## C.W. ELECTRONICS 346 Columbia Turnpike Rensselaer, New York 12144 (518) 477-2569

I, Nicholas Dyer, owner, C.W. Electronics, was directed by the New York State Police to repair and test the below listed radar speed measuring instrument. Upon completion of repairs, I conducted the following tests.

## Radar Instrument and Component Identification

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	Make: ACI	Model: DUAL		Antonno 1 C/N I/A 070055	
	Troop <u>D</u>	Indicator S/N	DC-098265	Antenna 1 S/N KA-070655	Tuning Fork 1 FA-162865
	Property #:	FP-11380		Antenna 2 S/N KA-070664	Tuning Fork 2 FF-004425

## 1. Radar transmitter and indicator test.

A) Measured transmitter frequency of Antenna #1 34759 megahertz and Antenna #2 34725 megahertz by means of a microwave frequency meter.

Manufacturer's frequency tolerance of 34600 mhz to 34800 mhz.

Transmitter input power less than 5 watts and output power less than 100 milliwatts.

B) Light segment test of patrol window <u>888</u> and of target window <u>888</u>.

C) Internal circuity test of the patrol speed crystal indicates  $\underline{10-35-65}$  with a manufacturer's tolerance of  $\underline{0}$ . Circuitry test must display 10-35-65

D) Internal circuitry test of the target speed crystal indicates  $\underline{10-35-65}$  with a manufacturer's tolerance of  $\underline{0}$ . Circuitry test must display 10-35-65.

## 2. <u>Tuning fork tests</u>.

A) Each tuning fork was tested independent of the radar to ascertain its true simulated MPH speed by means of a frequency counter.

SERIAL #	INDICATED MPH	FREQUENCY	TRUE MPH
<u>FA-162865</u>	25	<u>2613</u>	_25_
FF-004425	55	<u>5724</u>	_55

B) Each tuning fork was tested separately with the radar instrument so as to simulate a stationary mode of operation. Stationary mode test results are:

The 25 MPH fork tested, displayed 25 in the target window.

The 55 MPH fork tested, displayed 55 in the target window.

C) Both tuning forks were tested together with the radar instrument so as to simulare a moving police vehicle and a moving target vehicle approaching each other. Moving mode test results are:

The 25 MPH fork tested, displayed 25 in the patrol window while the 55 MPH fork tested, displayed 30 in the target window.

The 25 MPH fork represents the police vehicle speed and the 55 MPH fork represents the closing rate speed of the two vehicles. When the police vehicle speed is substracted from the closing rate speed, the difference of that of the target vehicle, is displayed in the target window.

3. As a result of all my tests, I do hereby certify that the transmitter is in compliance with the Rules and Regulations as set forth by the Federal Communications Commission. Also, the transmitter is operating within tolerance of the manufacturer's specifications. In addition to the transmitter, I have tested the tuning forks both together and independently with the radar instrument described above and find that the radar instrument accurately made

I do hereby certify that the radar speed measurement instrument identified above is accurate. This is a true and accurate document made and kept in the normal course of business.

Tested and certified on <u>July 26, 2011</u>