Mustang Radiator and Fan Combo #52185
or Mustang Radiator #52100
Fits 1979-1993 Mustang 5.0L
INSTALLATION INSTRUCTIONS

Removal of the original radiator and fan:

1. BE SURE THE ENGINE IS COOL BEFORE PROCEEDING!!
2. FOR YOUR SAFETY, disconnect the negative battery cable before proceeding with the installation.
3. Utilizing the drain plug on the passenger’s side of the radiator, start draining the coolant. It may be necessary to remove the radiator cap to release the vacuum inside the radiator for better draining (see detail 1).
4. If equipped, remove the sensor wire from the lid of the overflow bottle (see detail 2).
5. Disconnect the overflow bottle hose from the radiator.
6. Remove the two (2) bolts and clips from the top of the factory shroud. (see detail 3)
7. Remove the four (4) bolts holding the fan to the water pump pulley with a 1/2” open-end wrench. Note: Save these bolts to be used later (see detail 4).
8. Lift the original shroud and fan out of the vehicle at the same time. If your vehicle is equipped with an overflow bottle attached to the shroud, it is not necessary to remove the overflow bottle separately.
9. Note: If replacing Radiator only, reattach fan to water pump. Replace the four (4) bolts that held the fan to the water pump with a 1/2” socket or wrench. Be sure to check the clearance of these bolts on the backside of the pulley to the water pump. After tightened, there should be no less than 1/4” of clearance to the water pump. If they are too close, they may cause severe damage to the water pump upon start-up. It may be necessary to replace these bolts with shorter ones (refer to detail 4).
Removal of the original radiator and fan cont’d.

10. Remove the upper and lower hoses of the radiator. It is not necessary to remove them completely from the vehicle for installation. (see detail 5 on page 1).
11. Using a 1/2” socket or wrench, remove the two (2) brackets that hold the original radiator in place at the top. Note: Save these bolts to be used later. (see detail 6 on page 1)
12. Remove the original radiator by lifting it straight up. Note: Use caution while removing the radiator; it may still contain coolant which can spill out.

Installation of Radiator and Fan Combo #52185 or Radiator only #52100

1. Find the new radiator overflow bottle and mounting bracket. Mount the bracket (#51107) to the radiator on the filler side as shown in detail 7. Now mount the overflow tank to the bracket with the fasteners provided with the overflow bottle as shown in detail 8. Note: DO NOT allow the filler cap of the overflow bottle to exceed the height of the top of the radiator for clearance (see detail 7 and 8).
2. Attach the hose to the “short” tube on the bottom of the overflow tank. Use a hose clamp to hold it in place. DO NOT connect the hose to the radiator yet. Note: The longer tube on the bottom of the overflow tank is a breather tube, DO NOT obstruct or remove it.
3. Mount the large lower bracket (#51105) to the lower edge of the core support with the four (4) bolts, four (4) washers and four (4) lock nuts. DO NOT secure the bracket completely. There should be enough movement for adjustment to the bracket later (see detail 9).
4. Flare or bend the lower orginal radiator mounts towards the engine slightly to make enough room for the new radiator to rest in the lower mounts. This may require the use of pliers. DO NOT remove the rubber in the mount, it will provide a cushion for the new radiator.
5. Lower the radiator into the vehicle. Be sure that there is enough clearance between the overflow bottle and the battery. Place the radiator as far forward, or away from the engine, as possible to allow enough clearance between the fan and the water pump. Note: Every vehicle may vary. some adjustments may need to be made for a better fit.
6. Using two (2) each of t-studs and nuts, fasten the lower bracket to the bottom of the radiator. Push the radiator toward the front of the car, away from the engine. Tighten all of the fastners on the lower bracket (see detail 10).
7. Install the two (2) upper brackets (#51104) with the original bolts from the original top brackets. Using 2ea. t-studs and locknuta, fasten the brackets to the top of the radiator utilizing the channels in the radiator side tank. Pull the radiator toward you (away from the engine) as you tighten the fasteners for maximum clearance between the fan and the engine (see detail 11).
8. Install the pipe-nipple for the overflow tube to the filler neck of the radiator. Route and trim the overflow hose as needed. Note: Be sure that there is enough clearance of the hose to any moving engine components.
9. Connect the upper and lower radiator hoses to the radiator. Make sure they are properly clamped to the inlet and outlet tubes. Note: BE SURE that all moving parts of the engine and electric fan are clear of each other before proceeding!!

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Wiring the Fan: Radiator and Fan Combo #52185 only

1. Using the yellow butt connectors provided, attach the large diameter wire (10 AWG) RED wire to the COLORED motor wire. Attach the large diameter (10 AWG) BLACK wire to the BLACK motor wire. Note: Strip an additional 1/8” from the motor wire insulation and fold them over to increase the thickness of the wire where it will slide into the butt connector (see diagram below).

2. Mount the control module inside the engine compartment. The fan shroud can be used for mounting the control module. Note: Anywhere the control module is mounted MUST be clear of moving components.

3. Connect the motor wires to the control module. The RED wire (10 AWG) to the “M+” terminal and the BLACK wire (10 AWG) to the “M-” terminal.

4. Use the large diameter (10 AWG) RED wire to run power directly from the battery (+) 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 YELLOW female, ring and butt connectors provided.

5. Use the large diameter BLACK (10 AWG) wire to run from the negative (-) battery terminal to the “G” terminal on the control module. Use the YELLOW female connector and ring connector provided.

6. Use the small diameter RED (14 AWG) wire 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.

Wiring instructions are continued on page 4

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**Wiring the Fan Continued:**

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 (+) wire trigger wire. Use the 3-way BLUE 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.

8. *(OPTIONAL)* For manual switch operation, use Flex-a-lite p/n 31148. Connect the switch as shown on the wiring diagram. Connect the “M” terminal on the control module to the “I” terminal on the switch. Connect the “2” terminal on the switch to a positive (+) 12-Volt 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!

9. Locate the inlet hose from the engine to the radiator. Insert the probe through the radiator fins near the inlet hose. Install the black insulator cap on the back side of the radiator, this will help hold the probe in place.

10. If you disconnected any hoses or drained coolant to install the fan, reconnect ALL of the hoses and refill the radiator. Press the control knob (included in the wiring kit) onto the control box shaft. Turn the knob **clockwise** until it stops. Reconnect the battery and start the engine and allow it to idle. Using a hand-held thermometer (positioned near the inlet hose) or the vehicles temperature gauge, monitor the temperature. When the coolant temperature is *slightly* above normal or desired temperature, 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.

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Want to upgrade your clutch fan to a more fuel efficient **Flex-a-lite electrical fan?..(if installing part # 52100 only)**

If you are installing the Flex-a-lite Mustang Radiator #52100 only, you may want to consider replacing your belt driven clutch fan for up to 10% fuel savings plus more horsepower by upgrading to the same electrical fan used in our Mustang Radiator and Fan combo kit Pt. #52185.

The two components you will need to order are Pt.#180 (Electric Fan Kit) and Pt.#52180K (Mounting Bracket kit)

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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 product 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.