COMMITTED TO THE BUILD

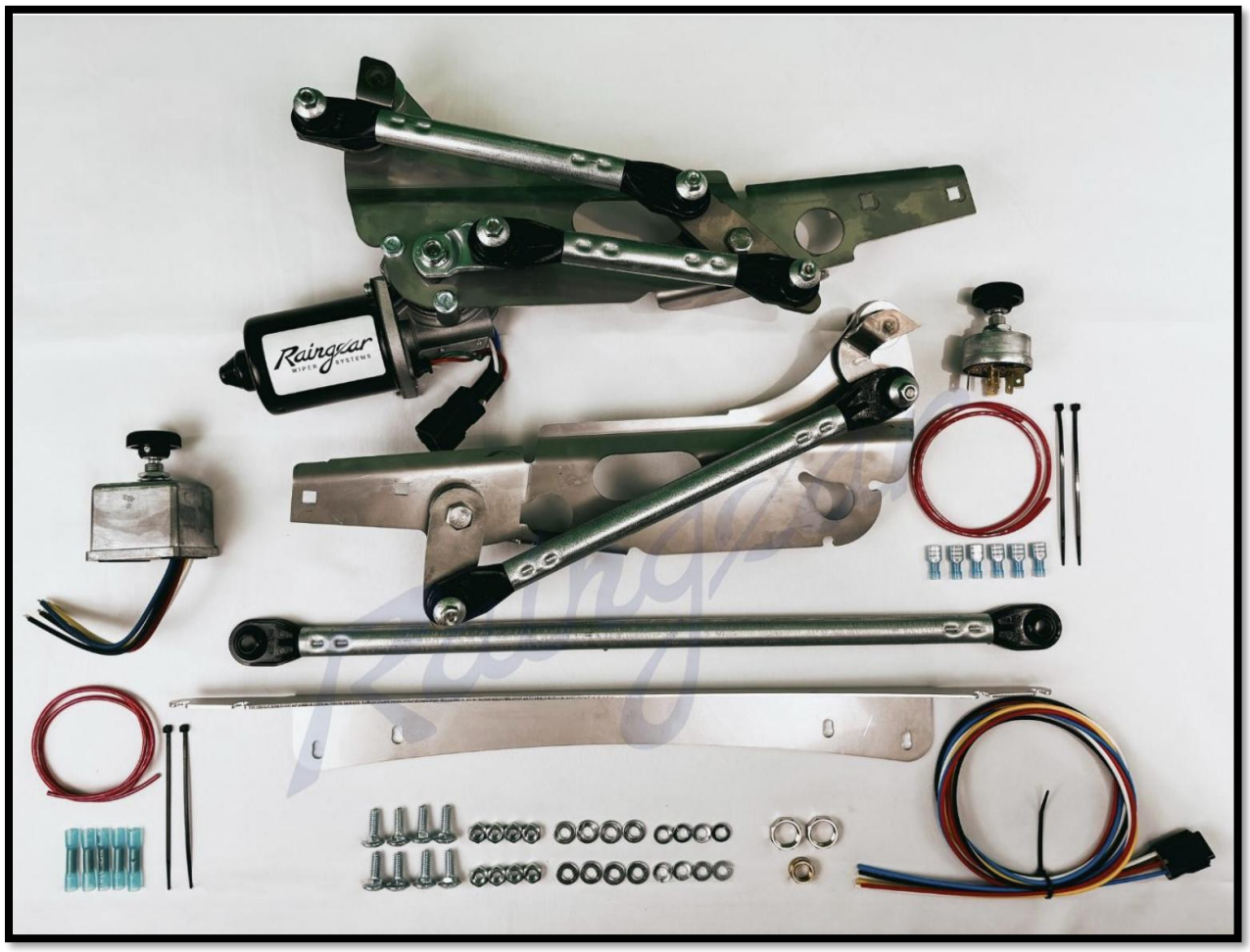
Raingear

HIDDEN WIPER SYSTEM FOR YOUR CLASSIC CAR

ASSEMBLED IN ARIZONA USA RAINGEARWIPERS.COM

Installation Instructions

1956 Ford F-100 Pick-up Trucks



Getting Started: Important Recommendations

PLEASE TRY OUR METHOD FIRST!

This system is specifically designed to fit your truck. If you feel you need to modify any supplied parts—especially the sheet metal frame—you are likely doing something incorrectly. Please carefully reread the instructions or contact us at **Sales@RaingearWipers.com** before proceeding. For technical questions, reach out to us directly. Your dealer does not stock replacement parts and is unlikely to be able to troubleshoot issues.

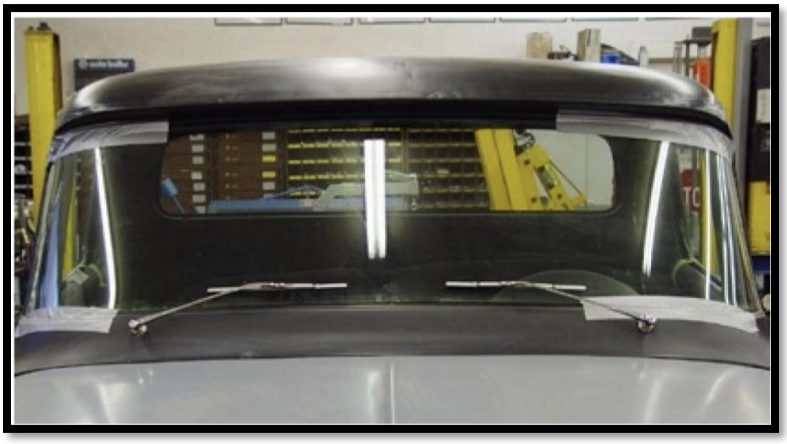
Note: This kit does **not** include the outside chrome escutcheons (trim bezels) or seals that cover the pivot shafts as they pass through the cowl.
These items are recommended but not required and may be purchased separately.
Visit RaingearWipers.com to purchase.

Familiarize yourself with all instructions and reference photos **before** beginning the installation of your new wipers.

GETTING STARTED

> ⚠ **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 Interior Components**
   Take out the instrument cluster and the defroster ducts. It is not necessary to remove the ashtray, glove box, or heater, but doing so can make access easier.
2. **Remove the Wiper Switch**
   Carefully remove the stock wiper switch and control knob from the dash panel.
3. **Remove Exterior Wiper Components**
   On the outside of the cowl, remove and save your stock wiper arms and blades. Also remove the stock escutcheon nuts and chrome escutcheons—keep them for later use.
4. **Remove the Stock Wiper System**
   Fully remove the existing wiper system to prepare for installation of the new kit.



This photo shows the Wiper Arms and Blades installed on the truck

PRE-ASSEMBLY

1. **Connect the Wire Harness**
   Plug the male end of the wire harness into the female socket on the wiper motor.
2. **Assemble the Drive Unit**
   Insert four 1/4” carriage bolts into the square holes of the drive unit.
3. **Assemble the Follower Assembly**
   Repeat the process for the four square holes on the follower assembly.
4. **Secure the Bolts**
   Place a 1/4” flat washer and a 1/4” hex nut on each bolt to draw the flat sides of the bolt into the square holes.

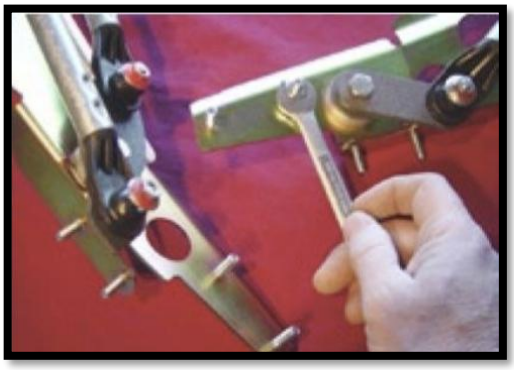
See Figures 1 and 2 for reference.

Figure 1

Insert four 1/4” carriage bolts into the square holes of the drive unit. Repeat the process for the four square holes on the follower assembly.

Figure 2

Place a 1/4” flat washer and a 1/4” hex nut on each bolt to seat the flat sides of the bolt securely into the square holes.



Attach the Bridge Spanner

1. Position the bridge spanner on the **drive unit only** (do **not** attach it to the follower assembly).
2. Secure it using four 1/4” flat washers and 1/4” hex nuts.
3. Tighten all fasteners.

See Figures 3 and 4 for reference.

Figure 3

Attach the bridge spanner to the drive unit (not the follower assembly).

Figure 4

Secure the bridge spanner using 1/4” flat washers and 1/4” hex nuts.

INSTALLATION

1. **Position the Drive Unit**
   On the driver’s side, inside the cab, insert the pivot shaft of the drive unit through the wiper hole in the cowl.
2. **Install the Exterior Components**
   From the outside, slide the seal, chrome escutcheon, and chrome nut onto the pivot shaft threads.
3. **Prepare for Final Tightening**
   Start the nut but do **not** fully tighten it at this stage.

See Figures 5 and 6 for reference.

Figure 5

On the driver’s side, inside the cab, insert the pivot shaft of the drive unit through the wiper hole in the cowl.

Figure 6

From the outside, install the seal, chrome escutcheon, and chrome nut onto the pivot shaft threads.

Passenger Side Installation

1. **Position the Follower Unit**
   On the passenger side, inside the cab, insert the pivot shaft of the follower unit through the wiper hole in the cowl.
2. **Join to the Bridge Spanner**
   As you insert the pivot shaft, align and connect the four carriage bolts on the follower assembly to the bridge spanner. These two actions should be done simultaneously, with the pivot shaft in place.
3. **Secure the Assembly**
   Install and fully tighten the nuts.

See Figures 7 and 8 for reference.

Figure 7

On the passenger side, insert the pivot shaft of the follower unit through the wiper hole, aligning the four carriage bolts on the follower assembly with the bridge spanner.

Figure 8

Install and fully tighten the nuts to secure the follower unit to the bridge spanner.

Exterior Assembly and Cross Link Installation

1. **Install Exterior Components**
   From the outside of the cab, slide the seal, chrome escutcheon, and chrome nut onto the pivot shaft. Use a 3/4” wrench to tighten both chrome escutcheon nuts securely.
2. **Install the Cross Link**
   Locate the cupped lock nuts that will retain the cross link. One is at the inboard pivot pin on the drive unit (Point “C”) and the other is at the inboard pivot pin on the follower assembly (Point “D”). Both nuts should be finger-tight at this stage.

See Figures 9 and 10 for reference.

Figure 9

Locate the cupped lock nut on the inboard pivot pin of the drive unit that will retain the cross link (Point “C”).

Figure 10

Locate the cupped lock nut on the inboard pivot pin of the follower assembly that will retain the cross link (Point “D”).

Cross Link Installation

1. **Remove Existing Lock Nuts**
   Remove the cupped lock nuts securing the link ends at Point “C” on the drive unit and Point “D” on the follower assembly.
2. **Install the Cross Link**
   Slip the link ends of the cross link over the corresponding link ends at Points “C” and “D”.
3. **Lubricate**
   Apply white grease to the cups of the link ends.
4. **Replace and Tighten Lock Nuts**
   Reinstall the cupped lock nuts and tighten them using a 3/8” 12-point box-end wrench. Follow the guidance in the note below.

Note:
Tighten the cupped lock nuts onto the black plastic cupped bearings **just enough to remove play**. Slowly move the cross link up and down until all play is gone. Do **not** overtighten, as this can damage the bearings.

See Figures 11, 12, and 13 for reference.

Figure 11

Slip the link ends of the cross link over the corresponding link ends at Points “C” and “D”.

Figure 12

Replace the cupped lock nuts and tighten them with a 3/8” 12-point box-end wrench, following the note.

Figure 13

Tighten the cupped lock nuts onto the black plastic cupped bearings **just enough to remove play**. Stop once the play is gone—do not overtighten.

Installing the Wiper Switch

1. **Prepare the Switch**
   Place one star washer (supplied with the switch) onto the threads of the switch body.
2. **Insert the Switch**
   From the backside of the dash, insert the switch through the appropriate hole.
3. **Secure the Switch**
   Add the chrome bezel and the switch nut. Use a pair of small screwdrivers or a specially made wrench from a 7/16” deep socket to tighten. Ensure that the flat on the switch spindle is oriented **at the bottom**.
4. **Attach the Knob**
   Install the wiper knob. If you are installing a washer pump assembly, the wiper knob must be able to move inward to activate the pump. Maintain a small gap between the knob and the switch for proper operation.

See Figures 14, 15, and 16 for reference

Important:
We strongly recommend **not adding the wiper arms and blades** until the system has been fully wired and test-run.

Figure 14

Insert the switch through the backside of the hole on the dash.

Figure 15

Add the chrome bezel and switch nut. Use small screwdrivers or a 7/16” deep socket wrench to tighten.

Figure 16

Ensure the flat on the switch spindle is positioned at the bottom.

WIRING

1. **Follow the Diagram**
   Wire the system according to the wiring diagram supplied with your switch.
2. **Maintain Safe Clearance**
   Wiper systems are open mechanisms with powerful moving parts. Keep all electrical wire bundles well away from the drive unit, cross links, and any moving components.
3. **Secure Surrounding Components**
   Tie or tape heater ducting, wiring, and other nearby components away from the wiper system to prevent interference or damage.

2 Speed	2 Speed with Delay

https://raingearwipers.com/installation-instructions

TESTING

1. **Prepare the Battery**
   Before installing the wiper arms, test the system to ensure proper operation. Use a fully charged **12-volt battery**—a battery charger will not work. Batteries below 11.5 volts will not operate the system correctly.
2. **Simulate Wiper Arms**
   Test the wiper park position by wrapping tape around the knurled head of the pivot shaft, leaving roughly 6” flaps to act as simulated wiper arms.
3. **Test Park Function**
   Turn the wiper switch **on**, then **off**, and observe the tape flaps. They should stop at the end of the sweep, just as the direction reverses.
4. **Check Alignment if Needed**
   If the flaps stop mid-sweep, inspect the drive unit’s “park position” alignment. In the correct park position, Points A, B, and C should align along a straight edge.
   - **Important:** If the alignment appears incorrect, **call us before installing the wiper arms and blades**.
5. **Verify Proper Shutoff**
   Ensure the system was turned off with the wiper switch—not the ignition switch or by disconnecting the battery. If it was turned off correctly and alignment is still off, refer to the **Alignment** section before proceeding.

See Figure 17 for reference.

Figure 17

The drive unit is properly parked at the factory. In the correct park position, Points A, B, and C align along a straight edge. This photo is for reference only.

ALIGNMENT

1. **Check Park Position**
   We make every effort to preset the park position of the wiper system. If, after testing, you find the alignment is incorrect when turning the system off, it will need to be re-aligned.
2. **Reference Points**
   - **Point A:** Center of the wiper motor drive arm
   - **Point B:** Left end of the first link
   - **Point C:** Right end of the first link

Refer to Figure 17 for proper alignment.

3. **Loosen the Spindle Nut**
   Use a crescent wrench or channel locks to hold the drive arm in place. With a 13 mm wrench, **loosen the spindle nut** on the wiper motor spindle at Point A. **Do not remove the nut**—just loosen it enough for adjustment.

See Figure 18 for reference.

Figure 18

If adjustment is needed, use channel locks to hold the drive arm while loosening (but not removing) the 13 mm spindle nut on the wiper motor spindle.

4. **Adjust the Drive Arm**
   Pry the drive arm free of the tapered splines on the wiper motor spindle. Without rotating the spindle, rotate the drive arm so that Points A, B, and C form a straight line along the first link (*see Figure 17*).
5. **Secure the Drive Arm**
   Hold the drive arm with channel locks and tighten the spindle nut.
6. **Re-Test the System**
   Repeat the testing procedure until the system parks correctly and the alignment is accurate.
7. **Install Wiper Arms and Blades**
   Once alignment is confirmed, install the wiper arms and blades to complete the installation.

See Figure 19 for reference.

Figure 19

Wiper arms and blades installed on the truck, showing the completed system.

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