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Tool Test - Emissions-Mate

I must admit that I wasn't exactly bowled over by the **NEXTEK Emissions-Mate** the first time I saw it. Great, I thought, another box with LED's; just what I need. When I started thinking about what it does, however, I started warming to its concept in a hurry.

Bottom line? NEXTEK has come up with an elegant solution to a very annoying problem: monitoring monitors.

We all know from painful experience how much time we fritter away verifying an OBD repair. Heck, just checking monitor readiness on an OBD vehicle usually means hooking up a scan tool and navigating through several screens to get the data you need.

What you'd really like to do goes something like this:

- You'd like a go/no-go tool that checks monitor completion and DTC status in less than a minute.
- You'd prefer not tying up an expensive scan tool for test drives.
- You'd like to have the vehicle owner complete a drive cycle, but don't want to send your three-grand scan tool along for the night.
- You'd like a tester with no buttons or screens to distract you during a test drive.
- You'd like a tool that doesn't have a 50-page owner's manual learning curve.
- You'd like to quick check vehicles as a courtesy to your customers when they come in for an oil change or maintenance; in less than a minute.
- Like me, you are cheap, and don't want to spend a lot of moolah on a full-featured scan tool, just to run monitors.
- You don't want to have to push 30 buttons and toggle back and forth among different scan tool screens, to collect DTC and monitor info.
- You'd like an *audible* signal indicating a change in monitor status, so you can keep your eyes on the road during a test drive.
- You'd like a tester that's durable, light, and small enough to fit in your pocket.
- You'd like some Mode 6 feedback to confirm test status on multiple trip monitors.

That's what this tool does!!!



The fact that this is a box with LEDs kinda grows on you. No buttons; no learning curve. Maybe the best part of the NEXTEK Emissions-Mate is what it doesn't have.

- No On/OFF switch
- No manual controls, whatsoever
- No screen to watch
- No batteries to replace
- No special interface cables are needed to connect to the DLC.
- No vehicle specific software
- No initialization time, common to scan tools.

Upgradeable



The Emissions-Mate has a USB port that will someday allow you upgrade its software. NEXTEK says that right now, it is compatible with over 99.5 percent of all OBD vehicles, but future changes in vehicle software can be supported with a re-flash through its USB port.

How it Works

Emissions-Mate setup:

- 1) Plug the Emissions-Mate into the DLC.
- 2) Start the engine.

- The LEDs will illuminate indicating power at pin 16.
- A Ready LED changes color to tell you it is dialing the PCM, and turn green when the PCM picks up on the other end.
- All monitors are polled, and again, the LEDs tell the story. Unsupported monitors do not light up an LED; Green indicates a completed monitor, and Red, an incomplete one.
- Mode 6 data is also polled, indicated by the Mode 6 LED turning Amber: the Mode 6 LED turns Green if all tests pass; Red if one or more fail.

Let's Plug it in and See What Happens



This vehicle has all green LEDs. The DTC LED is off, so there are no codes in memory. Those monitors with non-illuminated LEDs are not supported in this vehicle.

Note the red LED next to Mode 6. Even though there are no DTC's, it looks like a Mode 6 test has failed. This may be a warning of trouble brewing. Let's hook up a full featured scan tool and look at Mode 6.

Test ID (TID)	Component ID (CID)	Test Value	Min Limit
\$11: Description Unavailable	\$80: Description Unavailable	46.000	26.000
\$13: Description Unavailable	\$80: Description Unavailable	255.000	10.000
\$19: Description Unavailable	\$80: Description Unavailable	255.000	6.000
\$1A: Description Unavailable	\$80: Description Unavailable	255.000	6.000
\$1B: Description Unavailable	\$80: Description Unavailable	11.000	9.000
\$1C: Description Unavailable	\$80: Description Unavailable	10.000	9.000
\$21: Description Unavailable	\$80: Description Unavailable	0.000	
\$22: Description Unavailable	\$80: Description Unavailable	10.000	
\$31: Description Unavailable	\$80: Description Unavailable	255.000	26.000
\$33: Description Unavailable	\$80: Description Unavailable	36.000	10.000
\$39: Description Unavailable	\$80: Description Unavailable	5.000	6.000
\$3A: Description Unavailable	\$80: Description Unavailable	5.000	6.000
\$3B: Description Unavailable	\$80: Description Unavailable	255.000	9.000
\$3C: Description Unavailable	\$80: Description Unavailable	255.000	9.000
\$41: Description Unavailable	\$00: Description Unavailable	72.000	20.000

Mode 6 indicates that two tests are indeed failing. We'll need to look up \$39 and \$3A and to determine which components are involved.

Sure enough, the scan tool shows that two tests have failed. The Emissions-Mate's red LED tells us we need to look more closely at emissions data.

Out on the Road

As each monitor completes, the Emissions-Mate emits an audible tone: no need to keep your eyes on a scan tool screen. This lets one person run monitors on the highway while keeping both eyes on the road.

A note from NEXTEK...

With over a decade of hardware and software experience in OBD vehicle communications and emissions testing programs in the states of PA, NC, NY, TX, and VT, NEXTEK has been at the forefront of this process. We know the frustrations that all OBD emissions testing shops face, when attempting to get a vehicle "ready" to pass their state's test.

The NEXTEK Emissions-Mate is an essential tool for any shop that performs emissions testing or emissions repairs. Given its low price, this tool will easily pay for itself after just a few uses. And unlike other tools, it will actually start making you money, by saving you both time, effort, and aggravation. To purchase one for your shop, contact NEXTEK @ 800-475-0830, or 570-780-0534.

Ralph Birnbaum is a well-know automotive author, educator, trainer, and columnist. His expertise in the areas of OBD diagnostics and vehicle emissions testing are without peer. Ralph has authored two books on the subject, Getting to Know OBD-II, and Silver Bullets, both of which have been re-printed several times. Ralph is a columnist for Autofixworld, a monthly automotive repair e-zine for professional repair technicians.