



# INSTALLATION INSTRUCTIONS FOR BELT DRIVEN FANS

Please read these instructions completely before starting the installation.

## KIT CONTENTS

QTY.	DESCRIPTION
1	Belt Driven Fan

## TOOLS NEEDED

Ratchet & Socket Set	Open End Wrenches
Torque Wrench	

## PRE-INSTALLATION

1. Place the vehicle in PARK and apply the Emergency Brake.
2. Remove the current fan by removing the 4 mounting bolts affixing the fan assembly to the water pump. (in some cases the fan shroud will have to be removed for installation.)
3. Inspect the current bolts, lock washers, fan spacer, fan clutch, etc.,. It is highly recommended that you replace components with brand new components to assure a balanced system.
4. Clean the pulley surface to ensure that it is free from debris or loose material that could prevent the new assembly from seating correctly.
5. Using Diagram #1, measure the vehicle to assure the proper critical clearances.
6. Proceed to installation

## DIRECT DRIVE FAN INSTALLATION

1. Measure the water pump pilot nose on the front of the water pump to determine the size. (5/8" & 3/4" are most common sizes). Most fan spacers come with a brass bushing that will be used for 5/8" pilot shafts and removed when a 3/4" pilot applies. See Fan Spacer listing on reverse.
2. Measure the depth from the water pump to the radiator to determine the proper fan spacer needed to meet the minimum clearance requirements. (See Diagram #1)
3. Using new bolts and lock washers, install fan spacer and fan onto water pump, aligning slotted openings with the bolt circle on the pump. The fan will be stamped with a "FRONT" and "BACK" logo on the fan hub, be sure to install fan with the word "FRONT" facing the radiator.
4. Torque bolts to 18-20 ft/lbs.

**Note:** This Belt Driven Fan is equipped with a 5/8" Pilot.

**Warning:** Proper balance is critical, be sure to use the proper fan spacer to ensure a safe installation.

**TIP:** Thread each bolt by hand to eliminate cross threading. Always tighten in a cross pattern.

## FAN CLUTCH FAN REMOVAL / INSTALLATION

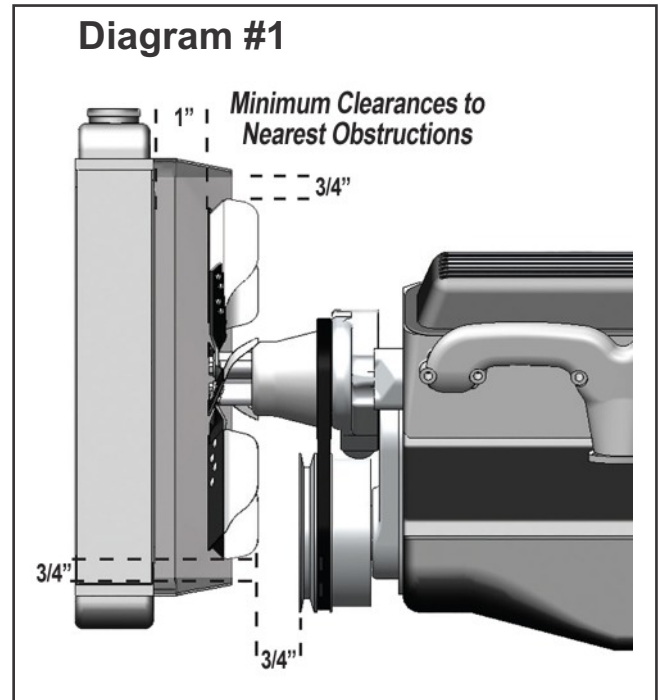
Fan Clutches come in both Bolt-on and thread-on hubs, if your vehicle is equipped with a thread-on hub, determine the engine rotation and follow below instructions to remove.

Clockwise Fan Clutches. Left hand thread. Turn clockwise to remove.

Counter-clockwise Fan Clutches. Right hand thread. Turn counter-clockwise to remove

## FAN INSTALLATION TO FAN CLUTCH

1. Position the fan onto the fan clutch making sure the fan seats properly and mates completely flat to the surface of the clutch.
2. Using new bolts and lock washers, install and tighten. See reverse for proper torque specifications.



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**Warning:** Over tightening can strip the threads from the fan clutch holes.

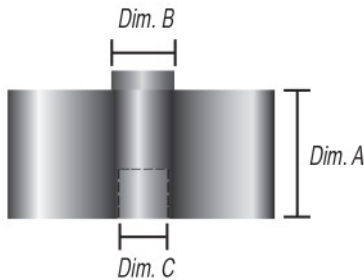
Size/Length	Grade	Torque
5/16"-18 x 5/8"	Grade 5 Minimum	18 ft/lbs
10mm x 1.5 x 13mm	8.8 Minimum	18 ft/lbs
6mm x 1.0 x 13mm	8.8 Minimum	12 ft/lbs

## FAN / CLUTCH ASSEMBLY INSTALLATION

1. If required, slide the reducer bushing (supplied with fan clutch) over the water pump pilot. Failure to install the bushing onto the water pump pilot will result in severe vibration and damage to the vehicle.
2. Install the bolts or nuts that attach the fan clutch to the water pump. Always use lock washers to ensure a secure installation.
3. Tighten hardware making sure that the fan clutch flange seats fully against the water pump flange.
4. Torque bolts to 18-20 ft/lbs

**Note:** if your vehicle has a Thread-on fan clutch, refer to owner's manual for proper torque specifications.

## DERALE FAN SPACER LISTING



Part No.	Dim. A (Length)	Dim. B (Male Pilot Diameter)	Dim. C (Female Pilot Diameter)	Bolts (4 each)	Flange
31500	1/2"	5/8"	5/8"	5/16-18 / 5/16-24	1 3/4"-2 1/4"
31510	1"	5/8"	5/8" or 3/4"	5/16-18 / 5/16-24	1 3/4"-2 1/4"
31515	1 1/2"	5/8"	5/8" or 3/4"	5/16-18 / 5/16-24	1 3/4"-2 1/4"
31518	1 3/4"	5/8"	5/8" or 3/4"	5/16-18 / 5/16-24	1 3/4"-2 1/4"
31520	2"	5/8"	5/8" or 3/4"	5/16-18 / 5/16-24	1 3/4"-2 1/4"
31521	2"	5/8"	5/8" or 3/4"	8mm x 1.25	1 3/4"-2 1/4"
31540	2 1/4"	5/8"	5/8" or 3/4"	5/16-18 / 5/16-24	1 3/4"-2 1/4"
31547	2 1/4"	5/8"	5/8" or 3/4"	6mm x 1.00 / 8mm x 1.25	1 3/4"-2 1/4"
31550	2 1/2"	5/8"	5/8" or 3/4"	5/16-18 / 5/16-24	1 3/4"-2 1/4"

**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.