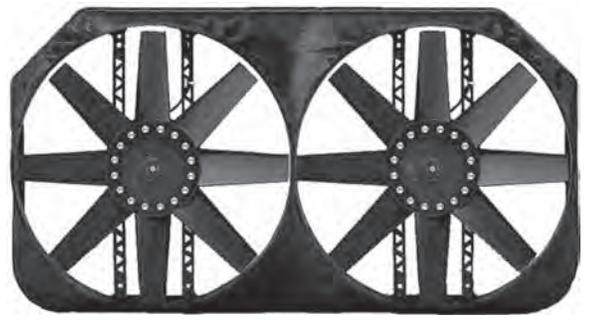




270



Monster Fan

Fits 1997-2004 Ford 150, 250 (non Super Duty), Lightning, Expedition & Navigator INSTALLATION INSTRUCTIONS

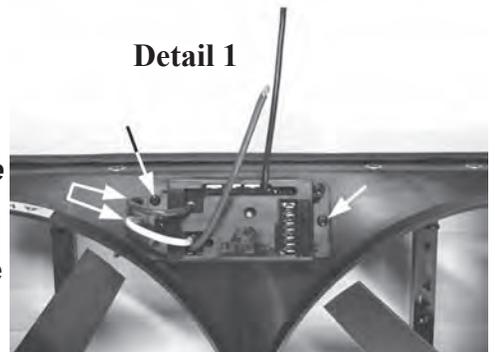
! FOLLOW INSTRUCTIONS CAREFULLY TO AVOID PERSONAL INJURY AND/OR DAMAGE TO THE FAN CONTROL UNIT! WHEN WIRING THE FAN ASSEMBLY, ALWAYS USE A QUALITY CRIMPING TOOL. DO NOT USE PLIERS OR OTHER DEVICES!

REMOVE EXISTING FAN & CLUTCH ASSEMBLY:

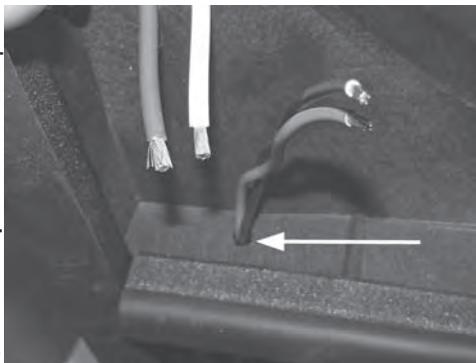
1. Remove plastic radiator cover and push-screws (push-screws may have to be pried out). Lightning owners will need to remove the bolt holding the intercooler reservoir and move the reservoir out of the way. **Save the push screws and reservoir bolt.**
2. Remove fan and clutch assembly. Place a rag over the fan to prevent injury.

MOUNTING AND WIRING THE VARIABLE SPEED CONTROL (VSC):

1. The VSC can be mounted on the front face on the shroud. Using the VSC as a template, mark locations for two holes, then drill $\frac{5}{32}$ " holes for mounting the control onto the shroud. Use the two screws provided in the VSC kit (see **Detail 1**).
2. Drill two $\frac{1}{4}$ " holes to the left of the VSC to pass the yellow and purple wires through to the back side of the shroud (see **Detail 1**). Drill one $\frac{1}{4}$ " hole in the support rib on the back side of the shroud to pass the motor wires through (see **Detail 2**).



3. Crimp blue bullet connectors on the ends of the **motor wires**. Insert the bullet connectors in the double end of the 2 to 1 black snap plug. Place the positive leads in the same connector, and the negative leads in the other. **The red motor wire is (+) positive and the black is (-) negative.**

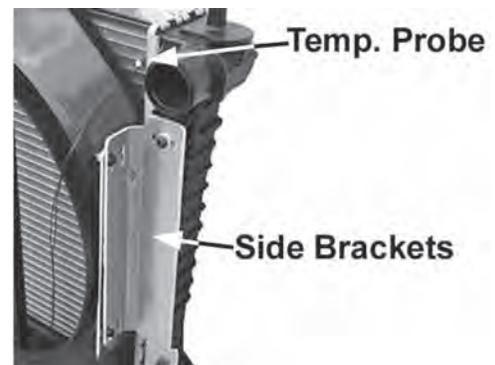


4. Feed the thick purple and yellow wires from the control unit through the holes you drilled in step 2. Crimp a large non-insulated bullet connector to the end of each. **Plug the yellow wire into the two red motor wires, and the purple wire into the two black motor wires.** Zip tie the wires so that they are clear of the fan blade (see **Detail 3**).
5. Wrap the connections with electrical tape to seal them from moisture and dirt.



ELECTRIC FAN INSTALLATION:

6. Attach one mounting plate to each side of the shroud with adjustment slot on the plate at the top.
7. Attach left and right side mounting brackets loosely to the radiator.
8. Lower the fan into place and secure the side brackets to the mounting plates.
9. Select a set of mounting holes on the mounting brackets that allow for the fan to be adjusted so the bulb seal around the base of the fan will contact the radiator core. Mount the fan into place and tighten the mounting brackets to mounting plates.
10. Lightning owners can mount the reservoir bracket to the top of the shroud with the OEM reservoir bolt, after the motors have been wired to the control unit (see **Detail 4 and 5**).
11. Any unused mounting holes along the top can be plugged with the extra 6mm screws provided.
12. Inspect the engine bay and look for any hoses or hard lines that may come into contact with the fan blades through rotation. **Clearances must be at least $\frac{3}{4}$ " from the fan blades to allow for flexing, check oil lines to determine if they need to be adjusted.**



Detail 4
Detail 5
CONTINUE TO BACK SIDE TO COMPLETE THE INSTALLATION

The Flex-a-lite Limited Warranty

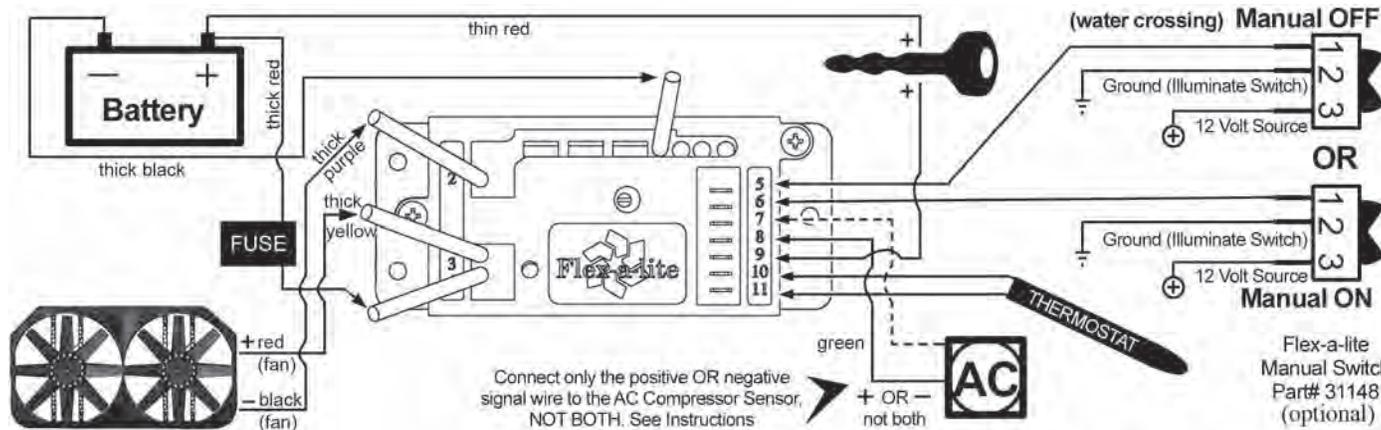
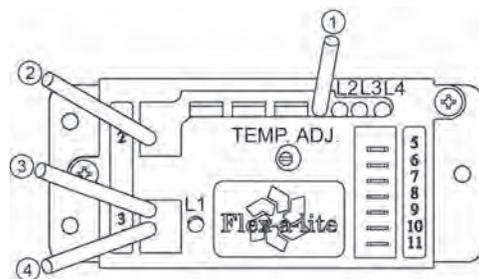
Flex-a-lite Consolidated, 7213-45th St. Ct. E., Fife, WA 98424, Telephone No. 253-922-2700, warrants to the original purchasing user, that all Flex-a-lite products to be free of defects in material and workmanship for a period of 365 days (1 year) from date of purchase. Flex-a-lite products failing within 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.

WIRING INSTRUCTIONS

WIRING CONNECTIONS

- | | |
|-----------------------------------|-----------------------------------|
| #1 Battery Negative* (BLACK) | #8 A/C Compressor Positive Signal |
| #2 Negative to Fan* (PURPLE) | #9 Ignition Positive Signal* |
| #3 Positive to Fan* (YELLOW) | #10 Temp Sensor Wire* |
| #4 Battery Positive* (RED) | #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 |

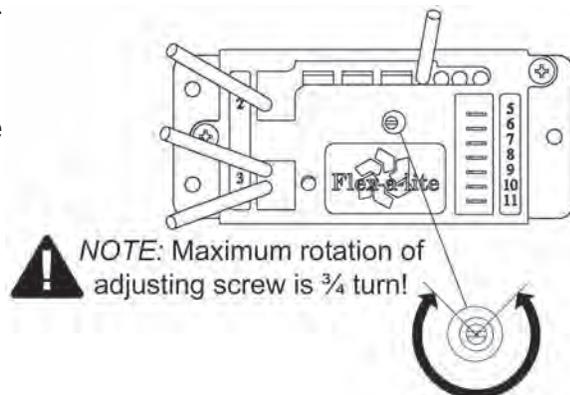
* mandatory connections



- 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).
- 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.
- 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. Then attach supplied thin green wire by way of a piggyback connector to the positive wire that activates clutch. Attach wire to **terminal #8** on the VSC. Terminal #7 will be left open for this application.
- Locate temperature probe. Gently push the probe through fins in radiator as close to the upper radiator hose as possible with $\frac{1}{4}$ "- $\frac{1}{2}$ " of the probe protruding out of the front of the core. The rubber insulating cap will not be used for this application. 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 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

- 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.



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%.