



Black Magic S-Blade

#674 - with controls

#684 - without controls

TOYOTA 4x4 (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 smaller provided washers on each of the water pump pulley studs; then replace the nuts and tighten.

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.

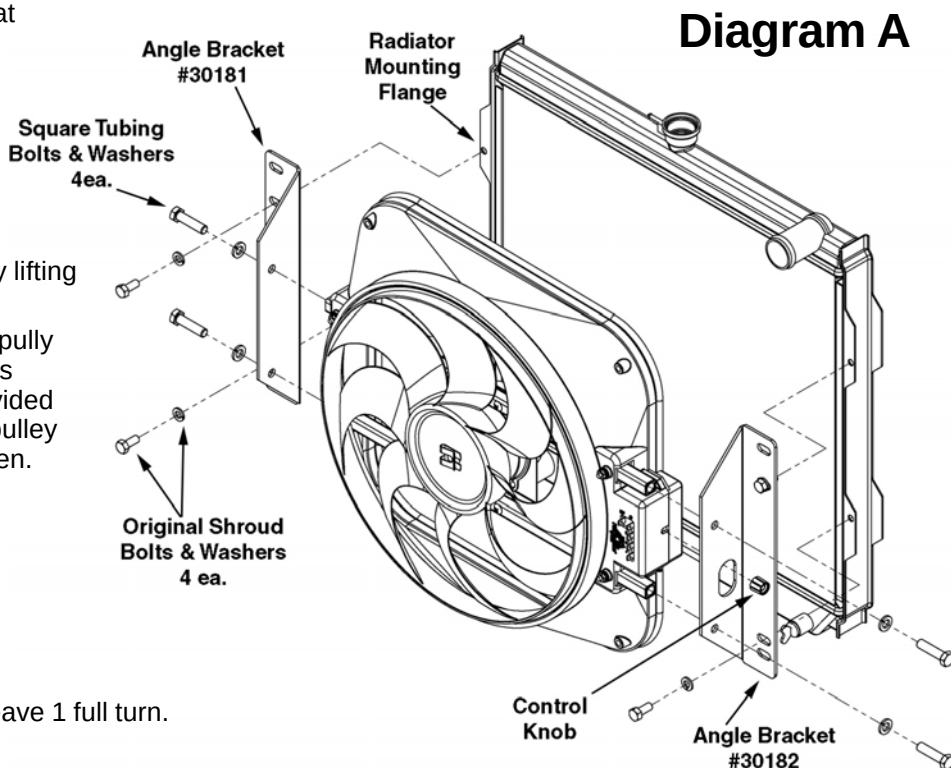


Diagram A

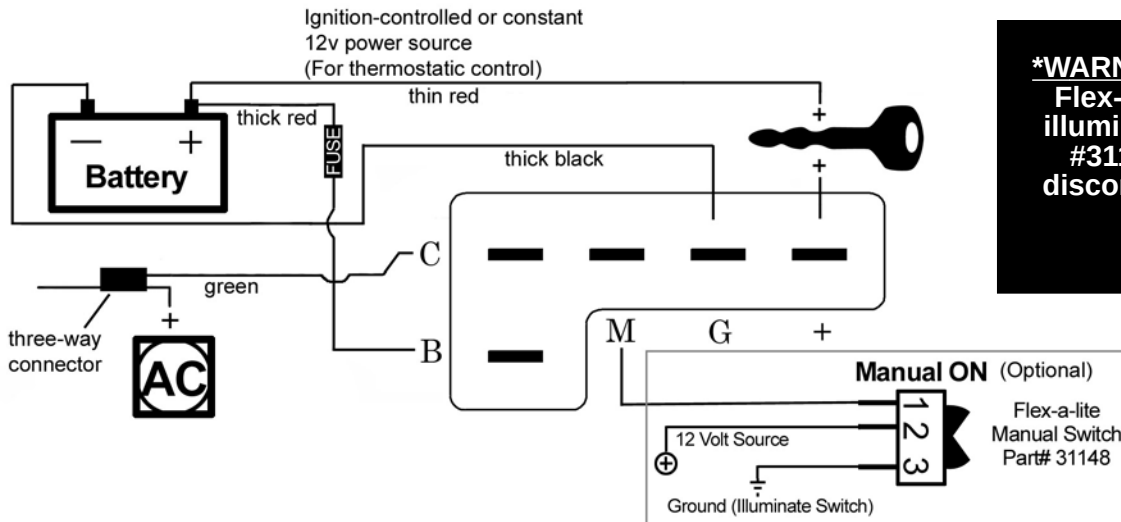
INSTALLING THE ELECTRIC FAN TO THE RADIATOR

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.

WIRING INSTRUCTIONS; #674 with controls only

1. Disconnect the battery Negative (-) terminal
2. Connect the "B" terminal on the control to the 12 volt positive (+) battery terminal using the thick red wire and fuse holder provided in the kit.
3. Connect the "G" terminal on the control to battery negative (ground -) terminal using the thick black wire provided in the kit. (Do not install fuse at this time)
4. Connect the "+" terminal of the control box to a keyed 12 volt 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. Attach this wire to a constant source to keep the fan running after the vehicle is shut off.
5. **If you have air conditioning:** With the 3-way connector provided, pass the A/C clutch positive(+) wire (connected to the A/C compressor) through the connector. Place the 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 temp. probe through radiator core near the upper (inlet) hose. Install rubber cap over end of probe.

WIRING DIAGRAM - MODEL 674



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

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

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 slightly 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.

WIRING INSTRUCTIONS; #684 with out controls

1. Wire the fan motor to power source (control unit or switch and relay if desired). Connect the **Blue** wire from the fan motor to a 12v. positive (+) source. Connect the **Black** motor wire to a ground (-) source.
NOTE: Failure to do this will result in incorrect operation and damage to the fan motor!
2. **Connect an inline fuse holder;** Be shure to connect a fuse holder in-line with the positive (+) power wire to protect the fan motor and your vehicle's electrical system from damage.

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 limitaion 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.