COMMITTED TO THE BUILD

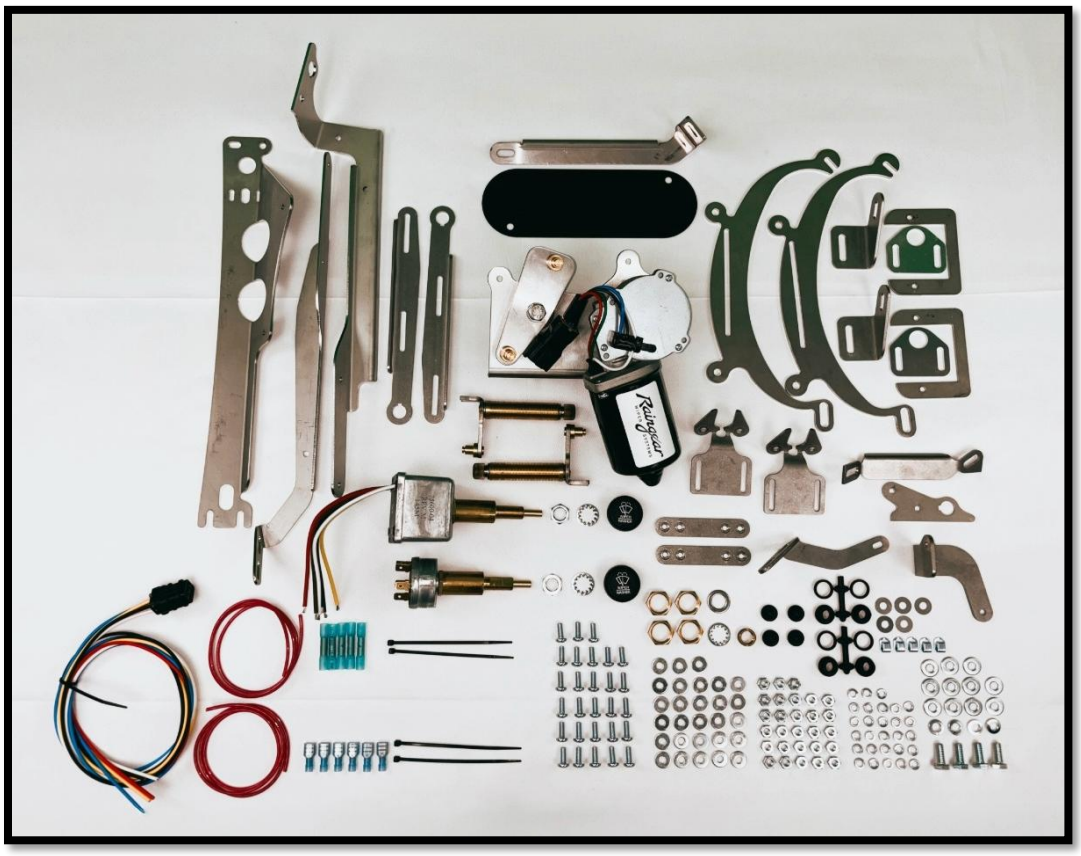
Raingear

HIDDEN WIPER SYSTEM FOR YOUR CLASSIC CAR

ASSEMBLED IN ARIZONA USA RAINGEARWIPERS.COM

Installation Instructions

1953-1957 Corvette



Designer's Note: The 1953–1957 Corvette Raingear wiper system you have purchased is a precision-designed assembly and may require patient, careful fitting.

Getting Started – Recommendations

Please follow our installation method first.

Corvettes from this era were virtually handmade, which means there are often subtle variations from car to car. This system has been engineered to accommodate those differences. Throughout these instructions, we point out several of the variations you may encounter.

Because of the inconsistencies between original Corvettes—and even some aftermarket bodies—we have put significant effort into making this system adjustable. If at any point you feel the need to modify one of our supplied parts, stop. This almost always indicates that something in the setup is incorrect.

Please reread the instructions or email us at **Sales@RaingearWipers.com** before making changes.

For technical questions, please contact us directly.

Your dealer does not stock replacement parts and is unlikely to be able to troubleshoot installation issues.

Additional Note:
This kit does **not** include:

- The outside **chrome escutcheons (trim bezels)** that cover the pivot shafts on the cowl
- Wiper arms and blades
- An original-style switch knob

> ⚠ **Important:** You will be working in an area of the vehicle that contains a high concentration of electrical wiring.
> **Disconnect the battery before beginning installation.**

Instructions -- Removing the Stock Windshield Wiper System

1.

- You will be working under the dash in an area that contains the highest concentration of electrical wiring, so begin by **disconnecting the battery**.
- Remove and save your stock wiper arms and blades, chrome escutcheons, and the stock wiper control knob.
- Remove the wiper control switch and cap any vacuum lines. For easier installation, we strongly recommend removing the instrument cluster, radio, and any other components that restrict access to the under-dash area.

2.

- On **1953–1955 Corvettes**, you **do not** need to remove the stock pivot shaft brackets (Fig 1).
- On **1956–1957 Corvettes**, you **do** need to remove them. Corvette began using a windshield support structure sometime in 1956; it is typically aluminum, though some were produced in steel.

Figure 1

Fig 1: On 53–55 Corvettes you do not need to remove the stock pivot shaft brackets. On 1956–57 Corvettes you do.

3.

- Remove the radio support (Fig 2).
- Next, remove the pivot shaft, spool, and cable assembly. It is acceptable to cut off the screw heads to remove the OEM pivot shafts, as the PWD system does not reuse them (Fig 3, 4, & 5).
- Remove the right (passenger-side) windshield brace rod (Fig 6). The 1/4" passenger-side windshield brace rod bolt is located in the engine compartment (Fig 7).

Fig 2: Remove the radio support.

Fig 3: On 1956–57, remove the spool and cable assembly.

Fig 4: Remove the pivot shafts.

Fig 5: The pivot shaft after being removed.

Fig 6: Remove the right, or passenger-side windshield brace rod.

Fig 7: Passenger-side 1/4" bolt located in the engine compartment.

Component Pre-Assembly

1. Right & Left Pivot Shaft and Mounting Assemblies

C1 Corvettes used two different styles of chrome wiper escutcheons on the exterior of the body. Early escutcheons differ from side to side, while the later style is identical on both sides. Assembly procedures vary depending on which type you are using.

1953–1957 C1 Corvettes use the early chrome escutcheons (Fig 8). These early versions are approximately **1.06" in overall depth**. As shown in Fig 9, each early escutcheon is marked **"R"** or **"L"** on the backside, deep inside the slots at the 3 and 9 o'clock positions.

Fig 8: The early escutcheons are about 1.06" in overall depth.

Fig 9: Above – Early chrome escutcheons are marked "R" or "L" on the backside inside the slots.

1a.

Place the two Pivot Shaft Mount Plates on a table with the pointed ends (the tips with slotted holes) touching. One plate is for the right-side assembly and the other for the left (Fig 10).

Fig 10: Above – Place the Pivot Shaft Mount Plates with the slotted tips touching.

1b.

Using a small-tipped screwdriver, install **two rubber bumpers** in each plate so the bumpers end up on the **top side** of each part (Fig 11 & 12). A small amount of soap solution will make installation easier.

Fig 11: Above – Installing the rubber bumpers on the top side of each part.

Fig 12: Above – Both brackets with bumpers installed.

1c.

Attach the **"U" Guide** to the front of the Pivot Shaft Mount Plate, positioning it between the rubber bumpers. Use **two 10-32 × 3/8" Phillips-head screws**, washers, and the **4-nut backing strip**.
With the "U" Guide on the front of the plate and the backing strip on the rear, slide the screws through the ends of the "U" Guide, through the slots in the plate, and into the **outer two threaded holes** of the backing strip (Fig 13 & 14).

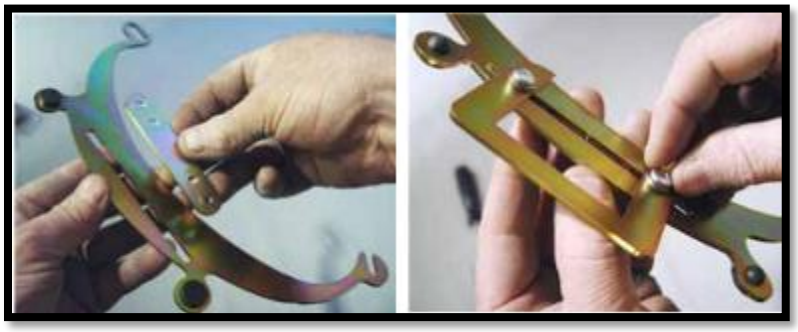


Fig 13 & 14: Above – The 4-nut backing strip attaches the "U" Guide to the Mounting Plate.

1d.

Thread a **5/8"-24 brass hex nut** onto each pivot shaft. Run the nut down approximately **2 3/8"** (Fig 15).

Note: This dimension may need adjustment once the chrome escutcheon is fitted to the outside of the body.

Fig 15: Above – Run the hex nut down the pivot shaft threads about 2 3/8".

1e. Slide the **flat aluminum Pivot Shaft Holding Plate** onto the pivot shaft (Fig 16). Then thread a second **5/8"-24 brass hex nut** down the shaft, stopping approximately **3/16"** from the aluminum plate.

Fig 16: Above – Install the Holding Plate followed by the second brass hex nut.

1f. Slip the tips of the open end of the **Pivot Shaft Orientation Bracket** between the aluminum Holding Plate and the second brass hex nut (Fig 17 & 18).

Tip: It may help to gently hold the pivot shaft with vice grips.

Fig 17: Above – Positioning the Orientation Bracket onto the pivot shaft.

Fig 18: Above – It may require gentle pressure; vice grips can help.

1g. Using **two 10-32 × 3/8" Phillips-head screws and washers**, attach the aluminum Holding Plate to the Orientation Bracket (Fig 19). Position the screws approximately mid-slot. Tighten the brass hex nut against the brackets to **finger-tight** (Fig 20).

Fig 19: Above – Attaching the Holding Plate to the Orientation Bracket.

Fig 20: Above – Tighten the hex nut finger-tight.

1h.

Using **two 10-32 × 3/8" Phillips-head screws and washers**, attach the Orientation Bracket to the Pivot Shaft Mounting Plate (Fig 21 & 22).

Repeat the above steps to assemble the opposite-side Pivot Shaft Mounting Assembly. When placed side by side, both assemblies should look like Fig 23.

Fig 21 & 22: Above – Attaching the Orientation Bracket to the Pivot Shaft Mounting Plate

Fig 23: Above – Both completed assemblies side by side.

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2. Link Assemblies -- The **passenger-side Link Assembly** consists of:

- one long Link
- one short Link
- one Corner Stiffener

2a. Attach the **Corner Stiffener** to the longer Link using **three 10-32 × 3/8" Phillips-head screws**, washers, and hex nuts. Tighten the screws (Fig 24 & 25).

Fig 24: Above – Attaching the Corner Stiffener.

Fig 25: Above – The installed Stiffener.

2b. Attach the short Link to the opposite end of the longer Link using **two 10-32 × 3/8" Phillips-head screws**, washers, and hex nuts. Insert the screws through the slotted holes of the shorter Link at approximately mid-slot. Leave these screws loose for later adjustment (Fig 26).

Fig 26: Right – Passenger-side Link Assembly with long and short links attached.

The **driver-side Link Assembly** consists of:

- one short Link (same as passenger side)
- one longer Link (different from passenger side)

- one Link Tip
- one Link End Stiffener

2c.

Match the outer end of the longer Link to the **Link End Stiffener** (Fig 27). Attach using a **10-32 × 3/8" Phillips-head screw**, washer, and hex nut at the single hole located opposite the two slotted holes.

Fig 27: Above – Matching the longer Link to the Link End Stiffener.

2d.

Sandwich the **Link Tip** between the longer Link and the Link End Stiffener. Fasten together using **two 10-32 × 1/2" Phillips-head screws** through the slotted holes. Leave finger-tight for later adjustment (Fig 28 & 29).

Fig 28: Above – Positioning the Link Tip between the Link and Stiffener.

Fig 29: Above – Assembling the three parts.

2e.

As with the passenger side, attach the short Link to the opposite end of the longer Link assembly (Fig 30).

Fig 30: Above – Attaching the short Link to the longer Link.

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3. Plastic Bushing Installation

Refer to Fig 31, 32, and 33 to see how the Plastic Bushings fit into the keyed holes in the Link Tips.

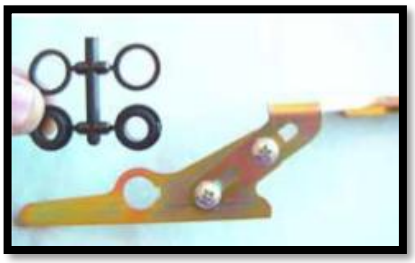

Fig 31: Above – Plastic Bushings for the keyed holes.

Fig 32: Above – The Bushing tab.

Fig 33: Above – Keyed hole in the Link Tip.

3a.

Align the tabs on the Plastic Bushings with the slots in the keyed holes. Press the bushing firmly into the hole until fully seated; they are a tight fit (Fig 34).

Fig 34: Above – Pressing the Plastic Bushing fully into the keyed hole.

3b.
On the opposite side, install the **Plastic Ring** over the portion of the bushing that extends through the hole (Fig 35). A **very thin bead of super glue** may be applied to secure the ring, but avoid getting glue inside the keyed hole (Fig 36). Repeat for the remaining keyed holes.

Fig 35: A Plastic Ring installed on the backside of the Bushing.

Fig 36: Apply a thin bead of super glue if desired.

Installation Instructions

1. Wiper Motor Mount and Brace Installation

1a. Using two 10-32 x 3/8" screws, nuts, and washers, attach the motor to the motor mount bracket as shown. (Fig 37)
1b. Use a 10mm wrench to remove the motor mounting screw as shown (Fig 38). Attach the Motor Brace. (Fig 39)

Fig 37.

Fig 38

Fig 39

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2. Main Drive Unit Installation

2a. Remove the four 1/4-20 hex bolts holding the cowl vent hinge brackets to the underside of the cowl. (Fig 40)
2b. Using the same 1/4" threaded holes as guides, place the Main Drive Unit of the PWD wiper system up against the underside of the cowl, between the cowl vent hinge brackets. Use four 1/4-20 x 3/8" hex bolts and 1/4" flat washers to secure the brackets and Main Drive Unit in place. (Fig 41)
2c. The opposite end of the Motor Brace attaches to the underside of the firewall where the left side of the original (OEM) wiper motor was mounted. Attach the brace using a 10-32 x 3/4" Phillips screw, washer, and nut. This same fastener holds one side of the new Cover Plate. (Fig 42)
2d. A new Radio Support Tab can be installed on the new Motor Mount Bracket. Attach it using a 1/4-20 x 5/8" hex bolt and flat washer. (Fig 43)

Figure 40

Figure 41

Figure 42

Figure 43

3. Pivot Shaft Installation

Installation and adjustment can be difficult on 1958–62 models due to limited access around pedals, steering column, windshield support, emergency brake, and wiring. Remove as many obstructing components as practical. Begin with the passenger side—it's easier.

3a. Remove the windshield frame attachment nut from the stud beneath the windshield trough, inboard of the pivot shaft hole. Also remove the nut on the outboard stud.

3b. If your Corvette has the metal substructure running beneath the windshield, partially disassemble the Pivot Shaft and Mounting Assembly. (Fig 44)

Remove the Pivot Shaft Orientation Brackets from the Pivot Shaft Mounting Plates and "U" Guides. (Fig 45)

Ensure the "U" Guides can move side to side.

3c. From the forward side of the metal structure, slide the outboard slotted end of the Pivot Shaft Mounting Plate over the metal structure and hook it onto the windshield mount stud. (Fig 46)

3d. Slip the inboard slotted hole of the Mounting Plate over the next inboard windshield stud. Move the Mounting Plate toward the center of the vehicle. Install #12-24 hex nuts and 1/4" flat washers and tighten. (Fig 47 & 48)

3e. Some cars require excess glue aft of the Pivot Shaft to be removed for proper fit. (Fig 49)

3f. Once the Mounting Plate and "U" Guide are in position, insert the brass Pivot Shaft (with Orientation Bracket attached) upward through the wiper shaft hole in the cowl. (Fig 50)

3g. Ensure the "U" Guide still moves side to side. Place the Pivot Shaft Orientation Bracket into the "U" Guide and secure with two 10-32 x 3/8" Phillips screws and washers. (Fig 51)

3h. If no metal substructure is present, install the entire Pivot Shaft Mounting Assembly as one unit. The Pivot Shaft should be centered in the cowl hole. (Fig 52)

Repeat for the driver side.

Figure 44

Figure 45

Figure 46

Figure 47 & 48

Figure 49

Figure 50

Figure 51

Figure 52

4. Pivot Shaft Adjustment

Primary adjustments are made using the Pivot Shaft Orientation Bracket and the aluminum Pivot Shaft Holder Plate.

4a. Side-to-side adjustment:
Center the shaft in the cowl hole (Fig 52) by repositioning the “U” Guide and Orientation Bracket. Loosen all four screws (Fig 51):

- Outside screws adjust side-to-side.
- Inside screws adjust up/down and in/out.
  Tighten when centered.

4b. Tip extension measurement:
With the chrome escutcheon resting on the body, 1/8"–3/16" of brass threads should be visible. (Fig 53)
4c. Tip in/out adjustment:
Loosen the inside screws and the two screws plus brass hex nut securing the aluminum Pivot Shaft Holding Plate. (Fig 54)

- Pulling the Orientation Bracket aft while pushing the Holder Plate upward draws the tip inward.
- Reversing the motion pushes it outward.

4d. Short escutcheon adjustment (if applicable):
Remove the Pivot Shaft assembly. Adjust the 5/8-24 hex nuts to change tip position. (Fig 55 & 56)
4e. When satisfied with alignment and escutcheon fit, tighten all interior screws.

4f. Apply body sealer to the underside of the escutcheon before final installation.
4g. Install the escutcheon and chrome escutcheon nut. Tighten using an aluminum Escutcheon Wrench. *
*The wrench is not included and may be purchased at **RaingearWipers.com**.
Overtightening can damage fiberglass. (Fig 57 & 58)

Figure 53

Figure 54

Figure 55

Figure 56

Figure 57

Figure 58

5. Installing the Cross Links

Passenger Side
The passenger side link has adjustment slots only between the short and long link.
5a. Install the bushings onto the brass pivot pins at the Drive Unit and passenger Pivot Shaft arm. Lubrication is optional but recommended.
5b. Apply a small dab of grease to the exposed side of the bushing, then place the thin washer against the grease. (Fig 59)
Install the spring clip using needle-nose pliers. (Fig 60)
5c. To adjust link length, loosen the two Phillips screws joining the long and short halves. (Fig 61)
5d. With the Pivot Shaft in the park position, adjust the link until the gap between the link flat and Pivot Shaft stop tab is 1/4"–3/16". (Fig 62)

Figure 59

Figure 60

Figure 61

Figure 62

Driver Side
5e. Install as on the passenger side.
5f. For clearance around the defroster duct and pedal bracket, adjust the Link Tip by loosening the two screws. (Fig 63)
5g. Adjust the park position by changing link length between the short and long sections. Target gap: 1/4"–3/16". (Fig 64 & 65)

Figure 63

Figure 64

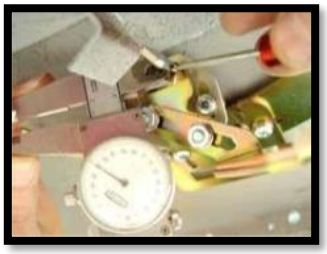

Figure 65

6. Installing the Motor Cover Plate and Windshield Brace

Figure 66

A Cover Plate is included to close the firewall opening from the original wiper spool. (Fig 66)
6a. Remove the 10-32 x 3/4" screw holding the Motor Brace. Insert it through the left slot in the Cover Plate, down through the firewall and Motor Brace, then through the Windshield Brace Mounting Bracket. Install washer and nut.

Figure 67: The Motor Brace was temporarily attached to the cowl to allow the wiper unit to be installed and adjusted. The Windshield Brace Mounting Bracket will be installed at this same location.

Figure 68: The Cover Plate installs in the location where the original motor was mounted.

Figure 69: This photo shows how the Motor Brace, Windshield Brace Mounting Bracket, and Cover Plate all share the same mounting point.

6b. Attach the Windshield Brace to the middle right-hand windshield attachment bolts. (Fig 70 & 71)
Attach the opposite end to the Windshield Brace Mounting Bracket.
6c. Install the remaining 10-32 x 3/4" screws in the Cover Plate.

Figure 70

Figure 71

7. Installing the Switch

7a. Ensure the switch is in the OFF position (full counterclockwise).
7b. For the standard 2-speed switch:
Install with the flat on the shaft at the 6 o'clock position to align with the stock knob set screw.
7c. For the optional 2-speed intermittent switch:
Install as desired. File a flat at the 6 o'clock position for the set screw to clamp securely. (Fig 72 & 73)

Figure 72

Figure 73

8. Wiring

8a. Wire the system per the supplied diagram.

2 Speed | **2 Speed with Delay**

https://raingearwipers.com/installation-instructions

Note: With an intermittent switch, do **not** test using a battery charger. Use a fully charged 12-volt automotive battery.

9. Testing & Installing Wiper Arms and Blades

9a. Before installing the arms and blades, wrap tape around the Pivot Shaft and leave a 6" flap to observe sweep.
Activate the wipers and confirm sweep and park position.
Remove tape and install arms and blades when satisfied.

Thank you for choosing Raingear Wiper Systems. We look forward to assisting you with your next project!