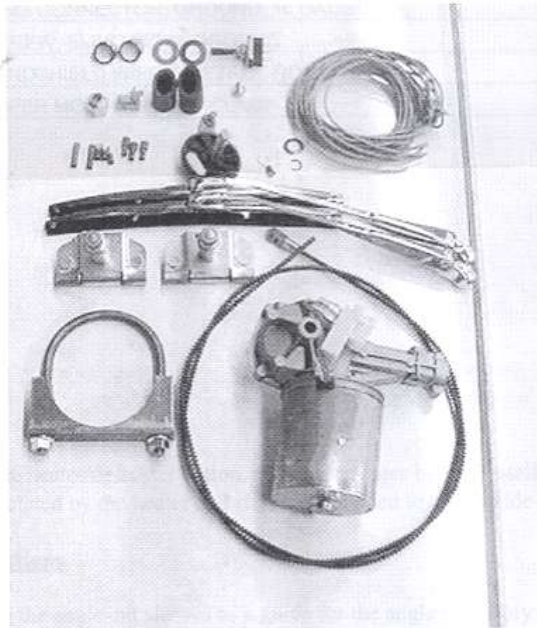




<i>Part Number:</i> 13591	<i>Revision:</i> 1	<i>Effective Date:</i> 3/15/04	<i>By:</i> J. INGERSLEV
<i>Document Type (indicate):</i>			
<input type="checkbox"/> Bill of Material	<input type="checkbox"/> Drawing (may be attached)	<input type="checkbox"/> Specification	
<input checked="" type="checkbox"/> Assembly Instructions	<input type="checkbox"/> Operating Procedure	<input type="checkbox"/> Other	

## Windshield Wiper Installation Instructions

### I. Parts Included in Kit:



12041	WIPER KIT ASSEMBLY	EA	1.00
11275	WIPER MOTOR, LUCAS	EA	1.00
11276	CABLE, WIPER MOTOR	EA	1.00
11277	GEAR, WIPER MOTOR	EA	1.00
11278	WHEELBOX, LUCAS	EA	2.00
11279	FERRULE, THREADED INSERT	EA	1.00
11280	NUT, FERRULE	EA	1.00

11281	TUBING, CABLE SLEEVE, 3/8" X 36" LONG	EA	1.00
11282	GASKET, RUBBER, WIPER BASE	EA	2.00
11283	SLEEVE, RUBBER, WIPER BASE	EA	2.00
11284	CHROME BASES, WIPER	EA	2.00
12416	WIPER MOTOR WIRING CONNECTORS	EA	3.00
10941	WIRE CONNECTERS, BLUE	EA	2.00
11180	0.25" FEMALE TERMINAL CONNECTOR	EA	4.00
10942	WIRE EXTENTION, 16 GAUGE, 7 x 4' SECTIONS	FT	28.00
11128	ON-OFF-ON SWITCH	EA	1.00
11286	SOCKET FOR PIN CONNECTERS	EA	1.00
11122	WIPER ARM	EA	2.00
11123	WIPER BLADE	EA	2.00
11217	RING CONNECTOR, GROUND, 16 GAUGE	EA	1.00
10984	SCREW, ELECTRICAL GROUND	EA	1.00
13591	WINDSHIELD WIPER INSTRUCTIONS	EA	1.00
13453	WIPER MOTOR MOUNT CLAMP	EA	1.00

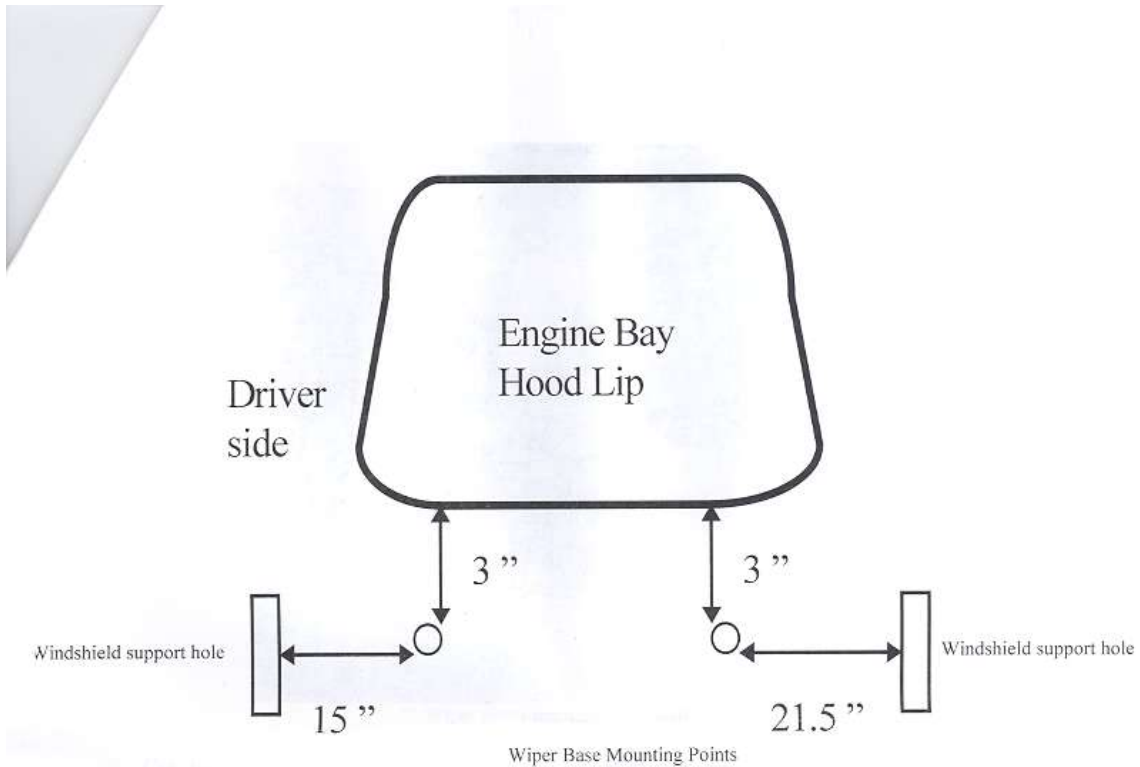
## II. Tools Necessary:

Tubing cutter  
 Tube flaring tool  
 Wire crimper  
 Volt meter  
 Ruler/tape measure  
 Drill  
 Marker  
 3/8"½" drill bits

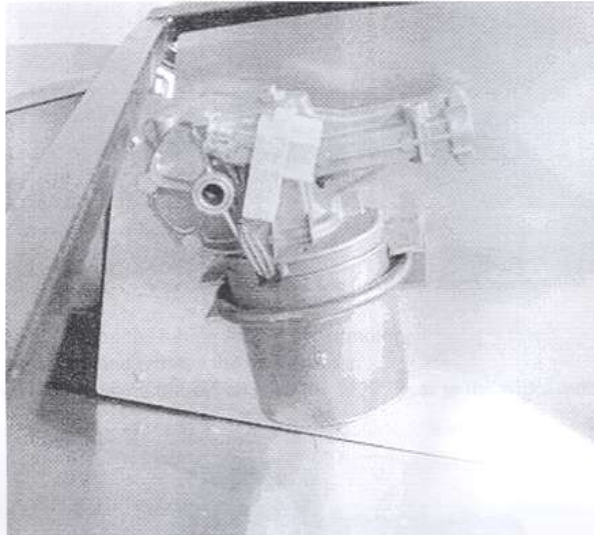
**Note:** If also installing the heater/defroster option, install the heater before installing the wipers. The motor location is then dictated by the heater and should be located to the outside of the heater.

## III. Installation Instructions

1. Drill ½" holes using the angle cut sleeves as a guide for the angle necessary at the locations shown in the picture for the wheelboxes.

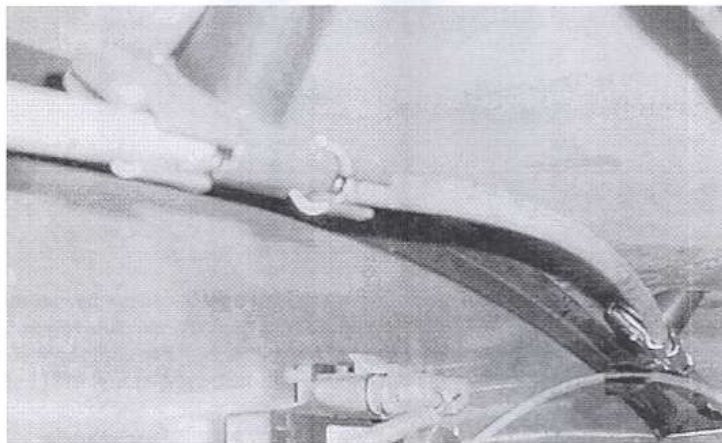


2. Bend the tubing slightly to match the curve of the cowl.
3. Slide the rubber sleeve onto the wheel box and then slide the wheelbox through the hole in the body. You may need to test fit this in the body a few times to ensure the proper angle.
4. Place the gasket down then the chrome base followed by the nut.
5. Twist the wheel boxes so they are in line with each other and are pointing towards the wiper motor.
6. Using the wiper cable as a guide, locate the motor location on the passenger side of the firewall.
7. Mark the firewall for the wiper motor (Try to have the cable pointing up toward the wheel boxes.)
8. Drill the holes in the firewall. Mount the wiper motor with the clamp provided.



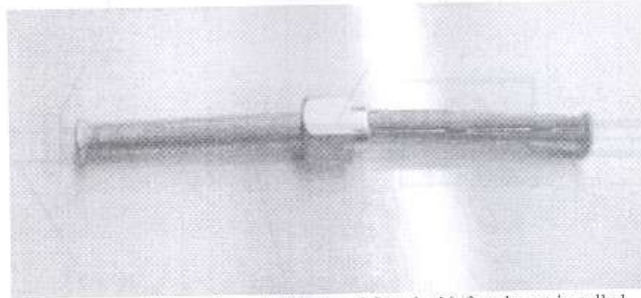
Wiper motor installed on firewall.

9. Cut the tubing to the lengths required to connect the motor and the wheelboxes together. The tubing will need to be cut a little long as you will be flaring the ends. (The tubing that we supply is longer than needed so it is ok if you make a mistake on the first cut. Save this piece and mount it on the end.)



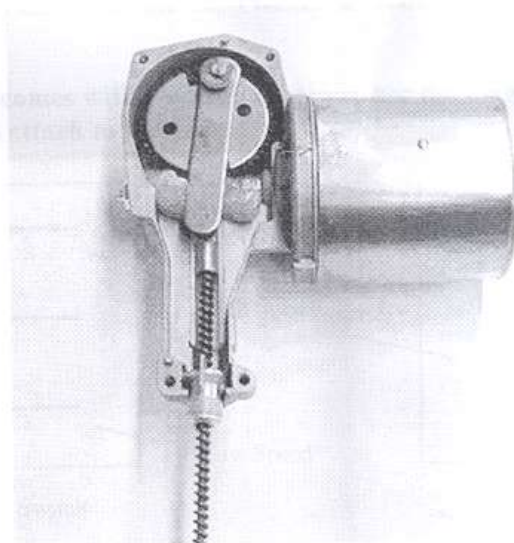
Wheel Box, cable, and wiper tube installed.  
(The tubes are not flared at this point this step is just for pre-fitment.)

10. Drill the ferrule nut to  $1\frac{13}{32}$ ". Go slow, the ferrule nut is aluminum and drills very easily.
11. Flair the ends of the tubing going into the wiper wheel boxes and the wiper motor.



Wiper tube cut, drilled, and flared with ferrule nut installed.

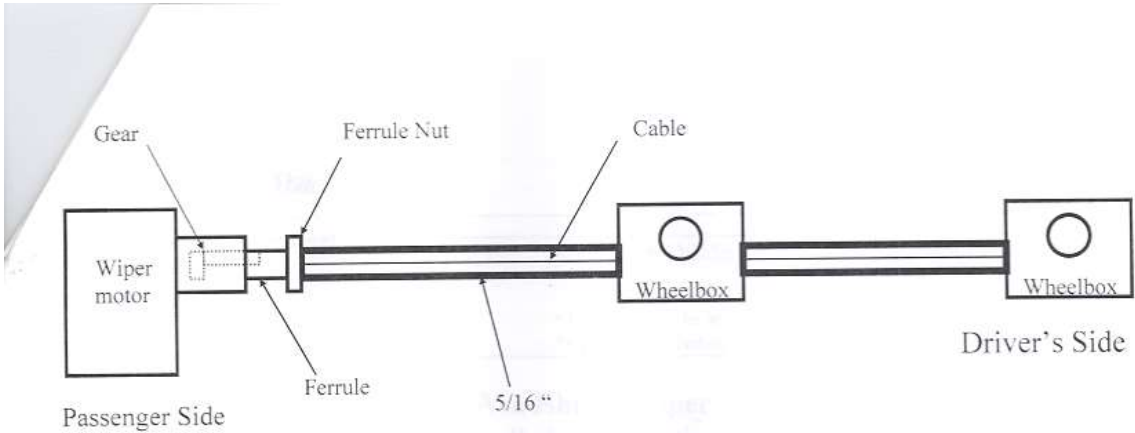
12. Place the Ferrule nut on the tubing for the wiper motor.
13. Loosen up the clamp and remove the wiper motor.
14. Open up the back of the motor and connect the 11277 gear to the wiper motor.



Gear, cable, and ferrule installed in wiper motor.

15. Install the curved washer on the 11277 gears shaft. Then in one motion connect the end of the cable to end of gear and slide into the body of the motor.
16. On the outside of the motor lock the shaft in place with the locking clip provided.
17. Slide the 11279 ferrule down the cable and into the end of the motor. (It only fits in one way.)
18. Replace the cover on the wiper motor.
19. Install the tubing as shown in the diagram below.





20. The wiper motor included in the kit is a two speed motor. Connect the power leads to the corresponding terminals marked using the female wiring connectors provided. At 12 volts, the low speed uses 1.5 amps and the high speed uses 2.0 amps. Pin #2 is for the "Park" mode and is not used. The switch provided does not include this function. Connect the "Positive - Always Hot" to an empty hole in the fuse panel.

**Note: If the motor comes with a wiring diagram, use the diagram included and not the one below to attach to the motor.**

