# Applus<sup>®</sup>

# Highway Hardware Testing: MASH and EN 1317 Compliance

With more than 20 years of experience in highway hardware testing, Applus+ IDIADA has established itself as a global leader in MASH and EN 1317 compliance evaluations. Our comprehensive highway hardware testing program encompasses both MASH (Manual for Assessing Safety Hardware) requirements for North American markets and EN 1317 standards for European certification.



As an **ISO 17025-accredited laboratory** and **active participant in Task Force 13 Subcommittee 7**, we ensure thorough compliance with international testing protocols.

#### Premier Highway Hardware Testing Facility in Adelanto, CA

Our specialized highway safety testing facility, located just 90 miles (ca. 145km) from Los Angeles in Adelanto, California, features optimal conditions for year-round MASH and EN 1317 testing programs. With seven dedicated testing sites, we efficiently manage multiple highway hardware evaluations simultaneously, delivering expedited results without compromising accuracy.

#### Advanced Testing Equipment and Simulation Capabilities

Our highway hardware testing facility incorporates state-of-the-art technology, including high-speed cameras, advanced data acquisition systems, and specialized test vehicles.

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This equipment not only ensures precise data collection for testing but also enables sophisticated simulation correlation analysis. Our simulation correlation process combines physical testing data with advanced computational models, allowing us to:

- Validate virtual testing scenarios against real-world results
- Reduce development costs through predictive modeling
- Optimize designs at client's direction before full-scale MASH and EN 1317 testing

### Simulation Correlation Excellence

At Applus+ IDIADA, we understand that accurate simulation correlation is crucial for efficient highway hardware development. Our engineering team employs advanced Finite Element Analysis (FEA) and sophisticated modelling techniques to create detailed digital representations of physical tests. This dual approach of virtual and physical testing enables:

- Prediction of hardware performance
- Detailed analysis of impact dynamics
- Cost-effective design iterations at client's direction
- Enhanced understanding of failure modes
- Reduced time-to-market for new products

### Global Experience in Highway Safety Hardware

We have successfully conducted highway hardware testing for manufacturers worldwide, establishing ourselves as a trusted partner in MASH and EN 1317 compliance. Our comprehensive expertise enables us to provide end-to-end testing solutions that help clients navigate certification requirements efficiently.

### Partner with Applus+ IDIADA for complete highway hardware testing solutions

- Expert consultation on MASH and EN 1317 requirements
- Advanced modeling and simulation
- RandD physical testing
- Simulation correlation
- Official certification testing
- Detailed compliance reporting
- Submission support for regulatory authorities
- Local government certification assistance