

# INSTALLATION INSTRUCTIONS HIGH OUTPUT SINGLE RAD FANS PART # 16212, 16214, 16217

**Diagram #1** 

Puller Fan

Engine Note: Pusher or Puller, fan wires should always be mounted facing the engine of the vehicle.

Pusher Fan

Radiator

Air Flow

Please read these instructions completely before beginning installation

### **KIT CONTENTS** QTY. DESCRIPTION

QTY. DESCRIPTION High output RAD fan 1

4

4

8

- 4 Straight splined
- ratchet brackets

Rubber isolators

4 Mounting rods 4 Mounting clips

4

M6 flat washers 8 8

Foam pads

- M6 square nuts
- M6 hex lock nuts Δ
- M6 x 35mm socket head Bolts M6 x 12mm Hex head Bolts 4

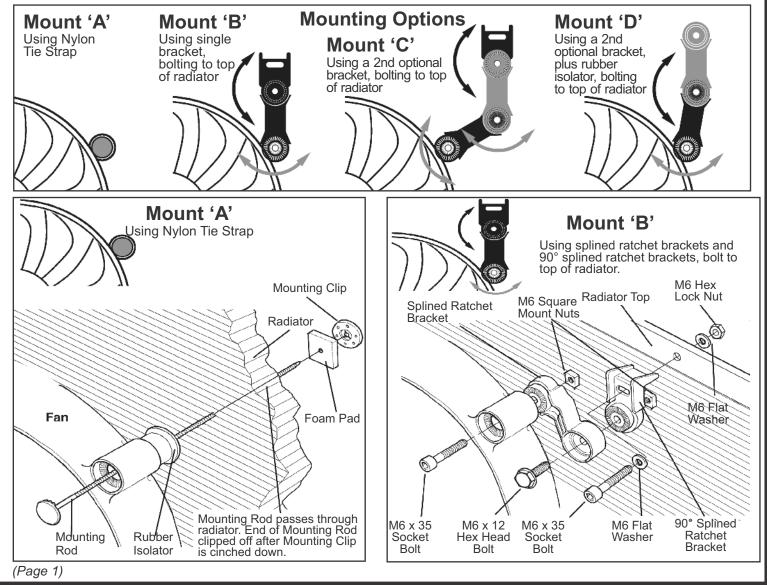
90° splined ratchet brackets

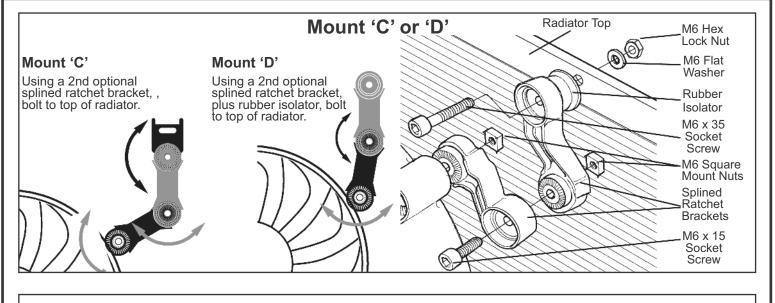
### IMPORTANT

This fan assembly is designed for both PULLER and PUSHER APPLICATIONS. (See Diagram #1)

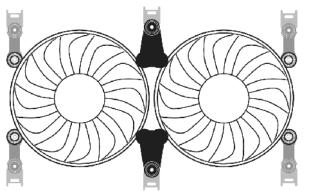
### **ELECTRIC FAN MOUNTING**

This Electric Fan was designed with a unique symmetrical design, therefore when switching from a Puller to a Pusher application there is no flipping blades or reversing wires as on other reversible models. Simply mount the fan either in front or back of the radiator making sure the airflow direction arrow on the fan shroud label is pointed towards the engine.





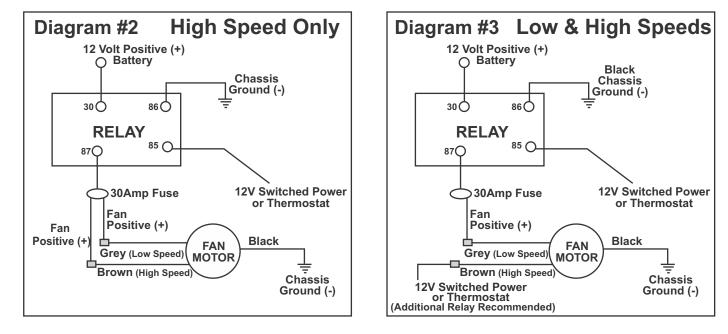
Two fans can be mounted side by side to provide a larger cooling area. Order an extra fan: Part No. 162XX Series and Dual Mount Kit: Part No. 16200 See reverse for detail on mounting diagrams and wiring instructions



### <u>WIRING</u>

**Important:** The Electric Fan Assembly is built using a High Output two speed motor. If you choose to operate the fan using both speeds, two switching devices or a Derale Dual Fan Controller Part # 16788 or 16789 is recommended. (See Diagram #2 & 3)

### WIRING DIAGRAM WITH RELAY (RELAY NOT SUPPLIED)



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### WIRE COLOR DESIGNATIONS

Black Wire - Ground (-) Grey Wire - Low Speed 12V positive (+) Brown Wire - High Speed 12V positive (+)

# STANDARD WIRING

Using High & Low Speeds	
Black - Ground	Θ
Gray - Low Speed 🔤 🔤	$\oplus$
Brown - High Speed 🔤 💳	$\oplus$

Using Low Speed Only Black - Ground Gray - Low Speed Brown - High Speed

Θ

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Using High Speed Only - Connect both Grey and Brown wires together to the same 12V positive (+) source Using Both Low and High Speeds - Connect Grey wire to Switch #1, 12V positive (+) source. - Connect Brown wire to Switch #2, 12V positive (+) source.

Important: Low speed must be activated prior to high speed activation

# WIRING OPTIONS

There are a few options on how to activate (turn on) your new Electric Fan Assembly.

- 1. Manual Switch with Relay Install a switch in the passenger compartment and turn on Electric Fan as desired.
- 2. Electric Fan Thermostat Switch
  - A. Adjustable Thermostat Allows an adjustment range for you to determine optimal turn on temperature.
  - B. Pre Determined Temperature Thermostat has a pre determined temp. from the factory that determines turn on temp.

We recommend activating the low speed at an earlier temperature then the high speed. Please visit www.derale.com for available thermostat options or visit your local retailer.

**Note:** When purchasing a thermostat always consider the maximum amp draw. Some thermostats are not designed to properly handle higher amperage fans. When installing the Electric Fan with a Thermostat always follow manufacturer's instructions for specific details.

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**Warning:** Installation of accessories should only be undertaken by those with mechanical knowledge and are familiar with working on vehicles. Always use eye protection (goggles, safety glasses or shield). Park the vehicle in a well lit area, on level ground and apply the parking brake. Only work on a cold vehicle that has been sitting overnight, failure to do so will result in severe burns and injury. Before starting the vehicle, make sure no tools or any other items are left under hood that could interfere with or be drawn into moving parts of the engine. Failure to follow instructions can lead to severe damage and personal injury.