

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

**STATE OF WASHINGTON
COUNTY OF KITSAP**

I, **Edward E. Cole**, swear under penalty of perjury of the laws of the State of Washington **that the following is true and correct:**

- 1) I am employed by, and proprietor of, Wescom Communications located at 14760 Starr Rd. SE, Olalla, WA. Cell phone (206) 579-6690; Email wescom500@msn.com
- 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 Renton 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 over 38 years and approximately Thirty Thousand (30,000) 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.

Page one of two

FILED
AUG 23 2023
RENTON MUNICIPAL COURT

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 08-12-2023, 05-31-2023 and on 04-05-2023.*), 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 Renton 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/radar met 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 3 PL14798	Test Date 04-05-2023.
Kustom Pro Laser 3 PL15146	Test Date 04-05-2023.
Kustom Pro Laser 3 PL16826	Test Date 05-31-2023.
Kustom Pro Laser 4 LF22599	Test Date 08-12-2023.
Kustom Pro Laser 4 LF23439	Test Date 08-12-2023.
Kustom Pro Laser 4 LF23440	Test Date 08-12-2023.
Kustom Pro Laser 4 LF23441	Test Date 08-12-2023.
Kustom Pro Laser 4 LF23442	Test Date 08-12-2023.
Kustom Pro Laser 4 LF23443	Test Date 08-12-2023.

STATE OF WASHINGTON

COUNTY OF KITSAP

Signature: Edward E. Cole

Printed Name: Edward E. Cole, DATE AND PLACE 8-12-2023 Olalla, Washington.



1010 WEST CHESTNUT, PO BOX 947 CHANUTE, KS 66720-0947

CERTIFICATE OF ACCURACY and CALIBRATION

This is to certify that on the 4th day of April, 2023, the instrument listed below was tested and found to meet the manufacturer's specifications of accuracy, +/- 1 MPH (+/- 1 km/h)

Manufacturer: Kustom Signals, Inc.

Model: ProLaser 4

Serial Number LF22599

FILED

MAR 29 2023

Oscillator frequency measure 19.99993 MHz

RENTON MUNICIPAL COURT

Frequency tolerance allowed: 19.9980-20.0020 MHz

Calibration procedures verified by: Kevin J. Unrein

whose FCC license number is: PG-17-21280

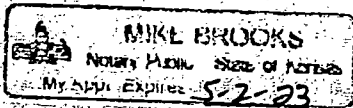
and has an expiration date of: NO EXPIRATION DATE

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

Subscribed and sworn to me this 4th day of April, 2023



Mike Brooks
Notary Public





1010 WEST CHESTNUT, PO BOX 947 CHANUTE, KS 66720-0947

ProLaser 4 Safety Test Sheet

FILED

APR 20 2023

RENTON MUNICIPAL COURT

Lidar Serial No: LF22599

Date: 4/4/2023

Detector Calibration Check

Model No. OPHIR NOVA

Serial No. 170137

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.

Laser Output (7MM Aperture)	14.80	uWatts	Max Limit	26	uWatts	Pass
Laser Output (Total)	172.8	uWatts	Max Limit	175	uWatts	Pass
PRF	200	Hz	Spec.	200	Hz	Pass
Pulse Width	17.16	NS	Spec.	>10 NS and < 30 NS		Pass

[Signature] 4/4/2023
Technician Signature and Date

[Signature] 4/4/2023
Quality Signature and Date

