



# INSTALLATION INSTRUCTIONS

## HIGH OUTPUT DUAL RAD FAN ASSEMBLY

### PART # 16928 & 16934

Please read these instructions completely before beginning installation

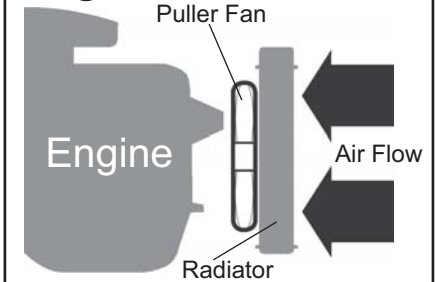
#### KIT CONTENTS

| QTY. | DESCRIPTION                | QTY. | DESCRIPTION    |
|------|----------------------------|------|----------------|
| 1    | Left Shroud Assembly       | 8    | Mounting Rods  |
| 1    | Right Shroud Assembly      | 8    | Mounting Clips |
| 4    | Fan Shroud Assembly Screws | 8    | 1x1 Foam Pads  |

#### TOOLS NEEDED

Dyke Pliers  
 5/16" Open End Wrench  
 Standard Screw Driver  
 or 5/16" Nut Driver  
 Drill  
 5/32" Drill Bit  
 12V Test Light  
 Wire Stripper  
 Crimping Tool

#### Diagram #1



#### IMPORTANT

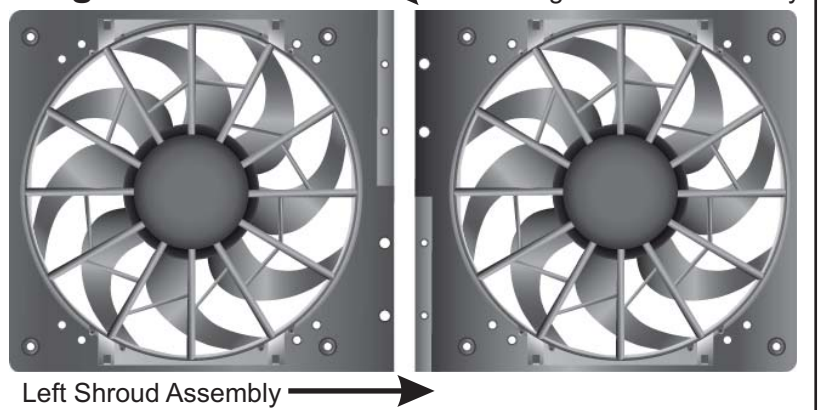
This fan assembly is designed for PULLER APPLICATIONS ONLY Engine side of radiator.  
 (See Diagram #1)

#### PRE-INSTALLATION

1. Identify the Right and Left Shroud Assembly and Fan Shroud Assembly Screws
2. Using a table or flat surface, lay both the Right & Left Shroud Assemblies on the flat surface with the fan motors both facing up.  
 (See Diagram #2)
3. Slide both shrouds together lining up the mounting holes. (See Diagram #2)
4. Carefully install the 4 Fan Shroud Assembly Screws into each of the mounting holes and tighten.

**Note:** Do not over tighten!

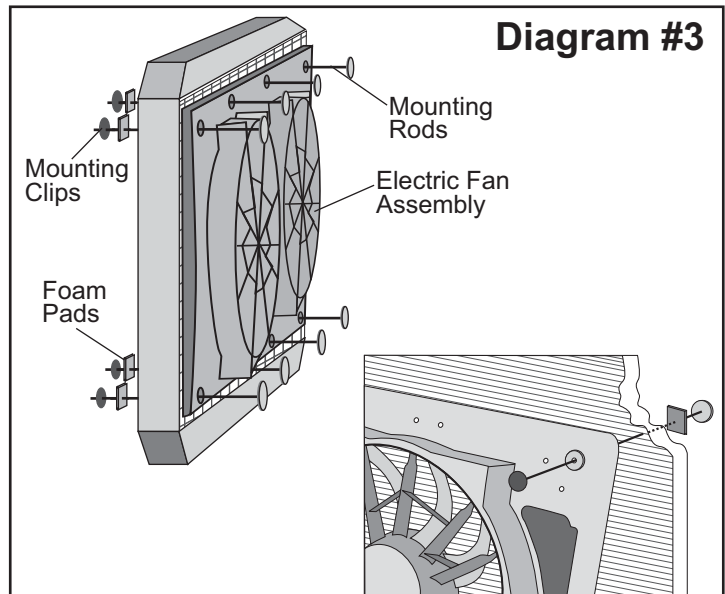
#### Diagram #2



#### MOUNTING

1. Position the electric fan against the radiator in the desired location.
  2. Take the Plastic Rods provided and install through the four mounting holes on the shroud pushing them slowly into and through the radiator core. (See Diagram #3)
- Caution:** Do not use excessive force when pushing Plastic Rods through radiator core. Excessive force could cause damage to the radiator fins and/or core. Plastic Rods should not be inserted thru both the radiator and the condenser cores.
3. Take the 1 x 1 Foam pads provided and install them onto the Plastic Rods now protruding through the radiator core. (See Diagram #3)
  4. Take the Plastic Clips provided, making sure they are in the correct direction (Derales writing out) install onto the Plastic Rods and cinch them until the 1 x 1 Foam Pads are compressed. (See Diagram #3)
  5. Cut off the excess Plastic Rod.

#### Diagram #3

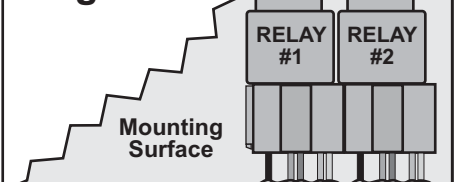


#### RELAY WIRE HARNESS MOUNTING (NOT SUPPLIED)

1. Taking into consideration fan placement and wire routing requirements, choose a convenient location. Avoid mounting near HOT engine components.
2. Using the relay bracket as a template, mark & drill a 5/32" hole in the proper location.
3. Using the #10 Sheet Metal Screws, install the relay/wire harness.  
 (See Diagram #4)

(Continues on reverse side)

#### Diagram #4



## WIRING OPTIONS

**IMPORTANT:** Due to the high amperage of each individual RAD fan on the Dual RAD Fan Assembly, each fan **MUST** be switched\* individually. Failure to use two different switching devices could cause damage to your vehicle and/or your new Electric Fan Assembly.

\* Switched - Utilizing an automotive rated thermostat or manual switch

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

1. Manual Switch - 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 using two thermostats therefore activating Fan #1 at an earlier temperature than Fan #2. This will help spread the major amp draw on your vehicles electrical system. Please visit [www.derales.com](http://www.derales.com) for available thermostat options or visit your local retailer.

**Important:** When purchasing a thermostat always consider the maximum amp draw. Some thermostats are not designed to properly handle 25 amps.

**Note:** When installing the Electric Fan with a Thermostat always follow manufacturer's instructions for specific details. In some cases you will not need the supplied relay harness.

## WIRING INSTALLATION USING RELAY(S) (NOT SUPPLIED)

Repeat for both Fan #1 and Fan #2

**RED Wire** - Attach to the Positive side of Battery (+)

**BLACK Wire** - Attach to a good Chassis ground (-)

**ORANGE Wire** - Attach to a 30 Amp fused Circuit (Fuse not included), after the fuse connection attach to the BLUE Positive Electric Fan Lead (Fan +)

**YELLOW Wire** - Attach to (+) 12V Switched Power (Thermostat or Manual Switch)

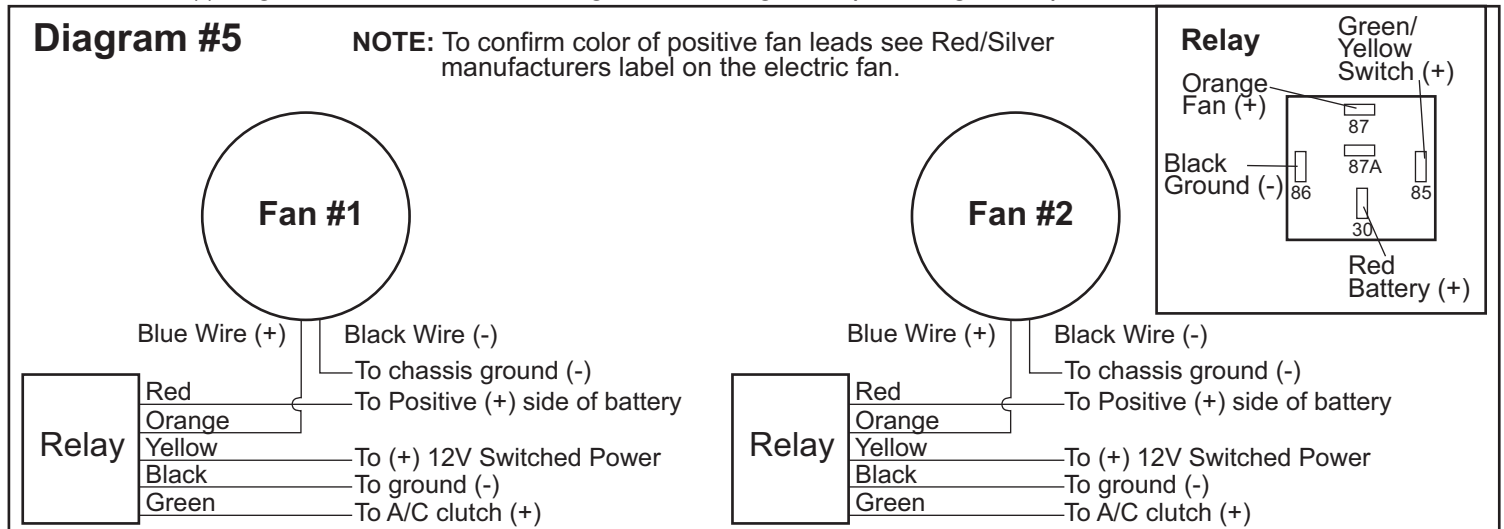
**GREEN Wire\*** - (OPTIONAL) Attach to the Positive feed from the A/C Clutch

\*This wire will allow you to turn on the Electric Fan every time the vehicles air conditioning is turned on. If you do not wish to use this option, please disregard the Green wire.

## ELECTRIC FAN

**BLUE Wire** - (+) Positive Fan lead Attach to the ORANGE wire coming from the relay harness

**BLACK Wire** - (-) Negative Fan Lead Attach to a good Chassis ground (See Diagram #5)



## TROUBLESHOOTING Q&A

Q: Why is the fan(s) blowing in the wrong direction?

A: Switch the Positive (+) and Negative (-) fan leads. This will reverse the airflow direction.

Q: Why doesn't the fan(s) turn on?

A: 1. Check all connections to make sure all contacts are crimped correctly.

2. Check all Ground (-) connections to make sure all paint is sanded off and you are getting a metal to metal contact.

Q: I have checked all connections and fan still will not turn on?

A: Take the GREEN wire and temporarily attach it to the positive side of the battery. This should activate the fan.

If the fan comes on there most likely is a problem with the connection on the YELLOW wire/Manual Switch/Thermostat.

If the fan does not come on remove relay and reinstall making sure it is seated correctly.

**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.