MUNICIPAL COURT

LAKEWOOD • UNIVERSITY PLACE • STEILACOOM • DUPONT

Speed Measuring Device (SMD) Calibration Certificates for STEILACOOM

Last updated 08/31/2020

Calibrations are good for 2 years

SUSAN ADAMS MUNICIPAL COURT JUDGE

DEANA L. WRIGHT MUNICIPAL COURT ADMINISTRATOR











Steilacoom Police Department Speed Measuring Device (SMD) Inventory

	MODEL:	SERIAL#:	CERTIFICATION DATE:	UNIT ASSIGNED:	SMD TYPE:	
1	Genesis VPD	03971	12-Mar-20	Unit #1 Handheld	Radar	*
2	Genesis VPD	04025	12-Mar-20	Unit #2 Handheld	Radar	*
3	MPH BEE III	BEE-122201340	14-Feb-19	P1306	Radar	*
4	MPH BEE III	BEE-664016406	12-Mar-20	P1305	Radar	*
5	Genesis II Directional	G2S-22097	27-Mar-20	P1239	Radar	*
6	Genesis II Directional	G2S-22432	12-Mar-20	P1241	Radar	*
7	Genesis II Select	G2S-26208	12-Mar-20	P1242	Radar	*
8	Genesis II Select	G2S-36360	12-Mar-20	P1307	Radar	*
9	MPH Python	PYT546000274	12-Mar-20	P1236	Radar	*
10	MPH Python	PYT546004626	12-Mar-20	P1240	Radar	*
11	MPH Python	PYT546004627	12-Mar-20	P1228	Radar	*
12	MPH Python	PYT546006652	27-Mar-20	P1303	Radar	*
13	MPH Python	PYT546006653	12-Mar-20	P1238	Radar	*
14	MPH Python	PYT546007663	12-Mar-20	P1301	Radar	*
15	TruSpeed	TJ004601	12-Mar-20	Handheld	Laser	*

MPH Python	PYT546004625	11-Mar-10	Out of Service	
MPH Python	PYT546004628	27-Mar-08	Out of Service	
Spaedĺaser	300812	10-14-1-14	Dut of Sendae	
MPH Python	PYT3800000000	(E-Wer-15	81.818	Reder
a,774 Pighon	FNT840004185	15 dMark S	Symme	Tecar



CERTIFICATION CONCERNING DESIGN AND CONSTRUCTION OF ELECTRONIC SPEED MEASURING DEVICES

I, Raymond Fleming, do certify under penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that the following is true and correct:

I am employed with Pierce County as a Communications Systems Technician, Speed Measuring Device (SMD) Specialist, and assigned as the custodian of the SMD records. I have been employed in this capacity since Aug 29th, 2016. Part of my duties include the maintenance and repair of all types of electronic radar and laser speed measuring devices (SMD's) used by the Steilacoom Police Department.

The Steilacoom Police Department currently uses the following SMD's:

SMD TYPE	: MODEL:	MANUFACTURE:
Radar	Genesis VPD	Decatur Electronics
Radar	Genesis II Directional	Decatur Electronics
Radar	Genesis II Select	Decatur Electronics
Radar	BEE-III	MPH Industries
Radar	Python	MPH Industries
Laser	TruSpeed	Laser Technology

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

I have twenty-five years combined military and civilian experience as a communications specialist in the maintenance and repair of electronics equipment and four years with Pierce County repairing, maintaining, and certifying SMD's for cities throughout the state. I received training from the following manufacturers as well as from the Pierce County Lead Systems Technician. On March 22, 2017 I successfully completed the MPH Industries course in operation and maintenance of Doppler traffic radar and traffic laser. On April 4th, 2019 I successfully completed the Laser Technology Inc, course for factory service training on the LTI Tru-Speed series laser radar.

The Pierce County Radio Communications Division maintains manuals for all of the above listed SMD's. I am personally familiar with those manuals and know how each of the SMD's are designed and operated. From Mar 27, 2017 to August 28, 2020 I performed a majority of the SMD testing. The units are evaluated and certified to meet or exceed existing performance standards.

The Pierce County Radio Communications Division maintains a testing and certification program for the Steilacoom Police Department wherein each SMD is inspected and checked every 24 months by the following means:

Radar SMD's utilize the Doppler effect to measure speed. Testing consists of using a precision signal generator to inject a signal into the SMD to simulate speeds of 35mph and 65mph for the stationary/moving radars. It also includes injection of a signal to simulate 35mph for stationary radar only. The signal must cause the SMD to display the exact speed, ± 1 mile per hour, in order to be certified for accuracy. I then measure the frequency of the tuning fork(s) assigned to each SMD to insure that they are within ± 5 Hz tolerance. I issue a certificate of accuracy for both the SMD and the tuning fork(s). The original certificates are issued to the Stellacoom Police Department who in turn issues a copy to the court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

Laser SMD's measure speed based on the velocity of light and a precision time base reference. Testing consists of three accuracy certification checks (1) Internal Self Test (2) Pulse Check to include; pulse width, power output, pulse repetition rate, and double pulse (3) and a Distance Check to include; sight alignment, vertical, and horizontal beam width ≥ 200 feet. The checks insure that the SMD is within tolerance and functioning properly. I then issue a certificate of accuracy for each SMD. The original certificates are issued to the Steilacoom Police Department who



in turn issues a copy to the Court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

All radar SMD's operated by the Steilacoom Police Department directly measure by digital message from the Doppler signal. They do not reconstitute the Doppler signal in any way, including the use of devices such as a phase lock loop (PLL), before the speed is measured.

Based upon my education, training and experience, and my knowledge of the radar SMD's listed above, it is my opinion that each of these electronic pieces of equipment is so designed and constructed as to accurately employ the Doppler effect 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 or, in the case of laser SMD's, 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 under the penalty of perjury, under the laws of the State of Washington, that correct.	t the foregoing is true and
Ru D	. 4 7 7 7 7 7
Raymond Fleming	MANUE
Communications Systems Technician/	
Speed Measuring Device Specialist	92353
Signed and dated at Tacoma, Washington	A MOINT O
SUBSCRIBED AND SWORN TO BEFORE ME THIS 27世 DAY OF	ON BLIUS STATE
August, 2020.	APIRES
Notary Public in and for the State of Washington, County of Pierce.	OF WASHING
Commission expires 04-19-2027	



Pierce County Radio Communications

SIGNED

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

Manufacturer:	MPH Industries	Date Certified:	08/27/2020
Model:	MPH Industries BEE III	Agency:	Steilacoom PS
Serial Number:	BEE-122200782		
Operating Frequency Band:	Ка		
The aforesaid	radar meets and exceeds all ma	nufacturer's specificati	ons.
	TUNING FORK		
Raymond Fleming , do certify ounty of Pierce, that all applicable te			
Tuning Fork Serial No.:	59505	Date Certified:	08/27/2020
Oscillation (Cycles per Second):	2016	Agency:	Steilacoom PS
Operating Frequency Band:	Ka	-	
MPH:	20		
			C. C. CHIMINE
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FORE		
Raymond Fleming , do certify ounty of Pierce, that all applicable te	y under the penalty of perjury, u sts and measurements were mad		
Tuning Fork Serial No.:	59283	Date Certified:	08/27/2020
Oscillation (Cycles per Second):	5044	Agency:	Steilacoom PS
Operating Frequency Band:	Ка		
MPH:	50		
		+140F no correction is	

DATED



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

Sacis

Manufacturer:	MPH Industries	Date Certified:	08/27/2020
Model:	MPH Industries BEE III	Agency:	Steilacoom PS
Serial Number:	BEE-122202781		
Operating Frequency Band:	Ка		era de la composição
The aforesaid	radar meets and exceeds all ma	nufacturer's specificat	ons.
	TUNING FORK		
	under the penalty of perjury, u		
ounty of Pierce, that all applicable te Tuning Fork Serial No.:	57819	Date Certified:	08/27/2020
****	:	•	Stellacoom PS
Oscillation (Cycles per Second):	entimetralization to the transfer of the trans	Agency:	Stenatoom FS
Operating Frequency Band:	Ka		
мрн:	20		
· · · · · · · · · · · · · · · · · · ·	0.007	+140F no correction is	nogninod
When operated bet	ween the temperature of -22F to	11401 HO COLLECTION IS	required.
When operated bet	TUNING FOR		requireu.
Raymond Fleming , do certify	TUNING FOR	K ander the laws of the St	ate of Washington, in th
Raymond Fleming , do certify bunty of Pierce, that all applicable te	TUNING FOR	K ander the laws of the St	ate of Washington, in th
Raymond Fleming , do certify nunty of Pierce, that all applicable te Tuning Fork Serial No.:	TUNING FOR y under the penalty of perjury, to sts and measurements were mad 59282	inder the laws of the St le on the following Dop Date Certified:	ate of Washington, in th pler Radar Tuning Forl 08/27/2020
Raymond Fleming , do certify ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second):	TUNING FORM y under the penalty of perjury, to sts and measurements were made 59282	K inder the laws of the St le on the following Dop	ate of Washington, in th pler Radar Tuning Forl
Raymond Fleming , do certify ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band:	TUNING FOR y under the penalty of perjury, to sts and measurements were mad 59282	inder the laws of the St le on the following Dop Date Certified:	ate of Washington, in th pler Radar Tuning Forl 08/27/2020
Raymond Fleming , do certify ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band:	TUNING FORM y under the penalty of perjury, to sts and measurements were made 59282	inder the laws of the St le on the following Dop Date Certified:	ate of Washington, in th pler Radar Tuning Forl 08/27/2020
Raymond Fleming , do certify ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	TUNING FORM y under the penalty of perjury, to sts and measurements were made 59282 5044 Ka	inder the laws of the Stee on the following Dop Date Certified: Agency:	ate of Washington, in th pler Radar Tuning Fort 08/27/2020 Steilacoom PS



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445

(253) 798-7147

Manufacturer: _				· · · · · · · · · · · · · · · · · · ·	T		·	· · · · · · · · · · · · · · · · · · ·					-
	Laser	<u> Techn</u>	ology	Inc	-	Date C	ertifi	led:		03/12/	2020	Constant Constant	
Model:	Tru-Sr	eed S	* * * * · · · · · · · · · · · · · · · ·			Agency	:		****	PCSD		****	
Serial Number:	TJ004	501	·	ATT TO STATE OF THE STATE OF TH	_								
istance Tests													
Long Range	•	. Ex	pecte	d: 204.5 ft	ŧ	Tested	204	.3ft	[] N/A	[X] Pass	[]	F
				• **-	• •				L] N/A	[X] Pass	[]	-
ılse Characteristics	Tests	Microscopy and the Additional Principles of t										<u> </u>	
ulse Characteristics Pulse Frequency (Rep	W.,	1	pecte	d: 199.98 t		Tested	l; 20	0.00 Hz	[] N/A	[X] Pass		
	W.,	200	.00 H	d: 199.98 t	0	Tested Tested]] N/A			F
Pulse Frequency (Rep	W.,	200 Ex	0.00 H	d: 199.98 t	0]] N/A	[X] Pass		Fa Fa
Pulse Frequency (Rep Pulse Width Double Pulse	Rate)	200 Ex	pected	d: 199.98 to z d: <=25 nS	0	Tested	l: 6.8	88 nS]] N/A] N/A] N/A	[X] Pass [X] Pass [X] Pass		Fa Fa
Pulse Frequency (Rep Pulse Width Double Pulse	Rate) Tests	200 Ex	pected	d: 199.98 t z d: <=25 nS	0	Tested	l: 6.8	88 nS]] N/A	[X] Pass		Fa Fa
Pulse Frequency (Rep Pulse Width Double Pulse eam Characteristics Optical Power	Rate) Tests	200 Ex	pected	d: 199.98 to z d: <=25 nS 		Tested	l: 6.8	88 nS]] N/A] N/A] N/A	[X] Pass [X] Pass [X] Pass		F



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

I, <u>Cody Hill</u> , do certify under the Pierce, that all applicable tests and me	e penalty of perjury, under the lave easurements were made on the fol		
Manufacturer:	Decatur Electronics	Date Certified:	03/12/2020
Model:	Genesis VPD	Agency:	Steilacoom PS
Serial Number:	03971	·	
Operating Frequency Band:	K		:
The aforesaid	I radar meets and exceeds all man	ufacturer's specificat	ions.
	TUNING FORK		
I, <u>Cody Hill</u> <u>do certify</u> unde Pierce, that all applicable tests and me	r the penalty of perjury, under the easurements were made on the fol		
Tuning Fork Serial No.:	147346	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2391	Agency:	Steilacoom PS
Operating Frequency Band:	K		
мрн:	33		
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FORK		
I, Cody Hill , do certify unde Pierce, that all applicable tests and mo	r the penalty of perjury, under the easurements were made on the fol		
Tuning Fork Serial No.:	147430	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	5602	Agency:	Steilacoom PS
Operating Frequency Band:	K		
мрн:	77		
	Finance manifester and transport years are the state of t		
When operated bet	ween the temperature of -22F to -	-140F no correction is	required.
I certify under penalty of perjury, und	ler the laws of the State of Washing	ton, that the above stat	ements are true and correct.
Dated and Signed at Tacoma, Was	hington <u>3- 2 - 20 2 o</u> DATED	Cap	SIGNED .
	2111 112		

I WILL I WILL I'VE



OFFICER COPY

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Genesis VPD 04025	Agency;	Steilacoom PS
)4025		
	l	
K : ;		
adar meets and exceeds all man	ufacturer's specification	ons.
TUNING FORK		
147326	Date Certified:	03/12/2020
2390	Agency:	Steilacoom PS
«		
33		
en the temperature of -22F to +	·140F no correction is	required.
47436	Date Certified:	03/12/2020
5594	Agency:	Steilacoom PS
17		
en the temperature of -22F to +	·140F no correction is	required.
	TUNING FORK e penalty of perjury, under the urements were made on the foll 47326 2390 Cen the temperature of -22F to + TUNING FORK ne penalty of perjury, under the urements were made on the foll 47436 5594 Company Tuning Fork Tunin	e penalty of perjury, under the laws of the State of Wurements were made on the following Doppler Radar 247326 Date Certified: Agency: TUNING FORK Tuning For



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

Manufacturer:	MPH Industries	Date Certified:	03/12/2020
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546004627		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all	manufacturer's specificati	ons.
	TUNING FO	RK	
Cody Hill do certify under erce, that all applicable tests and me	the penalty of perjury, unde asurements were made on th		
Tuning Fork Serial No.:	414870	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2519	Agency:	Steilacoom PS
Operating Frequency Band:	K	Louron	
мрн:	35		
When operated bet	ween the temperature of -221	to +140F no correction is	required,
	TUNING FO	PRK	
Cody Hill , do certify under erce, that all applicable tests and me	the penalty of perjury, unde asurements were made on th		
Tuning Fork Serial No.:	414727	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	4680	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	65		
4375	wan the terminal time of 22E	to +140F no correction is	noguinad

DATED

SIGNED

100:10



OFFICER COPY

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	03/12/2020
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546006653		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons.
	TUNING FORK		
Cody Hill , do certify under ierce, that all applicable tests and me	the penalty of perjury, under the asurements were made on the fol		
Tuning Fork Serial No.:	416764	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2522	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
When energial hat	ween the temperature of -22F to +	-140F no correction is	roquired
Then operated bet	TUNING FORK		1 vy m vu
Cody Hill , do certify under	the penalty of perjury, under the	laws of the State of V	
	asurements were made on the fol	iowing Dobbier Kaost	
erce, that all applicable tests and me Tuning Fork Serial No.:	asurements were made on the foll	Date Certified:	03/12/2020
erce, that all applicable tests and me	416738		
ierce, that all applicable tests and me	416738	Date Certified:	03/12/2020
terce, that all applicable tests and me Tuning Fork Serial No.: Oscillation (Cycles per Second):	<u>416738</u> <u>4683</u>	Date Certified:	03/12/2020
erce, that all applicable tests and me Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	416738 4683 K 65	Date Certified: Agency:	03/12/2020 Steilacoom PS
erce, that all applicable tests and me Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	416738 4683 K 65 ween the temperature of -22F to +	Date Certified: Agency:	03/12/2020 Steilacoom PS required.



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

l, <u>Cody Hill</u> , do certify under the p Pierce, that all applicable tests and me			
Manufacturer:	MPH Industries	Date Certified:	03/12/2020
Model:	MPH Industries BEE III	Agency:	Stellacoom PS
Serial Number:	BEE-664016406		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons.
	TUNING FORK		
, <u>Cody Hill</u> , <u>do certify</u> unde of Pierce, that all applicable tests and	r the penalty of perjury, under th measurements were made on the		
Tuning Fork Serial No.:	501420	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2819	Agency:	Steilacoom PS
Operating Frequency Band:	Ka		
MPH:	28		ı
When operated bet	ween the temperature of -22F to ⊣	-140F no correction is	required.
, <u>Cody Hill</u> , <u>do certify</u> under Pierce, that all applicable tests and me	TUNING FORK the penalty of perjury, under the asurements were made on the following	e laws of the State of V	
Tuning Fork Serial No.:	501449	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	5035	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	50		
When operated between	ween the temperature of -22F to +	-140F no correction is	required,
I certify under penalty of perjury, und Dated and Signed at Tacoma, Was	-	ton, that the above state	ements are true and correct.



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

I, <u>Cody Hill</u> , do certify under the Pierce, that all applicable tests and me	e penalty of perjury, under the lavessurements were made on the fol	vs of the State of Wasi lowing Doppler Traffi	nington, in the County of c Radar equipment:
Manufacturer:	MPH Industries	Date Certified:	03/12/2020
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546000274	`	
Operating Frequency Band:	K		:
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons.
	TUNING FORK		
i, <u>Cody Hill</u> , <u>do certi</u> fy unde of Pierce, that all applicable tests and	er the penalty of perjury, under the measurements were made on the		
Tuning Fork Serial No.:	20669	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2541	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FORK		
, <u>Cody Hill</u> , do certify unde f Pierce, that all applicable tests and i	r the penalty of perjury, under th	e laws of the State of	
Tuning Fork Serial No.:	19905	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	4792	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	65		
When operated bet	ween the temperature of -22F to	-140F no correction is	required.
I certify under penalty of perjury, und	er the laws of the State of Washing	ton, that the above state	ements are true and correct.
Dated and Signed at Tacoma, Was		Lag	#//
	DATED	•	SIGNED

1000



OFFICER COPY

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	04/29/2020
Model:	MPH Industries BEE III	Agency:	Steilacoom PS
Serial Number:	BEE-122201340	.	
Operating Frequency Band:	Ka	•	
The aforesaid	radar meets and exceeds all ma	nufacturer's specificat	ions.
	TUNING FORE	ζ	
Raymond Fleming , do certify ounty of Pierce, that all applicable te	under the penalty of perjury, uses and measurements were ma		
Tuning Fork Serial No.:	756609	Date Certified:	04/29/2020
Oscillation (Cycles per Second):	2016	Agency:	Steilacoom PS
Operating Frequency Band:	Ka	,	
MPH:	20	, {	
Whose angusted hotel	ween the temperature of -22F to	LIANE no governion in	vo quilvod
when operated bety	TUNING FOR		required.
Raymond Fleming , do certify ounty of Pierce, that all applicable te	under the penalty of perjury, t	under the laws of the St	ate of Washington, in the
Tuning Fork Serial No.:	756694	Date Certified:	04/29/2020
Oscillation (Cycles per Second):	5044	Agency:	Steilacoom PS
Operating Frequency Band:	Ка	•	
мрн:	50		
1411 111		·	
J711 11.			
	veen the temperature of -22F to	+140F no correction is	required.



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	03/12/2020
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546007663	•	
Operating Frequency Band:	K	•	
The aforesaid	radar meets and exceeds all ma	nufacturer's specificat	ons.
	TUNING FORE	ζ.	
Cody Hill , do certify under Pierce, that all applicable tests and	r the penalty of perjury, under		
Tuning Fork Serial No.:	308539	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2521	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35	` 	
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FOR	К	
Cody Hill , do certify unde Pierce, that all applicable tests and i	r the penalty of perjury, under the measurements were made on the	the laws of the State of e following Doppler Ra	Washington, in the Count dar Tuning Forks:
Tuning Fork Serial No.:	308039	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	4681 .	Agency:	Steilacoom PS
Operating Frequency Band:	К		
мрн:	65		
	ween the temperature of -22F to	+140F no correction is	required.
When operated bet			



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	03/27/2020
Model:	MPH Python	Agency:	Stellacoom PS
Serial Number:	PYT546006652		
Operating Frequency Band:	K	maker in the States	
The aforesaid	radar meets and exceeds a	ll manufacturer's specificat	ions.
	TUNING FO	ORK	
, <u>Cody Hill</u> , <u>do certif</u> y under ierce, that all applicable tests and me		der the laws of the State of V the following Doppler Rada	
Tuning Fork Serial No.:	308554	Date Certified:	03/27/2020
Oscillation (Cycles per Second):	2519	Agency:	Steilacoom PS
Operating Frequency Band:	K	and the State of Contract of C	
мрн:	35		
When operated bet	ween the temperature of -2.	2F to +140F no correction is	required,
	TUNING F	ORK	
. <u>Cody Hill</u> , do certify under ierce, that all applicable tests and me		der the laws of the State of V the following Doppler Rada	
Tuning Fork Serial No.:	308340	Date Certified:	03/27/2020
Oscillation (Cycles per Second):	4681	Agency:	Steilacoom PS
Operating Frequency Band:	к		
мрн:	65		
			and the second s
When operated bet	ween the temperature of -2.	2F to +140F no correction is	required.
I certify under penalty of perjury, und	er the laws of the State of W	ashington, that the above stat	ements are true and cori
Pated and Signed at Tacoma, Was	hington <u>3-27-</u> 2	2020 (40	-Hy//_
	DATED		SIGNED

1001



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

Manufacturer:	Decatur Electronics	Date Certified:	04/13/2020
Model:	Genesis II Select	Agency:	Steilacoom PS
Serial Number:	G28-36360		
Operating Frequency Band:	K	MODELA A	
The aforesaid	radar meets and exceeds all n	nanufacturer's specificat	ons.
	TUNING FOR	K.	
Cody Hill , do certify unde Pierce, that all applicable tests and	er the penalty of perjury, unde measurements were made on t		
Tuning Fork Serial No.:	273601	Date Certified:	04/13/2020
Oscillation (Cycles per Second):	2535	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
When operated bet	ween the temperature of -22F	to +140F no correction is	required.
Onder 1990	TUNING FOI		
Cody Hill do certify under Pierce, that all applicable tests and a	r the penalty of perjury, under measurements were made on t		
	And the same of th	No.	04/13/2020
Tuning Fork Serial No.:	277842	_ Date Certified:	
•		_ Date Certified: Agency:	Steilacoom PS
Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band:		-	Steilacoom PS
Oscillation (Cycles per Second):	4721	-	Stellacoom PS
Oscillation (Cycles per Second): Operating Frequency Band:	4721 K	-	Steilacoom PS
Oscillation (Cycles per Second): Operating Frequency Band: MPH:	4721 K	Agency:	

[LXT()



OFFICER COPY

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	02/18/2020
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546004626		
Operating Frequency Band:	K	- Statement	
The aforesaid	I radar meets and exceeds at	l manufacturer's specificat	ions.
	TUNING FO	PRK	
Cody Hill , do certify unde Pierce, that all applicable tests and	or the penalty of perjury, un measurements were made o	der the laws of the State of n the following Doppler Ra	Washington, in the Coun dar Tuning Forks:
Tuning Fork Serial No.:	290946	Date Certified:	02/18/2020
Oscillation (Cycles per Second):	2540	Agency:	Steilacoom PS
Operating Frequency Band:	K		
МРН:	35		
When operated bet	ween the temperature of -22	F to +140F no correction is	required.
Cody Hill , do certify unde Pierce, that all applicable tests and	TUNING FOR TUNING FOR THE PENALTY OF PERSONS WERE MADE OF THE PERSONS TO THE PERSONS TO THE PERSONS PE	der the laws of the State of '	
Tuning Fork Serial No.:	280652	Date Certified:	02/18/2020
	4731	Agency:	Steilacoom PS
Oscillation (Cycles per Second):			
Oscillation (Cycles per Second): Operating Frequency Band:	K .		
	K		
Operating Frequency Band:	Manager Company of the Company of th		
Operating Frequency Band: MPH:	Manager Company of the Company of th	F to +140F no correction is	required.



P1240 Pierce County

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	02/18/2020
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546004626		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all	manufacturer's specificat	ions,
	TUNING FO	RK	
Cody Hill , do certify unde f Pierce, that all applicable tests and i	r the penalty of perjury, und measurements were made on		
Tuning Fork Serial No.:	290946	Date Certified:	02/18/2020
Oscillation (Cycles per Second):	2538	Agency:	Stellacoom PS
Operating Frequency Band:	K	accessments	
MPH:	35	and the latest terms of th	
			estation are grown as a second of the contract
When operated bet	ween the temperature of -22	F to +140F no correction is	required.
<u>Cody Hill</u> . do certify under f Pierce, that all applicable tests and i	TUNING FO r the penalty of perjury, und neasurements were made on	ler the laws of the State of	Washington, in the Count
Tuning Fork Serial No.:	280652	Date Certified:	02/18/2020
Oscillation (Cycles per Second):		Agency:	Steilacoom PS
Operating Frequency Band:	K	_ ·	i dan panggan ng mga katalah ng mga ng katalah ng mga n
MPH:	65		
and the second s			
When operated bety	veen the temperature of -221	F to +140F no correction is	required.
When operated bety I certify under pensity of perjury, und			



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

I, <u>Cody Hill</u> , do certify under the Pierce, that all applicable tests and me	e penalty of perjury, under the la- casurements were made on the fol	ws of the State of Was lowing Doppler Traffi	hington, in the County of c Radar equipment:
Manufacturer:	Decatur Electronics	Date Certified:	03/27/2020
Model:	Genesis II Directional	Agency:	Stellacoom PD
Serial Number:	G2S-22097		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons.
,	TUNING FORK		
I, <u>Cody Hill</u> , <u>do certi</u> fy unde of Pierce, that all applicable tests and	er the penalty of perjury, under the measurements were made on the		
Tuning Fork Serial No.:	201412	Date Certified:	03/27/2020
Oscillation (Cycles per Second):	2536	Agency:	Steilacoom PD
Operating Frequency Band:	K		
мрн:	35		
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FORK		
I <u>, Cody Hill</u> , <u>do ce</u> rtify uno of Pierce, that all applicable tests and t	der the penalty of perjury, under measurements were made on the		
Tuning Fork Serial No.:	201492	Date Certified:	03/27/2020
Oscillation (Cycles per Second):	4725	Agency:	Stellacoom PD
Operating Frequency Band:	K	,	
МРН:	65		
When operated bet	ween the temperature of -22F to -	-140F no correction is	required.
I certify under penalty of perjury, und	er the laws of the State of Washing	ton, that the above state	ements are true and correct.
Dated and Signed at Tacoma, Was	hington <u>3-21- 2020</u> DATED	Copy	SIGNED .



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Serial Number: G2S-22432 The aforesaid radar meets and exceeds all manufacturer's specification. TUNING FORK Cody Hill	ashington, in the Cor r Tuning Forks: 03/12/2020 Steilacoom PS
The aforesaid radar meets and exceeds all manufacturer's specification. TUNING FORK Cody Hill	ashington, in the Cor r Tuning Forks: 03/12/2020 Steilacoom PS
The aforesaid radar meets and exceeds all manufacturer's specification. TUNING FORK Cody Hill	ashington, in the Cor r Tuning Forks: 03/12/2020 Steilacoom PS
TUNING FORK Cody Hill	ashington, in the Cor r Tuning Forks: 03/12/2020 Steilacoom PS
Cody Hill , do certify under the penalty of perjury, under the laws of the State of Wa Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Fork Serial No.: 204702 Date Certified: Oscillation (Cycles per Second): 2538 Agency: Operating Frequency Band: K MPH: 35 When operated between the temperature of -22F to +140F no correction is reconstructed by the correction of the State of Was Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was Cody Hill .	r Tuning Forks: 03/12/2020 Steilacoom PS
Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Fork Serial No.: 204702 Date Certified: Agency: Operating Frequency Band: MPH: 35 When operated between the temperature of -22F to +140F no correction is recommended by the series of the State of Was Cody Hill Agency: TUNING FORK Cody Hill Agency:	r Tuning Forks: 03/12/2020 Steilacoom PS
Oscillation (Cycles per Second): 2538 Operating Frequency Band: K MPH: 35 When operated between the temperature of -22F to +140F no correction is reconstructed by the second of the State of Was Cody Hill do certify under the penalty of perjury, under the laws of the State of Was	Steilacoom PS
Operating Frequency Band: MPH: 35 When operated between the temperature of -22F to +140F no correction is reconstructed by the state of Was and Was	
When operated between the temperature of -22F to +140F no correction is reconstructed by the state of Was a contract of the	equired.
When operated between the temperature of -22F to +140F no correction is reconstructed by TUNING FORK Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was	equired,
TUNING FORK Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was	equired.
Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was	
Cody Hill , do certify under the penalty of perjury, under the laws of the State of Was	
erce, that all applicable tests and measurements were made on the following Doppler Radar T	shington, in the Cou 'uning Forks:
Tuning Fork Serial No.: 204778 Date Certified:	03/12/2020
Oscillation (Cycles per Second): 4733 Agency:	Steilacoom PS
Operating Frequency Band: K	
MPH: <u>65</u>	
When operated between the temperature of -22F to +140F no correction is rec	quired.
I certify under penalty of perjury, under the laws of the State of Washington, that the above statement	ents are true and cor



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	Decatur Electronics	Date Certified:	03/12/2020
Model:	Genesis II Select	Agency:	Steilacoom PS
Serial Number:	G2S-26208		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all mar	ufacturer's specificati	ons.
	TUNING FORK		
Cody Hill , do certify unde Pierce, that all applicable tests and	r the penalty of perjury, under the		
Tuning Fork Serial No.:	222754	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	2536	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FORK		
Cody Hill , do certify unde Pierce, that all applicable tests and i	r the penalty of perjury, under the neasurements were made on the		
Tuning Fork Serial No.:	223309	Date Certified:	03/12/2020
Oscillation (Cycles per Second):	4736	Agency:	Steilacoom PS
Oscination (Cycles per Second):		-	
Operating Frequency Band:	K		
	K 65		
Operating Frequency Band:			
Operating Frequency Band: MPH:		+140F no correction is	rcquired.



CERTIFICATION CONCERNING DESIGN AND CONSTRUCTION OF ELECTRONIC SPEED MEASURING DEVICES

I, Cody Hill, do certify under penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that the following is true and correct:

I am employed with Pierce County as a Communications Systems Technician, Speed Measuring Device (SMD) Specialist, and assigned as the custodian of the SMD records. I have been employed in this capacity since Aug 29th, 2016. Part of my duties include the maintenance and repair of all types of electronic radar and laser speed measuring devices (SMD's) used by the Steilacoom Police Department.

The Stellacoom Police Department currently uses the following SMD's:

SMD TYPE:	MODEL:	MANUFACTURE:	SERIAL NUMBER:	TUNING FORKS:
Radar	Genesis VPD	Decatur Electronics	03971	147346 33MPH / 147430 77MPF
Radar	Genesis VPD	Decatur Electronics	04025	147326 33MPH / 147436 77MPF
Radar	Genesis II Directional	Decatur Electronics	G2S-22097	201412 35MPH / 201492 65MPF
Radar	Genesis II Directional	Decatur Electronics	G2S-22432	204702 35MPH / 024778 65MPI
Radar	Genesis II Select	Decatur Electronics	G2S-26208	222754 35MPH / 223309 65MPF
Radar	Genesis II Select	Decatur Electronics	G2S-36360	273601 35MPH / 277842 65MPI
Radar	Python	MPH Industries	PYT380000562	226946 35MPH / 237221 65MPF
Radar	Python	MPH Industries	PYT546000274	20669 35MPH / 19905 65MPH
Radar	Python	MPH Industries	PYT546004626	292667 35MPH / 293093 65MPI
Radar	Python	MPH Industries	PYT546004627	55988 35MPH / 36347 65MPH
Radar	Python	MPH Industries	PYT546004781	294073 35MPH / 294581 65MPF
Radar	Python	MPH Industries	PYT546006652	308554 35MPH / 308340 65MPF
Radar	Python	MPH Industries	PYT546006653	416764 35MPH / 416738 65MPF
Radar	Python	MPH Industries	PYT546007663	308539 35MPH / 308039 65MPF
Laser	TruSpeed	Laser Technology	TJ004601	NA

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

I have twenty-five years of experience as a communications specialist in the maintenance and repair of electronics equipment and 5 years with Pierce County repairing, maintaining, and certifying SMD's for cities throughout the state. I received training from the following manufacturers as well as from the Pierce County Lead Systems Technician. On March 22, 2017 I successfully completed the MPH Industries course in operation and maintenance of Doppler traffic radar and traffic laser. On April 4th, 2019

The Pierce County Radio Communications Division maintains manuals for all of the above listed SMD's. I am personally familiar with those manuals and know how each of the SMD's are designed and operated. The units are evaluated and certified to meet or exceed existing performance standards.



correct.

The Pierce County Radio Communications Division maintains a testing and certification program for the Stellacoom Police Department wherein each SMD is inspected and checked every 24 months by the following means:

Radar SMD's utilize the Doppler effect to measure speed. Testing consists of using a precision signal generator to inject a signal into the SMD to simulate speeds of 35mph and 65mph for the stationary/moving radars. It also includes injection of a signal to simulate 35mph for stationary radar only. The signal must cause the SMD to display the exact speed, ± 1 mile per hour, in order to be certified for accuracy. I then measure the frequency of the tuning fork(s) assigned to each SMD to insure that they are within \pm 5Hz tolerance. I issue a certificate of accuracy for both the SMD and the tuning fork(s). The original certificates are issued to the Steilacoom Police Department who in turn issues a copy to the court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

Laser SMD's measure speed based on the velocity of light and a precision time base reference. Testing consists of three accuracy certification checks (1) Internal Self Test (2) Pulse Check to include; pulse width, power output, pulse repetition rate, and double pulse (3) and a Distance Check to include; sight alignment, vertical, and horizontal beam width ≥ 200 feet. The checks insure that the SMD is within tolerance and functioning properly. I then issue a certificate of accuracy for each SMD. The original certificates are issued to the Steilacoom Police Department who in turn issues a copy to the Court. I also retain a copy for my records along with the maintenance and service records for each SMD serviced.

All radar SMD's operated by the Steilacoom Police Department directly measure by digital message from the Doppler signal. They do not reconstitute the Doppler signal in any way, including the use of devices such as a phase lock loop (PLL), before the speed is measured.

Based upon my education, training and experience, and my knowledge of the radar SMD's listed above, it is my opinion that each of these electronic pieces of equipment is so designed and constructed as to accurately employ the Doppler effect 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 or, in the case of laser SMD's, 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 under the penalty of perjury, under the laws of the State of Washington, that the foregoing is true and

Cody Hill
Communications Systems Technician/
Speed Measuring Device Specialist
Signed and dated at Tacoma, Washington Derce County
SUBSCRIBED AND SWORN TO BEFORE ME THIS 12th DAY OF
March, 2020.
Karend. Menolinich
Notary Public in and for the State of Washington, County of Pierce.
Commission expires 5-5-22



Steilacoom Police Department Speed Measuring Device (SMD) Inventory

MODEL:	SERIAL #:	CERTIFICATION DATE:	UNIT ASSIGNED:	SMD TYPE:	
1 Genesis VPD	03971	28-Mar-18	Unit #1 Handheld	Radar	*
2 Genesis VPD	04025	28-Mar-18	Unit #2 Handheld	Radar	*
MPH BEE III	BEE-664016406	26-Apr-18	P1237	Radar	*
3 Genesis II Directi	onal G2S-22097	24-Jun-16	P1239 .	Radar	
4 Genesis II Directi	onal G2S-22432	28-Mar-18	P1241	Radar	*
5 Genesis II Select	G2S-26208	18-Apr-18	P1242	Radar	*
6 Genesis II Select	G2S-36360	28-Mar-18	· ·	Radar	*
7 MPH Python	PYT380000562	28-Mar-18	Spare	Radar	*
8 MPH Python	PYT546000274	28-Mar-18	P1236	Radar	*
9 MPH Python	PYT546004626	28-Mar-18	P1240	Radar	*
10 MPH Python	PYT546004627	19-Apr-16	P1228	Radar	
11 MPH Python	PYT546004781	28-Mar-18	P1232	Radar	*
12 MPH Python	PYT546006652	28-Mar-18	P1229	Radar	*
13 MPH Python	PYT546006653	28-Mar-18	P1238	Radar	*
14 MPH Python	PYT546007663	28-Mar-18	P1301	Radar	*
15 TruSpeed	TJ004601	15-Apr-16	Handheld	Laser	



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445

(253) 789-7147

CERTIFICATE OF ACCURACY

Manufacturer:	Laser Technology, Inc.	Date Certified:	23-Apr-18
Model:	TruSpeed	Agency:	Stellacoom PD
Serial Number:	TJ004601	Tractice.	
Distance Tests	- Chale from the Control of the Cont		THE REPORT OF THE PARTY OF THE
Long Range	Expected: 204.5 ft	Tested: 204.5 ft	[N/A X Puss Fui
		* * *	N/A [X Pass Fai
Controls Operational RFI Indicator	atics Tests	• • •	N/A
Operational Tests Controls Operational RFI Indicator Pulse Characteris Pulse Width		Tested: 7.81 nS	
Controls Operational RFI Indicator Pulse Characteris Pulse Width Beam Characteris Optical Power	Stics Tests Expected: <=25 nS Stics Tests Expected: 700 to 800	m Tested: 729.57 uW	N/A X Pass
Controls Operational RFI Indicator Pulse Characteris Pulse Width Beam Characteris	stics Tests Expected: <=25 nS stics Tests Expected: 700 to 800	m Tested: 729.57 uW	N/A [X Pass Fai



Hand Held #1

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	Decatur Electronics	Date Certified:	03/28/2018
Model:	Genesis VPD	Agency:	Steilacoom PS
Serial Number:	03971	tenatura .	
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all r	nanufacturer's specificati	ions.
	TUNING FOR	RK	
Raymond Fleming , do certify ounty of Pierce, that all applicable te			
Tuning Fork Serial No.:	147346	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2391	Agency:	Steilacoom PS
Operating Frequency Band:	K		
мрн:	33		
	ويستان المارية والمستدن والمستدن والمستور ويستان الأطافا المعيدي والقائد ويستان المستور وستستان والم		
When operated between	ween the temperature of -22F	to +140F no correction is	required.
Raymond Fleming, do certify	TUNING FO: under the penalty of perjury		ata af Washington in th
ounty of Pierce, that all applicable te			
Tuning Fork Serial No.:	147430	_ Date Certified:	03/28/2018
Oscillation (Cycles per Second):	5589	Agency:	Steilacoom PS
Operating Frequency Band:	K		
МРН:	77		
	waan tha tampayatura af 22P	to +140F no correction is	required,
When operated between	ween the temperature of -22F		



Hand Held # 2

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

Manufacturer:	Decatur Electronics	Date Certified:	03/28/2018
Model:	Genesis VPD	Agency:	Steilacoom PS
Serial Number:	04025		
Operating Frequency Band:	K	•	
The aforesaid	radar meets and exceeds all m	anufacturer's specificat	ions,
	TUNING FOR	K	
Raymond Fleming , do certify ounty of Pierce, that all applicable te			
Tuning Fork Serial No.:	147326	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2391	Agency:	Steilacoom PS
Operating Frequency Band:	K		
МРН:	33	•	
When operated bet	ween the temperature of -22F t	o +140F no correction is	required.
	TUNING FOR	K	
Raymond Fleming <u>, do</u> certify ounty of Pierce, that all applicable te	under the penalty of perjury, t sts and measurements were ma		
Tuning Fork Serial No.:	147436	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	5589	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	77		

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

Dated and Signed at Tacoma, Washington 3-28-2018

DATED



P1228 Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

i, Raymond Fleming, do certify und of Pierce, that all applicable tests and			
Manufacturer:	MPH Industries	Date Certified:	10/16/2019
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546004627		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons.
	TUNING FORK		
, <u>Raymond Fleming</u> , <u>do certify</u> County of Pierce, that all applicable te			
Tuning Fork Serial No.:	414870	Date Certified:	10/16/2019
Oscillation (Cycles per Second):	2545	Agency:	Steilacoom PS
Operating Frequency Band:	K		
мрн:	35		
When operated bet	ween the temperature of -22F to -	-140F no correction is	required.
	TUNING FORK	Statistics on the African public II from a statistic field in an delify possess state.	
, <u>Raymond Fleming</u> , <u>do</u> certify County of Pierce, that all applicable te	under the penalty of perjury, und sts and measurements were made	er the laws of the Stat on the following Dop	e of Washington, in the pler Radar Tuning Forks:
Tuning Fork Serial No.:	414727	Date Certified:	10/16/2019
Oscillation (Cycles per Second):	4734	Agency:	Steilacoom PS
Operating Frequency Band:	К		
мрн:	65		
When operated bet	ween the temperature of -22F to	-140F no correction is	required.
I certify under penalty of perjury, and	er the laws of the State of Washing	ton, that the above state	ements are true and correct
Dated and Signed at Tacoma, Was	hington 10/16/2015	160	SIGNED



#4 P1238 Pierce County

Pierce County Radio Communications

1422 112th Street East Tacoma, WashIngton 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	03/28/2018
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546006653		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds al	l manufacturer's specificati	ons.
	TUNING FO	PRK	
Raymond Fleming , do certify ounty of Pierce, that all applicable to			
Tuning Fork Serial No.:	416764	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2523	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
When operated bet	ween the temperature of -22	F to +140F no correction is	required.
	TUNING F		
<u>Raymond Fleming</u> , do certify ounty of Pierce, that all applicable te	under the penalty of perjur sts and measurements were		
Tuning Fork Serial No.:	416738	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	4681	Agency:	Steilacoom PS
Operating Frequency Band:	K		
Operating Frequency Band:	K 65		
MPH:		F to +140F no correction is	required.



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	04/26/2018
Model:	MPH Industries BEE III	Agency:	Steilacoom PS
Serial Number:	BEE-664016406	_	
Operating Frequency Band:	K	• [
The aforesaid	radar meets and exceeds all m	anufacturer's specificati	ons,
	TUNING FOR	K	
Raymond Fleming , do certify ounty of Pierce, that all applicable te			
Tuning Fork Serial No.:	501420	Date Certified:	04/26/2018
Oscillation (Cycles per Second):	2817	Agency:	Steilacoom PS
Operating Frequency Band:	Ka	•	
мрн:	28	-	
When operated bet	ween the temperature of -22F to	+140F no correction is	required.
	TUNING FOR	K	
Raymond Fleming , do certifounty of Pierce, that all applicable te	y under the penalty of perjury, sts and measurements were ma		
Tuning Fork Serial No.:	501449	Date Certified:	04/26/2018
Oscillation (Cycles per Second):	5030	Agency:	Steilacoom PS
Operating Frequency Band:	K		•
MPH:	50		
When engaged but	ween the temperature of -22F to	a ±1.40E no convention to	raquirad
	ween the temperature of -224 to	o tique no correction is	regaireu,



#6 P1236

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

	ify under the penalty of perjury, under s and measurements were made on the		
Manufacturer:	MPH Industries	Date Certified:	03/28/2018
Model:	MPH Python	Agency:	Steilacoom PS

Model: MPH Python Agency: Steilacoom PS

Serial Number: PYT546000274

Operating Frequency Band: K

The aforesaid radar meets and exceeds all manufacturer's specifications.

TUNING FORK

I, <u>Raymond Fleming , d</u> o certify under the penalty of perjury, under the laws of the State of Washington, in	the
County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning F	orks:
	Per del Religio

Tuning Fork Serial No.:	20669	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2545	Agency:	Stellacoom PS
Operating Frequency Band:	K		
мрн:	35		

When operated between the temperature of -22F to +140F no correction is required.

TUNING FORK

I, Raymond Fleming , do certify under the penalty of perjury, under the laws of the State of Washington, in the County of Pierce, that all applicable tests and measurements were made on the following Doppler Radar Tuning Forks:

Tuning Fork Serial No.:	19905	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	4794	Agency:	Stellacoom PS
Operating Frequency Band:	K		
мрн:	65		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the law	s of the State of Washington,	that the above statements are true and correct.
Dated and Signed at Tacoma, Washington	3-28-2018	Ma Se
	DATED	SIGNED

P-1306



Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	02/14/2019
Model:	MPH Industries BEE III	•	Stellacoom PS
	A CONTRACTOR OF THE PROPERTY O	Agency:	Stenacoon PS
Serial Number:	BEE-122201340		
Operating Frequency Band:	Ka		
The aforesaid	radar meets and exceeds all mar	ıufacturer's specificati	ons.
	TUNING FORK		
Raymond Fleming , do certify ounty of Pierce, that all applicable tes	under the penalty of perjury, wats and measurements were mad		
Tuning Fork Serial No.:	756609	Date Certified:	02/14/2019
Oscillation (Cycles per Second):	2017	Agency:	Stellacoom PS
Operating Frequency Band:	Ka		
мрн:	20		
When appared both	veen the temperature of -22F to	+140E no segmention is	vocavirod
vy nen operated betv	veen the temperature of -22r to	TIQUE HO CULLECTION IS	required.
	THATAC FOR	7	
	TUNING FORE under the penalty of perjury, u	nder the laws of the St	
ounty of Pierce, that all applicable tes	under the penalty of perjury, uses and measurements were mad	nder the laws of the St e on the following Dop	pler Radar Tuning Forks:
	under the penalty of perjury, u	nder the laws of the St	
ounty of Pierce, that all applicable tes	under the penalty of perjury, usts and measurements were mad	nder the laws of the St e on the following Dop	pler Radar Tuning Forks:
county of Pierce, that all applicable tes	under the penalty of perjury, usts and measurements were mad	nder the laws of the St e on the following Dop Date Certified:	pler Radar Tuning Forks: 02/14/2019
Tuning Fork Serial No.: Oscillation (Cycles per Second):	under the penalty of perjury, usts and measurements were mad 756694 5045	nder the laws of the St e on the following Dop Date Certified:	pler Radar Tuning Forks: 02/14/2019
ounty of Pierce, that all applicable tes Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band:	vunder the penalty of perjury, usts and measurements were mad 756694 5045	nder the laws of the St e on the following Dop Date Certified:	pler Radar Tuning Forks: 02/14/2019
ounty of Pierce, that all applicable tes Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	vunder the penalty of perjury, usts and measurements were mad 756694 5045	nder the laws of the Ste on the following Dop Date Certified: Agency:	pler Radar Tuning Forks: 02/14/2019 Steilacoom PS
ounty of Pierce, that all applicable tes Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	vunder the penalty of perjury, usts and measurements were mad 756694 5045 K 50 veen the temperature of -22F to	nder the laws of the Ste on the following Dop Date Certified: Agency: +140F no correction is	pler Radar Tuning Forks: 02/14/2019 Steilacoom PS required.



#8 P1230

Pierce County **Radio Communications**

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

	i, Raymond Fleming 100 certify under the penalty of perjury, under the laws of the State of Washington, in the County
(of Pierce, that all applicable tests and measurements were made on the following Doppler Traffic Radar equipment:
1	

Manufacturer:	MPH Industries	Date Certified:	03/28/2018
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546007663	······································	
Operating Frequency Band:	K	***************************************	
The aforesaid	radar meets and exceeds all	manufacturer's specificati	ons,
	TUNING FO	RK	
Raymond Fleming . do certify ounty of Pierce, that all applicable te	under the penalty of perjur sts and measurements were i		
Tuning Fork Serial No.:	308539	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2521	Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
When operated beta	ween the temperature of -221	to +140F no correction is	required.
	TUNING FC under the penalty of perjur sts and measurements were i	y, under the laws of the St	
	under the penalty of perjur	y, under the laws of the St	
ounty of Pierce, that all applicable to	under the penalty of perjur sts and measurements were in 308039	y, under the laws of the St nade on the following Dop	pler Radar Tuning Forks
ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second):	under the penalty of perjur sts and measurements were in 308039	y, under the laws of the St nade on the following Dop Date Certified:	pler Radar Tuning Forks 03/28/2018
ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second):	under the penalty of perjur sts and measurements were i 308039	y, under the laws of the St nade on the following Dop Date Certified:	pler Radar Tuning Forks 03/28/2018
ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	under the penalty of perjur sts and measurements were to 308039 4685	y, under the laws of the St. nade on the following Dop Date Certified: Agency:	pler Radar Tuning Forks 03/28/2018 Steilacoom PS
ounty of Pierce, that all applicable te Tuning Fork Serial No.: Oscillation (Cycles per Second): Operating Frequency Band: MPH:	under the penalty of perjursts and measurements were a 308039 4685 K 65	y, under the laws of the St. nade on the following Dop Date Certified: Agency: To +140F no correction is	pler Radar Tuning Forks 03/28/2018 Steilacoom PS required.



#9 P1229

Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 {253} 798-7147

I, <u>Raymond Fleming</u> , do certify und of Pierce, that all applicable tests and it				
Manufacturer:	MPH Indu	istries	Date Certified:	03/28/2018
Model:	MPH Pyth	on	Agency:	Steilacoom PS
Serial Number:	PYT54600	6652		
Operating Frequency Band:	K			
The aforesaid	radar meets	and exceeds all man	ufacturer's specificati	ons,
	7	TUNING FORK		
I, <u>Raymond Fleming</u> , do certify County of Pierce, that all applicable te				te of Washington, in the pler Radar Tuning Forks:
Tuning Fork Serial No.:	308554		Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2521	THE CONTRACT OF CHILD PARTY AND THE CONTRACT OF CONTRACT OF CONTRACT OF CHILD PARTY AND THE CONTRACT OF CONTRACT O	Agency:	Steilacoom PS
Operating Frequency Band:	K			
мрн:	35			
When operated bet	ween the tem	perature of -22F to +	-140F no correction is	required.
		TUNING FORK		
I, <u>Raymond Fleming , do</u> certify County of Pierce, that all applicable te				
Tuning Fork Serial No.:	308340		Date Certified:	03/28/2018
Oscillation (Cycles per Second):	4681		Agency:	Steilacoom PS
Operating Frequency Band:	K			
мрн:	65			
When operated bet	ween the tem	perature of -22F to +	140F no correction is	required.
I certify under penalty of perjury, und	ler the laws of	the State of Washingt	ton, that the above stat	ements are true and correct.
Dated and Signed at Tacoma, Was	hington $\frac{3}{2}$	DATED DATED	- Man	SIGNED



P. 1302 Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATE OF CALIBRATION & ACCURACY

I, Raymond Fleming ,do certify und of Pierce, that all applicable tests and i			
Manufacturer:	Decatur Electronics	Date Certified:	03/28/2018
Model:	Genesis II Select	Agency:	Steilacoom PS
Serial Number:	G2S-36360		
Operating Frequency Band:	K		
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons,
	TUNING FORK		
I, <u>Raymond Fleming</u> , do certify County of Pierce, that all applicable te	under the penalty of perjury, unsts and measurements were made		
Tuning Fork Serial No.:	273601	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	2536	Agency:	Steilacoom PS
Operating Frequency Band:		,	
мрн:	35		
When operated between	veen the temperature of -22F to 4	-140F no correction is	required.
	TUNING FORK		
I, Raymond Fleming , do certify County of Pierce, that all applicable te			
Tuning Fork Serial No.:	277842	Date Certified:	03/28/2018
Oscillation (Cycles per Second):	4726	Agency:	Steilacoom PS
Operating Frequency Band:	K		
мрн:	65		

When operated between the temperature of -22F to +140F no correction is required.

I certify under penalty of perjury, under the laws of the State of Washington, that the above statements are true and correct.

SIGNED

Dated and Signed at Tacoma, Washington 3-29-2018

DATED



#11 P124 Pierce County Radio Communications

> 1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	MPH Industries	Date Certified:	03/28/2018
Model:	MPH Python	Agency:	Steilacoom PS
Serial Number:	PYT546004626		
Operating Frequency Band:	K	1730	
The aforesaid	radar meets and exceeds all n	nanufacturer's specificat	ons.
	TUNING FOR	RK	
Raymond Fleming , do certify ounty of Pierce, that all applicable te	y under the penalty of perjury		
Tuning Fork Serial No.:	292667	Date Certified:	03/28/2018
Oscillation (Cycles per Second):		Agency:	Steilacoom PS
Operating Frequency Band:	K		
MPH:	35		
1411 1%			
When operated bet	ween the temperature of -22F	to +140F no correction is	required.
	TUNING FO	RK	
Raymond Fleming , do certify outly of Pierce, that all applicable te	y under the penalty of perjury sts and measurements were m		
Tuning Fork Serial No.:	293093	Date Certified:	03/28/2018
	4600	Agency:	Steilacoom PS
Oscillation (Cycles per Second):	4680	1.6vvj.	
Oscillation (Cycles per Second): Operating Frequency Band:	4080 K	, again,	
Operating Frequency Band:	K		
Operating Frequency Band: MPH:	K		required.



P. 1239 Pierce County Radio Communications

> 1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

I, <u>Raymond Fleming</u>	ાતેo certify under the penalty	y of perjury, under t	the laws of the State	of Washington, in the County
of Pierce, that all applic	able tests and measurements	were made on the f	iollowing Doppler Tr	raffic Radar equipment:
		A		

Manufacturer:	Decatur Electronics	Date Certified:	07/13/2018
Model:	Genesis II Directional	Agency:	Steilacoom PD
Serial Number:	G2S-22097	100	
Operating Frequency Band:	K	3	
The aforesaid	radar meets and exceeds all m	anufacturer's specificat	ions.
	TUNING FOR	K	
, <u>Raymond Fleming , d</u> o certify County of Pierce, that all applicable te	y under the penalty of perjury, sts and measurements were ma		
Tuning Fork Serial No.:	201412	Date Certified:	07/13/2018
Oscillation (Cycles per Second):	2536	Agency:	Steilacoom PD
Operating Frequency Band:	K	223	
мрн:	35	384	
When operated bet	ween the temperature of -22F t	o +140F no correction is	required.
	TUNING FOR	RK.	
, <u>Raymond Fleming</u> , <u>do</u> certify County of Pierce, that all applicable te	under the penalty of perjury, t sts and measurements were ma		
Tuning Fork Serial No.:	201492	_ Date Certified:	07/13/2018
Oscillation (Cycles per Second):	4726	Agency:	Steilacoom PD
Operating Frequency Band:	K		
		7	
мрн:	65		
MPH:	65		
	65 ween the temperature of -22F t	o +140F no correction is	s required.



PID41 Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

CERTIFICATION OF THE PROPERTY	RES OF CIRCIIDITIES	OITONACCO	LVIXOR		
I, <u>Raymond Fleming</u> , do certify und of Pierce, that all applicable tests and i					
Manufacturer:	Decatur Electronics	Date Certified:	03/28/2018		
Model:	Genesis II Directional	Agency:	Steilacoom PS		
Serial Number:	G2S-22432				
Operating Frequency Band:	K				
The aforesaid	radar meets and exceeds all man	ufacturer's specificati	ons.		
	TUNING FORK				
I, <u>Raymond Fleming</u> , do certif County of Pierce, that all applicable te					
Tuning Fork Serial No.:	204702	Date Certified:	03/28/2018		
Oscillation (Cycles per Second):	2536	Agency:	Steilacoom PS		
Operating Frequency Band:	K				
МРН:	35				
When operated bet	ween the temperature of -22F to -	-140F no correction is	required.		
TUNING FORK					
l, <u>Raymond Fleming</u> , <u>do</u> certify County of Pierce, that all applicable te	under the penalty of perjury, unosts and measurements were made				
Tuning Fork Serial No.:	204778	Date Certified:	03/28/2018		
Oscillation (Cycles per Second):	4726	Agency:	Steilacoom PS		
Operating Frequency Band:	К				
MPH:	65				
When operated bet	ween the temperature of -22F to	+140F no correction is	required.		
I certify under penalty of perjury, und	er the laws of the State of Washing	ton, that the above stat	ements are true and correct.		
Dated and Signed at Tacoma, Was	hington 3-28-2018	Men &			
	DATED	٤	SIGNED		



#14 P1242 Pierce County Radio Communications

1422 112th Street East Tacoma, Washington 98445 (253) 798-7147

Manufacturer:	Decatur Electronics	Date Certified:	04/18/2018
Model:	Genesis II Select	Agency:	Steilacoom PS
Serial Number:	G2S-26208	manted.	
Operating Frequency Band:	K	monași	
The aforesaid	radar meets and exceeds all 1	nanufacturer's specificat	lons.
	TUNING FOR	RK	
Raymond Fleming , do certifounty of Pierce, that all applicable te	v under the penalty of perjury sts and measurements were n		
Tuning Fork Serial No.:	222754	Date Certified:	04/18/2018
Oscillation (Cycles per Second):	2538	Agency:	Steilacoom PS
Operating Frequency Band:	K	7- 14 00	
мрн:	35	NO SERVICE AND A	
When an avoted but	ween the temperature of -22F	to 1140E no convention is	angul Kad
With openies bet	TUNING FO	en de germante, popular agregarem en 22 tourage a programme de la company de la compan	required.
Raymond Fleming , do certifounty of Pierce, that all applicable te	y under the penalty of perjury	, under the laws of the St	
Tuning Fork Serial No.:	223309	Date Certified:	04/19/2016
Oscillation (Cycles per Second):	4725	Agency:	Steilacoom PS
Operating Frequency Band:	K		
МРН:	65	MAC#4	
MILLY:			
	ween the temperature of -22F	to +140F no correction is	s required.