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DUAL ACTIVATION / DUAL FAN RELAY KIT WITH 185° ON 175 ° OFF THERMOSTAT INSTALLATION INSTRUCTIONS

This electric fan relay kit will operate a dual fan setup, not to exceed 40 amps each. The relays will activate the electric fans if the thermostat reaches 185 degrees Fahrenheit or if the A/C compressor clutch is engaged.

Additional instructions are provided for those with fuel injected vehicles equipped with an ECM that has cooling fan activation capabilities.

1. Mount the relays under the hood in a convenient location as close to the fan as possible. Use the 1/2" self tapping hex screws to mount the relay bases.
2. The black wire with the ring terminal preinstalled will also need to be connected to a ground source. Make sure the area you mount this provides a clean ground.

For those using an ECM to activate the fans see the instructions on the following page on what to do with the "TEMP SENSOR "wires. It will be up to you, the installer, to determine if your ECM has these capabilities. It will also be the installer's duties to determine if their ECM has a single or dual (HI / LOW) activation and which pins of the ECM control cooling fan activation. If you are using an ECM to activate the fans, skip to step 4.

3. Install the thermostat into a water jacket in the head or intake manifold. Do not use any kind of sealant as it could hinder the ground the thermostat requires from the engine. Route the 2 black wires labeled "Temp Sensor" to the installed thermostat. Strip ¼" of insulation from the copper on both wires. Crimp the female spade connectors onto each of these wires. Push the spade connectors onto each of the male spades on the thermostat. It does not matter which wire goes where.
4. Route the Black wire labeled "A/C Compressor" to the A/C compressor clutch. Use a splice provided with this kit to connect this wire to the 12 Volt power wire that activates the A/C compressor clutch.
5. Use two self tapping hex head screws to mount the fuse holder as close as possible to whichever power source (battery or large terminal on the starter solenoid) you are using to provide power to the Fans. Remove the nuts and washers and install the 70 amp fuse included with the kit.
6. Route the red wire labeled "Battery" to one side of the fuse. Cut to length and install using one of the yellow ring terminals. Take the remaining length of red wire you cut and connect the opposite side of the fuse to the battery source.

7. Route the 2 groups of wires labeled “Fan #1/Low” and “Fan #2/High” from the relay to the electric fan motors. The red wires connect to the power side of the fans, and the black wire will connect to the ground side of the fans. The connectors provided with the kit fit the popular General Motors LT1/LS1 dual cooling fan assembly being retro fitted into other vehicles.

ECM ACTIVATION

1. Follow the 2 black wires labeled “Temp Sensor” back to the relays. One black wire will go back to a splice with 4 other black wires; this is the ground splice for the relay kit. This ground wire to the temp sensor is not needed; it can be cut at the splice, or rolled up and stowed away.
2. The other black wire in the “Temp Sensor” group will go back to a splice at the relays with a green wire and a blue wire. If you only have a single activation wire from your ECM, this black wire will need to connect to this single ground activation wire coming from the ECM; see **Figure 1**. If you have 2 wires, High and Low activation, coming from your ECM, this splice will need to be cut to separate the blue and green wires going to the relays. Using the splices provided, connect the “LOW” wire from your ECM to the Green wire going to the relay, green in the common GM color code for a “LOW” fan activation wire. Connect the “HIGH” wire from the ECM to the blue wire going to the relay, blue in the common GM color code for a “HIGH” fan activation wire. This will activate each fan individually according to the High and Low commands coming from the ECM; see **Figure 2**. Both fans will activate when the A/C compressor is activated.

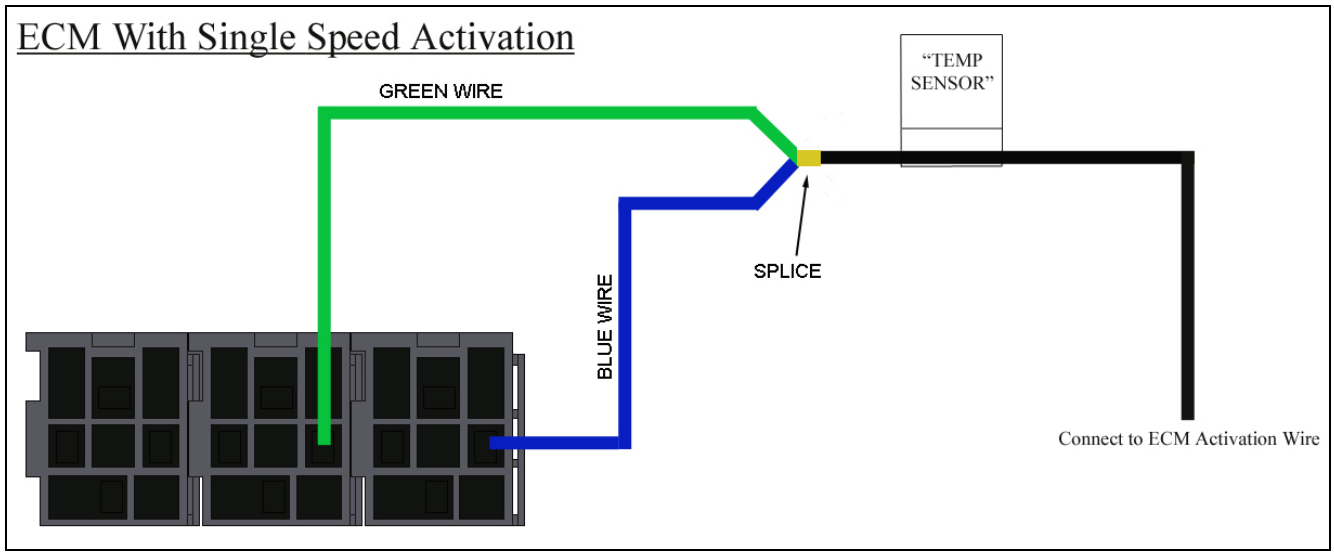

Figure 1

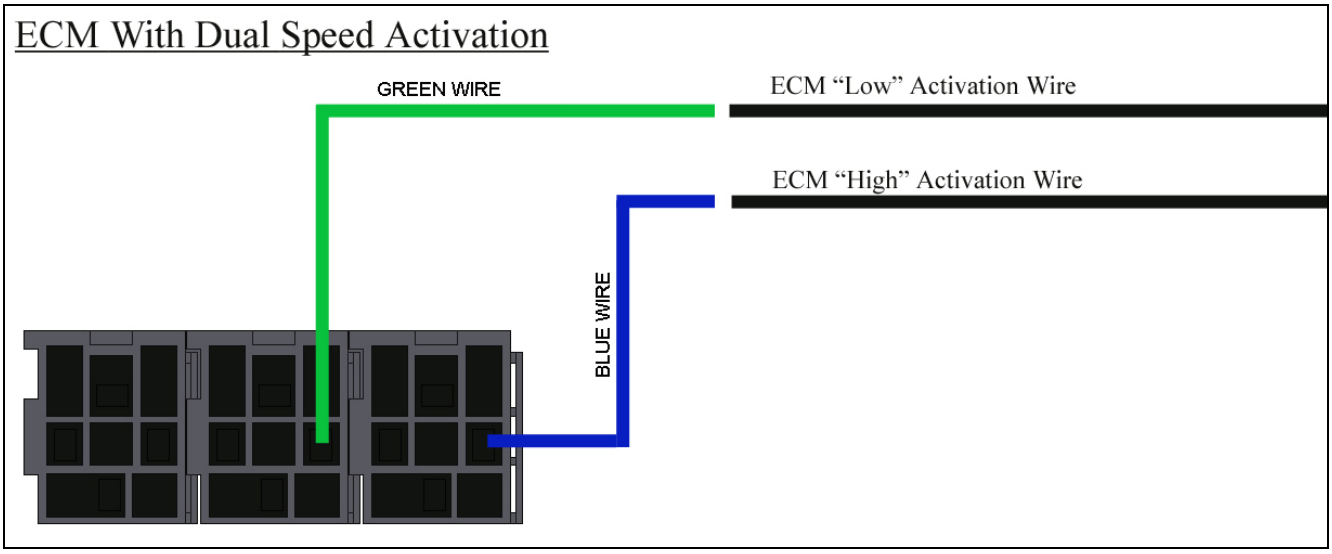

Figure 2

Painless Performance Limited Warranty and Return Policy

Chassis harnesses and fuel injection harnesses are covered under a lifetime warranty. All other products manufactured and/or sold by Painless Performance are warranted to the original purchaser to be free from defects in material and workmanship under normal use. Painless Performance will repair or replace defective products without charge during the first 12 months from the purchase date. No products will be considered for warranty without a copy of the purchase receipt showing the sellers name, address and date of purchase. You must return the product to the dealer you purchased it from to initiate warranty procedures