COMMITTED TO THE BUILD

Raingear

HIDDEN WIPER SYSTEM FOR YOUR CLASSIC CAR
ASSEMBLED IN ARIZONA USA RAINGEARWIPERS.COM

Installation Instructions

1968 – 1972 Chevelle

The Raingear Wiper System is engineered for both ease of installation and long-term reliability. However, due to the limited space within this particular cowl, installation can still be somewhat challenging.

Important Information

- This system is designed to **"hide" the wiper motor within the airbox.**
  It does **not** include the feature that parks the wiper arms/blades completely out of sight.
- The **wiper arms and blades will rest** at the **bottom of the windshield**, just above the trim line.
- If your vehicle originally featured a *hidden wiper system*, you will need to use **two passenger-side arms and blades**.
  Minor adjustments or bending may be required to ensure they rest properly on the glass.

Before You Begin

- **Review all instructions carefully** before starting the installation.
- This system is **precision-engineered**—small adjustments can make a big difference.
- We occasionally make **design improvements**, so some parts may appear slightly different from the photos provided.
- If you believe modifications are necessary for your specific setup, please **contact us before making any changes**.

📧 Sales@RaingearWipers.com

Installation Notes

> **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.**

1. **Remove the OEM Wiper System and Switch**
   - When removing the original wiper system and switch, note that none of the factory wires will work with the Raingear system.
     You may reuse the 12V+ lead from the fuse panel, but all other wires should be removed.
2. **Terminology**
   - Throughout these instructions, the space inside the cowl will be referred to as the **"Airbox."**
3. **Limited Space**
   - The Airbox area is very tight.
     For easier access, we highly recommend removing the hood before starting installation.
4. **Pre-Assembly Practice**
   - We suggest assembling the system on a bench first. This helps you become familiar with the parts and overall layout before installation.
5. **Fasteners and Hardware**
   - Some reference photos may show washers; these are no longer used in most locations.
   - We now use locking flange nuts throughout, except for the motor brace, which uses:
     - (1) lock washer
     - (1) flat washer
     - (1) ¼-20 x ⅝" bolt
   - All fasteners are shipped in place. Please remove and reinstall them during assembly.

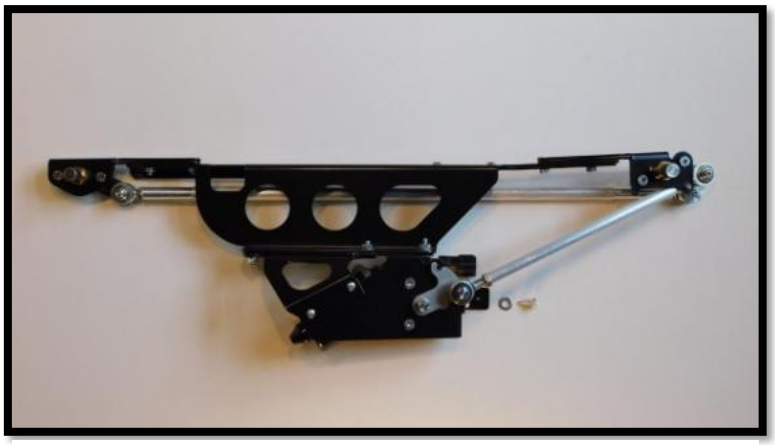

Figure 1 - Assembled

Preassembly

1. **Bridge Tip Stiffener Installation**
   NOTE: The Bridge Tip Stiffener (Part F) has already been installed for you.

This component reinforces the bridge assembly for added strength and stability.
It is secured using two stainless steel (S/S) 10-24 pan head screws and two S/S 10-24 Nylock nuts.
(See Figures 2 & 3)

Figure 2

Figure 3

Drilling the Airbox Floor for the Wire Harness Grommet

Refer to **Figures 4-7 – Grommet** for visual reference.

Figure 4

1. **Positioning the Drill**
   When drilling the hole, **hold the drill body against the inboard, aft corner** of the large opening located **forward of the windshield**.
   Apply a strip of **masking tape** to the surrounding area to protect your paint.

2. **Drilling the Hole**

- Begin by creating a **pilot hole** using a small drill bit. *(See Figure 5 – Grommet)*
- Follow with a **step drill bit**, enlarging the hole to **⅝" (5/8") diameter**. *(See Figure 6 – Grommet)*
- If you don't already own a step drill bit, **we highly recommend purchasing one**—it will make this process much easier and cleaner.

Figure 5

Figure 6

3. **Installing the Grommet and Routing the Harness**

- Insert the **rubber grommet** supplied in the kit into the drilled hole.
- Feed the **wire harness** through the grommet and into the interior of the car.
- Leave approximately **10 inches** of wire harness inside the Airbox. *(See Figure 7 – Grommet)*
- After connections are complete, **any excess wire** can be gently **pushed back through the hole**.

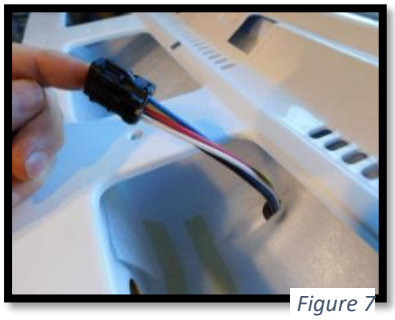

Figure 7

Placing the Links and Pivot Shaft Assembly into the Airbox

Important: If you have not already removed the hood,
now is the time to consider doing so—it will make installation much easier.

1. **Insert the Assembly**

   - From the **driver side**, carefully insert the **Links and Pivot Shafts Assembly (Nomenclature A)** into the Airbox.
   - Ensure the **stainless-steel knurled heads** on the **brass pivot shafts** are oriented **toward the rear of the car**.
     (See Figure 8 – Pivot Shafts)

Figure 8

2. **Passenger Side Installation**

   - Begin on the **passenger side**—this area is tight, so **be patient**.
   - Orient the parts as shown in ***Figure 9 – Passenger Side***.
   - **Rotate the knurled head upward and forward** into the pivot shaft hole until it rests **flush against the cowl**.
   - Use **one or both of the 10-24 countersink screws** (Torx head, not Phillips) to hold the pivot shaft head in place.
   - **Leave these screws loose** for now.

Figure 9

3. **Driver Side Installation**

   - The driver side is easier to work with.
   - Orient the parts as shown in ***Figure 10 – Driver Side,*** leaving the links **loose** to prepare for bridge installation.
   - Rotate the **knurled head upward** and into the cowl position.
   - Install **two 10-24 countersink screws** (Torx head) and a **10-24 flange nut** on the stud.
     (See Figure 11 – Pivot Shafts)
   - Leave these fasteners **slightly loose** to allow for final adjustments.

Figure 10

Figure 11

Bridge Installation

Warning: This is the most challenging part of the installation. Be **patient**. To make things easier, we have labeled the **four holes in the bridge** with letters indicating the recommended fastener sequence. *(See Figure 12 – Fastener Sequence)*

Tip: The passenger side fastener is nearly a blind fastener. Small hands are very helpful for this step. **Do not overtighten the studs**, as they can break.

Figure 12

---

1. **Driver Side Preparation**
    - Insert the **Bridge (Nomenclature E)** into the Airbox. *(See Figure 13 – Bridge)*
    - Guide the **backside flanges of the bridge past the aluminum cross link**.
    - Slide the bridge toward the **driver side** until the **tip of the bridge appears through the square hole** in the middle of the cowl just below the windshield. *(See Figure 14 – Bridge)*
    - At this point, the bridge should **pass freely past the aluminum cross link**.

Figure 13

Figure 14

2. **Preparing Flange Nuts**

   - Before securing the bridge, load a **1/4-20 flange nut** onto a **1/4" drive, 7/16" socket**. *(See Figures 15 & 16 – Bridge)*
   - You will also need a **3" socket extension**.

Figure 15

Figure 16

   - Note: The photos may not show the flange nuts, but these are the correct fasteners.

3. **Installing the Bridge on Pivot Shaft Studs**

   - Locate the **1/4-20 studs** on the **driver side pivot shaft head (Nomenclature B)**.
   - Lift the bridge onto these studs.
   - Use the bridge itself to locate the corresponding studs on the **passenger side**.

4. **Fastener Sequence**

   - **Driver Side, Position 1:** Use the 7/16" socket and 3" extension to thread on a 1/4" flange nut. Leave it **very loose**.
   - **Passenger Side, Position 2:** Thread on a 1/4" flange nut and tighten.
   - **Passenger Side, Position 3:** Thread on a 1/4" flange nut and tighten. *(This one is particularly difficult—patience is key.)*
   - **Driver Side, Position 4:** Thread on a 1/4" flange nut.
   - Return to the **driver side** and **tighten positions 1 and 4**. *(See Figures 17 & 18 – Bridge)*

Figure 17

Figure 18

5. **Final Step**

   - On the **outside of the cowl**, tighten the **pivot shaft head fasteners** to secure the assembly fully.

Installing the Wiper Motor

1. Position the Motor

- Place the **wiper motor (Nomenclature G)** into the Airbox with the **open 1/4-20 studs pointing upward.**

Figure 19

2. Connect the Wire Harness

- Reach inside the Airbox and **connect the wire harness plug** to the motor socket.
  (See Figure 19 – Motor)

3. Secure the Motor to the Bridge

- Position the motor onto the bridge and **thread a 1/4-20 flange nut onto each stud.**
- Leave these nuts **loose** while tucking the wire harness neatly against the body of the motor.
  (See Figures 20 & 21 – Motor)

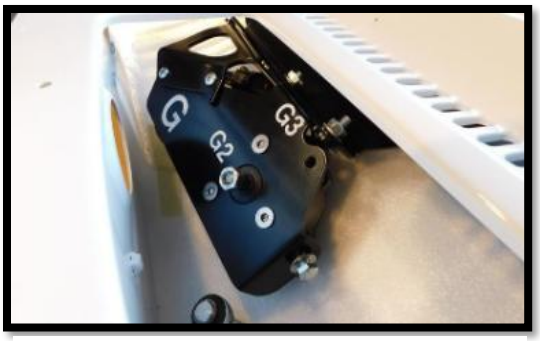

Figure 20

Figure 21

4. Final Tightening

- Once the harness is properly positioned, **tighten all three flange nuts** to secure the motor.

Installing the Motor Brace

1. Position the Motor Brace

- The **Motor Brace (Nomenclature H)** attaches to the **right side of the motor bracket.**
- The **slotted side** of the brace should sit against the motor.

Figure 22

2. Attach the Brace

- Use a **1/4-20 x 1" stainless steel (S/S) hex bolt, lock washer, and flat washer** to secure the motor brace to the side of the motor bracket.
- **Note:** The fastener is shipped in place; remove it and reuse it.
- Hold the flange **tight against the floor of the Airbox** as you tighten the bolt.
  (See Figure 22 – Motor Brace)

3. Mark and Drill the Mounting Hole

- Use a **transfer punch** to mark the hole center.
- If a transfer punch is unavailable, **drill directly** using a 9/64" drill bit through the sheet metal.
  (See Figure 23 – Motor Brace)
- **Important:** For 1970–72 Chevelle models, you will be drilling through **two layers of sheet metal.**

Figure 23

4. Secure the Brace

- Attach the motor brace using **the hex head sheet metal screw and 3/16" lock washer** included in the bag with the motor brace.
- **Caution:** Do **not overtighten;** these screws strip very easily.
- **Note:** Ignore the flat washer shown in the photo; it is not used.

5. Optional Step

- You may apply a **sealer under the brace** to prevent water from entering the vehicle.
  (See Figure 24 – Motor Brace)

Figure 24

Attaching the Drive Arm (Nomenclature D) to the Wiper Motor Drive Shaft

1. Identify Drive Arm Callouts

Referring to the nomenclature photo at the beginning of the manual:

- **D1:** Open, tapered hole
- **D2:** Hex nut that secures the drive arm to the drive shaft
- **D3:** Slot used to locate the correct **park position** for the wiper system

2. Install the Drive Arm

- Place the **open, tapered hole (D1)** of the drive arm onto the **wiper motor drive shaft.**
- Thread on the **hex nut (D2)** but do **not fully tighten** yet.

3. Align the Park Position

- Rotate the drive arm until the **slot (D3)** on the arm aligns directly over the **Park Position hole (G3)** on the motor bracket.
- Insert a **1/4" diameter tool** (a Phillips screwdriver works well) through **Drive Arm Slot D3** into the **Park Position Hole (G3)** to hold the arm in the correct position.

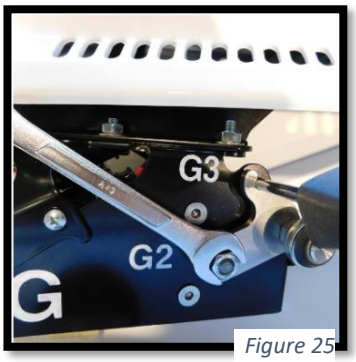

Figure 25

4. **Secure the Drive Arm**

    - While holding the tool in place to maintain alignment, **tighten the hex nut (D2)** to secure the drive arm.

Installing the Cover Plate and Finishing the Outside

1. **Select the Correct Cover Plate**

    - The last step on the exterior is to plug **the hole in the firewall.**
    - Two styles of cover plates are provided:
        - **1968–69 firewall**
        - **1970–72 firewall**
        (See Figure 26 – Cover Plates)

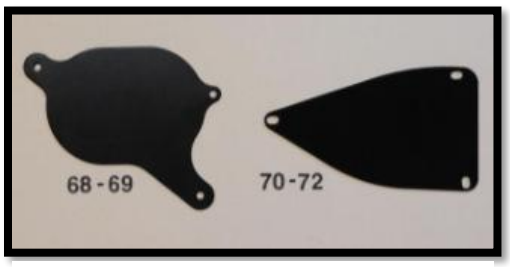

Figure 26

2. **Secure the Cover Plate**

    - Use the **three stainless 10-24 Phillips head screws** and **three stainless flat** washers included with the kit.
    - Attach the cover plate to the firewall, ensuring it is properly seated.
    (See Figures 27 – The Hole and 28 – Cover Plate)

Figure 27


Figure 28

1968 Chevelle Switch Installation

1. **Reference the Nomenclature**

    - Refer to the **1968 Chevelle nomenclature photo** for the correct switch orientation.
    - **Part F** is **not supplied;** use your original part, as replacement sources are currently unavailable.
    (See Figure 29 – 68 Switch Nomenclature)

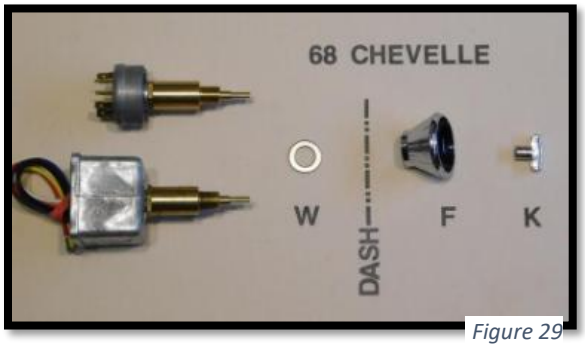

Figure 29

2. Prepare the Raingear Wiper Switch

- The OEM 1968 Chevelle uses a **rotary wiper switch,** making installation of the Raingear switch straightforward.
- Ensure the **Raingear wiper switch is in the "off" position** before installation.
- Place a **1/2" AN flat washer** on the **brass switch extension** before inserting the assembly into the **back side of the dash panel.**

3. Secure the Switch

- On the **outside of the dash panel**, thread the **finishing nut** onto the brass switch extension and tighten.
  (See Figure 30 – 68 Switch)
- Attach the **switch knob** to the switch spindle and secure it by tightening the **set screw.**
  (See Figure 31 – 68 Switch)

Figure 30

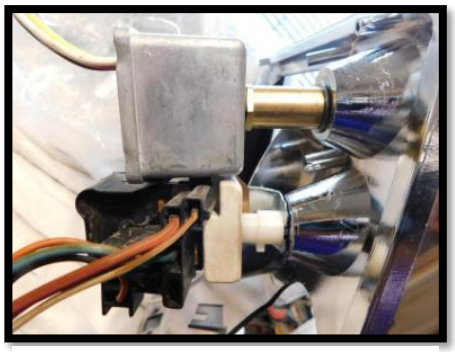

Figure 31

1969 Chevelle Switch Installation

1. Reference the Nomenclature

- Refer to the **1969 Chevelle nomenclature photo** for correct switch orientation.
  (See Figure 32 – 69 Switch Nomenclature)
- The 1969 Chevelle came from the factory with a **"slider" wiper switch, while** the **Raingear Wiper Switch** is a **rotary switch**.

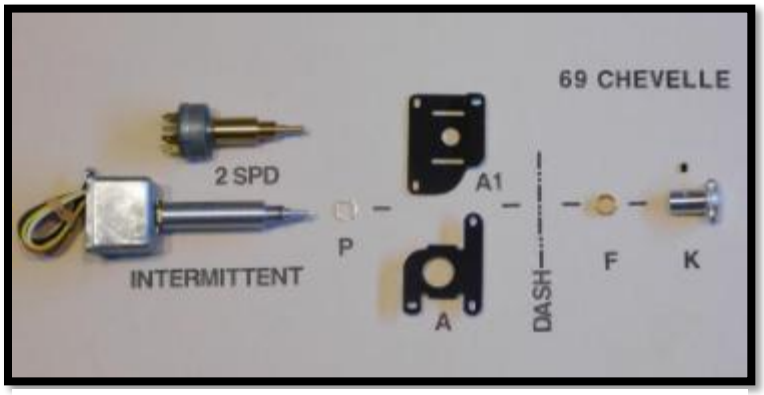

Figure 32

2. Identify the Switch Type

- **Raingear Intermittent Switch:** Long aluminum switch extension assembly
- **Raingear 2-Speed Switch:** Shorter brass switch extension
- Ensure the wiper switch is in the **"off" position** before installation.

3. Remove OEM Switch and Install Adapter Plate

- Remove the OEM slider switch.
- Use the same screws to install the **rotary switch adapter plates.**
  (See Figure 33 – Dash 3)
  - **Note:** The photo shows a machined aluminum part; the supplied part is **powder-coated steel.**

Figure 33

4. Grounding Consideration

- The 1969 plastic dash panel used a **thin steel** strap to ground the OEM slider and headlight switches.
  (See Figure 34 – Dash 1)

Figure 34

5. Install the Switch Extension

- Thread the **panel nut** fully down the threads of the switch extension.
- Insert the **switch extension** through the rotary adapter plate from the back side.
- The **switch spindle has a flat milled** onto it; rotate the switch so the flat is as close to the **6 o'clock position** as possible to hide the wiper knob set screw.
- The intermittent switch offers **four options.**
  (See Figure 35 – Dash 13)

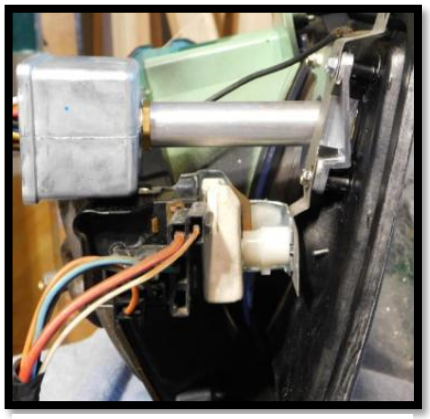

Figure 35

6. Secure the Switch on the Dash Panel

- On the front side, thread the **brass finishing nut** onto the switch extension.
- Use a **9/16" deep socket** to tighten the finishing nut**.**
  (*See Figure 36 – Install 2)*
- Attach the **1969 wiper switch knob** onto the spindle and tighten the **set screw.**
  (See Figure 36 – Install 2)

Figure 36

Switch Installation – 1970, 1971, and 1972 Chevelle

1. Dash Panel Variations

- The 1970–1972 Chevelles came with **two different instrument panels:**
  - **SS Model**
  - **Base (Standard) Models**
    (See Figures 37 – 1970–72 SS Dash and 38 – 1970–72 Base Model Dash)

Figure 37 – 1970–72 SS Dash

Figure 38 – 1970–72 Base Model Dash

2. Headlight Knob Differences

- In 1970, all Chevelles continued to use the **1969 headlight knob.**
- In 1971 and 1972, a **new, redesigned headlight** knob was introduced.
  (See Figures 39 & 40)

Figure 39

Figure 40

3. Rotary Switch Adapter Plates

- The switch nomenclature photos may appear identical, but there is a **key difference:** the **black rectangular piece labeled "A".**
- This piece is the **Rotary Switch Adapter Plate.**
- There is **one design for the SS model** and a **different design for the Base models.**
  (See Figures 41 & 42)

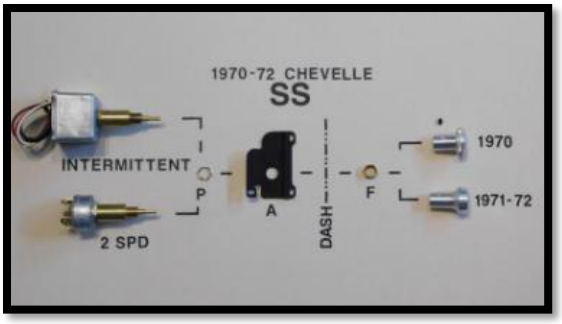

Figure 41

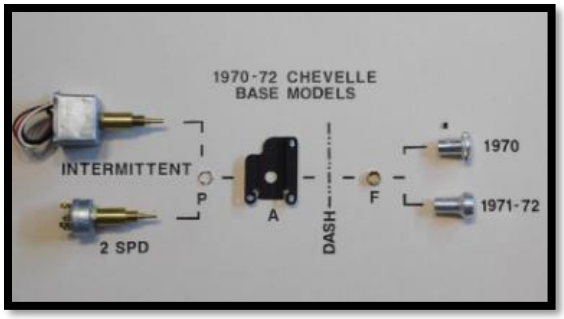

Figure 42

1970–1972 Chevelle Switch Installation

1. Prepare the Switch

- Ensure the wiper switch is rotated **counterclockwise (CCW) into the "off" position.**
- Wire the switch before installing it in the dash panel. Refer to the wiring instruction illustration provided in your kit.

2. Remove OEM Switch and Install Adapter Plate

- Remove the OEM **slider-style wiper switch.**
- Use the same screws to install the **black rotary switch adapter plate** supplied in the kit.
  (See Figure 42 – 70–72 SS Switch Nomenclature, top of page)

3. Dash Panel Grounding

- GM molded the 1970–72 dash panels from plastic, requiring **metal straps** to provide electrical grounding for switches.
- The **Raingear 2-Speed Rotary Switch** does not require grounding, and the intermittent switch has its own ground wire.
- You may choose what to do with the existing strap, but note: the **headlight switch still requires a ground.**
  (See Figures 43 & 44 – 70–72 Base Pictures 2 & 3)

Figure 43

Figure 44

4. Install the Switch Extension

- Thread the **panel nut (Nomenclature item P)** fully down the threads of the **brass switch extension.**
- Reach under the dash and insert the **switch extension** through the **adapter plate hole.**
- **Note:** The **aluminum wiper knob** supplied in the kit is secured with a **set screw.**
- The **brass spindle** on the switch extension has a **flat milled** onto it. Rotate the entire switch body so the flat is **closest to the 6 o'clock position.**

5. Secure the Switch and Install Knob

- Thread the **brass finishing nut (Nomenclature item F)** onto the switch extension and **tighten with a 9/16" socket.**
- Install the **aluminum switch knob** and tighten the **set screw.**
  (See Figures 45 & 46 – 70–72 Base Pic 4 and 71–72 Knob SS Pic 6)

Figure 45 – 70-72 Base Pic 4

Figure 46 – 71-72 Knob SS Pic 6

2 Speed	2 Speed with Delay

https://raingearwipers.com/installation-instructions

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