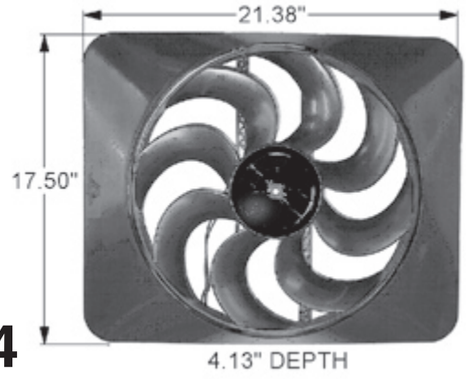



# 24 Volt, Universal Fit; Pt. #18024

# INSTALLATION INSTRUCTIONS

## *REMOVAL OF EXISTING FAN AND SHROUD:*

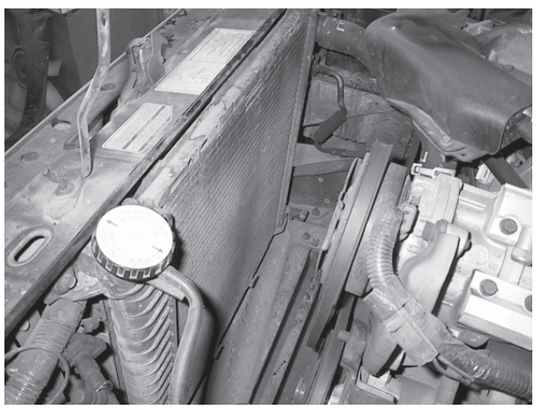
1. **Make sure the engine is cool.**
2. Disconnect negative (-) battery cable from battery of system.
3. Remove existing fan and shroud if needed.

**Remove the original fan...**

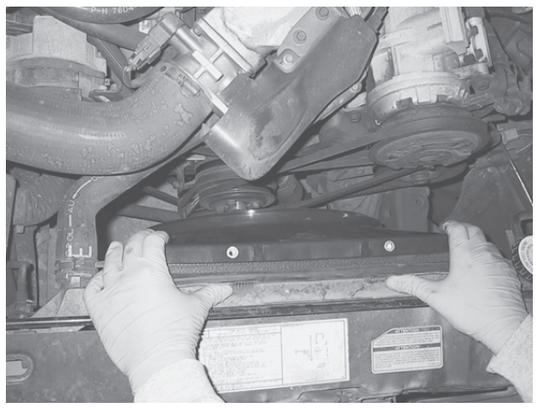
**and shroud**

## *INSTALLATION OF NEW ELECTRIC FAN SHROUD:*

4. Check fit of new fan assembly. Hold, or have a friend hold the fan in place while checking for possible obstructions that may interfere with the blades or shroud. It may be necessary to move or tie back small hoses or wires. If the fan does not fit at this point, additional modifications or a different Flex-a-lite fan may be required.



**When you have a clear path...**



**test fit and check for obstructions.**

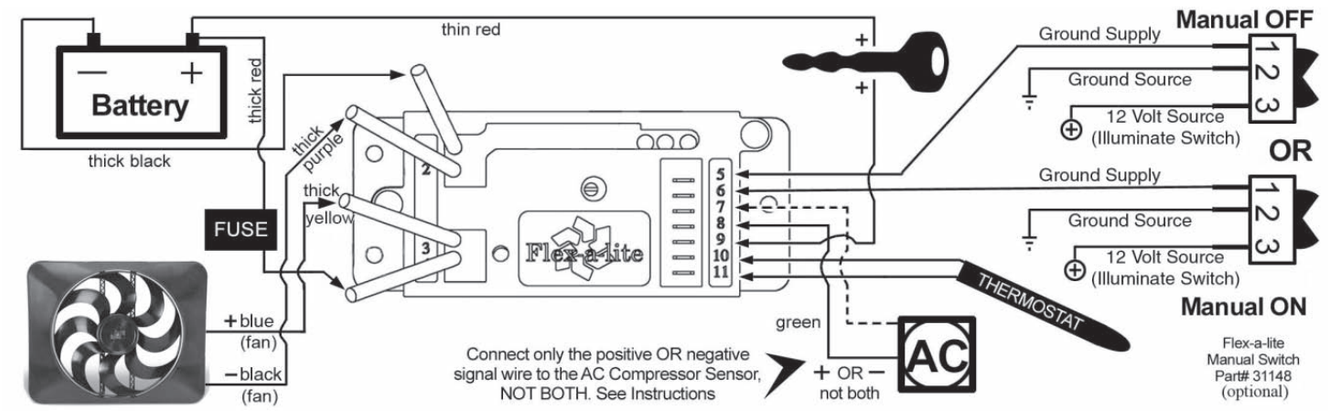
4. Mount the fan assembly to the radiator. Look for at least four potential mounting points that are able to support the weight of the fan. Cross braces, radiator trays, front facia, and radiator mounting points are all possible mounting points. Use the universal brackets and hardware kit supplied to hold the fan against the radiator core. On some applications, the brackets may need to be cut or modified to fit. Additional holes may need to be drilled as well.

5. Put the fan into place. Before tightening the brackets, adjust the fan so that the rubber seal is contacting the radiator core and compress the seal about 50%. It may help to have an assistant hold the fan against the core while tightening brackets.

## WIRING INSTRUCTIONS

***Puller Configuration:*** (as shipped from the manufacture) Connect the Blue wire from the fan motor to the yellow VSC wire. Connect the Black motor wire to the purple VSC wire.

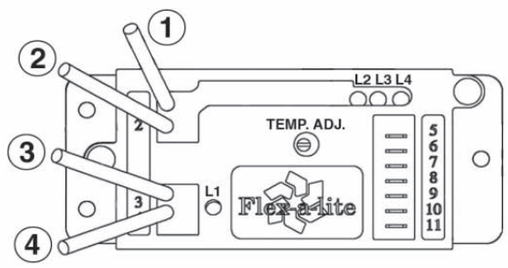
***Pusher Configuration:*** (reverse airflow) Start by removing the fan blade retaining clip located on front hub at the motor shaft. Then remove the fan blade and pentagon washers, flip blade and washers over. Reinstall the pentagon washers and fan blade. Make sure the flat on the motor shaft is aligned with the flat on the blade and washers. When re-installing the retaining clip, be sure the open end of the clip is on the flat side of the motor shaft. Note; Be sure pentagon washers are seated properly into fan blade.
Connect the Black wire from the fan motor to the yellow VSC wire. Connect the Blue motor wire to the purple VSC wire.




**WIRING CONNECTIONS**

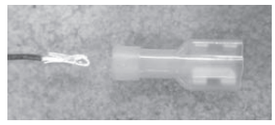
**#1 Battery Negative* (BLACK)**
**#2 Negative to Fan* (PURPLE)**
**#3 Positive to Fan* (YELLOW)**
**#4 Battery Positive* (RED)**
**#5 Negative Override Signal OFF**
**#6 Negative Override Signal ON**
**#7 A/C Compressor Negative Signal**
**#8 A/C Compressor Positive Signal**
**#9 Ignition Positive Signal***
**#10 Temp Sensor Wire***
**#11 Temp Sensor Wire***
**L1 Fan Output Indicator**
**L2 Override Condition Indicator**
**L3 A/C Signal Indicator**
**L4 Ignition Signal Indicator**

*** mandatory connections**

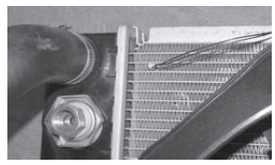



1. Find the thick red and black wire in the kit. Determine the length needed to connect the red and black power leads on the VSC to the battery terminals and trim appropriately. Crimp a large yellow ring connector to the end of the black wire and connect to the negative (-) battery terminal. Connect the other end to the black wire on the VSC with a large butt connector (yellow sleeve).
2. Locate the fuse holder. **DO NOT INSTALL THE FUSE UNTIL ALL THE WIRING IS COMPLETE**. Attach a large ring connector to one end and a yellow insulated butt connector to the other end of the fuse holder. Attach the ring connector to the positive (+) terminal of the battery and connect the other end to the thick red wire found in the kit. Determine the length of wire needed to reach from the fuse holder to the red wire on the VSC and trim appropriately. Use a yellow insulated butt connector to connect this wire to the red wire on the VSC. You may use the 2 small screws to mount the fuse holder if desired.
3. Find a circuit that is "hot," preferably in a fuse box, when the key is in the "ON" position. ***Nothing that is directly linked to the ignition, computer system, or transmission.*** Attach the included fuse tap to fuse. Attach a pink female connector to one end of the thin red wire (included) and connect to fuse tap. Determine length of wire needed to reach VSC and trim to appropriate length. Attach a pink female connector to the end of the wire and connect to terminal #9 on VSC.
4. Locate wires going to the A/C compressor. Determine length of supplied thin green wire needed to reach VSC from the A/C compressor and trim to length. Determine which wire is ground and which wire is positive by using a volt meter.
   If the A/C compressor is activated by a positive (+) signal;
   - Connect the positive wire to the supplied thin green wire by use of a piggyback connector. Attach a pink female connector to other end of thin green wire then attach connector to terminal #8 on VSC.

   If the A/C compressor is activated by a negative (-) signal;
   - Connect the negative wire to the supplied thin green wire by use of a piggyback connector. Attach a pink female connector to other end of thin green wire then attach connector to terminal #7 on VSC.



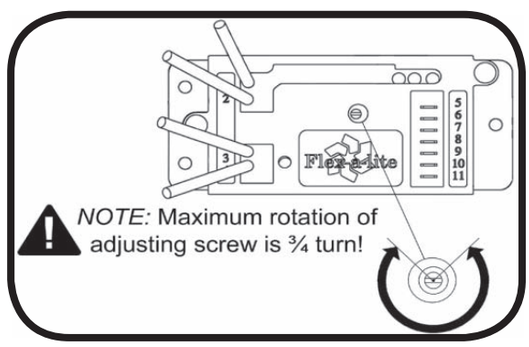
5. Locate temperature probe. Gently push the probe through fins in radiator as close to the upper radiator hose as possible with ¼"-½" of the probe protruding out of the front of the core. Install the rubber cap on the front side of the probe (if possible). This will give the VSC the most accurate engine temperature reading. Determine length of wire needed to reach VSC. **IMPORTANT:** Strip the insulation on the temperature probe wires back about 1" and fold the wire on itself to effectively double the thickness of the wire before connecting spade connectors. Then attach these wires to terminals #10 & #11. Both wires need to be connected, but it doesn't matter which wire goes to each terminal.



6. If manual switches (Flex-a-lite #31148) have been purchased, attach them as following. To override engine temperature to turn fans off, connect the switch to terminal #5 on VSC to send a ground signal. To override engine temperature to turn fans on, connect the switch to terminal #6 on the VSC so that a ground signal is sent.

## Initial Set-up and Adjustment

1. Turn ignition on. After 5-6 seconds, LED #4 should light up. If not, check to make sure that you have 12 Volts at terminal #9 on VSC. The delay is to allow starter to start the vehicle without the fans drawing any power.
2. With your engine running, engage the A/C. Your fans should come on and cycle with the A/C clutch. LED's #1, 3 and 4 should be lit when fans are running. If they do not turn on, verify that the A/C clutch is engaged and make sure that you have the appropriate wire connected to correct terminal on the VSC. Shut off A/C and let engine continue to idle until you reach operating temperature.




3. Verify that operating temperature has been reached by feeling upper radiator hose. Hot water should be flowing through hose into the radiator. Adjust the screw on the VSC counterclockwise for a cooler setting or clockwise for a warmer setting. Once desired temperature is set, let engine continue to idle to make sure the fans will cycle to maintain desired temperature. When fans are running, LED's #1 and 4 should be lit.