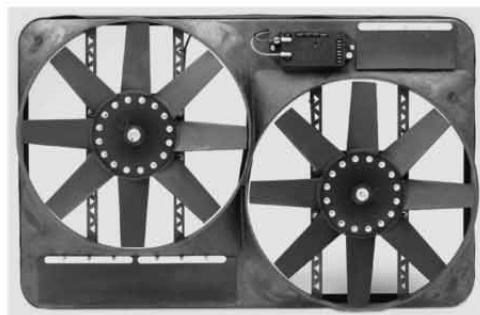




# 295

## Dual Electric Fan



The brackets provided with this kit are intended to mount the electric fan to the radiator. Due to the number of variances between vehicles, additional brackets may be required for your application.

### -----INSTALLATION INSTRUCTIONS-----

#### REMOVE EXISTING FAN & SHROUD ASSEMBLY:

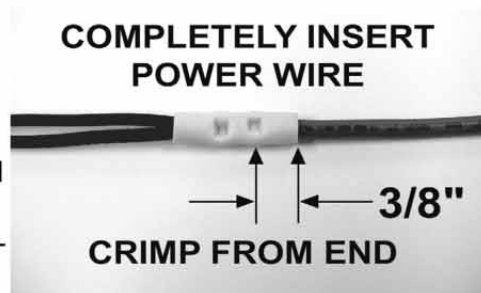
1. Remove plastic radiator cover, and top half of fan shroud (some shrouds are a single piece).
2. Remove fan and clutch assembly. If clutch is mounted to pulley, replace the nuts or bolts that hold the pulley on after clutch removal. The clutch may be mounted by a large single nut. It may be possible to remove this clutch by fitting a large wrench to the nut. Place a rag over the fan to avoid personal injury. Hold the fan in place and pull the wrench in the direction of rotation. It may help to give the end of the wrench a sharp strike from a soft-blow hammer to break the nut free without the pulley slipping.
3. Remove the lower shroud.

#### ASSEMBLE THE ELECTRIC FAN:

1. Look at the vehicle construction around the radiator for potential mounting points. Mounting points for the fan serves two purposes: to carry the weight of the fan and to hold the fan against the radiator core.
2. Flex-a-lite does not recommend mounting the brackets to the radiator core so that the core carries the weight of the fan. In some applications, this can cause damage to the radiator core. Cross braces, radiator trays, front facia, and radiator-mounting points are possible mounting points for these brackets.
3. Locate at least four points to mount the fan to the vehicle that will support the weight and secure the fan to the radiator.

#### MOUNT AND WIRE THE VARIABLE SPEED CONTROL (VSC)

1. Careful planning will save time. Look at the wires coming from the motors. Drill a 1/4" hole through the center-brace in the shroud to pass the wires through (*see Detail A*).
2. Strip back all 4 motor wires so at least 3/8" bare wire is exposed. Twist tightly both positive motor wires. Crimp yellow butt connector onto the twisted motor wires. Repeat with both negative wires by twisting together tightly and crimp one yellow butt connector to wires. (*see Detail A & C*)
3. It is easiest to attach the Variable Speed Controller directly onto the face of the shroud in the center. Using the VSC for a template, drill two 5/32" holes into the shroud. Then secure the VSC with the 2 screws provided.
4. Drill two 1/4" holes in the shroud where the thick purple and yellow wires from the VSC will pass through to the back side of the shroud (*see Detail B*). Pass the purple and yellow wires through the holes. **IMPORTANT: Crimp the thick yellow wire to the butt connector that has both red motor wires. Crimp the thick purple wire into the yellow butt connector that has both black motor wires. (see Detail C) This will ensure that the fans spins in the proper direction.**
5. Attach fan assembly to points located previously in "Assemble the Electric Fan" instructions. Make sure fan seal is contacting radiator surface and is compressed 50%.
6. 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).

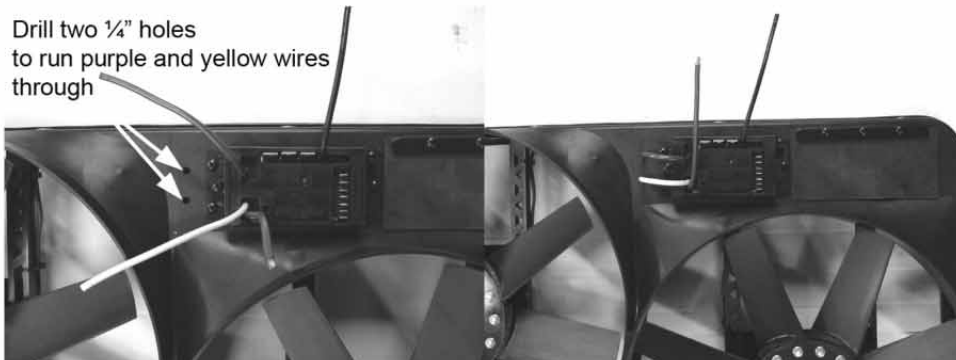


Detail C

Detail A



Detail B



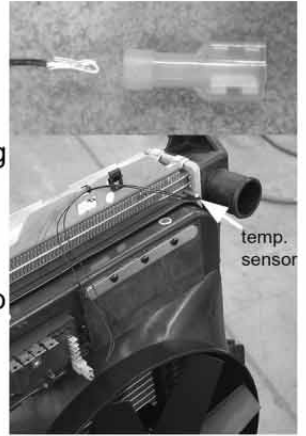
CONTINUE TO BACK SIDE TO COMPLETE THE INSTALLATION

#### 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.

- Locate the fuse holder but **DO NOT INSTALL THE FUSE UNTIL ALL 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.
- Find a circuit that is "hot," preferably in a fuse box, when the key is in the "ON" position. 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.
- Locate wires going to A/C clutch. Determine which wire is ground and which is positive. Determine if the clutch is activated by a positive or negative signal. Then attach supplied thin green wire by way of a piggyback connector to the wire that activates clutch. If the wire is a positive signal, attach the wire to **terminal #8** on the VSC. If it's a negative signal, attach the wire to **terminal #7** on the VSC. Only one terminal will be used, not both.
- Locate temperature probe. Gently push the probe through fins in radiator as close to the upper radiator hose as possible with 1/4"-1/2" 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.
- If manual switches (Flex-a-lite #31148) have been purchased, attach them as follows. 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.



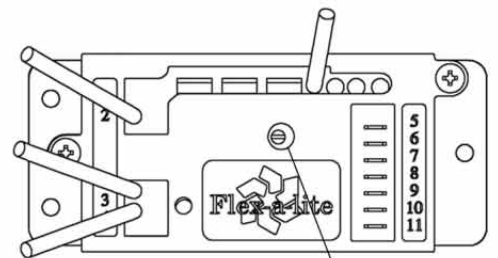
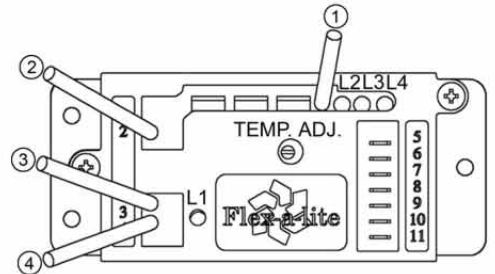
### Initial Set-up and Adjustment

- 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.
- 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.
- 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.

### WIRING CONNECTIONS

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

\* mandatory connections



### The Variable Speed Control has new features:

When you set the on Temperature, the fans will come on at 60%; this reduces the load on your charging system. If the temperature rises, the fan speed will increase. If your set temperature is 185° F, then between 185° and 195° the fan speed will increase from 60% to 100%. So after a 10° rise from the set point, the fans will be running at 100%.

