



# Exhaust Notes

VOLUME 6 NO. 1

SPRING 2017

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## Readiness devices now available

Repairing a vehicle with legitimate trouble codes can be complicated enough. What's a technician to do with a vehicle with no codes that fails simply because it is "not ready?" You can instruct the vehicle owner to drive more in the hopes of getting the monitors ready. Your customer might like a more definite answer that you are unable to give.

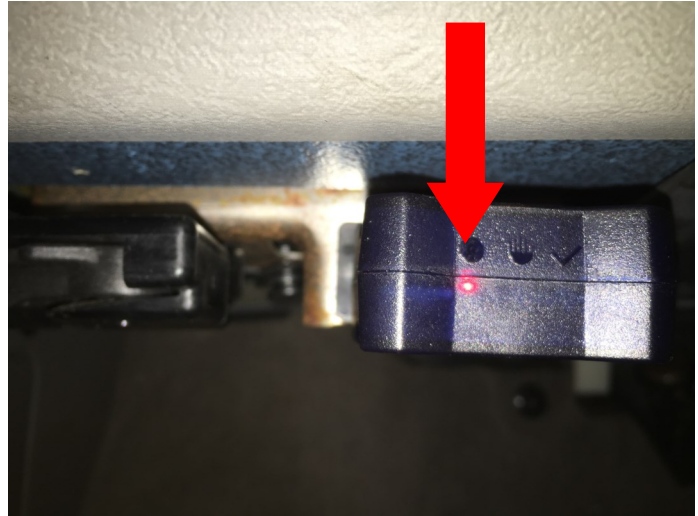
As an AES, you know that resetting the codes may interfere with your customer's next emission test. Sometimes, however, clearing the codes is unavoidable. You may need to disconnect the battery to protect the car's electronic system or to protect yourself from electric shock.

A customer can inadvertently cause a "not ready" failure as well. Running down the battery by leaving vehicle lights on is an all-to-common occurrence.

Dealing with an emission test failure with no codes can be frustrating for you and the customer. All the vehicle needs is to complete a drive cycle, but your technician skills are not needed for this task.

You can advise your customer to drive the vehicle until all monitors are ready. The customer, however, has no way of knowing when the vehicle is ready to test—until now.

Emission test stations have a solution to this problem. Ecology's Emission Check Program has provided each test station with readiness devices to



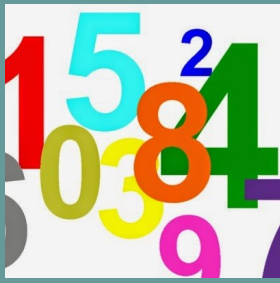
OBD readiness device installed in vehicle. Arrow indicates red light. When green light illuminates, vehicle is ready to test.

loan to customers. Unlike the readiness devices some test stations had in the past, customers do not need to pay a deposit to use them.

The compact devices have a set of lights. When the vehicle is not ready, the red light is on. The green light goes on when the vehicle is ready. A light that remains red after several days usually indicates a problem with the OBD system. The customer will then need you to repair the vehicle.

Customers have already successfully used these devices. Usually, it only takes a few days for the light to turn green indicating the vehicle is ready to test. Some have even been able to pass a retest on the same day!





## Emission testing by the numbers

## Find a trainer

You can find a list of Ecology-authorized trainers and upcoming scheduled trainings at: [www.emissiontestwa.com](http://www.emissiontestwa.com).

## Quarterly testing totals

### Totals for December, January, and February

Total vehicles tested and waiver numbers are derived from the testing procedures performed in Washington State and are the On Board Diagnostic (OBDII), Two Speed Idle (TSI) and Diesel tests.

The following tables show how many vehicles were tested in December 2016, January, and February of 2017. Washington State's contractor, Applus Technologies, Inc. runs the Centralized Facilities.

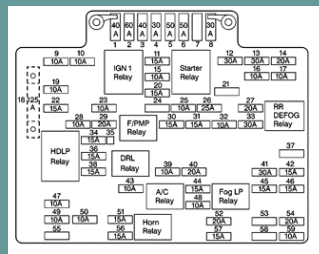
Centralized Facilities	Tests	Waivers
Marysville	9859	342
Everett	14021	525
Lynnwood	14391	588
North Seattle	17872	706
South Seattle	15719	682
Redmond	9863	260
Bellevue	12696	396
Renton	22867	1049
Auburn	16275	771
Fife	14618	678
Puyallup	10285	400
Lakewood	17743	922
West Vancouver	11418	190
East Vancouver	18847	498
West Spokane	13015	488
East Spokane	7941	201
Total	226980	8696

The following table shows the numbers of vehicles tested at Authorized Test Facilities. Note that only Centralized Facilities issue waivers.

Authorized Test Facilities	Tests
Precision Tune-Gig Harbor	828
Precision Tune-University Place	863
Precision Tune-Tacoma	204
Precision Tune-Lakewood	120
Auto Repair and Emission-Burien	983
Lee Johnson Auto-Kirkland	59
Juanita Firs-Juanita	2191
JP Automotive-Burien	112
Great Car Center-Gig Harbor	577
Midas Car Care-Des Moines	486
Hans VW Repair-Seattle	71
Meineke Car Care-Des Moines	124
CarMax-Spokane	37
Lloyd's Automotive-Burien	110
Glen's Auto Repair-Burien	169
Moose's Auto Tech-Tillicum	75
Total	7009

## How many emission-related fuses can you find?

STUD 1 Fuse #1 40A Trailer Wiring	ABS Fuse #2 60A <a href="#">Brake</a> Pressure Modulator Valve (Pump)	IGN A Fuse #3 40A Starter Relay, Ignition Switch- IGN 1, TURN, SEO IGN Fuses	AIR Fuse #4 30A Secondary Air Injection Reaction Pump
RAP Fuse #5 50A Rap Relay, MIR/LOCK DR LOCK Fuses and <a href="#">SEATS</a> Circuit Breaker	IGN B Fuse #6 50A <a href="#">Ignition</a> Switch-Rap Relay, Wiper/Washer and SEO ACCY Fuses	STUD 2 Fuse #8 30A Body Wiring Provisions, Trailer Wiring	TRL R TRN 9 10A Trailer Turn and Stop
TRL L TRN Fuse #10 10A Trailer Turn	INJ B Fuse #11 15A Fuel Injectors 2, 4, 6, and 8, <a href="#">Ignition</a> Coils, <a href="#">Engine</a> Shutoff Solenoid and Sensor-Diesel	PARK LP Fuse #12 30A Park Lamp Relay, Headlamp and Panel Dimmer Switch- Park Lamps	FRT HVAC Fuse #13 30A Blower Motor (High Speed)
STOP LPS Fuse #14 20A VEH STOP and CHMSL Fuses, Trailer Wiring (LH, RH Turn and Stop Lamp)	ECM 1 Fuse #15 10A Vehicle Control Module (VCM)/Powertrain Control Module (PCM)-(from IGN 1 Relay)	CHMSL Fuse #16 10A Center High Mounted Stop Lamp	VEH STOP Fuse #17 10A Vehicle Stop Lamps
TRL B/U Fuse #19 10A Trailer Backup Lamps	INJA Fuse #20 15A Fuel Injectors 1, 3, 5, and 7, Ignition Coils, Glow Plug Module, Fuel Heat, Water in Fuel (WIF) Sensor, Wastegate <a href="#">Solenoid</a>	VEH B/U Fuse #22 15A Vehicle Backup Lamps	ENG 1 Fuse #23 10A Mass Air Flow (MAF) Sensor, <a href="#">Camshaft</a> Position (CMP) Sensor, Evaporator Emission (EVAP) Canister Vent Valve, Evaporative Emission (EVAP) C Purge Valve
IGN E Fuse #25 10A A/C Compressor Clutch Relay, DRL Relay, Rear Defog Relay, Secondary Injection Reaction Pump Relay	B/U LP Fuse #26 25A Backup Lamps, BTSI	ATC Fuse #27 20A Automatic Transfer Case (ATC) Control Module, Encoder <a href="#">Motor</a>	RR PRK Fuse #28 10A RR Park Lamps
ECM B Fuse #29 20A <a href="#">Fuel Pump Relay</a> , Vehicle Control Module (VCM)/ Powertrain Control Module (PCM)	O2 A Fuse #30 15A Heated Oxygen Sensors	O2 B Fuse #31 15A Heated Oxygen Sensors	LR PRK Fuse #32 10A LR Park Lamps
RR DEFOG Fuse #33 30A Rear Window Defogger	TRL PRK Fuse #34 15A Trailer Park	PRIME #35 Fuel Pump Prime Port	RT HDLP Fuse #36 15A RH Headlamps (Hi and Low)
HTD MIR Fuse #37 10A Heated Outside Mirrors	LT HDLP Fuse #38 15A LH Headlamps (Hi and Low)	A/C Fuse #39 10A A/C <a href="#">Compressor Clutch</a>	AUX PWR Fuse #40 20A Auxiliary Power Outlets
SEO 2 Fuse #41 30A Roof Beacon and Relay, Full Feature <a href="#">Seat</a> - LH and RH	SEO 1 Fuse #42 15A <a href="#">Roof</a> Beacon Switch, Cellular Phone Wiring Provisions	DRL Fuse #43 10A Daytime Running Lamps (DRL)	FOG LPS Fuse #44 15A Fog Lamps
RADIO Fuse #45 15A Radio and <a href="#">Instrument</a> <a href="#">Cluster</a>	CIGAR Fuse #46 15A Data Link Connector, Cigar Lighter	RT TURN Fuse #47 10A RH Turn Signals	BTSI Fuse #48 10A Brake Transmission Shift Interlock
LT TURN Fuse #49 10A LH Turn Signals	FR PRK Fuse #50 10A Front Park Lamps	W/W Pump Fuse #51 15A Windshield Washer Pump	IGN C Fuse #52 20A <a href="#">Ignition Switch</a> , Crank, IGN 0 Fuses
HAZ LP Fuse #54 20A Hazard Lamps	HORN Fuse #56 15A Horn/Horn Relay	CTSY LP Fuse #57 15A Inadvertent <a href="#">Power</a> Relay (Courtesy Lamps)	TBC Fuse #59 10A Body Control Module



An example of a General Motors fuse panel

### Check the fuses

Today's vehicles have much more complicated electronics than in the past. Many just had a PCM fuse. Most emission related devices now have their own fuses. Problems with these fuses can cause a vehicle to fail an emission test.



Check out [www.emissiontestwa.com](http://www.emissiontestwa.com) for answers to AES's most frequently asked questions.



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To request ADA accommodation including materials in a format for the visually impaired, call Melanie Forster at Ecology, 360-407-6330. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

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# Emission Check

You're on the Road to Cleaner Air.

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