Detroit Speed, Inc.

Selecta-Speed Wiper Kit
1968-72 Corvette
P/N: 121621

A downpour of rain will no longer hinder your ability to clearly see the road. The Detroit Speed Selecta-Speed Wiper Kit provides you with the performance and convenience of a late model wiper system in a package that easily and cleanly mounts in your 1968-72 C3 Corvette.



Item #	Description	Quantity
1	Wiper Motor Assembly w/Adapter Plate	1
2	Wiper Door Motor Assembly	1
3	Wiper Control Module w/Mounting Plate	1
4	Wiper Harness	1
5	Wiper Switch Assembly	1
6	Wiper Door Closeout	1
7	Billet Aluminum Wiper Switch Knob	1
8	Wiper Switch Adapter	1
9	Wiper Switch Extension	1
10	Drill Guide	1
11	Hardware Kit	1
12	Instructions	1

Hardware Kit Checklist			
Item #	Description	Quantity	Check
1	Packard 56 Series Connector	1	
2	1-1/4" Firewall Grommet	1	
3	1/2" Firewall Grommet	1	
4	7/16" SAE Flat Washer	1	
5	10-24 Nylock Flange Nuts	5	
6	6-32 x 1/2"L Button Head Cap Screw	1	
7	8-32 x 5/8"L Flat Head Cap Screw	2	
8	8-32 Nylock Hex Nut	3	
9	#8 Flat Washer	3	

This kit features a seven speed wiper system with five delays, low speed, and high speed. A CNC aluminum adapter plate mounts the new wiper motor to the stock firewall bolt pattern. The new pitman arm, included in the kit, connects directly to your existing wiper linkage. A rotary switch is also included, along with a complete wiring harness. A new electric wiper door motor is included to replace the factory vacuum actuator to open and close the wiper door. It mounts inside the cowl area with a cover plate giving you a clean, smooth firewall on the passenger side.

This kit does feature a washer pump option as the wiper switch does have a push button function. The wiring harness/control module is equipped with a power and ground wire to install an inline electric washer pump. DSE does offer a washer pump kit available as part number 121102.

The wiper door actuator is pressure sensitive to reduce the chance of personal injury or damage to the vehicle in the event that something is caught in the wiper door during operation. If the door comes in contact with a foreign object, it will stop its operation. **NOTE:** The pitman arm on the actuator will not be able to be moved by hand as that could cause permanent damage to the actuator. The pitman arm is clocked in the correct position for installation at Detroit Speed.

Installation Instructions:

1. Before beginning, please ensure that the parts included with your kit match the parts list above. Ensure that the factory wiper system is in its "Parked" position. Disconnect the battery power by removing the negative battery lead from the battery.

2. Remove the cowl panel from the vehicle by removing the screws holding it to the wiper door assembly (Figure 1).

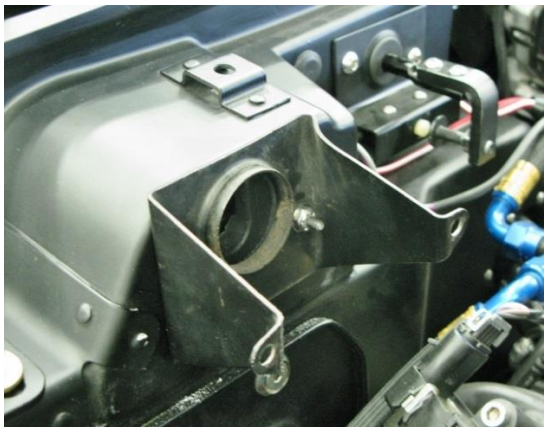


Figure 1 – Remove Cowl Panel

3. Remove the wiper door vacuum hoses from the actuator (Figure 2). Remove the vacuum actuator from the mounting bracket. Remove the mounting bracket from the firewall (Figure 3). Keep these fasteners as you will reuse them later in the installation.



Figure 2 – Wiper Door Actuator


Figure 3 – Actuator Bracket

4. Disconnect the wiper door vacuum actuator pushrod from the wiper door assembly and remove the pushrod from the vehicle.

5. Next, remove the wiper door assembly from the vehicle. Start by removing the two fasteners from the driver and passenger side firewall (Figure 4).

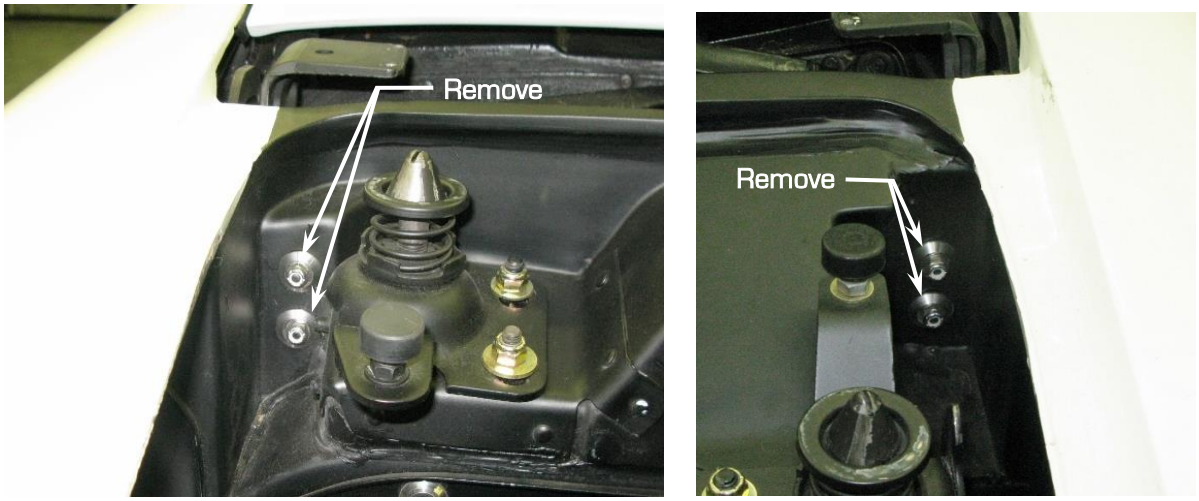


Figure 4 – Passenger and Driver Side Fasteners

6. Also remove the pivot bolt holding the limit switch linkage to the wiper door assembly (Figure 5 on the next page). Be careful not to lose the flanged bushings. Pull the limit switch linkage forward out of the way. Disconnect the wiper door limit switch connector. The harness side can be removed from the vehicle as this will not be re-used. The DSE harness comes with replacement wiring and an OEM sytle molded connector to plug back into the limit switch upon re-installation of the wiper door.

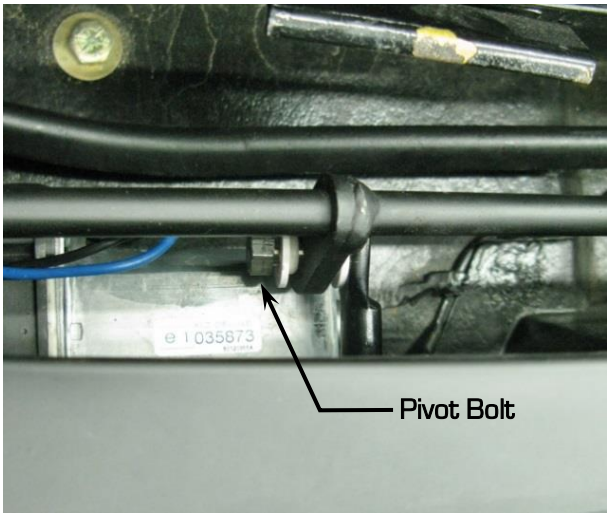


Figure 5 – Remove Pivot Bolt

7. Remove the wiper door assembly from the vehicle. NOTE: Be careful not to lose any shims (Figure 6).

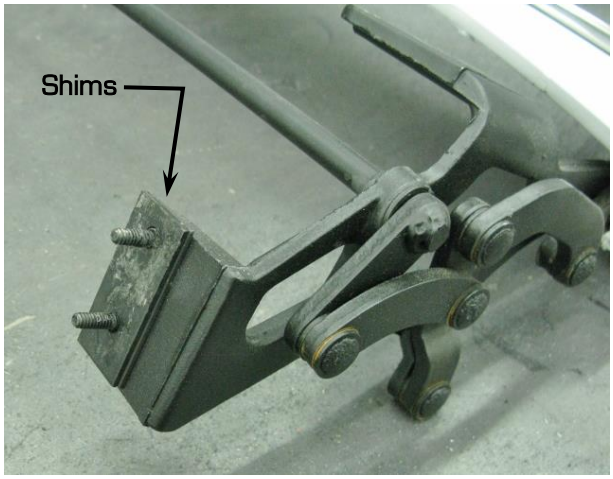
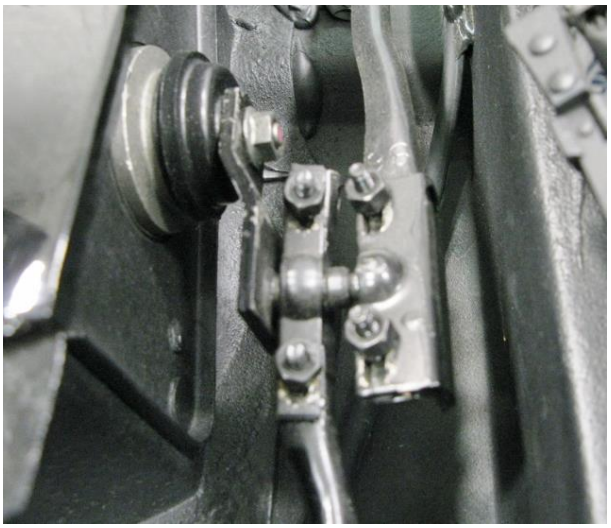


Figure 6 – Wiper Door Shims

8. Disconnect both the left and the right side wiper linkage from the wiper motor pitman arm (Figure 7).


Figure 7 – Remove Wiper Linkage

9. Remove the distributor cap from the housing (leave the ignition wires connected to the cap) if needed and position it out of the way.

10. Disconnect the original wiper motor wiring from the motor along with the windshield washer hoses. The original wiring will not be used with the new Selecta-Speed Wiper Kit. A custom harness is provided to replace the original. **NOTE:** If you decide to cut the old wires please pay special attention to properly terminate the wire ends to avoid possible shorting.

11. Remove the 3 nuts holding the original wiper motor to the firewall stud plate and remove the wiper motor (Figure 8).

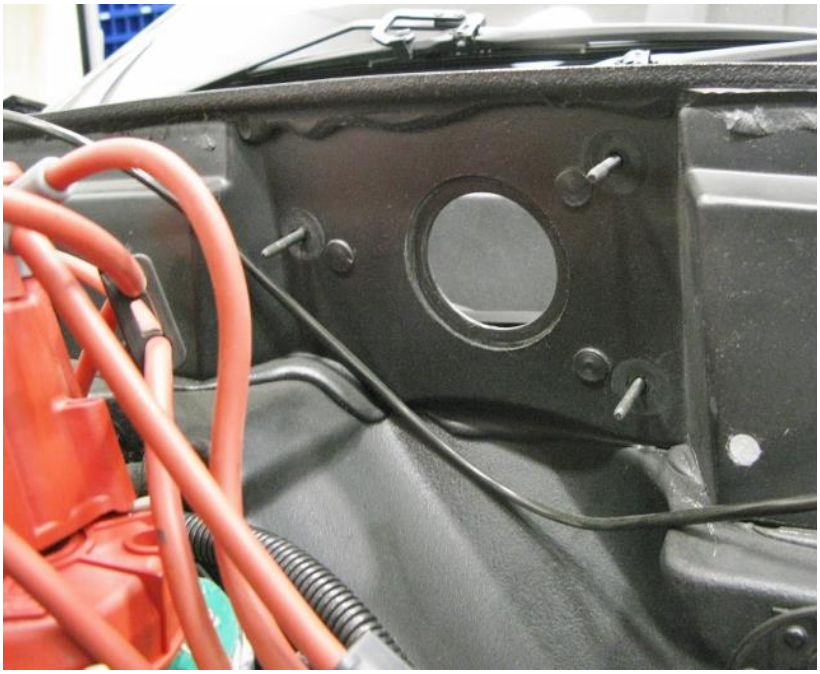


Figure 8 – Remove Original Wiper Motor

12. Mount the new wiper motor assembly to the firewall stud plate using 3 of the provided 10-24 Nylock flange nuts (Figure 9).



Figure 9 – Attach Wiper Motor to Firewall

13. Attach the new pitman arm to the original wiper linkage. **NOTE:** The Selecta-Speed kit is shipped with the pitman arm in the "parked" position. Do not move the pitman arm by hand to attach the wiper linkage. If the pitman arm is moved from the original "parked" position from DSE, it may result in the wiper blades stopping in the wrong spot on the windshield.

14. The Selecta-Speed swith will replace the stock switch. Remove the 4 screws holding the center dash bezel in place. Remove the factory wiper knob from the switch and unplug the wiper switch. Remove the 2 screws holding the switch in the center dash bezel and remove the stock wiper switch.

15. With the center dash bezel out of the vehicle, install the wiper switch adapter using the 2 screws from the previous step that held the stock wiper switch in place (Figure 10). **NOTE:** Make sure the anti-rotation hole is above the switch hole in the adapter.

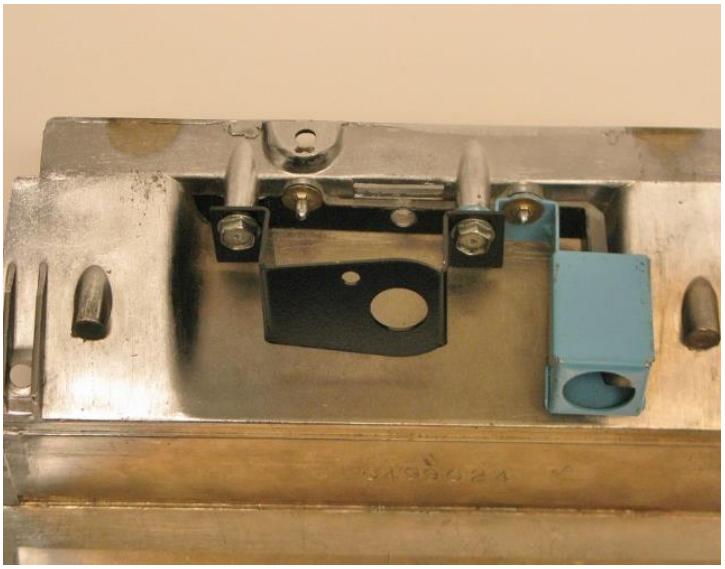


Figure 10 – Install Wiper Switch Adapter

16. Place the drill guide into the wiper switch adapter and hold in place with the provided 6-32 x 1/2"L button head cap screw (Figure 11).

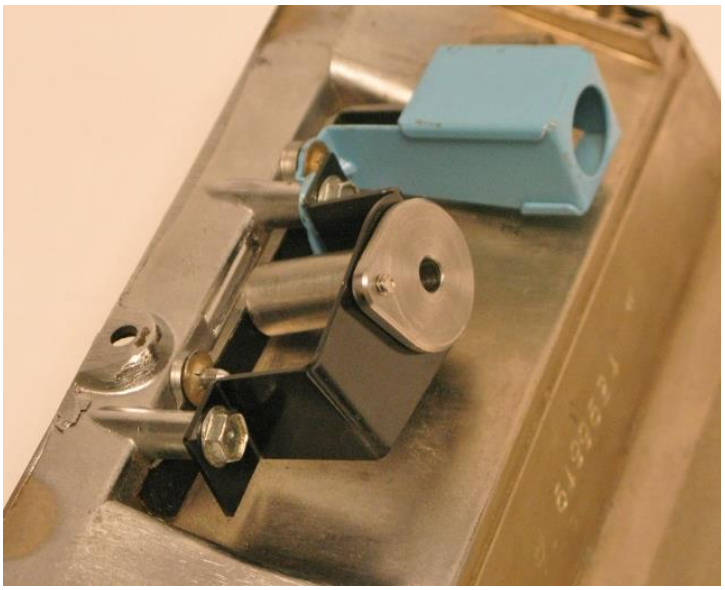


Figure 11 – Install Drill Guide

17. Using the drill guide, drill a hole into the center dash bezel up to 7/32" for the DSE wiper switch (Figure 12).

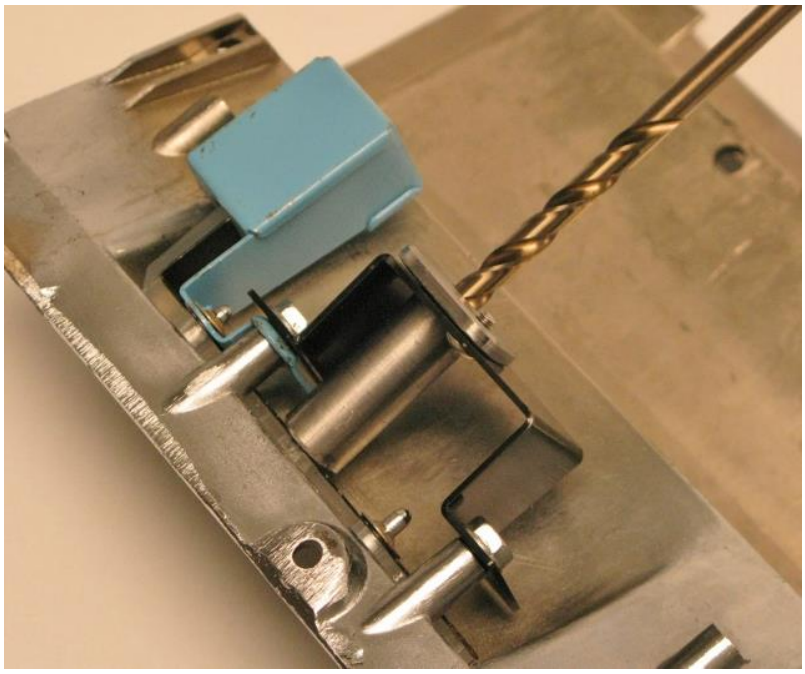


Figure 12 – Drill Center Dash Bezel

18. Remove the drill guide. Place the switch extension though the hole in the center dash bezel that was made in the previous step.

19. Remove the hex nut and star washer from the DSE wiper switch and install the provided 7/16" SAE washer over the switch.

20. Install the DSE wiper switch into the switch adapter and slide the hex nut on over the switch shaft. Then slide the switch shaft into the switch extension. Start to thread the hex nut onto the threads of the wiper swtich. Align the set screw with the flat on the switch shaft and tighten the set screw (Figure 13). **NOTE:** Make sure the set screw locks onto the flat on the switch.

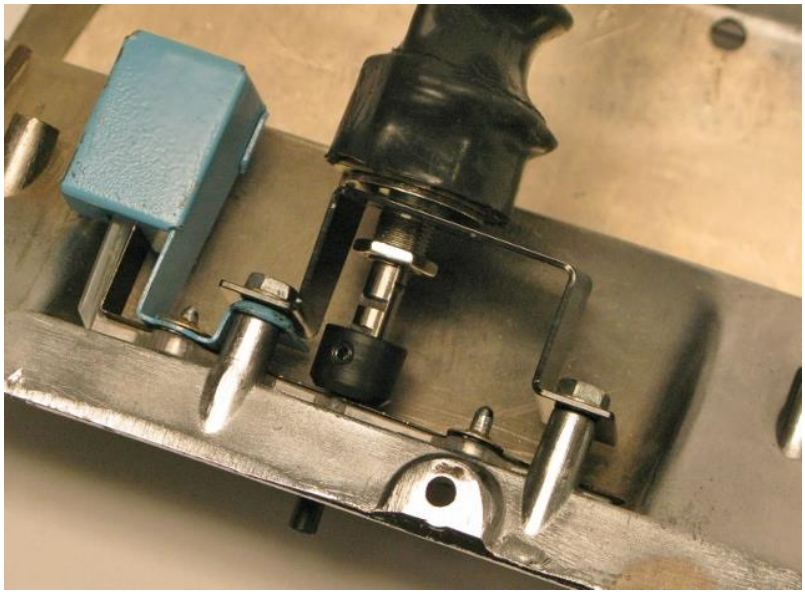


Figure 13 – Install Wiper Switch & Extension

21. With the anti-rotation tab of the switch locked in place on the switch adapter, tighten the hex nut onto the wiper switch (Figure 14).

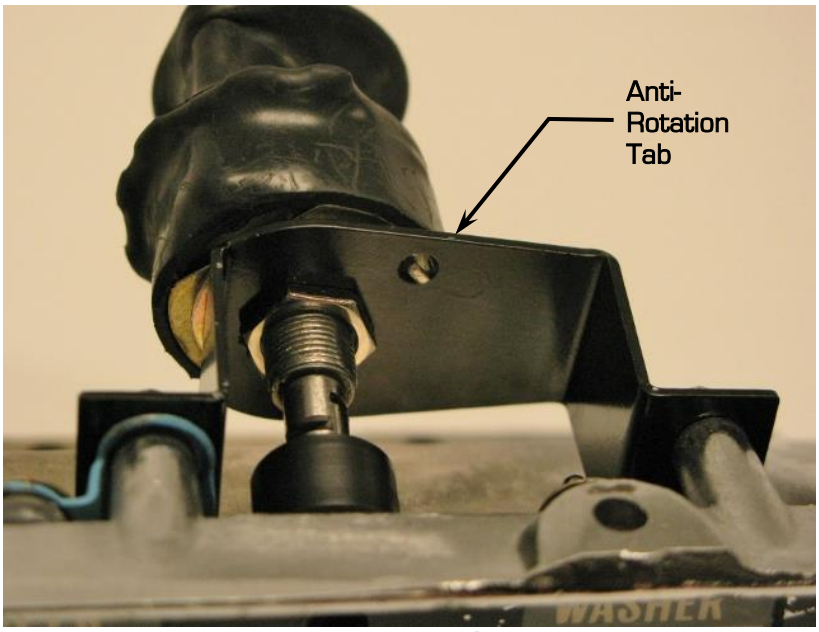


Figure 14 – Tighten Switch Nut

22. Slide the DSE wiper knob onto the switch extension. Align the set screw with the flat on the switch extension and tighten (Figure 15). **NOTE:** Make sure the set screw locks onto the flat on the switch extension.



Figure 15 – Install DSE Wiper Knob

23. Re-install the center dash bezel back into the dash. Route the wiper switch harness to the left hand side of the vehicle. **NOTE:** For the 1968-69 vehicles that were equipped with an under dash cross brace, you will need to notch the back edge of the brace to allow for clearance at the back of the wiper switch. For factory A/C vehicles, you may also need to clearance the center vent duct (Figure 16 on the next page).

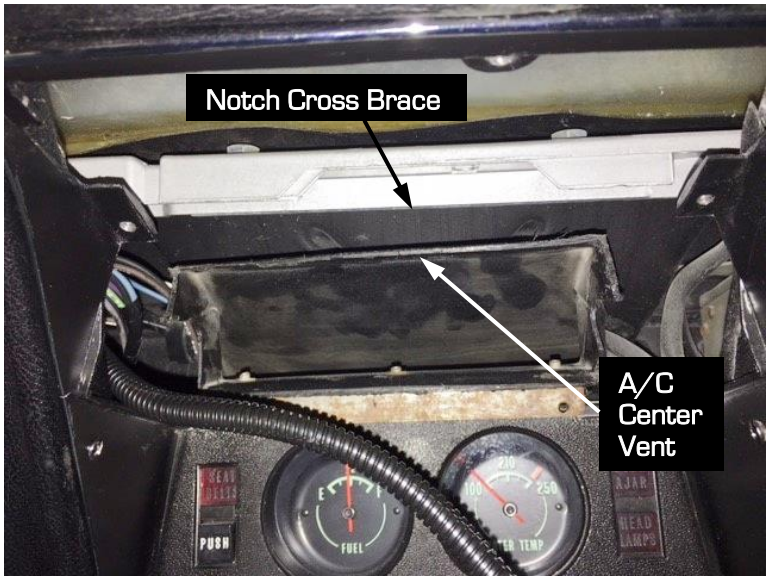


Figure 16 – 1968-69 C3 Cross Brace

24. The gauge cluster will need to be dropped down in order to install the wiper control module. **NOTE:** DSE recommends first removing the steering column. This is recommended to prevent damaging the gauge cluster while installing the control module assembly. It is possible to remove the gauge cluster without taking out the column however it will make the job much more difficult. If you drop the steering column, the gauge cluster will sit on the column and distort the area around the lower collar. This could cause the gauge cluster to break or crack the section of the gauge cluster between the speedometer and tachometer.

25. To remove the steering column, start by removing the 2 screws from the lower column cover. **NOTE:** There may be 3 screws if you have an aftermarket steering column. You may find the vacuum override switches and/or the wiper override electrical switch (1968-72) attached to the cover (Figure 17). Remove the lower left hand side dash vent duct.

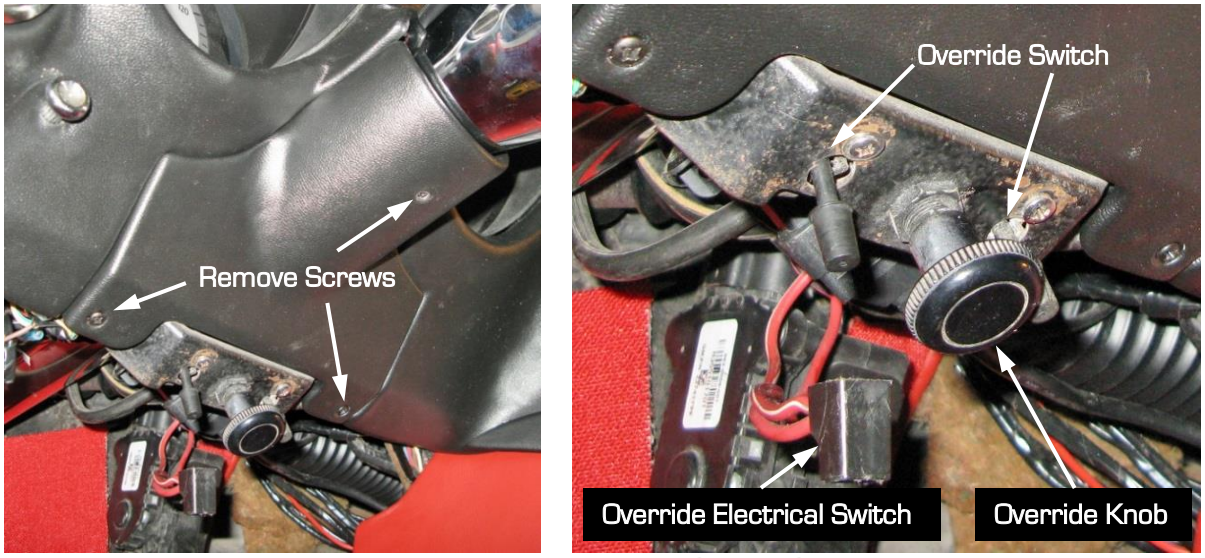


Figure 17 – Remove Lower Column Cover

26. Remove the 2 bolts holding the steering column to the support brace, Remove the 2 carriage bolts from the lower part of the column (Figure 18 on the next page). **NOTE:** The steering column used in the pictures below is from an aftermarket column.

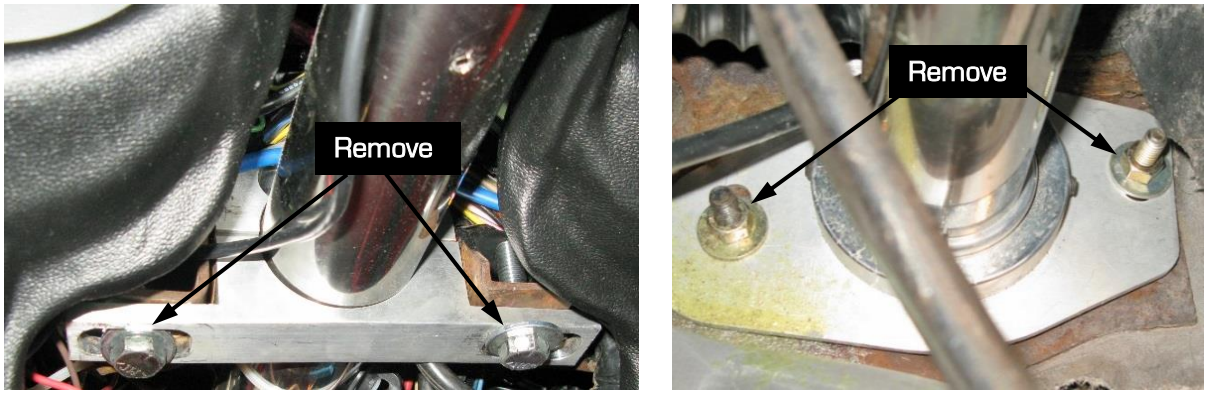
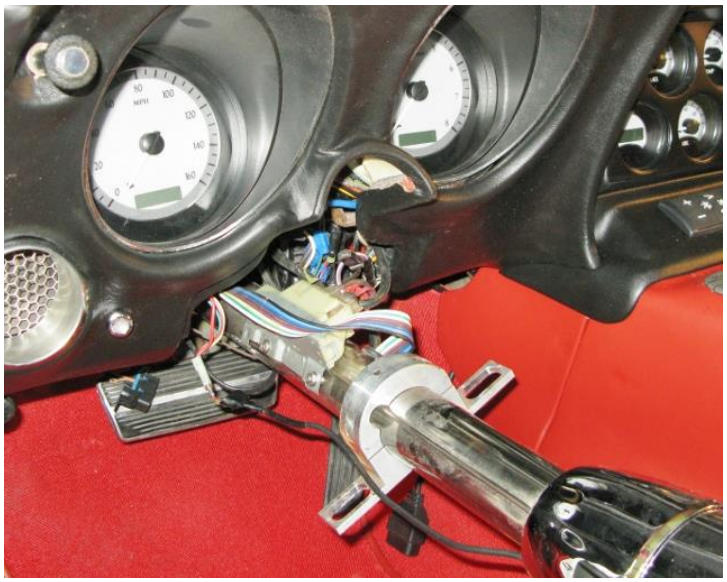


Figure 18 – Remove Steering Column Hardware

27. Remove the clips from the interlock cable pin and cable, and remove the cable from the lower column. Remove the bolt holding the "tulip flange" coupler to the lower column and separate the 2 by carefully prying them apart with a screw driver. If you have a splined U-joint, loosen the jam nut and set screw before removing the column.

28. Remove the electrical (ignition switch) switch connection from the lower part of the steering column. There are 2 halves to this connector however they will come out as one. Pull the steering column out of the car. You may need to continue to pry between the coupler and the column and wiggle the column loose. **NOTE:** With an aftermarket column you can pull the steering column out of the coupler while resting the steering wheel on the front seat (Figure 19). By not completely removing the column from the vehicle, you can leave the electrical switch connected to the column.


Figure 19 – Remove Steering Column

29. With the steering column out of the way, remove the gauge cluster. Remove the 3 screws around the top of the pad and 2 screws on each side of the gauge cluster. Once all the screws are removed, it should be ready to be drop down (Figure 20 on the next page). **NOTE:** For the 1968-74 application, you should remove the tachometer cable from the distributor. For all applications you should remove the speedometer cable from the transmission. You will be able to pull these cables out with the gauge cluster instead of having to reach behind the gauge cluster and unscrew or unclip them from the gauges.



Figure 20 – Remove Gauge Cluster

30. Install the wiper control module onto the module mounting plate using the provided 8-32 hardware if not already assmebled from DSE. (Figure 21). Do not overtighten. **NOTE:** If you also have the DSE headlight kit, you can mount both control modules to the same mounting plate (Figure 22). Depending on your application, your module mounting plate may look slightly different than the pictures below.



Figure 21 – 1968-72 C3 Wiper Module



Figure 22 – 1968-72 C3 Wiper & Headlight Module

31. Mount the wiper control module and the mounting plate to the steering column support. Remove the 2 bolts from the column support and mount the module and mounting plate to the support using the 2 bolts that were removed (Figure 23 on the next page). There are extra holes in the mounting plate so you can wire tie your harness to the mounting plate. **NOTE:** For the 1968-69 vehicles that were equipped with an under dash cross brace, you may need to bend the module plate down slightly away from the brace.

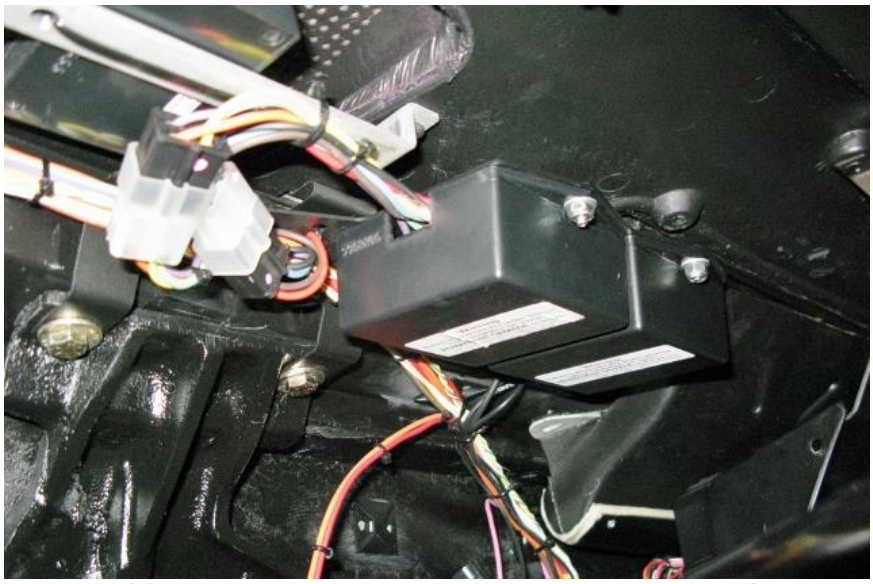


Figure 23 – Mount Wiper Module (Headlight Module also Shown)

32. Route the wiper door motor terminals, wiper motor and limit switch connector side of the wiring harness (Figure 24) through the firewall using an exisiting hole if possible. Otherwise you will need to drill a 1-1/4" hole to allow the wiper motor connector to pass through the firewall.

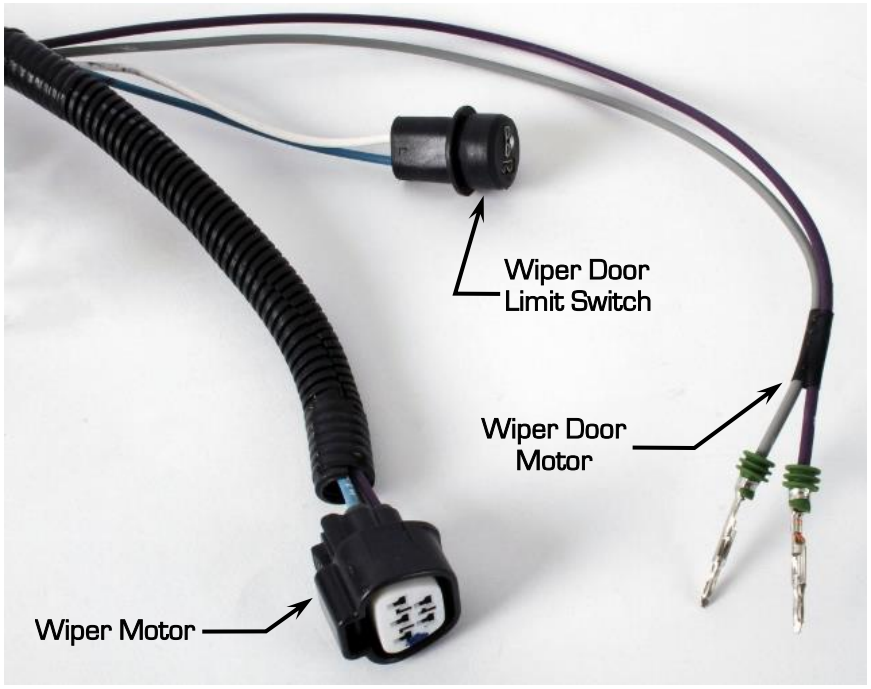


Figure 24 – Wiper Door Terminals, Wiper Motor & Limit Switch Connectors

33. A rubber grommet is already installed on the wire loom for the wiper motor wires. Once there is enough of the loom through the firewall to connect to the wiper motor, move the grommet on the loom and install it into the firewall to seal the engine compartment from the inside of the vehicle.

34. Install the wiper motor connector to the wiper motor (Figure 25).



Figure 25 – Install Wiper Motor Connector

35. Slide the provided 1/2" Firewall grommet over the wiper door motor terminals. Route the wiper door motor wire terminals into the cowl area through the firewall using an exisiting hole next to the wiper door limit switch. Install the grommet into the hole in the cowl area (Figure 26).



Figure 26 – Wiper Door Motor Grommet

36. Install the wire terminals into the weatherpack connector. On the connector body, the cavities are labeled “A” and “B”. The purple wire will be inserted into the cavity labeled “A” and the grey wire will be inserted into the cavity labeled “B”. Terminals should “snap” into place. Once the terminals are installed, snap the cover over the wires.

37. The DSE Selecta-Speed harness does include a weather pack connector to install an optional electric inline washer pump into your vehicle (Figure 27). DSE does offer a washer pump kit you can purchase separately as part number 121102.



Figure 27– Washer Pump Connection

38. If you do not want to use the washer pump feature, you can tie wrap this connector/loom up under the dash. If you would like to use this option, use an existing hole or drill a new hole in your firewall to pass the connector through the firewall. You will need a 1-1/8” diameter hole in order to use the provided 1-1/4” rubber grommet. If you have purchased the DSE washer pump kit, use the instructions from that kit to complete the washer pump kit installation.

39. With the wiper control module in place, plug in the wiper switch, wiper door limit switch and wiring harness connectors into the control module (Figure 28).

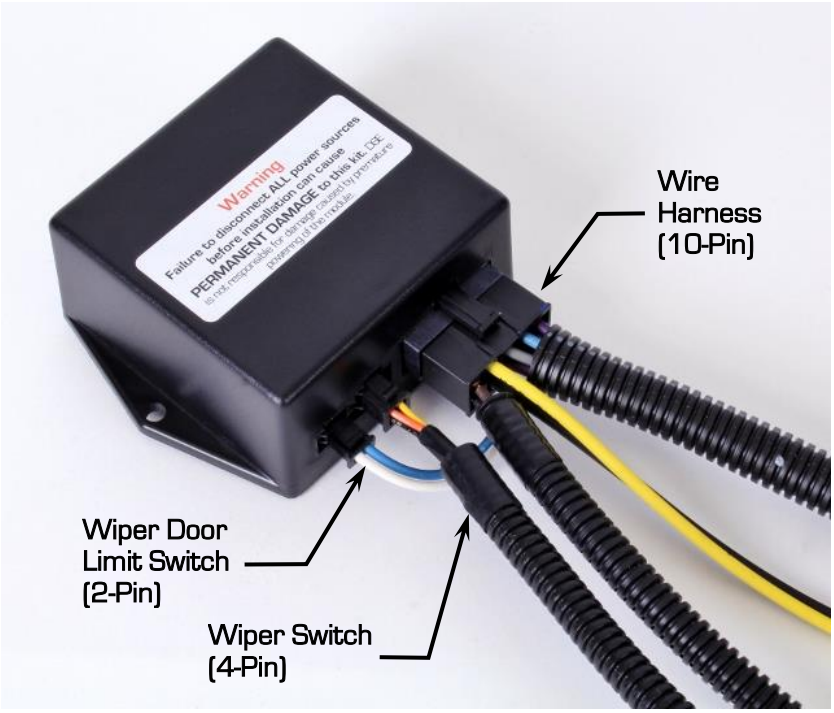


Figure 28– Connect Wiper Switch, Limit Switch & Harness to Module

40. Re-install the gauge cluster and the steering column by reversing the process described in steps 25-29.

41. With the wiper door assembly out of the vehicle, drill out 2 rivets to remove the OEM vacuum actuator linkage from the wiper door assembly (Figure 29).



Figure 29 – Remove Factory Linkage

42. Attach the wiper door motor assembly to the side of the wiper door bracket using the pre-installed 8-32 x 5/8"L hex head bolt and #8 push nut. Use the provided 8-32 Nylock nut and washer to hold it in place. Rotate the motor assembly so the front of the motor bracket fits up against the inside of the wiper door bracket (Figure 30).

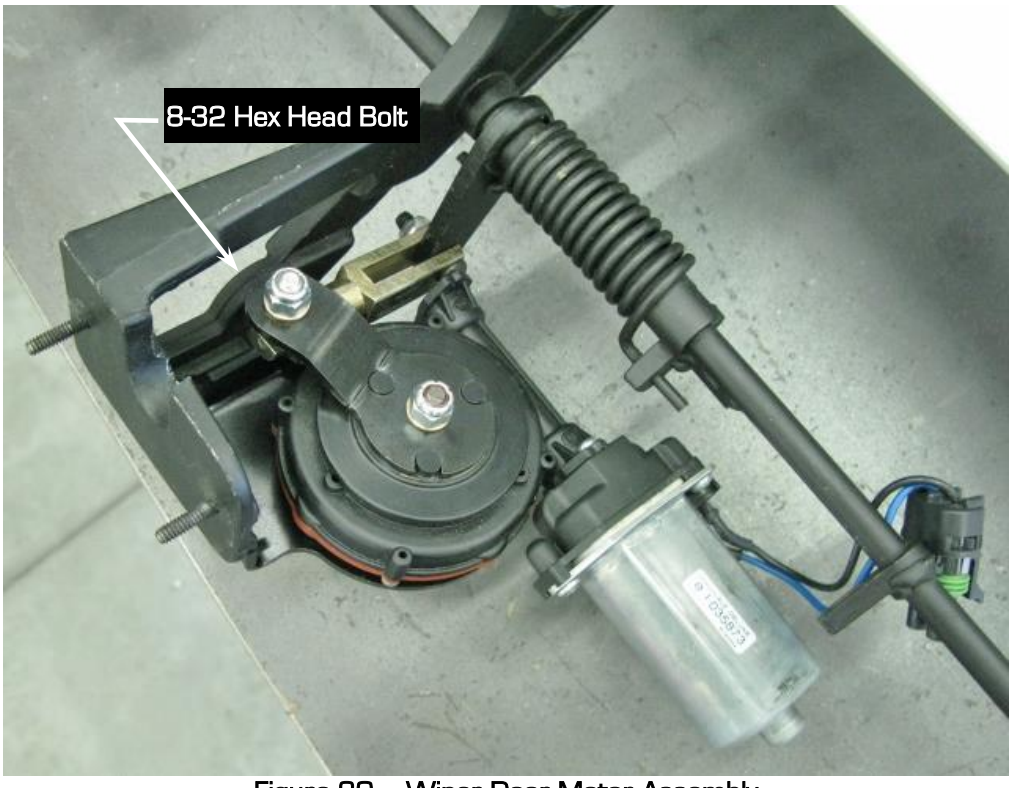


Figure 30 – Wiper Door Motor Assembly

43. Using a reverse angle scribe, mark the 2 front mounting hole locations from the motor bracket to the wiper door bracket (Figure 31). **NOTE:** For this picture the motor has been removed to better show the 2 mounting holes.

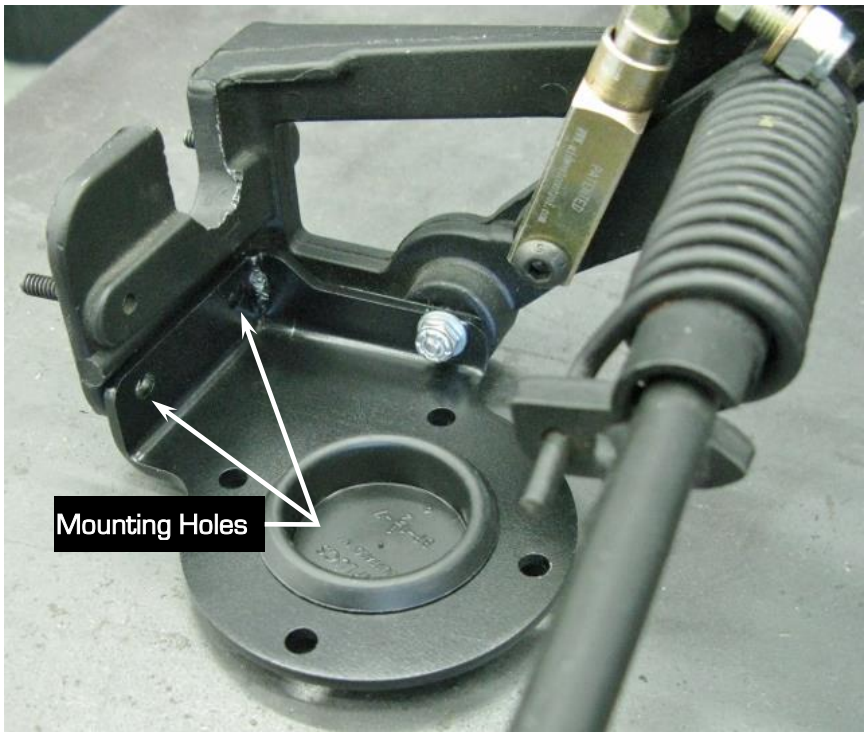


Figure 31 – Mark Mounting Hole Locations

44. Remove the wiper door motor assembly from the wiper door bracket. Find the center location of the 2 mounting hole locations from the previous step and center punch the bracket. Use an 1/8" drill bit to dill 2 pilot holes in the bracket.

45. Using an 11/64" or 3/16" drill bit, open the 2 pilot holes from the stud side of the bracket where the pilot holes were drilled. Use a large drill bit or chamfer tool on the 2 holes to allow the provided 8-32 flat head cap screws to sit flush in the wiper door assembly bracket (Figure 32).

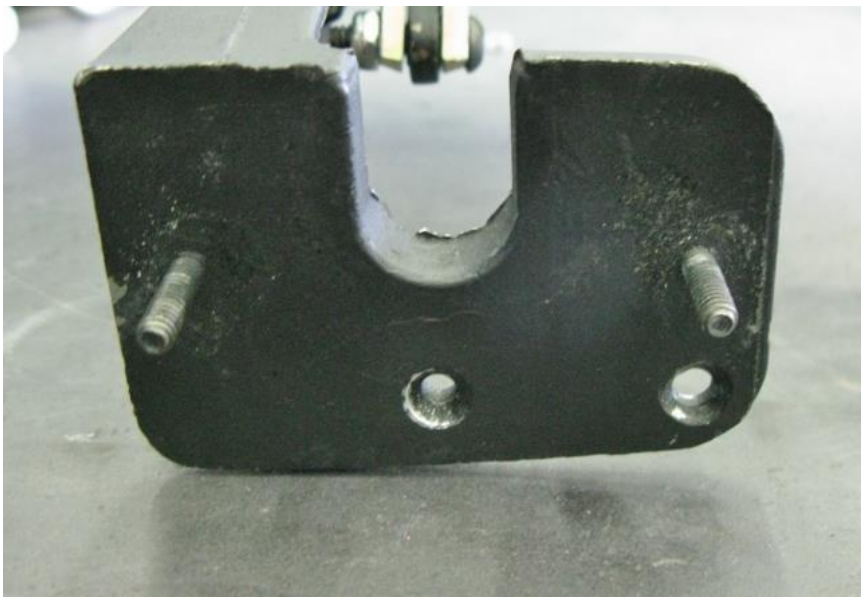


Figure 32 – Drill 2 Mounting Hole Locations

46. Install the wiper door motor assembly back into the wiper door bracket using all provided 8-32 hardware (Figure 33).



Figure 33 – Install Wiper Door Motor Assembly

47. Remove the 1/4" clevis pin and Nylon sleeve bearing from the wiper door motor linkage. Install the Nylon sleeve bearing into the hole on the wiper door arm. Position the swivel clevis to the wiper door arm and install the 1/4" clevis pin. Insert the provided hitch pin (Figure 34).

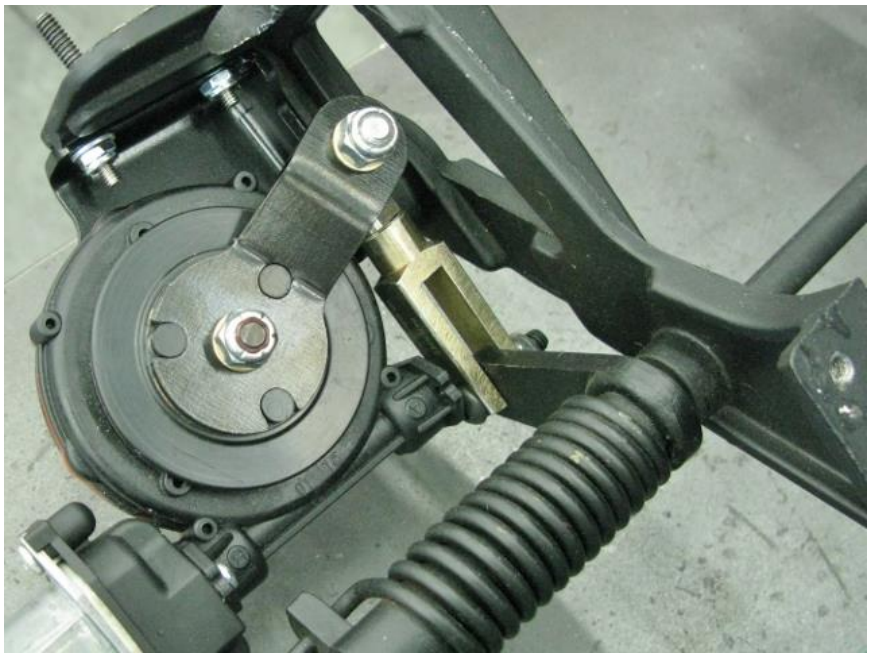


Figure 34 – Attached Wiper Door Linkage to Wiper Door

48. Re-install the wiper door assembly back into the vehicle. Be careful not to lose the wiper door shims on the wiper door mounting brackets. Re-install the pivot bolt holding the limit switch linkage to the wiper door assembly that was removed in step 6. Be careful not to lose the flanged bushings for the pivot bolt.

49. Connect the wiper door limit switch connector from the the wiring harness to the limit switch connector (Figure 35).

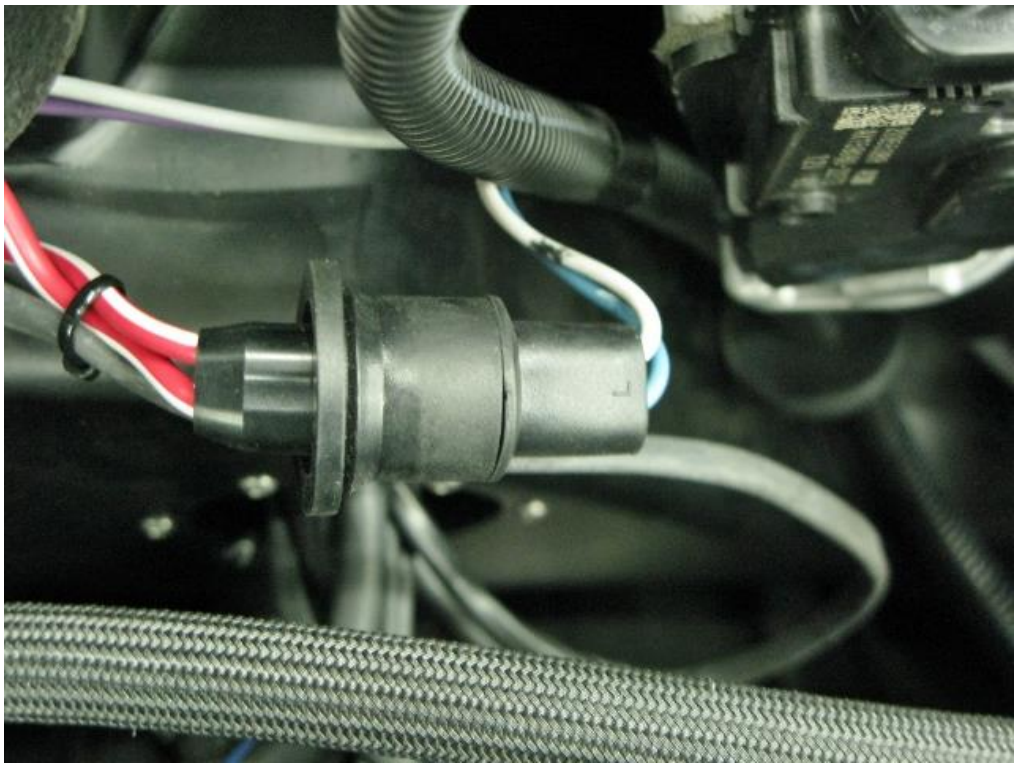


Figure 35 – Wiper Door Limit Switch Connector

50. Connect the weatherpack connector between the wiper door motor and the DSE harness (Figure 36). **NOTE:** Place the connector away from the wiper door limit switch so it doesn't get in the way of the wiper door operation.

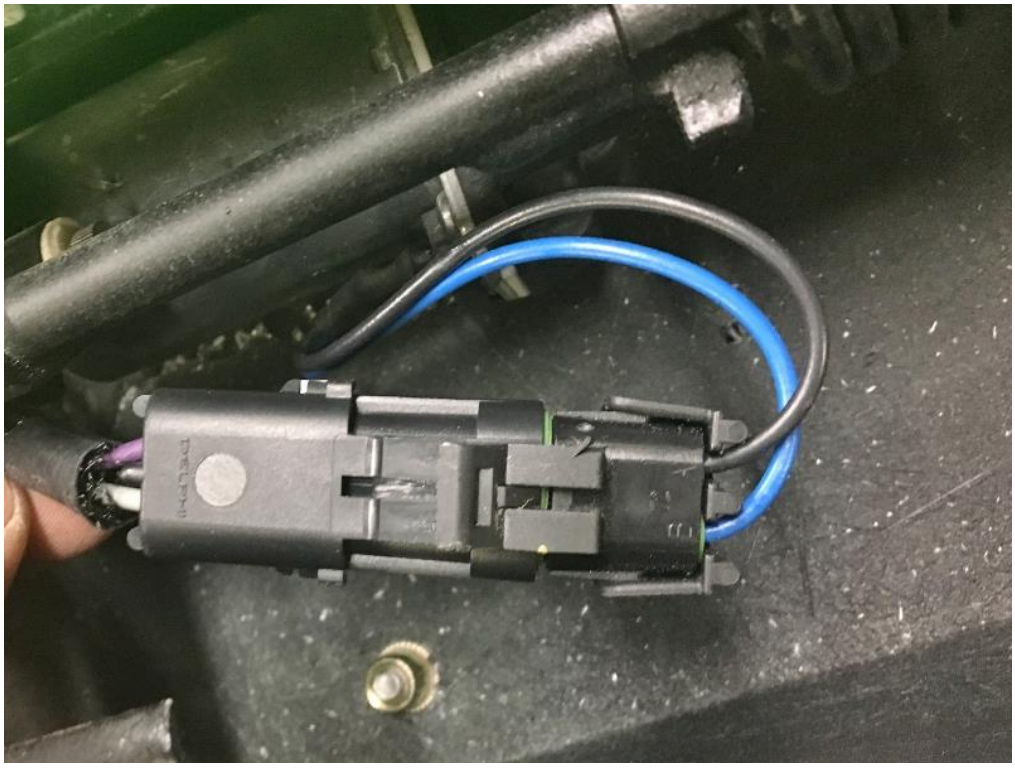


Figure 36 – Wiper Door Motor Connector

51. Install the wiper door closeout over the factory vacuum booster location with 2 of the remaining 10-24 Nylock flange nuts provided in the hardware kit and tighten (Figure 37).



Figure 37 – Wiper Door Closeout

52. Connect the yellow wire under the dash to a 12V ignition or accessory switched source. (Circuit is active when the key is in the run postion). This lead is supplied with an inline 30 amp ATO fuse.

53. Connect the black wire with the round eyelet to a ground located under the dash. Make sure a proper ground is obtained by removing any rust or paint from the metal.

54. Connect the negative battery lead and test the wiper system. Upon a successful test, the wiper conversion is now complete. If you are having trouble adjusting the wiper blades see the troubleshooting section on page 20.

55. Secure the new wiring harness under the dash and in the engine compartment. Re-install the cowl panel or any other components that have been removed during the installation process.

If you have any questions before or during the installation of this product please contact Detroit Speed Inc. at tech@detroitspeed.com or 704.662.3272

Legal Disclaimer: *Detroit Speed, Inc. is not liable for personal, property, legal, or financial damages from the use or misuse of any product we sell. The purchaser is solely responsible for the safety and performance of these products. No warranty is expressed or implied.*

Troubleshooting:

In some cases high energy ignition systems have caused interference with the correct operation of the Selecta-Speed Wiper Kit due to spark plug wires routed closely to the wiper motor. If this occurs, re-routing your spark plug wires may be neccesary.

Every vehicle is slightly different so the wiper linkage will need to be adjusted and fine-tuned so the wiper blades do not interfere with each other while also parking low enough on the windshield for the wiper door to close. When attaching the wiper linkage to the wiper motor pitman arm, DSE recommends adjusting the driver side wiper blade arm so that it is as far down on the windshield as possible. The passenger side wiper blade arm needs to be adjusted so that it stays below the wiper door when closed however also has seperation from the driver side wiper blade. This way they will not interfere when going to the park position on the windshield (Figure 38).

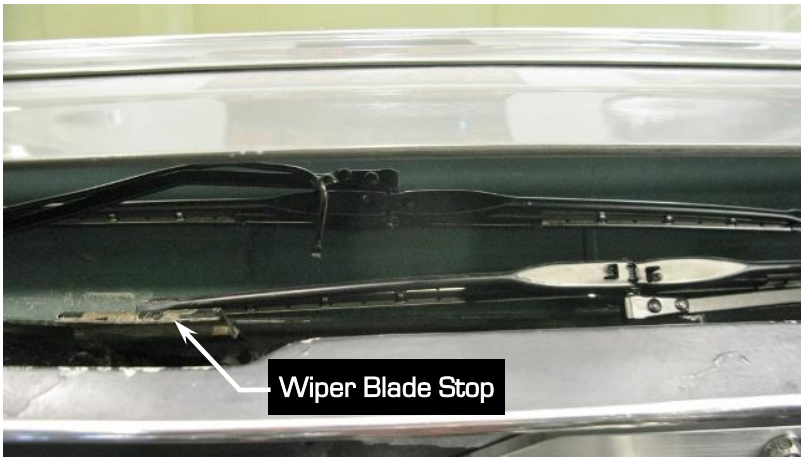


Figure 38 – Wiper Blade Location

The wiper linkage can be adjusted at the pitman arm as the linkage is slotted (Figure 39). The wiper blade arms can also be adjusted on the windshield by adjusting the wiper arm screws (Figure 40). This will move the wiper blades up and down on the windshield as you turn the screw in either direction.



Figure 39 – Wiper Linkage Adjustment

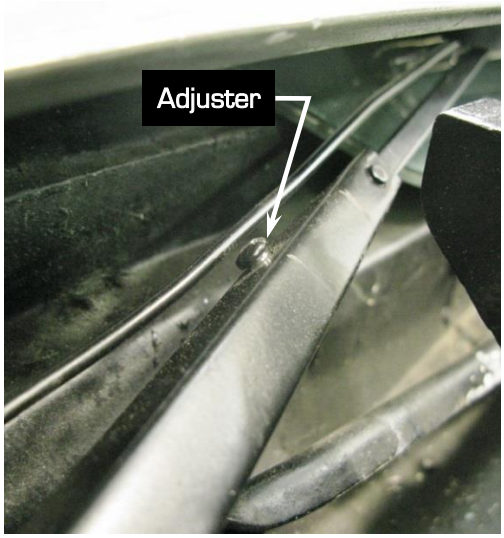


Figure 40 – Adjuster Screw

After making all the necessary adjustments, if the wiper blades are still interfering going to the park position, you can install a 15" wiper blade on the driver side. You can use Bosch wiper blade part number: 41915.