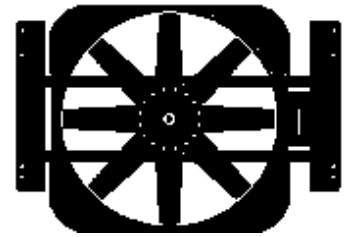




Black Magic 165



for the TOYOTA 4 x 4 (1984-1996 4 & 6 cyl.)

Prior to Electric Fan installation on all models:

1. Disconnect the battery.
2. Drain approx. 1 quart of fluid from the radiator using the petcock located on the bottom passenger side of the radiator. (see Diagram A)
3. Disconnect the top radiator hose and position it so it is out of the way.

Installation Instructions

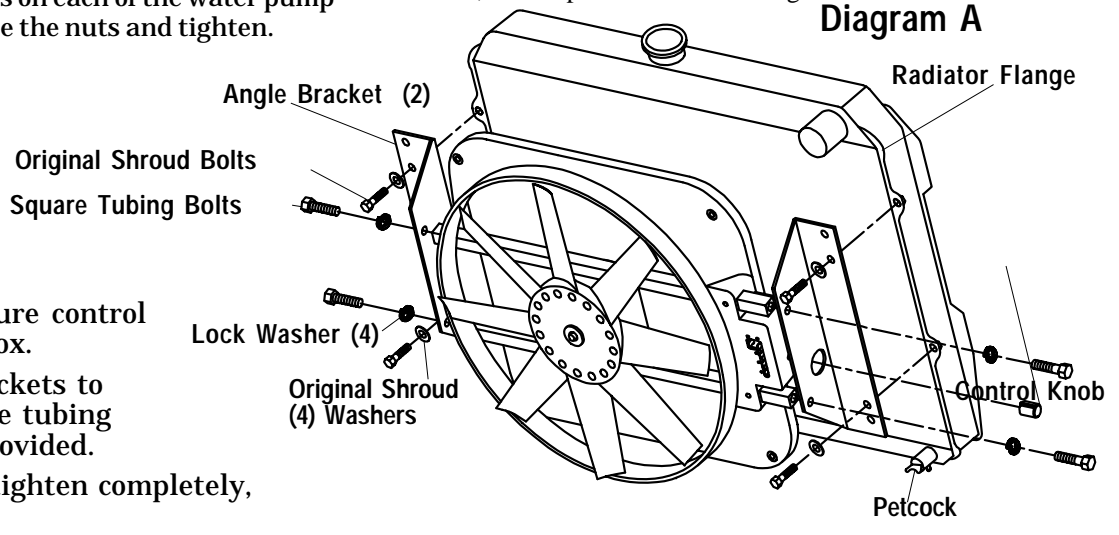
4-Cylinder Applications

4. Remove the air tubing running between the throttle body and the air filter / air flow meter housing. (This is positioned directly over the original fan.)
5. Remove the (4) bolts and washers that fasten the shroud to the radiator. **Important:** Save these bolts and washers for use later. Remove the shroud.
6. Remove the (4) nuts that fasten the fan clutch to the water pump pulley. Remove the clutch. (It is not necessary to remove the fan from the fan clutch.)
7. **Important:** Because the water pump pulley studs are not threaded completely, it is necessary to put 2 of the smaller provided washers on each of the water pump pulley studs; then replace the nuts and tighten.

6-Cylinder Applications

4. Remove the (4) bolts and washers that fasten the shroud to the radiator. **Important:** Save these bolts and washers for use later.
5. Remove the (4) nuts that fasten the fan clutch to the water pump pulley. (It is not necessary to remove the fan from the fan clutch.)
6. Remove the shroud, fan and clutch by lifting straight up and out.
7. **Important:** Because the water pump pulley studs are not threaded completely, it is necessary to put 2 of the larger provided washers on each of the water pump pulley studs; then replace the nuts and tighten.

Diagram A



Electric Fan Assembly

1. Attach the temperature control knob to the control box.
2. Fasten the angle brackets to the ends of the square tubing using the (4) bolts provided. **Important:** Do not tighten completely, leave 1 full turn.

INSTALLING THE ELECTRIC FAN TO THE RADIATOR

1. Line the bolt holes of the angle brackets with the threaded bolt holes on the radiator flange. The control box will be on the passengers side of the radiator, the electric fan shroud should be in line with the top radiator tank lip.
2. Bolt the electric fan unit to the radiator flange using the original shroud bolts and washers. (see Diagram A)
3. Tighten the angle brackets to the electric fan.

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.

POSITION CAPILLARY TUBE (See DIAGRAM B)

This temperature sensor sends engine coolant data to the temperature control for more efficient cooling of your vehicle. The temperature sensor needs to be carefully placed through the radiator core to detect engine coolant temperature.

1. Locate your radiator inlet hose; one of two large hoses that attach to the radiator. The inlet hose from the engine should be mounted higher than the other hose. Release the clip holding the thin capillary tube. Mount the fan so you can reach the inlet hose with the temperature probe. Be careful not to kink or pinch the capillary tube.
2. With a small Phillips style screwdriver, gently separate the cooling fins on the radiator near the inlet hose. You will gently push the screwdriver through the radiator to create a hole for the temperature sensor to rest. Move only the thin fins, do not disturb the thicker tubes which carry the coolant through the radiator.
3. Remove the protective cap and gently push the temperature sensor through the hole. The temperature sensor should fit snug in the core.
4. After placing the sensor, replace the plastic cap. It is important to replace the cap to prevent the tube from pulling out of the radiator. The cap also insulates the sensor from cool air passing through the grill.
5. Gently coil the extra capillary tube and place it out the way of moving objects. Be careful no to kink the tube. If you must put a bend in the tube, bend the tube around a pen or small bolt to prevent pinching the tube.

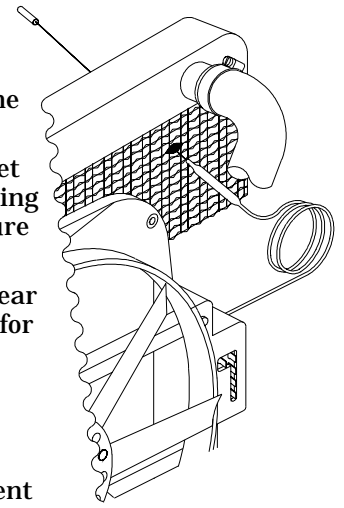


Diagram B

MANDATORY CONNECTIONS

1. Disconnect the battery negative terminal.
2. Connect the “+” terminal of the control box to a 12V positive (+) power source (i.e. fuse box), using the thin red wire and fuse taps (if necessary) provided in the kit.

Note: Attach this wire to an ignition controlled source to stop the fan when the vehicle is shut off.

Note: Attach this wire to a non-ignition source to keep the fan running after the vehicle is shut off.

3. Connect the “B” terminal to a high amp 12V positive power source (i.e. battery, alternator) using the thick red wire and in line fuse holder provided in the kit. (Do not install fuse at this time)
4. Connect the “G” terminal to ground (i.e. chassis, negative side of battery) using the thick black wire provided in the kit.
5. **If you have air conditioning:** with 3-way connector provided, pass the A/C clutch positive(+) wire (connected to the A/C compressor) through the connector. Place the thick green wire provided into the closed end of the connector. Crimp metal plate. Snap plastic cover into place. Attach green wire to the “C” terminal of the control box. **Air Conditioning Relay activates fan when A/C is turned on**
6. Insert probe in radiator core near upper hose. Install rubber cap over end of probe

ADJUSTING THE TEMPERATURE CONTROL

1. Attach the temperature control knob to the control box.
2. Turn the knob clockwise completely.
3. Idle the vehicle, observe the temperature of the vehicle. (Use the vehicles gauge)
4. When the temperature of the vehicle reaches above normal, turn the control knob counter-clockwise until the fan turns on. From here on the fan should activate at this temperature setting. Adjust as necessary according to your vehicle needs.

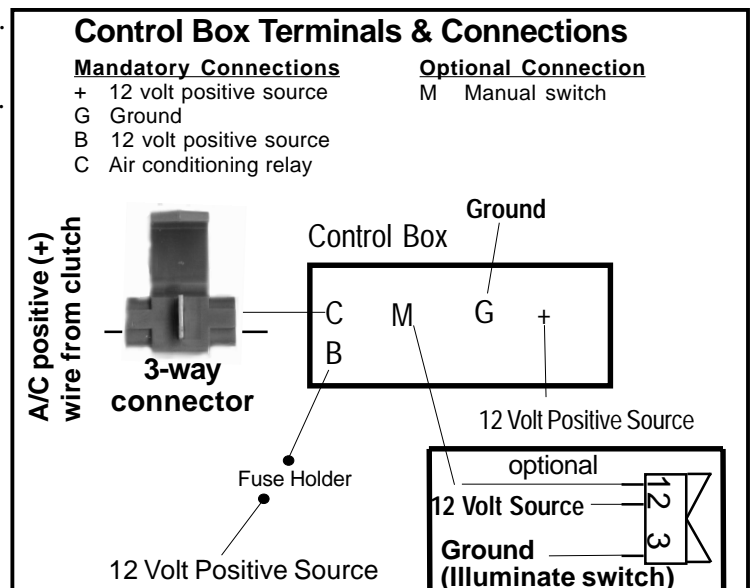
OPTIONAL CONNECTIONS

Manual Switch (not included) - Allows manual operation of the fan.

(This step is based on Flex-a-lite's manual switch part #31148, other switches will cause this unit to fail)

1. Connect the “M” terminal to terminal 1 on the switch.
2. Attach terminal 2 of the switch to a 12V positive (+) source.
3. Attach terminal 3 of the switch to ground, in order to illuminate the switch.

Note (optional): To stop the fan from activating thermostatically, omit the lead to the “+” terminal of the control box. “B”, “G”, & “M” must remain connected.



***WARNING: If not using Flex-a-lite's illuminated switch (PN #31148) you must disconnect the switch ground.**