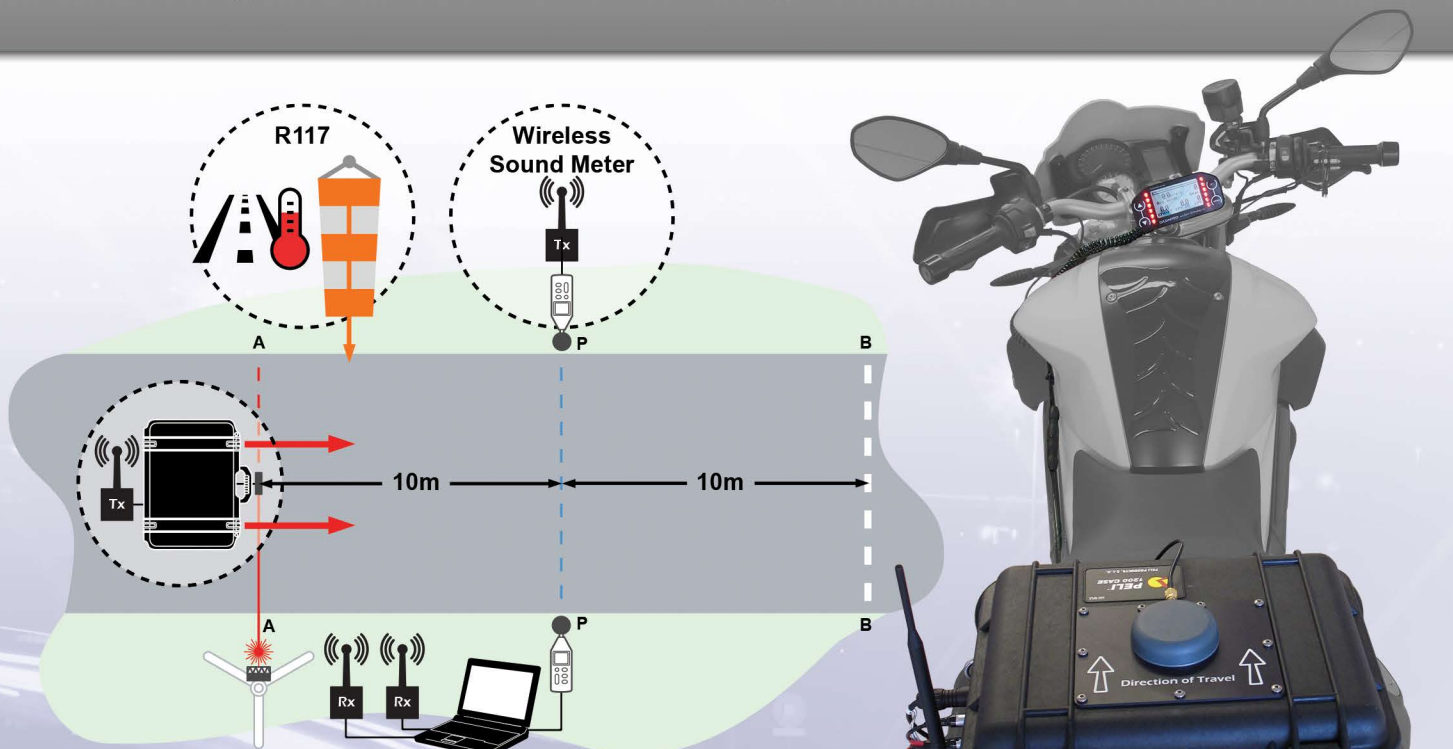


Pass-by Noise Testing - R41, R51, R117



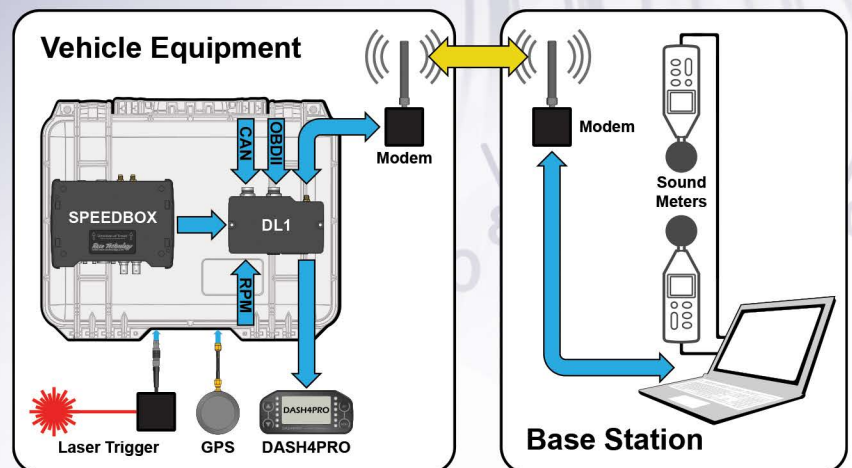
Pass-by Noise Testing System

- Complete testing solution ready to use
- Suitable for R41, R51 and R117 noise testing
- Used by leading international test houses and organisations
- Suitable for both cars and motorcycles
- Vehicle mounted display for instant feedback of data and test results
- Wireless sound meter removes the requirement for cables to be routed under/around test area

The R41/R51 pass-by noise procedures require both WOT (Wide Open Throttle) tests and constant speed tests to be performed. **The overall result is automatically calculated** using results from both tests and a partial power factor which is calculated based on the performance of the vehicle. Constant speed tests are straightforward, WOT tests are more difficult to complete successfully.

Wide open throttle test procedure

When the front of the vehicle reaches "AA", the throttle shall be fully engaged and held fully engaged until the rear of the vehicle reaches "BB". The throttle shall then be returned as quickly as possible to the idle position. A typical test requires the speed to reach "PP" line at 50km/h (+/- 1km/h). Due to this tight tolerance it is often trial and error testing to get the correct entry speed. The system offers instant feedback to driver/ rider of the test on the vehicle mounted DASH4PRO display enabling rapid testing. LEDs on the DASH4PRO indicate approach speed to help achieve a successful test.



Pass-by Noise Testing - R41, R51, R117

Software

The Live Monitor software is used to display live data, review results and perform tests. The software automatically combines data from the sound meters, weather station data and the vehicle data being received over the modem. This combined data is then used to perform pass-by tests and the results from each individual test are displayed instantly. The final pass-by noise result is calculated by combining several tests, and is completed by selecting the test results and exporting them into the supplied report spreadsheet.

The screenshot displays the Live Monitor software interface. On the left, a spreadsheet shows test results for 'Single Gear Test record sheet'. The main window features a dashboard with several gauges: RPM (2848), SPL1 (81.8 dB(a)), SPL2 (81.3 dB(a)), and temperature (3.3°C). A diagram shows a vehicle passing a sound meter at a 10m distance. A data table lists various variables like 'Time (min)', 'Longitude', 'Latitude', etc. A 'Live Monitor' dialog box asks 'Do you want to save test results?'. At the bottom, a graph shows 'Speed (Calculated Speed) (km/h)' over 'Time (Time) [s]'. The status bar at the bottom indicates 'Unit serial: 23061', 'Firmware: n/a', 'Logging: OFF', 'Streaming to disk: OFF', 'DK: 238987', 'Error: 54', 'GPS Date & Time: 17/01/2022 13:51:23', and 'GMT Offset:'. On the right, a text box displays test details: '***Test Started***', 'www.Race-Technology.com', 'tested on 09-Feb-17, 1:15:14 PM', 'test index: 1', 'VEHICLE LENGTH (M): 4.39', 'GPS SAT COUNT OK - 8[-]', 'POSITION ACCURACY 1.6[-]', 'AA SPEED 46.9[KPH]', 'AA RPM 1590.2[RPM]', 'AA THROTTLE 35.6[-]', 'PP SPEED 50.1[KPH]', 'PP RPM 1742.9[RPM]', 'BB SPEED 56.7[KPH]', 'BB RPM 1956[RPM]', 'GEAR 0[-]', 'BARO PRESSURE 980[MB]', 'TEMPERATURE 0.1[C]', 'WIND SPEED 3.1[M/S]', 'WIND DIRECTION 28[DEGREES]', 'LEFT SPL MAX 77.7[DB]', 'RIGHT SPL MAX 75.7[DB]', 'AWOT 1.62[AWOT]', 'TIME TAKEN 1.7[S]', and '***Test Completed***'.

Options

Please specify the tests that will be conducted when ordering to ensure the correct options, inputs and accessories are supplied to optimise the system for R41, R51 and/or R117. We recommend sourcing a dedicated base station PC through us where possible to ensure a complete, fully installed and tested system is received.

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