DAY
WIRELESS SYSTEMS
Day Management Corporation dba Day Wireless Systems
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JT427365

CERTIFICATE CONCERNING DESIGN AND CONSTRUCTION OF ELECTRONIC SPEED MEASURING DEVICES IRLJ RULE 6.6 EFFECTIVE 1/3/2006

I am employed with **DAY WIRELESS SYSTEMS.** My duties include supervising the maintenance and repair of Doppler and laser speed measuring devices (SMD's) used by **RIDGEFIELD POLICE DEPT.** **2YR CALIBRATION CYCLE.**

Manufacturer	Model	Serial Number
MPH	**BEE III DIR**	**BEE117300133/BEE664014263**
	Antenna	**BEN653034282**
	Antenna	**BEN653034283**
	20 MPH Tuning Fork	**190880**
	50 MPH Tuning Fork	**190909**

I have the following qualifications with respect to the above stated SMD:

Washington Technical Institute for Radio/Electronics, Bell & Howell for Electronics and Advanced Schools Incorporated for Automotive/Electronics, plus numerous courses pertaining to communications and electronics, trained by a State licensed technician. Thirty years experience in repair, maintenance, and calibration of electronic products. Successfully completed the MPH Ind. Factory training on the moving and stationary Doppler SMD's and was trained by a certified SMD technician on repair/calibration of the Laser Technologies INC. (LTI) Lidar products.

Our company maintains manuals for the above stated SMD. I am personally familiar with those manuals and how the SMD is designed and operated. On **OCTOBER 4, 2018,** I, Les J. Boyd, performed testing of the above SMD. The unit was evaluated to meet or exceed existing performance standards. Our company maintains a testing and certification program of this SMD.

The Doppler program specifies: test procedures consisting of utilizing precision signal generators, connected to a factory waveguide assembly via coaxial cable; to simulate speeds at 5 mph increments from 20mph to 120mph to verify accuracy. In moving mode; two signals are applied simultaneously, separated through attenuation. Measurements are taken of transmit frequency; transmit output, operating current and receiver sensitivity. The tuning forks listed are tested by tapping on a solid object to produce an audible tone and held in front of the antenna for stationary and moving mode tests. The analog frequency of each tuning fork is electronically measured and recorded in the unit's performance report.
The Laser SMD sends out a series of much focused light wave pulses each time the trigger is pulled and utilizes two laws of physics, time and distance (i.e. 3.5 feet in diameter at 1000 feet). Since the speed of light is a known value, the distance of the target can be determined by calculating how long it takes for the signal to travel to the target and back. This series of measurements will allow the SMD to calculate the speed of the target by measuring the distance traveled in an amount of time (usually less than a second for a veritable display). The displayed speed will be accurate to within +/- 1 mph. Day Wireless Systems does hereby certify the above listed SMD meets manufacturer's published specifications and has been calibrated using standards whose accuracy's are: In compliance and traceable to the National Institute of Standards and Technology.

Based upon my education, training, experience, and knowledge of the SMD listed above, it is my opinion that each of these pieces of equipment is so designed and constructed as to accurately employ the Doppler effect in such a way that it will give accurate measurements of the speed of motor vehicles when properly calibrated and operated by a trained operator or, in the case of the laser SMD, each of these pieces of equipment is so designed and constructed as to accurately employ measurement techniques based on the velocity of light in such a manner that it will give accurate measurements of the speed of motor vehicles when properly calibrated and operated by a trained operator.

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

10/6/18 Everett, WA
Date

Les J. Boyd
Les J. Boyd

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EVERETT, WA 98201-3822
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SMD PERFORMANCE REPORT RADAR

2yr Cal Cycle

CUSTOMER: Ridgefield PD	MANUFACTURER: MPH	BAND: KA	CUSTOMER NO. 32143
ADDRESS:	MODEL NUMBER: BEE III DIR		JOB TICKET: 47365
CITY: STATE: ZIP:	UNIT SERIAL NUMBER: BEE173001133 / BEE664014263		DATE REC'D: 10.4.18 DATE CAL'D: 10.4.18
ATTN: TEL:	ANTENNA SERIAL #: BEN6530342B2	ANTENNA SERIAL #: BEN6530342B3	ASSET NUMBER: DUE DATE: 10.4.20
REASON FOR SERVICE: ROUTINE CALIBRATION ☑	FREQUENCY GHZ: 33.802	FREQUENCY GHZ: 33.805	
	SENSITIVITY PASS ☑	SENSITIVITY PASS ☑	
COMMENTS. MEETS MFR. SPECS. ☑	SPEED ACCURACY		
Held to Specs!	STATIONARY PASS ☑	MOVING PASS ☑	
	TUNING FORK		
	MPH 20 SN 190880	HZ 2081	
	MPH 50 SN 190909	HZ 5048	
	TECHNICIAN SIGNATURE: Jeff T. Boyd		

PERFORMANCE TESTS	PASS
LAMP TEST	☑
ICT	☑
SQUELCH	☑
DAY/NIGHT	☑
LOCK/REL	☑
PATROL BLANKING	☑
AUDIO	☑
LOW VOLTAGE	☑
RANGE	☑
RFI	☑
HOLD/STBY	☑
REMOTE	☑
COHESION DET.	☑
SAME LANE / FAST	☑

SMD TEST PROCEDURE: RADAR (STATIONARY/MOVING)

SMDTP-1D

1.0 COMPLETE CUSTOMER INFORMATION ON DWS DOPPLER RADAR PERFORMANCE REPORT.
2.0 PROVIDE MFG, MODEL, S/N OF UNIT, ANTENNA/S (MOVING) AND TUNING FORK/S PROVIDED.
3.0 USING DWS NIST CERTIFIED ELECTRONIC TEST EQUIPMENT BEGIN WITH TURNING SMD UNIT ON.
4.0 TEST FUNCTIONALITY OF UNIT: LAMP TST, ICT, SQUELCH, DAY/NIGHT, LOCK/REL, PATROL BLANKING (IP-IF PROVIDED).
5.0 CHECK AUDIO LEVELS, LOW VOLTAGE, RANGE, RFI, HOLD/STNDBY, REMOTE (IP), COHESION DET, SAME LANE (MOVING) AND FASTEST (IP).
6.0 MEASURE OUTPUT FREQUENCY OF TRANSCEIVER OR ANTENNA/S (MOVING).
7.0 CHECK SENSITIVITY LEVEL THROUGH ATTENUATOR.
8.0 CHECK TUNING FORK/S FUNCTION WITH UNIT AND RECORD FREQUENCY OUTPUT ON PERFORMANCE REPORT.
9.0 RECORD CUSTOMER NUMBER, JOB TICKET NUMBER, DATE RECEIVED, DATE COMPLETED AND DATE DUE FOR RECERTIFICATION. SIGN AND DATE PERFORMANCE REPORT.

NOTE: PROVIDE CUSTOMER WITH ORIGINAL PERFORMANCE REPORT. USE ALL PERFORMANCE TESTING INFORMATION TO TRANSFER ACCURATE INFORMATION ON TO INDIVIDUAL CERTIFICATE OF CALIBRATION. HAVE CERTIFICATE NOTARIZED. MAKE COPIES FOR SHOP FILES. SEND NOTARIZED CERTIFICATE OF CALIBRATION TO LAW ENFORCEMENT AGENCY.