

Installation Instructions

1970-78 Camaro/Firebird Raingear Windshield Wiper System

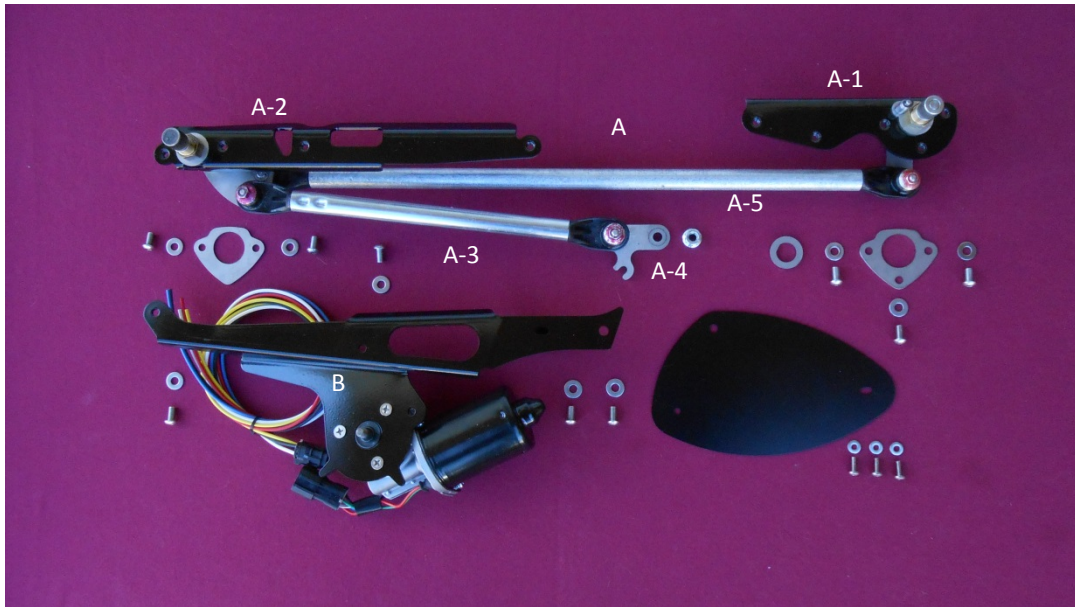


Photo O

The Raingear 1970-78 Camaro/Firebird wiper system is designed for ease of installation as well as reliability.

Please review these instructions before beginning the installation of this windshield wiper system. This machine is designed with precision in mind. We do "tweak" our designs from time to time, so there may be parts that have slight variations from the photos. **If you think you need to alter it to accommodate your installation, please call us first.** 541-895-2566 weekdays 9am to 4pm Pacific time. (Other times by chance.)

Remove the OEM Wiper system

1. You will be working in an area of the vehicle with the greatest concentration of wires. Please disconnect your battery.
2. On the outside of the car. Open the hood to access the plastic grill just forward of the windshield that covers the "Airbox". A word that will be used often in these instructions.
3. Remove the plastic grill
4. Use a 1/2" wrench to remove the nut holding the Drive Arm onto the stock wiper motor. Pry the Drive Arm from the Motor Spindle.
5. Each of the OEM Pivot Shafts are held to the cowl by three fasteners. Remove the fasteners and take the entire Wiper assembly from the car.
6. Unplug the wire harness from the Wiper Motor. Remove the Wiper Motor from the Firewall. Remove the Motor Adapter Plate from the Firewall.

Drill Wire Location

Before you begin to install your Raingear, GEN II Wiper system, you need to locate and drill a 5/8" hole from inside the car into the floor of the Airbox.

1. To begin you must remove the plastic cover below your steering column. This will give you access not only for drilling but for access to your Dash Panel when it is time to install your Wiper Switch.

2. To the right of the steering column look straight up and locate a sheetmetal bracket with a row of small holes (see photo 1). About 2" forward of this bracket use a step drill to make a 5/8" hole in the firewall. (see photo 2) When you go outside the car and look into the airbox you will see the hole on the floor of the box. Clean off any sharp burrs. Install the rubber grommet supplied in the kit. Locate the wire bundle and string the loose ends from inside the airbox through the rubber grommet to inside the car. (see photo 3)

You are now ready to install the Wiper System

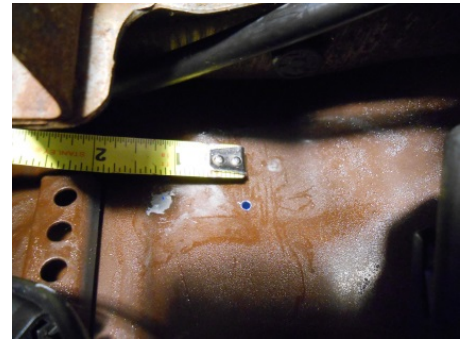


Photo 1

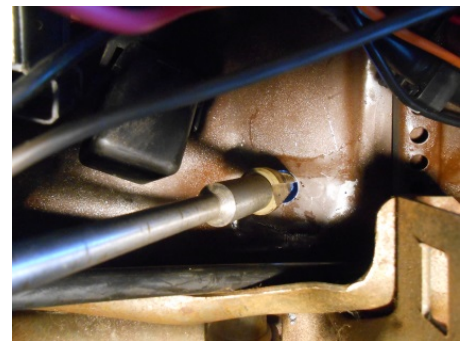


Photo 2



Photo 3

The Machinery

1. Orient the Pivot Shafts and Link Assembly as it will fit into the airbox. Passenger side Pivot Shaft to the Right, Driver Side to the left. Using the far left, large hole in the top of the airbox, insert the Pivot Shaft, Link Assembly into the Airbox. POINT THE TIPS OF THE BRASS PIVOT SHAFTS TOWARDS THE BACK OF THE CAR. (refer to Photo 0 on page 1. See photos 4 and 5)



Photo 4



Photo 5

2. Make certain the Radio Antenna plug is rotated upwards to around the 12 to 2 o'clock position. (see photo 6)

3. Rotate the tips of the brass Pivot Shafts forward and upward into their respective holes in the cowl.



Photo 6

4. On the Passenger side place a stainless steel cover plate, the one with TWO small holes, over the Pivot Shaft and onto the cowl. Use Two 1/4-28 Button Head bolts and two 1/4" flat washers to secure. DO NOT TIGHTEN the bolts. (see photo 7)



Photo 7

5. On the Driver side use three ¼-28 Button Head bolts and three ¼" flat washers over the stainless steel cover plate to secure pivot shaft (the one with THREE small holes, not pictured). (see photo 8)



Photo 8 (Pantograph pin option pictured)

6. Before inserting the Wiper motor into the airbox plug the wire harness into the plug coming from the electric Motor. Orient the wires coming from the motor as shown in photo 9.



Photo 9

7. Insert the Wiper Motor and bracket through the far left opening into the Airbox. Attach the Motor Bracket to the Left Pivot Shaft Head first. (see photos 10 & 11) Use two 1/4"-28 button head bolts and two 1/4" flat washers.



Photo 10

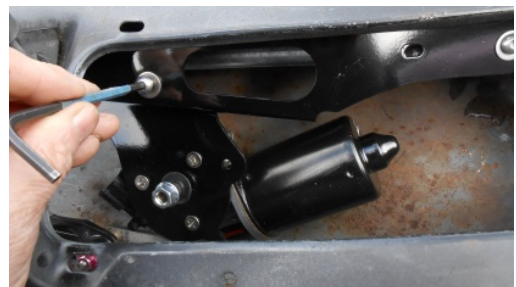


Photo 11

8. Next use two 1/4"-28 button head bolts and two 1/4" flat washers to attach the Motor Bridge to the Driver Side Pivot Shaft Head. (see photo 12)

9. After all button head bolts are installed tighten all fasteners.



Photo 12

The Drive Arm

To add the Drive arm to the motor:

1. Remove the loose 13mm nut from the Motor Spindle.
2. Place the tapered hole on the Drive Arm onto the vacant Spindle. (see photo 13)



Photo 13

3. Replace the nut but DO NOT TIGHTEN. (see photo 14)



Photo 14

4. Locate the empty 1/4" dia hole on the Motor Mount face. (see photo 15) This hole is used to locate the "PARK" position of the wiper system when in the off position. NOTE: the wiper motor comes to you, in this kit, in the "PARK" position.



Photo 15

5. Rotate the Drive Arm "Park Slot" over the hole in the Motor Bracket and insert a 1/4" round object through the slot and into the hole. (I use a Phillips screwdriver. You can use a 1/4" bolt or anything that size.) Use a 13MM open end wrench to tighten the Motor Spindle Nut. (see photo 16)



Photo 16

If you have the Pantograph Arm feature:

If your Pantograph Arm has the slide clip installed, use it to secure the arm. If not, use the supplied small E-clip. (see photo 17) (Skip this step if you do not have the Pantograph feature.)



Photo 17

1970-78 Switch

1. Before adding the Wiper Switch to the Dash Panel you want to turn the Headlight Switch 180 degrees. If you don't do this the two switches will interfere with each other.
2. Remove the Headlight Switch Spindle. Reach in and locate the spring loaded button on the headlight switch housing. Depress the button as you pull outward on the Headlight knob. It can be extremely frustrating but at some point it will happen.
3. With the Headlight Knob and spindle removed you can use whatever you can devise to unscrew the Headlight Switch retaining nut.
4. Use a small flat file to create a notch or key, identical to the OEM notch, 180 degrees away. (see photos 18 and 19)
5. Rotate the Headlight 180 degrees from OEM and reassemble.



Photo 18



Photo 19

Adding the Wiper Switch to the Dash Panel:

1. The Raingear Wiper Switch Adapter plate is made of two pieces. Orient the pieces and insert the spindle of the Wiper Switch into the hole. Add the small hex nut to the spindle **DO NOT TIGHTEN FROM THE FRONT SIDE.** (see photo 20)



Photo 20

2. If you have the Intermittent Wiper Switch, orient the Switch Adapter as shown in photo 21. This is to minimize interference between the Intermittent Wiper Switch body and the car's OEM Headlight Switch. Use the small Spindle nut supplied in the kit but only run it down till it is flush with the threads on the brass Switch Housing. Orient so that the wires on the back of the switch are coming out at the top. This will ensure that the Off position is on the left.

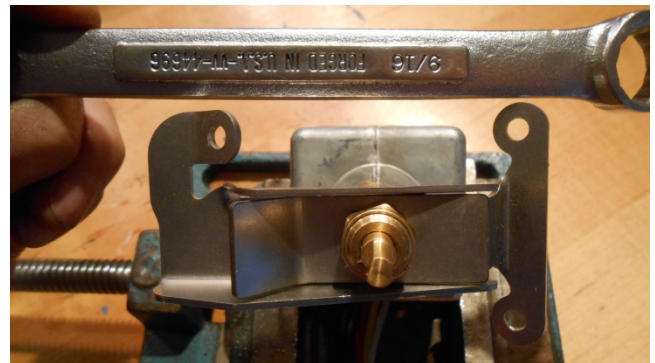


Photo 21

(For the Two Speed Switch, position the switch in the Switch Adapter so the flat spot on the switch spindle is facing down. Put the serrated washer that comes in the kit on first, then the switch adapter, then the brass switch nut. This will ensure the correct position of the nut.)

3. The kit includes a thin nut and star washer that thread onto the Switch spindle. Use these on the backside of the Switch Adapter to tighten the switch to the adapter. You will stand a much better chance of not nicking the powder coating on the front side.



Photo 22

4. Now that the Switch is joined to the Adapter attach the assembly to the back side of the Dash Panel using the OEM screws that held the stock switch. (see photo 22)

5. Wire the unit per the wiring diagram (see last page of these instructions).

Cover Plate

1, Use three 10-24 stainless steel screws and three 3/16" flat washers to secure the Cover Plate to the outside of the Firewall.
(see photos 23 and 24)



Photo 23



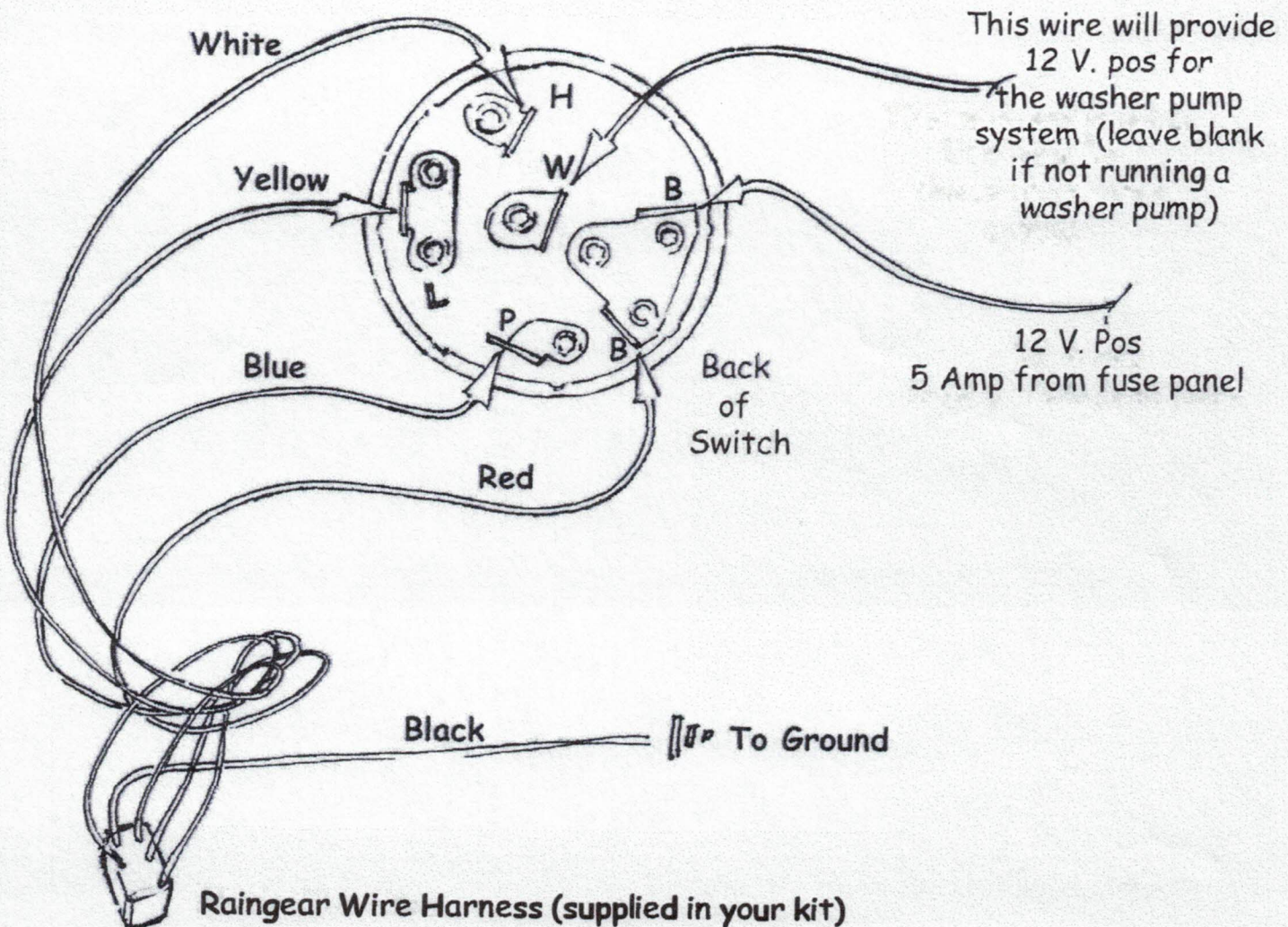
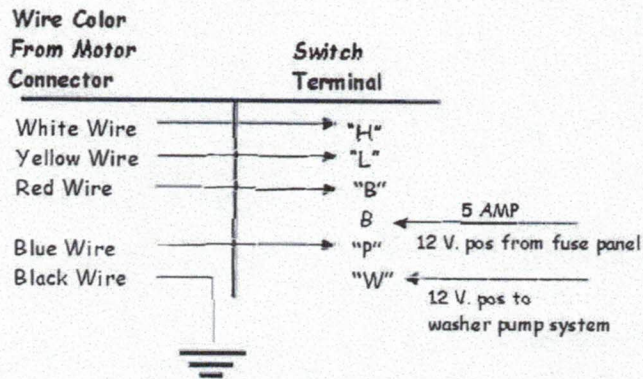
Photo 24

RAINGEAR

Wiring Diagram

2 Speed Switch

Turn knob to activate wipers.
 If running a washer system, push knob to squirt washers. The wiper blades will cycle twice.



RAINGEAR

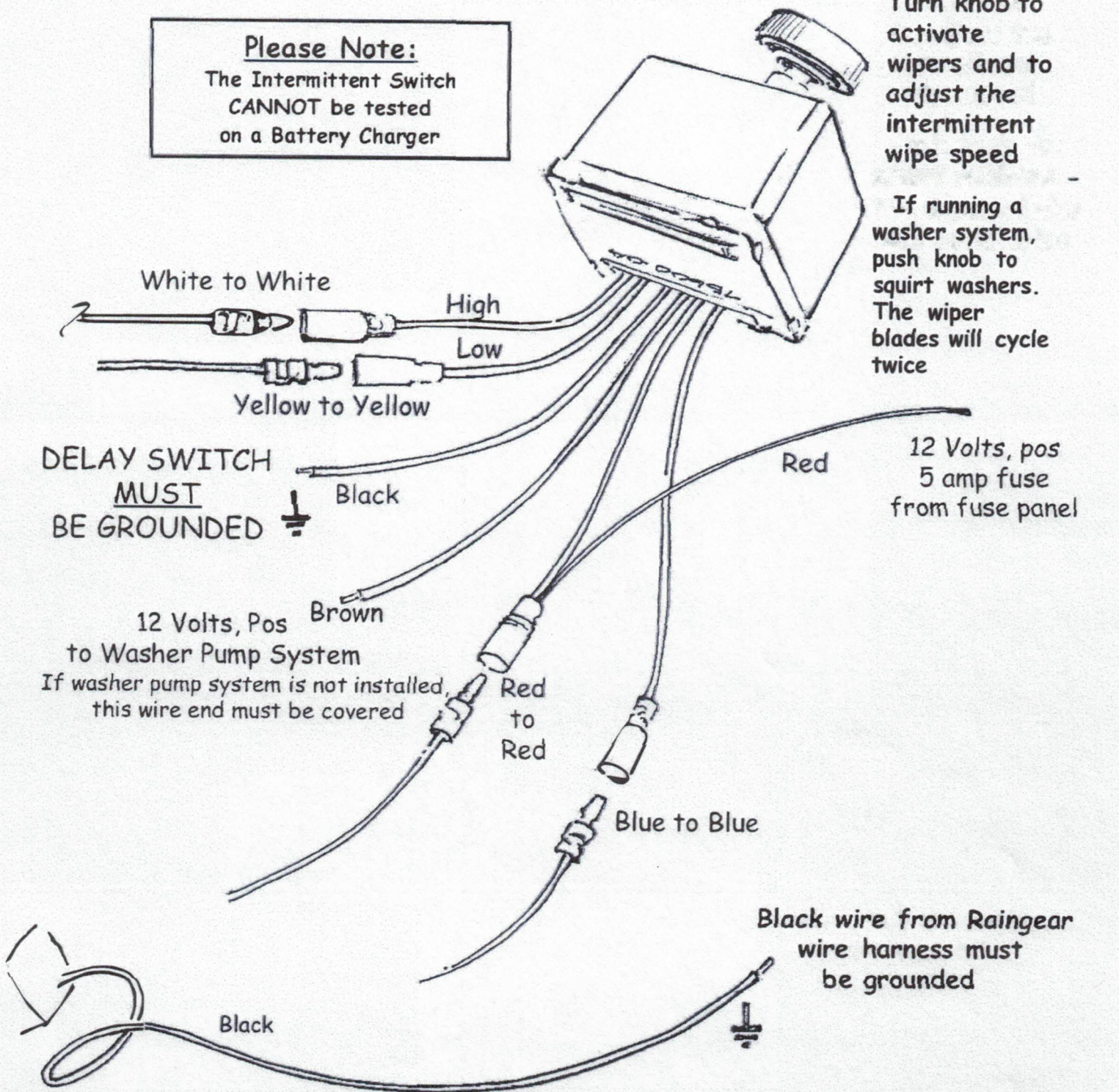
Wiring Diagram

2 Speed/Intermittent Switch

Please Note:
The Intermittent Switch
CANNOT be tested
on a Battery Charger

Turn knob to activate wipers and to adjust the intermittent wipe speed

If running a washer system, push knob to squirt washers. The wiper blades will cycle twice



NOTE: The colors of the wires from the wiper motor and the colors of the wires on the harness do not match. This is correct.