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SURFACE SYSTEMS & INSTRUMENTS, INC.

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Custom Test Equipment • Mobile Technology Solutions • Inertial Profilers • ADA Compliance • FF/FL Testing

Bounce Test Verification

The bounce test verifies the accelerometer and the laser are functioning properly together. The bounce test only uses the laser and accelerometer signals. The test method required 1-2 inches of suspension movement at the center of the vehicle during the dynamic portion of the bounce test.

The tolerance for the static test is 3 in/mile and the dynamic test is 8 in/mile, according to AASHTO r56 and r57.

A helpful tool is the raw data viewer within SSI Data Validation Engine

Static or Dynamic Tests Out of Tolerance:

1. Park vehicle on a relatively flat surface
2. Shut off engine to limit vibration
3. Recalibrate accelerometers
4. Verify laser height verification
5. Set laser on smooth base plate. No sun reflection or height verification blocks

Dynamic Test Out of Tolerance:

1. Verify accelerometer calibration
2. Set smooth base plate under lasers (no blocks)
3. When pushing down on vehicle, do not shock or stop on suspension
 - a. Motion should be an easy push to get 1-2" of suspension travel, ~1 second

Contact SSI using the header information above if you have questions on the diagnostic process.