3. If your dash is plastic, you need to use the supplied jumper wire to connect the switch to ground. One of the switch terminals and factory wires will be for a ground connection.
4. Temporarily disconnect the orange wires and retest the system. If your orange wire connection is not correct, it can make diagnostics more difficult so disconnecting the orange wires can help. Make sure that the terminal for the orange wire is only grounded when you push the Wash button.

Testing the wiper motor operation without the switch

If you followed the suggestions above and are still having issues, we need to dig a little deeper. To minimize the chances of error, we need to remove the switch interaction. Remove all wires from the switch. Disconnect the orange wire from the factory harness. You should have only the light blue and light green wires connected to the factory harness.

Ground the green and blue wires simultaneously. You should have intermittent 8 sec delay. While keeping the blue wire grounded, disconnect the green wire. The motor should change to continuous fast. Reconnect the green wire to ground (while keeping the blue wire connected to ground); the motor should change to continuous slow. Now disconnect both wires simultaneously. The wipers should power off and park at the base of the windshield.

If your wipers operate in some other fashion, the light green and light blue wires are not connected to the proper wires on the factory harness. Verify those connections. If the wipers start off in fast continuous mode, you probably have the light green and light blue wires swapped.

Adding the switch to the circuit

With the wiper motor operating correctly, hold the switch up to the factory harness to see where the factory wires line up and connect the green and blue wires to the switch (green should line up with light green and blue should line up with light blue wire).

Make sure you have a good ground connection to the switch housing (or the jumper wire between the switch ground terminal and the corresponding factory wire if you have a plastic dash). Verify that the switch activates intermittent mode when first turned on and fast mode if moved to the fast setting.

Now connect the orange wires to enable washer operation and verify.

Wipers pause mid-swipe or don't stop at the base of the windshield

At the end of an intermittent swipe or when turning off the motor, the wipers should move to the base of the windshield and stop ("park"). This operation is controlled by the parking circuit within the motor. The parking circuit is basically a set of points which open and close as the motor rotates. If the motor is turned off in the middle of a swipe, the parking circuit points keep the motor active until the motor rotates around to the parking position and the points open, turning off the motor. If the wipers are not parking correctly, there is a problem with this circuit; you will need to either open the motor case to clean these points or replace the motor.

Warranty:

All Revolution Electronics products carry a warranty against defects in materials or workmanship for a period of one (1) year from the original retail purchase. Revolution Electronics' liability is strictly limited to the prompt repair or replacement of the defective product. Revolution Electronics shall not be responsible for (a) labor, transportation, or other incidental charges; (b) consequential or other damages incurred by use of any product. Revolution Electronics offers no other warranty beyond this limited warranty. This limited warranty does not apply to products which have been (a) modified or altered in any way; (b) subjected to adverse conditions, misuse, neglect, accident, improper installation or adjustment, contaminants, corrosion, or faulty repair; or (c) used in applications other than those recommended by Revolution Electronics. To initiate a warranty process, the consumer must first contact technical support (tech@revolutionelectronics.com) to receive a return authorization number. The product must be returned to Revolution Electronics complete with a dated receipt and a return authorization number.

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