# SMP® Temperature Control Products features Heavy Duty Products for Medium Duty Vehicle Coverage! Fleet Maintenance Shops



### FOUR SEASONS® HD DIRECT DROP-IN REPLACEMENT CONVERSION KIT P/N 168197

#### **Known Pattern Failure**

Many Ford E-Series vehicles are relied upon by emergency first responders each and every day. Unfortunately, the O.E. Ford scroll compressor typically found in these types of A/C systems are not as dependable due to inefficiencies at lower RPMs and sensitivity to liquid slugging. When a catastrophic compressor failure occurs, these units tend to generate large chunks of debris that are dispersed throughout the system.

#### Four Seasons® Solution

Four Seasons® new HD drop-in replacement conversion kit for Ford scroll compressors\* offers a simple, no hassle, drop-in replacement option for high demand heavy duty applications.

#### **Conversion Kit Includes**

- 4S manufactured FS18 piston swash type compressor P/N 68197
- 4S manufactured hose assembly P/N 56999
- Correct coil connector for easy drop-in replacement

#### FOUR SEASONS' PROBLEM SOLVING E-SERIES VAN HEAVY DUTY MOTOR

The blower motor found on commercial Ford, medium duty E-Series vans from 1997-2013, experience premature failure of the Blower Motor due to the location of the unit and extreme load demands. This motor is located in the engine compartment and is exposed to intense underhood temperatures causing severe damage such as melted wires, frayed connectors and reported fires.







Four Seasons® offers an updated, heavy duty problem solving design engineered to eliminate these issues and extend motor life. The 76949 is a complete assembly with wheel, gasket, heavier gauge wire and O.E. style connector.

Four Seasons® P/N 76949\*
Ford E-150 (14-97)
Ford E-250 (14-97)
Ford E-350 (14-97)
Ford E-450 (14-00)

Ford E-550 (03-02) Ford Econoline (99-97)



## PRO SOURCE



Ford E-150 (14-04) Ford E-250 (14-04)

Ford E-350 (14-04)

Ford E-450 (14-04) Ford Econoline (14-05)

ProSource™ P/N 98783 (rear)



\*For full application details, please see the online catalog at www.4s.com.

#### **HEATER CORE LEAKAGE AND ELECTROLYSIS**

The heater core on several Ford, Lincoln and Mercury applications leak due to high flow rate or use of poor quality coolant. However, electrolysis should also be checked, specially when repeat repairs have occurred. Electrolysis is a process of chemical changes in the cooling system where ions exchange between the heater core and engine coolant. This results in a breakdown of the heater core material, leaving a pinhole size leak at or within the heater core. This is usually caused by not properly maintaining the cooling system. Ford's TSB 06-21-19 suggests reviewing the location of the leak and checking the condition of the coolant, as well as for electrolysis. See Ford TSB 06-21-19 for application information.







#### **INNOVATIONS IN MANUFACTURING**

With the evolution of vehicle technology increasing, the Electronic Viscous Fan Clutches (EVC) market has increased. As the leader in automotive cooling, Hayden® Automotive was the first aftermarket manufacturer to produce the GM EVC, and continues to evolve with the largest EVC offering in the market today.

#### **POOR A/C PERFORMANCE DUE TO EVC FAN CLUTCH**

A common cause of compressor failure and poor A/C performance on 2006-2004 Ford E-Series applications is due to a failed Electronic Viscous Fan Clutch (EVC). Based on cooling requirements, the ECM sends a signal to the actuator to increase or decrease the engagement of the EVC thus effecting fan speed. A lack of fan speed or any concerns within the EVC circuit will set a Diagnostic Trouble Code (DTC). In most cases, this will NOT turn on the Malfunction Indicator Light (MIL). With no MIL on and engine temperature normal, the most overlooked cause of low airflow is a failed viscous fan clutch leading to poor A/C performance. See Ford TSB 05-23-16



Ford E-350 Club Wagon (05-04) Ford E-350 Super Duty (10-04) Ford E-450 Super Duty (10-04) Ford Excursion (05-03) Ford F-250 Super Duty (07-03) Ford F-350 Super Duty (07-03)

Ford F-450 Super Duty (07-03) Ford F-550 Super Duty (07-03) Ford F750 (07-04)



Hayden's manufactured Ford EVC Fan Clutch, part number 3261, impresses customers with it's durability, longevity and quality design. KEVIN ROBERTS OF ROBERTS REPAIR IN RHINELANDER, WISCONSIN, has specialized in emergency vehicle maintenance and repair for nearly 30 years. After repeat O.E. fan clutch failures on the E450 Ford emergency vehicle, Kevin found success switching to Hayden's manufactured unit. Hear why Kevin chooses a trusted supplier and quality parts.



"... After experiencing multiple O.E. fan clutch failures, Hayden Automotive sent me a higher quality solution which provided significantly better longevity and performance.

Not only do I recommend Hayden Automotive, I essentially will not install anything else...If someone wants a cheaper part, they will have to find a cheaper shop."



\*For full application details, please see the online catalog at www.haydenauto.com.