

Bulletin

Automotive Repairers Division and General Division



Reference No. Vehicle Emissions Testing/jk-10-22

Date: 21/10/2022

Equipment and Testing Requirements for RG240 Providers

Dear member

Please be advised that VicRoads are seeking “Expressions of Interest” from suitably equipped businesses to conduct RG240 emissions testing for the purposes of providing results that may be used by VASS Signatories as part of their certification of production vehicles and Individually Constructed Vehicles (ICVs) fitted with engines that have been modified or configured differently from their original standards.

This is an alternative test method to the IM240 which is currently offline due to equipment failure and will be put in place for an initial 12-month period, with a review for an extension to be applied during this initial period. During this period, results from the RG240 emissions test will be accepted for the purposes of vehicle certification, in lieu of results from the IM240 emissions test that is specified in Vehicle Standards Bulletin (VSB) 14 LT3.

Equipment and Testing Requirements:

Equipment must be maintained and calibrated according to the equipment manufacturer’s instructions and records retained which clearly identify the equipment by make, model and serial number and the dates of any periodic inspections and services as required by the equipment manufacturer.

Testing and measuring equipment will need to have a current certificate of calibration from a NATA accredited provider, or a provider approved by the equipment manufacturer showing the equipment is operating within their tolerances. A copy of the current certificates of calibration will be required to be provided to VicRoads.

Records will be required to include the details of the operator responsible for maintaining the equipment.

Standards and performance

The equipment shall be capable of:

1. Conducting gaseous analysis during a controlled RG240 emissions test cycle with a measuring interval of not less than 1/second, and with a delay of no more than 15 seconds between tailpipe sampling and the display of a visible result
2. Measuring Oxides of nitrogen (NO_x), Hydrocarbons (HC) and Carbon monoxide (CO) and Oxygen (O) in the exhaust sample obtained
3. Calculating the cumulative totals of at least Oxides of nitrogen (NO_x), Hydrocarbons (HC) and Carbon monoxide (CO) in grams per kilometer for the duration of the test cycle
4. Calculating lambda using the Brettschneider equation for the duration of the test cycle
5. Allowing selection of an appropriate standard and the associated gaseous emissions limits to be applied
6. Recognising when any element of the equipment, the vehicle or operator is failing to perform the cycle as directed, aborting the test, and producing a clearly marked 'Aborted cycle' result
7. Providing a printout of the emissions results as per the requirements of reporting for statutory purposes

The equipment should be able to:

1. obtain or measure intake air flow either directly or indirectly for calculation purposes.

Entry of data

The equipment shall be capable of recording the following mandatory information:

1. Vehicle make, model, year of manufacture
2. Vehicle VIN or chassis number (*in the case of a new ICV which does not yet have a VIN assigned to it, the eVASS Certificate number that has been assigned by the VASS Signatory who will be certifying the vehicle*)
3. The standard applied: for example, ADR 37/01
4. The engine make and configuration
5. The engine number, identify the presence of a turbo or other forced air admission system, identify the fuelling control system
6. The presence of a turbo or other forced air admission system on the engine
7. The details of the fuelling control system
8. Odometer reading at start and end of test
9. Date and time of test
10. Wheel and tyre dimensions + pressures
11. Tyre manufacturer
12. Ambient conditions (facility air temp)
13. Report reference number (for traceability)
14. Engine capacity (litre displacement)
15. Fuel used for test (RON)
16. Engine calibration file (ECU interrogator)
17. Trans calibration file (if AT. Use ECU interrogator)
18. Dyno settings (depending on dyno being used)
19. Vehicle mass
20. Test equipment calibration status (last cal date / next cal date)
21. Sign-off status where the operator or person responsible for test can initial as record being a true representation of test being conducted per standard
22. Vehicle registration number (if applicable).

Reporting for statutory purposes

Each printed result for statutory purposes must include:

1. The mandatory information listed in Section 1.2 (Entry of data)
2. Cumulative results totals must be clearly displayed, compared to the standard given and a clear PASS/ FAIL decision provided
3. An easily read graphical representation of the values obtained at each measurement interval throughout the test cycle for each of:
 - a. the Oxides of nitrogen (NO_x),
 - b. Hydrocarbons (HC) and
 - c. Carbon monoxide (CO) and
 - d. the calculated value for lambda

the scale shall be adjustable by the operator so that low, high, or stable gas values obtained can be clearly displayed

4. Confirmation of the calibration status of the equipment. NOTE: Records of maintenance and calibration checks conducted to validate the results provided may be held as separate certification to the emissions test result, and shall be valid for the period of any emissions test conducted
5. Periodic sampling values shall be retained, but do not need to be provided on the printed result
6. An aborted test must not show any gaseous measurement results and must not provide any PASS / FAIL assessment

All test data and test results must be

1. Stored in a secure place where access is limited only to the appropriate personnel and easily retrieved and accessed for auditing purposes
2. provided to VicRoads representatives upon request for the purposes of auditing.

Test Appointments and Test Facilities:

1. Appointments for emissions testing must be made available to customers within a fair and reasonable time frame
2. Test facilities must have an appropriate number of off-street parking places that may be used by customers who are attending the premises for the purposes of having an emissions test.

Notice to VicRoads:

Providers of RG240 test results must notify VicRoads:

1. Within 7 business days before they cease offering the emissions testing services
2. Within 2 business days of them being aware of an issue which will or may prevent them being able to continue offering emissions testing services.

Submission of Expression of Interest and application process:

“Expressions of Interest” will need to be emailed to VicRoads at vscinfo@roads.vic.gov.au and titled “RG240 Provider – Expression of Interest”.

Applications will need to include information which details how each of the requirements outlined above will be satisfied.

A VicRoads representative will be in contact with suitable applicants to arrange for a site visit and assessment.

The site visit and assessment will require the applicant to provide and test a vehicle using the RG240 procedure and demonstrate their ability to obtain and document the required information.

Contact VicRoads:

For further information or to discuss any of the requirements outlined in this bulletin, please contact VicRoads Vehicle Safety Standard department on 1300 309 571 during normal business hours, or via vscinfo@roads.vic.gov.au.

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