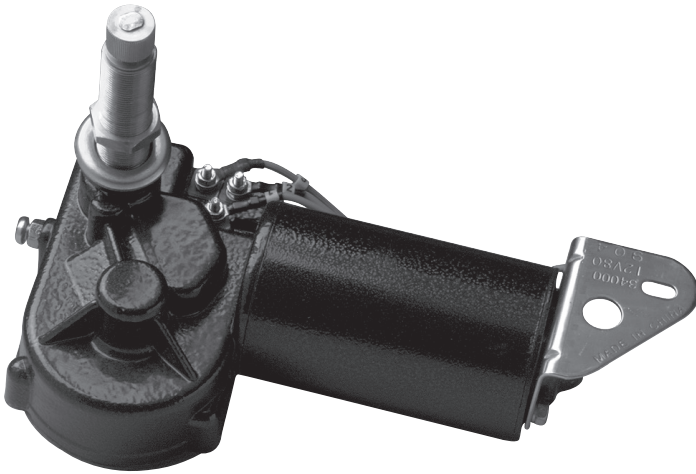




MRV WIPER MOTOR

INSTALLATION INSTRUCTIONS

(ITEM #'S: 34001, 34011, 34000, 34010, 34210, 34005, 34015
38001, 38011, 38000, 38010, 38005)



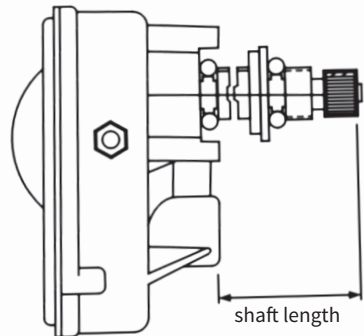
The MRV heavy duty wiper motors offer both the features of self parking and ability to change the sweep angle or degree. The two speed models also provide slow and fast sweep options:

Slow: 32-40 sweeps a minute

Fast: 52-60 sweeps a minute

| Item # | Sweep* | Shaft Length |
|--------|--------|----------------|
| 34000 | 80° | 2-1/2" (64 mm) |
| 34010 | 110° | |
| 34001 | 80° | 1-1/2" (38 mm) |
| 34011 | 110° | |
| 34005 | 80° | 3-1/2" (89 mm) |
| 34015 | 110° | |

* Motors are adjusted to standard sweep angles in production and can be changed to other angles.



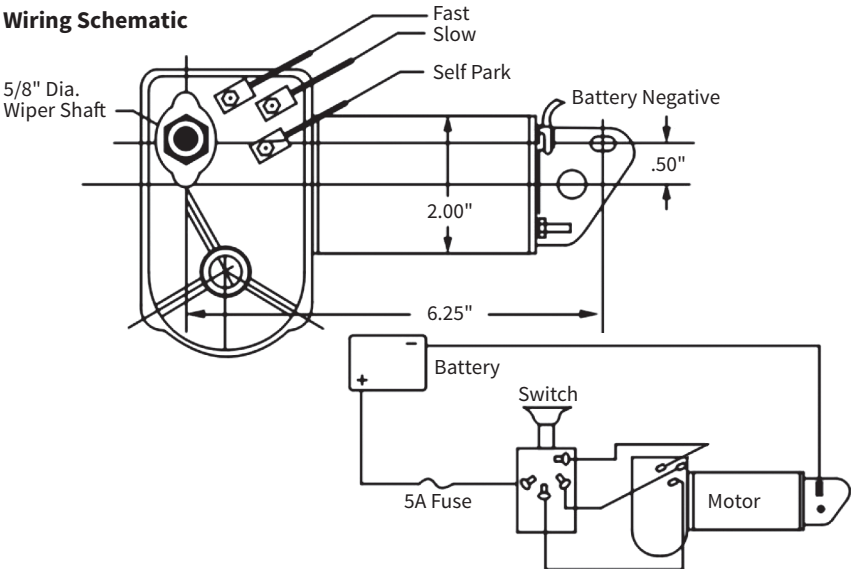
Mounting and Wiring

- 1) Locate proper mounting position of wiper assembly. Determine whether adequate space is available and see that the blade will wipe the desired area of the windshield.
- 2) Distance between shaft hole and mounting bracket screw hole should be 6-1/4" (159 mm) - see illustration under "Changing Wiping Angle and Parking Position".
- 3) Drill wiper shaft hole first, using a 5/8" (16 mm) drill bit. It may also be necessary to slightly enlarge hole after drilling using a 1/2" round file to facilitate ease of installation.
- 4) The mounting bracket screw hole may now be drilled. If needed, use motor as a template to drill a hole for the mounting bracket screw. A #10 size, stainless steel, round head screw is required (not supplied).
- 5) The wiper motor may now be placed in position and the wiper shaft attaching nut and washers installed. This nut should be tightened to 30-50 in-lbs (35-58 kg-cm) using a 3/4" open end box wrench, or adjustable wrench.
Caution: Do Not Over Tighten.
- 6) Attach the #10 size mounting bracket screw and fasten to about 15 in-lbs (17 kg-cm) until it is snug.
- 7) Wire up the motor as shown below.

NOTE: For marine applications where mounting to wood, fiberglass, etc., a separate ground wire must be attached to the motor and connected to a battery negative point.

NOTE: Blade and arm should be installed approximately 1" (25.4 mm) minimum away from windshield at a 90° to the windshield. Energize the motor for short intervals to make certain the wiper blade does not strike at either end of the wiping arc. If blade strikes at both ends, it will be necessary to shorten the arm and blade length.

Wiring Schematic

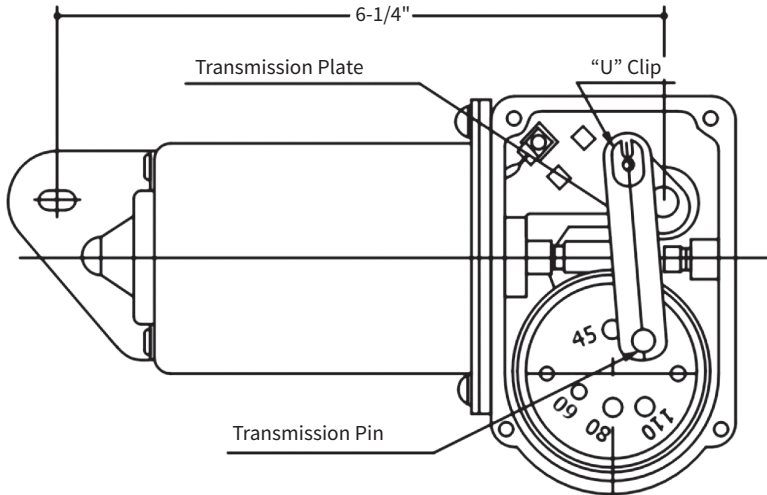


Change Sweep Angle and Parking

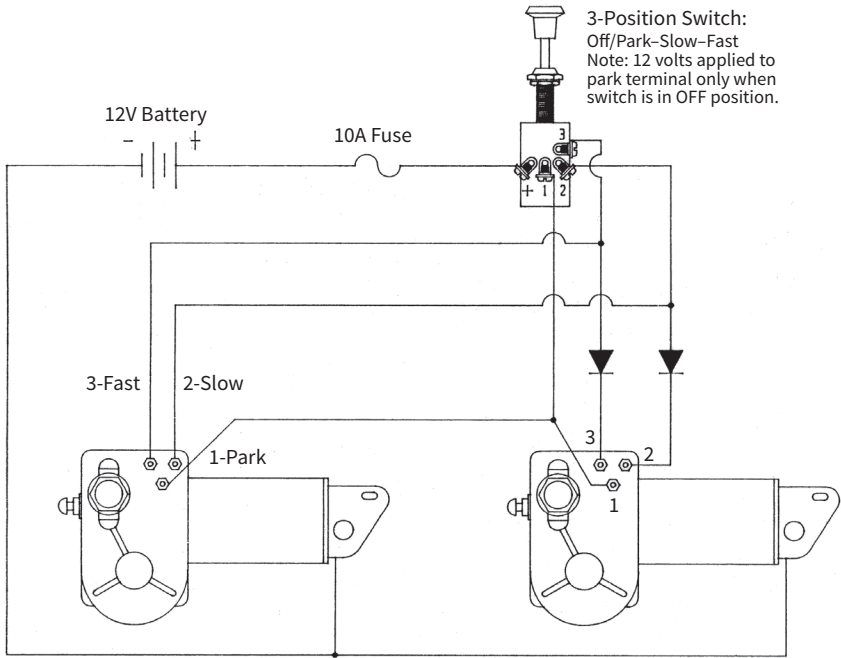
Should a change of wiping angle be necessary, It can be performed as follows (see illustration).

- Remove cover plate with a Philips (+) screw driver .
- Use a flat-head screw driver to remove “U” shape clip on the shaft that connects the transmission plate to the main shaft.
- Lift the transmission plate.
- Unscrew the two screws fastening the angle plate to the white cog wheel. There are two oblong holes in the cog wheel.
- If you want to change the park position, place the transmission pin in the opposite oblong hole.
- If you want to change the sweep angle, replace the angle plate, align the hole marked with the desired sweep angle with the oblong hole on cog wheel, and replace the angle plate screws.
- Replace transmission plate and “U” clip.

NOTE: Additional grease may be required after changing sweep angle or park position.



INSTALLATION INSTRUCTIONS: MRV WIPER MOTOR



WARRANTY Statement

LIMITED WARRANTY

For three years from the date of purchase, Maringo will, at its discretion, repair or replace for the original consumer, free of charge, any part or parts found upon examination by Maringo to be defective in material or workmanship or both. All transportation charges under this warranty must be borne by the consumer. Proof of purchase is required. Proof of purchase must be a computerized receipt. Handwritten receipts are not accepted.

Warranty Claim

Thank you for contacting Maringo regarding the product concerns as related to Form, Fit and Function. Maringo offers an online warranty (RMA) request form on our website. www.marinco.com in the resources tab. Please fill in the online form titled Maringo Warranty Request.

For more information visit our website: www.marinco.com