

# DIAGNOSTIC FOCUS

## What are Functional Tests?

Functional tests are different types of specific tests, and/or procedures, depending on the year, make and model of the vehicle (ex. power balance tests and output tests such as AC compressor clutch relay (on/off)). They can be re-learns and resets, as well as EVAP service bay tests and much more.

Depending on the OEM, functional tests can be available for engine, transmission, body control, anti-lock brakes, airbag and more modules.

## ONE THING IN COMMON

All functional tests have one thing in common: they save the technician tons of time; with both initial diagnostics as well as after the repair functions, preventing comebacks. Unlike PID data, Functional tests are typically bi-directional – they send a command from the scanner to a module/component then receives data back with the result.

## WHY SNAP-ON®?

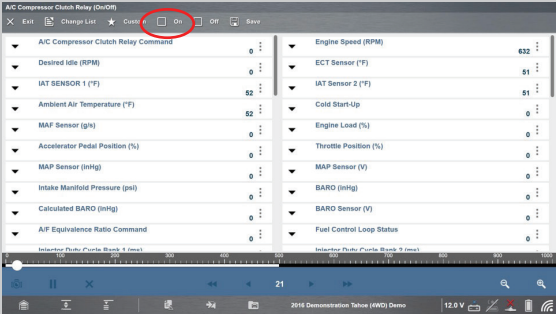
Snap-on® functional tests are best known for being the most user-friendly in the industry. There is nothing worse than performing a functional test incorrectly because of a complicated procedure. These are all factory-level capabilities but are developed at Snap-on® with ease of use in mind.

## LOOKING FOR MORE?

Looking for more diagnostic training and support? Jason Gabrenas, hosts weekly online diagnostic training sessions. Join him on YouTube @snapondiagnostics

# TIMESAIVING EXAMPLE

The Scenario: Customer complains the AC does not work. Upon initial inspection we see that the compressor is not engaged. There are potential issues. Performing the functional test below will help eliminate many of them. Selecting the on button commands the AC compressor clutch to engage, when it does, and blows cold, we quickly learn what is not the problem and have a good direction to continue.



Next, we can look at a functional test that will reset the PCM. In this scenario, we MUST perform this reset after the repair. We have replaced the oxygen sensor which has had amperage applied to heat it up quicker. Amperage climbs higher as sensors age. If we do not rest the PCM, it will continue applying a high rate of amperage to the new one. That will soon burn it out resulting in a comeback. Preventing that is priceless.

