

Quality Assurance Plan

Under the U.S. Department of Transportation workplace testing program (see 49 CFR, Part 40), transportation employers are required to test employees working in certain safety sensitive positions for alcohol under certain conditions. The DOT workplace testing program requires that breath test instrument manufacturers provide employers with this Quality Assurance Plan, which together with the operation instructions provided with the **MARK V Evidential Breath Tester (EBT)**, will assist in assuring that breath testers are calibrated to the required degree of accuracy.

QAP:

1. Allowed Calibration Units: Any wet bath simulator listed on the NHTSA Conforming Products List of Calibration Units for Breath Alcohol Tests. When calibration or re-calibration (not an accuracy check) is needed the simulator should be used with a certified BAC solution with a concentration between 0.035% and 0.100%, following the operating manual provided by the wet bath simulator manufacturer. Alternatively, a dry gas standard with a concentration between 0.035% and 0.100%, which has been approved by NHTSA, may also be used.
2. External Calibration Check Interval: Calibration Checks (Accuracy Checks) should be performed:
 - Once a month (every 30 days);
 - After a positive confirmation test;
 - If the unit fails to air blank to 0.000 after 2 attempts;
 - After the unit has undergone repairs.

There is no limitation on the number of tests that may be conducted between calibration checks, providing the monthly checks are completed.

3. External Calibration Check Tolerance: +/- 0.005%
4. Intervals for Periodic Inspection: Self-diagnostics and visual inspection by operator before every use. Routine maintenance and service recommended every 2 years. Calibration when 2 consecutive calibration (accuracy) checks fail (out of tolerance).
5. Events which require instrument be taken out of service: Self-diagnostics failure or indication by error code. The power supply is not providing necessary power to the MARK V. The MARK V does not display "Please Blow" after selecting a Standard or Screening test icon.
6. For other information regarding quality assurance unique to this instrument, see the MARK V Calibration Manual as set forth in the MARK V Operating Manual.

Follow the operating instructions provided by the dry gas manufacturer for proper procedure to use dry gas for calibration checks.

Instruments indicating any of the above **ERRORS** should be returned to PAS Systems International, Inc. for repair. Please call PAS Systems International, Inc. Technical Service Team to describe the problem & for more information on sending the unit in for service. Please have the serial number of the unit.

This QAP is subject to change and should neither be considered a final requirement nor a contractual term in any agreement to purchase the MARK V.

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