

**2022** Promotion

# ECV Diagnostic Tool & Harness Kit P/N 99803

Available February 1<sup>st</sup> - July 31<sup>st</sup>, 2022

Now for a limited time, Four Seasons<sup>®</sup> is offering our popular ECV Diagnostic Tool Kit at a great low price. WITH THIS PROMOTION ONLY, five new harness connectors, fitting a wider range of applications, are included absolutely free. The 99803 promotion kit features special pricing and increased coverage for late model import and domestic applications. Plug-and-play diagnostics for one low price.



Diagnosing today's A/C compressors takes more than a set of gauges and a spanner wrench. Vehicle manufacturers utilize newer technology that requires special tools, training and investment. Repair shops today have to maintain the proper tools and equipment to diagnose these advanced components. The Four Seasons<sup>®</sup> ECV Diagnostic Tool allows you to properly diagnose ECV compressors by putting you in control of the pumping displacement, making diagnosis simple and easy!

#### P/N 99803 Includes:

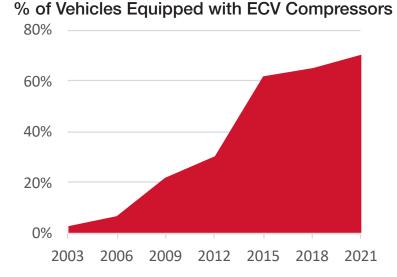
Part Number	Description	Application
69636	ECV Diagnostic Tool Kit	All ECV Model Applications
26902	Male Harness Connector	Jaguar, Volvo and Land Rover
26903	Female Harness Connector	BMW
26904	Female Harness Connector	Jaguar and Land Rover
26905	Female Harness Connector	GM, Ford and Honda
26906	Female Harness Connector	BMW and Mini



Scan here for more information on the ECV Tool and to download the connector guide.



# Electronically Controlled Variable (ECV) Displacement Compressor Growth

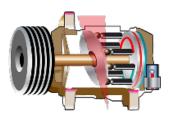


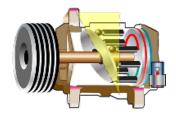
Since the late 1990s, vehicle manufacturers have been increasingly using ECV compressors on new vehicles. Now the most common type of compressor used, Four Seasons® offers over 260 ECV compressors covering over 120 million VIO to service these vehicles.

### **ECV Compressor Operation**

In an ECV compressor, the pneumatic control valve on conventional control variable displacement compressors is replaced by a computer controlled pulse width modulated solenoid. The computer controls the compressor pumping displacement by varying the duty cycle command to the solenoid by taking into account many variables and reacting quickly for precise and efficient displacement control.

- ECV command: off / 0% duty cycle
- Swash plate perpendicular to crankshaft
- ECV command: 40–60% duty cycle
- Swash plate at medium angle medium heat load





- ECV command: 80-100% duty cycle
- Swash plate at sharp angle high heat load

For more information, contact your SMP Sales Representative.