## CERTIFICATION CONCERNING DESIGN AND CONSTRUCTION OF SPEED MEASURING DEVICES (SMD'S) RE: LIDAR LASER (LIGHT DETECTION AND RANGING)

## STATE OF WASHINGTON COUNTY OF KING

- I, Edward E. Cole, swear under penalty of perjury of the laws of the State of Washington, as follows:
- 1) I am employed by, and proprietor of, **Wescom Communications** located at 207 SW 41<sup>st</sup> Street, Renton WA 98055, telephone (425) 251-6666;
- 2) In this employment, I maintain, repair, calibrate and certify the accuracy of electronic speed measuring devices; (SMD's), Lidar Laser, and Radar.
- 3) Wescom is retained by the City of Seatac Police Department to maintain, repair, calibrate, and certify the accuracy of electronic speed measuring devices.
- 4) I have the following education, experience and qualifications with respect to maintaining, repairing, calibrating and certifying speed measuring devices:
- a) I hold a Federal Communications Commission license with, a radar endorsement; dated August 1984, license #PG-14-1247.
- b) I have successfully completed a two (2) year course at Clover Park Vocational Technical College and hold a Land, Mobile, Marine Communications certificate, dated July 1985.
- c) I have successfully completed a Lidar Laser manufacturer's course and training which encompassed design, construction, repair, maintenance, calibration, and certification of the Lidar Laser speed measuring device, and received a Kustom Signals certificate dated November 1997.
- d) I have successfully completed a radar Manufacturer's training course which encompassed the design and construction of radar instruments, the repair, maintenance, calibration and certifying of speed measuring devices, and hold Kustom Traffic Radar Safety Systems certificates from 1987 and 1997.
- e) I have accumulated 25 years and approximately Twenty Thousand (20,000) hours in repair, maintenance, calibration and certification of speed measuring devices, as of the date of this affidavit.
- 5) Wescom Communications is an authorized service center for speed measuring devices, and as a course of business, maintain service manuals for the Lidar Laser, of which I am personally familiar, and make these available for inspection, upon request, at the above office address, for any contest of a notice of infraction.
- 6) Through education, experience, and training, I am personally familiar with the design, construction, and operation of these speed measuring devices. In regard to the Lidar Laser, it is designed and constructed so as to accurately and reliably employ measurement techniques based on the velocity of light as a constant in such manner that each Lidar Laser speed measuring device will give accurate and reliable measurements of the speed of motor vehicles when used by a trained operator.
- 7) Wescom maintains a quality assurance testing, calibration, and certification program wherein each speed measuring device is routinely inspected and tested every 12 months by the following means;

- a) Self-calibration Test; wherein each instrument's self calibration is verified during the initial power on and when the self-test switch is activated,
- b) Scope Alignment Test, wherein each instrument's scope aiming reticle is verified to be aligned with the Lidar Laser beam at all target distances,
- c) General Operation and Maintenance Check, wherein each instrument's display and all function controls are tested for accurate operation,
- d) Range Accuracy Test, wherein each instrument's range measurements are verified to be accurate to plus (+) or minus (-) six inches,
- e) Speed Accuracy Test, wherein each instrument's speed readings are compared to speed readings received and displayed by a calibrated Doppler radar speed measuring device, (Kustom Trooper KK19794 that I personally calibrated and certified for accuracy on 04-27-2012.) and that these speed readings are taken simultaneously on an isolated lone targeted motor vehicle and the speed ready accuracy was within (+) or (-) one mile per hour by comparison,
- f) Display Test, where each instrument's display segments are verified accurate,
- g) Audio Test, wherein each instrument's audio output is verified,
- 8) The Lidar Laser speed measuring device listed below was submitted to Wescom Communications by the City of Seatac Police Department to be tested and evaluated by the quality assurance program noted above, and pursuant to that request, I Edward E. Cole, performed all of the program tests, and found that this speed measuring device/lidar meets or exceeded existing performance standards;
- 9) Based upon my education, training and experience, and my knowledge of the Lidar Laser speed measuring device listed below, it is my opinion that this instrument is so designed and constructed as to accurately and reliably employ measurement techniques based on the velocity of light as a constant, in such a manner that each Lidar Laser speed measuring device will give accurate measurements of the speed of motor vehicle when properly tested and operated by trained operator with an accuracy of plus (+) or minus (-) one mile per hour.

Kustom Pro Laser III PL32835.

Test Date on 04-27-2012.

Rustom Flo Lasel III 1 L32633.
STATE OF WASHINGTON COUNTY OF KING Signature:
DATE AND PLACE 4-30-2012 Renton, WA.
I have satisfactory evidence that the person described in this document: is personally known to me; is identified upon oath or affirmation or a credible witness personally known to me; is identified on the basis of basis of identification documents.  Subscribed and sworn to me on this _30 day of _April, 2012  Notary Public in and for the State of Washington; my commission expires on Jone _9, 2015 Residing at _Preston WA.
PrintedName Kayce CStanley Signature: Kayce CStanley
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1010 WEST CHESTNUT, PO BOX 947 CHANUTE, KS 66720-0947

## CERTIFICATE OF ACCURACY and CALIBRATION

This is to certify that on the 14 day of February, 2012, the instrument listed below was tested and found to meet the manufacturer's specifications of accuracy, ±1 MPH (±1.6 km/h).

Manufacturer: Kustom Signals, Inc.
Model: PRO LASER III
Serial Number: PL 32835
Oscillator frequency measured 20,000 9 MHz Frequency tolerance allowed: 19.9980 – 20.0020 MHz
Calibration procedures verified by: Kevin J. Unrein whose FCC license number is: PG-17-21280 and has an expiration date of: NO EXPIRATION DATE
The instrument(s) used to certify the accuracy of the above device has been calibrated within the previous year and is traceable to the National Institute of Standards and Technology.
I, the undersigned, certify that I have conducted the calibration and accuracy tests and found the above listed device to be accurate within the manufacturer's specifications.
Technician: Bruce Baker
Subscribed and sworn to me this 14 day of February, 2012
A BARBARA W. SEYBOLD Notary Public - State of Kangas  My Aget Expires