

Installation instructions for 1956 Ford F-100 pick-up trucks

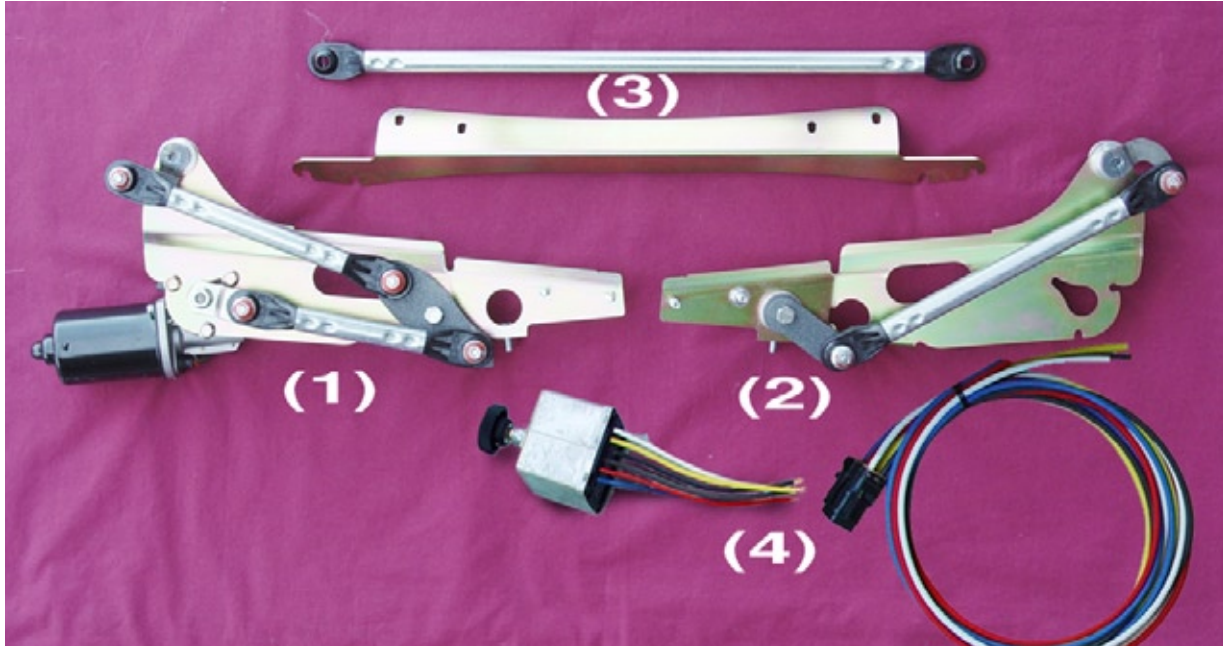


Photo 1. This photo shows the (1) Drive Unit, (2) Follower Assembly, (3) Bridge Spanner and Cross Link and (4) the Switch/Wire Harness.

The Pacific Western Design 1956 F-100 wiper system is designed as a foolproof installation. The kit comes in four main components. See photo: 1.

1. Drive Unit (contains the electric motor)
2. Follower Assembly
3. Bridge Spanner and Cross Link.
4. Wiper Switch/ Wire Harness.
(Intermittant switch is shown)

Because of the popularity and bulk of aftermarket air conditioning systems we have pre assembled the Drive Unit to be installed on the Left or Driver Side of the cab. By removing and swapping the moving parts, side to side, the Drive Unit can be placed on the right or passenger side of the assembly.



Photo 2. This photo shows the Wiper Arms and Blades installed on the truck.

I. Getting Started

1. First disconnect your battery. You will be working under the dash in the area of your vehicle that contains the greatest concentration of electrical wiring.
2. Remove the instrument cluster and the defroster ducts. It is not necessary to remove the ash tray, glove box or the heater but things are a bit harder to reach if you don't.
3. Remove the stock wiper switch and control knob from the dash panel.
5. On the outside of the cowl, remove and save your stock wiper arms and blades. Remove the stock escutcheon nuts and chrome escutcheons. Hang on to them for later.
6. Remove the stock wiper system.

PLEASE TRY OUR WAY FIRST

Note 1: This system is designed to fit your truck. If you think you need to modify the parts supplied, especially the sheetmetal frame, you are doing something wrong. Please reread the instructions or call us (1-800-686-1955) before proceeding. For technical questions etc., please contact us directly! Your dealer does not stock replacement parts and is unlikely to be able to troubleshoot problems.

Note 2: This kit does not contain the outside chrome escutcheons (trim bezels) or seals, which cover the pivot shafts where they pass through the cowl.

Note 3: Please familiarize yourself with the photographs and figures included.

II. Pre-Assembly

6. Plug the male end of the Wire Harness into the female socket on the Wiper Motor.
7. Add 4, 1/4" Carriage bolts to the square holes in the Drive Unit. Do the same with 4 square holes on the Follower Assembly. Use a 1/4" flat washer and a 1/4" hex nut to draw the flats of the bolt into the square hole. See photos: 3 & 4.
8. Attach the Bridge Spanner to the Drive Unit. (Not to the Follower Assembly) Use four 1/4" flat washers and hex nuts. Tighten. See photo's: 5 & 6.



Photo 3. Add carriage bolts to the square holes in the Drive Unit & Follower Assy.



Photo 4. Use a 1/4" flat washer and a 1/4" hex nut to draw the flats of the bolt into the square hole.



Photo 5. Attach the Bridge Spanner to the Drive Unit.



Photo 6. Use the 1/4" flat washers and hex nuts.

III. Installation

9. Place one 5/8" stainless washer and one 3/16" thick aluminum spacer onto each of the brass Pivot Shafts. See photo: 7.
10. On the driver side, inside of the cab, insert the Pivot Shaft of the Drive Unit through the wiper hole in the cowl. From the outside, slip the seal, chrome escutcheon, and chrome nut onto the threads of the Pivot Shaft. Start, but do not tighten the nut. See photo: 8 & 9.
11. On the passenger side, inside the cab, insert the Pivot Shaft of the Follower Unit into the wiper hole. As you do so, join the 4 carriage bolts in the Follower Assembly to the Bridge Spanner. Be sure to do these two steps at the same time, with the Pivot Shaft through the hole in the cowl. Add and tighten the nuts. See photo's: 10 & 11.
12. From the outside of the cab. Add a seal, chrome escutcheon and chrome nut. See photo: 9. Use a 3/4" wrench to tighten both chrome escutchen nuts.



Photo 7. Place a stainless washer and one aluminum spacer onto each of the brass pivot shafts.



Photo 8. On the driver side, inside of the cab, insert the the Pivot Shaft of the Drive Unit through the wiper hole.



Photo 9. Install seal, chrome escutcheon and chrome nut onto the threads of the Pivot Shaft.



Photo 10. On the passenger side, insert the Pivot Shaft of the Follower Unit into the wiper hole. As you do so, join the 4 carriage bolts in the Follower Assembly to the Bridge Spanner.



Photo 11. Add and tighten the nuts.

13. Next, install the Cross Link. Locate the cupped lock nuts that will retain the Cross Link. There is one at the inboard Pivot Pin on the Drive Unit, point "C" and one at the inboard Pivot Pin on the Follower Assembly at point "D". They are finger tight. See photo's: 12 and 13.



Photo 12. Locate the cupped lock nuts that will retain the Cross Link. point "C".

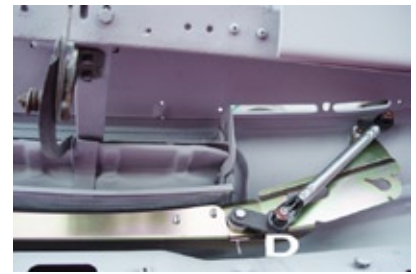


Photo 13. There is also one at the inboard Pivot Pin on the Follower Assembly at point "D".

14. Remove the cupped lock nuts securing the link end at point "C" of the Drive Unit and point "D" of the Follower Assembly. Slip the link ends of the Cross Link over the other link ends at "C" and "D". Lube the cups with white grease. Replace the cupped lock nuts and tighten them with a 3/8" 12 point box end wrench per the following note. See photos: 14 and 15.



Photo 14. Slip the link ends of the Cross Link over the other link ends at "C" and "D".



Photo 15. Replace the cupped lock nuts and tighten them with a 3/8" 12 point box end wrench per the note.

Note: *The trick here is to tighten the cupped lock nuts onto the black plastic cupped bearings BUT ONLY remove the play between the bearings. Tighten slowly, pulling up and down on the Cross Link until the play is gone. Stop there. Any more and you will over tighten the cupped lock nuts. See photo: 16.*



Photo 16. Tighten the cupped lock nuts onto the black plastic cupped bearings BUT ONLY remove the play between the bearings. Stop there. You do not want to over tighten.

IV. Installing the wiper switch.

15. Place one star washer, supplied with the Switch, onto the threads of the switch body. Insert the switch through the backside of the hole on the dash. Add the chrome bezel and the switch nut. Use a pair of small screw drivers or make a special wrench from a 7/16: deep socket. Make sure the flat on the switch spindle is at the bottom. See photos: 17, 18 and 19



Photo 17. Insert the switch through the backside of the hole on the dash.



Photo 18. Add the chrome bezel and the switch nut. Use a pair of small screw drivers or make a special wrench from a 7/16: deep socket.

16. Attach the knob. If you are going to install a Washer Pump assembly, the wiper knob must be able to move in. The Washer Pump is activated by pushing in on the knob. A small gap must be maintained between the knob and the switch.



Photo 19. Make sure the flat on the switch spindle is on the bottom.

WE STRONGLY RECOMMEND THAT YOU NOT ADD THE WIPER ARMS AND BLADES UNTIL YOU HAVE WIRED AND TEST RUN THE SYSTEM.

V. Wiring: Please wire the system according to the wiring diagram supplied with the switch you are using.

Wiper systems are open machines with very powerful moving parts. Keep electrical wire bundles well away from the Drive Unit and links across this wiper system. Tie or tape heater ducting and wiring away from the system.

VI. Testing: Before installing the Wiper Arms, you first must test to make sure the system functions properly.

17. Make sure you have a good, charged 12 volt battery to test the system. A battery charger will not work. A battery with a charge below 11.5 volts will not work.
18. 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.
19. Turn the Wiper Switch on, then off to make sure the arms will park in the proper position. The flap of tape should stop at the end of the sweep, just as the direction reverses.

If this is NOT happening - if the flap is stopping somewhere in the middle of the sweep, inspect the Drive Unit "park position" alignment. See photo: 20. In the correct PARK position, points A, B and C should be in line along the straight edge. If it looks to be correctly aligned, **Call Us**, before installing the Wiper Arms and Blades.

If your alignment is different, make sure you turned the system off with the Wiper Switch - not the ignition switch or by disconnecting the battery. If you correctly turned it off with the Wiper Switch, **go to part VII, Alignment**, before installing the Wiper Arms and Blades.

VII. Alignment: We make every effort to preset the park position of the Wiper System. If after testing your system you believe the alignment is incorrect when you turn your system off, re-align your system.

20. Refer to Photo: 20

Point "A" is the center of the wiper motor Drive Arm

Point "B" is the left end of the "First Link".

Point "C" is the right end of the "First Link".

21. Use a crescent wrench or channel locks to keep the Drive Arm from rotating while using a 13MM wrench to loosen the spindle nut on the Wiper Motor Spindle at point "A". JUST LOOSEN IT enough for the next step - Don't remove it. See Photo 21
23. Pry the Drive Arm free of the tapered splines on the Wiper Motor Spindle. Without rotating the Wiper Motor Spindle, rotate the Drive Arm so that points "A", "B" and "C" are in a straight line along the First Link as shown in Photo: 20.
24. Hold the Drive Arm with channel locks and tighten the lock nut. Return to step 19. Repeat testing and adjusting until the system is aligned and parking correctly.
25. Install the Wiper Arms and Blades to finish the installation. See photo: 22.



Photo 20. This is how the alignment looks when properly parking. Note that in the PARK position points A, B and C are in line along the straight edge.

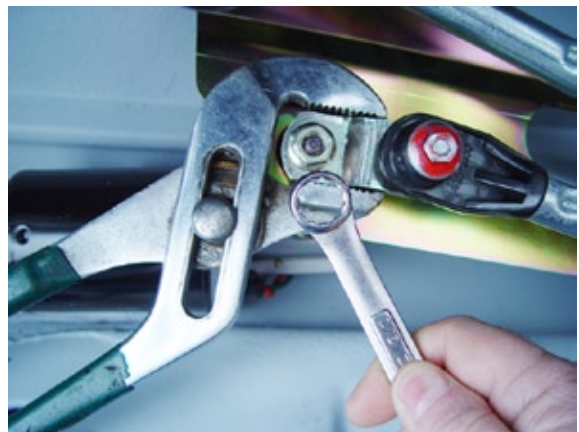


Photo 21. Channel locks keep the Drive Arm from rotating while a 13MM wrench is used to loosen, but not remove, the spindle nut on the Wiper Motor Spindle.



Photo 22. This photo shows the Wiper Arms and Blades installed on the truck.