Part #310 & 320

Twin-Line Reversible Fans

**Model 310** - Dual fan w/ thermostatic control & A/C relay

**Model 320** - Dual fan w/o thermostatic control & A/C relay

**Setting Pull or Push Configuration:**

At the factory, the Twin Line Fan is assembled to pull air. To push air, remove the clips that hold the fan blades onto the motor shaft and turn the fan blade over. Fasten the clips to the motor shaft. Important: See wiring diagram, correct wiring must correspond with push or pull configuration.

---

**Installation Instructions**

Through Core Mounting Instructions

*(SEE DIAGRAM “A”)*

**Step 1:** Position the electric fan against the radiator, and mark the holes for mounting. (Some applications may have A/C condensers and/or transmission coolers on the front of the radiator. Additional adjustments or modifications may be necessary for installation).

**Step 2:** Rotate fan blades to make sure they are free of obstructions.

**Step 3:** With a small Phillips screwdriver, pass through the marked holes, carefully spreading the fins to allow easy passage for the nylon bolts. Pass the bolts through the shroud holes then twist the bolts through the radiator.

**Step 4:** Slide the washer onto the nylon bolt and push on the push nuts until snug.

**Step 5:** Once again, rotate fan blades to insure that they are free of obstruction.
**Fan Wiring Instructions**

**Step 1: Locate mounting point for control**
Locate a mounting point for control near inlet side of radiator. Control needs to be placed within 18” of radiator inlet hose. You may want to mount next to radiator on fender well. Mount control using screws provided.

**Step 2: Wire the fan motors (refer to wiring diagram, below)**
Using the bullet connectors provided, attach a length of the large diameter (12 AWG) red wire to the red motor wires at fan. Attach a length of the large diameter (12 AWG) black wire to the black motor wires at the fan. Once the fan is in place, these will attach to the control module. If mounting the control somewhere in the engine compartment, leave enough wire to reach the control module, but do not connect yet. **Note:** For pusher configuration, fan blades must be flipped over (see page 1) and wiring to motors reversed (large red to black motor wires, black to red motor wires).

**Step 3:** Connect the motor wires to the control module using supplied female connectors (Red wire to the "M+" terminal and black wire to the "M-" terminal).

**Step 4:** Disconnect the negative battery lead for safety while finishing the wiring. Use the large diameter red wire to run power directly from the battery positive (+) terminal to the "B" terminal on the control module. Connect the fuse holder in-line with this wire, as shown, but do not insert the fuse yet. Use the blue female, ring, and butt connectors provided.

**Step 5:** Use the large diameter black (12 AWG) wire to run from the negative (-) battery terminal to the "G" terminal on the control module. Use the blue female connector and ring connector provided.

**Step 6:** Use the small diameter red wire (14 AWG) to connect the "+" terminal on the control module to a positive power source. **NOTE:** Attaching this wire to an ignition-controlled source will shut off the fan when the engine is turned off. Attach this wire to an uninterrupted (always hot) power source to allow the fan to continue running after the engine is shut off. Use the blue female connector and fuse taps (included) if necessary.

**Step 7:** (Optional) For air conditioning control (if desired) connect the "C" terminal on the control module to the positive wire that triggers the A/C compressor using the small diameter green (14 AWG) wire. Using a voltmeter, determine which wire coming from the compressor is the positive trigger wire. Use the 3-way connector (included) to tap into this wire and send a signal to the fan control module. The fan will cycle on and off with the A/C clutch when the A/C is turned on.
Step 8: (Optional) For manual switch operation, use Flex-a-lite p/n 31148. Connect the switch as shown on the wiring diagram (previous page). Connect the "M" terminal on the control module to the "#1" terminal on the switch. Connect the "#2" terminal on the switch to a positive 12v power source. Connect terminal "#3" on the switch to a good ground (for switch illumination). **NOTE: To prevent thermostatic activation (if only manual switch operation is desired), omit the lead to the "+" terminal of the control box. "B", "G", "M+" and "M-" must remain connected. If not using a Flex-a-lite manual switch, do not connect a ground wire to the switch!**

Step 9: Use the zip ties provided to secure the wires and prevent them from interfering with fan blades, belts, and pulleys in the engine compartment. Reconnect the battery and insert the fuse provided.

**Step 10: Insert the temperature probe into the radiator fins**

![Install temp. probe near inlet hose...](image1)

![then install the insulator cap.](image2)

Locate the inlet hose from the engine to the radiator. Remove the black insulator cap and insert the temp. probe through the radiator fins near the inlet hose. Reinstall the black insulator cap.

If you disconnected any hoses or drained coolant to install the fan, reconnect the hoses and refill the radiator. Press the control knob (included in wiring kit) onto the control box shaft. Turn the knob clockwise until it stops. Start the engine and allow it to idle. Using a hand held temperature sensor (positioned near the inlet hose) or the vehicle's temperature gauge, monitor the temperature. When the coolant temp. is slightly above normal (or desired temp.), turn the knob counter-clockwise just until the fan turns on. From now on, the fan should activate at this temperature setting. Adjust as necessary to maintain desired temperature.

---

**The Flex-a-lite Limited Warranty**

Flex-a-lite Consolidated, 7213-45th St. Ct. E., Fife, WA 98424, Telephone No. 253-922-2700, warrants to the original purchasing user, that all Flex-a-lite products to be free of defects in material and workmanship for a period of 365 days (1 year) from date of purchase. Flex-a-lite products failing within 365 days (1 year) from date of purchase may be returned to the factory through the point of purchase, transportation charges prepaid. If, on inspection, cause of failure is determined to be defective material or workmanship and not by misuse, accidental or improper installation, Flex-a-lite will replace the fan free of charge, transportation prepaid. **Flex-a-lite will not be liable for incidental, progressive or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may have other rights, which vary from state to state. The Flex-a-lite warranty is in compliance with the Magnuson-Moss Warranty Act of 1975.**

---

04-21-05   99904   Page 3 of 3