

**CW SOP-I-6 Equipment Maintenance Schedule**

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*Approved by Director: Dr. Guy Vallaro*

All instruments and equipment in the Firearms Unit shall be calibrated and maintained on a set schedule. Calibration of equipment shall be conducted by a laboratory-approved vendor.

Maintenance and calibration records shall be maintained on all instruments and equipment. Records shall be kept in a log in the appropriate area of the Firearms Unit.

**Firearm/Toolmark Section Equipment Maintenance Schedule**

Identifier	Make	Model	S/N	State of CT tag #	Location	Maintenance
Mic 1	American Optical comparison microscope	K2031	5066	5966	11-135	Yearly, by lab-approved vendor
Mic 2	Leica comparison microscope	FSM	370274	42490	11-135	Yearly, by lab-approved vendor
Mic 3	Leitz comparison microscope	n/a	992827	16635	11-135	Yearly, by lab-approved vendor
Mic 4	Leica comparison microscope	FSC	256258	37664	11-135	Yearly, by lab-approved vendor
Mic 5	Leica comparison microscope	FSM	370273	42491	11-135	Yearly, by lab-approved vendor
Mic 6	Leica comparison microscope	K2700	348-8	31406	11-135	Yearly, by lab-approved vendor
Stereo #1	Leica stereoscope	A60	5884533	42654	11-133	Yearly, by lab-approved vendor
Stereo #2	Leica stereoscope	EZ4D	5711994	40446	11-133	Yearly, by lab-approved vendor
Stereo #3	Olympus stereoscope	SZ4D	095064	25041	11-133	Yearly, by lab-approved vendor
Stereo #4	Leica stereoscope	EZ4D	5712002	40448	11-129	Yearly, by lab-approved vendor
Stereo #5	Leica stereoscope	A60	5884525	42653	11-129	Yearly, by lab-approved vendor
Stereo #6	Fisher Scientific stereoscope	Stereo-master	606727	40125	11-131	Yearly, by lab-approved vendor
Stereo #7	Fisher Scientific stereoscope	Stereo-master	unknown	40124	11-131	Yearly, by lab-approved vendor
Stereo #8	Fisher Scientific stereoscope	Stereo-master	0507521	36841	11-145	Yearly, by lab-approved vendor

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Identifier	Make	Model	S/N	State of CT tag #	Location	Maintenance
Stereo #9	Nikon stereoscope	unknown	97020	5701	11-131	Yearly, by lab-approved vendor
Stereo #10	Leica stereoscope	EZ4D	5712001	40447	11-133	Yearly, by lab-approved vendor
n/a	Satorius balance	1205 MP	3106006	14703	11-132	Yearly, by lab-approved vendor. Checked monthly with 100, 50, and 10 gram weights; recorded in log book.
n/a	Ohaus balance	AR5120	I18412251 50745P	n/a	11-132	Yearly, by lab-approved vendor. Checked monthly with 100, 50, and 10 gram weights; recorded in log book.
n/a	Precision Forensic Testing (PFT) overall/barrel measuring device	Device: MD36 Ruler: 2020A	Device: 1020 Ruler: C38870	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly, with firearms 1-3 listed in Uncertainty Budget; recorded in log book.
#1	Fisher Scientific calipers	32600	111851905	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly with gage block set: .300", .500", and 1.000"; recorded in log book.
#2	Fisher Scientific calipers	06-664-16	101681722	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly with gage block set: .300",

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Identifier	Make	Model	S/N	State of CT tag #	Location	Maintenance
						.500", and 1.000"; recorded in log book.
#3	Fisher Scientific calipers	32600	122047571	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly with gage block set: .300", .500", and 1.000"; recorded in log book.
#4	Fisher Scientific calipers	32600	122047518	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly with gage block set: .300", .500", and 1.000"; recorded in log book.
#5	Fisher Scientific calipers	14-648-17	51127884	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly with gage block set: .300", .500", and 1.000"; recorded in log book.
#6	Fisher Scientific calipers	06-664-16	101681685	n/a	11-132	Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage. Checked monthly with gage block set: .300", .500", and 1.000"; recorded in log book.
n/a	NRA static weights (Set #1)*	n/a	n/a	n/a	11-132	Checked annually in-house; recorded in log book. Calibrated every 5 years by lab-

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Identifier	Make	Model	S/N	State of CT tag #	Location	Maintenance
						approved vendor, earlier if noticeable damage.
n/a	NRA static weights (Set #2)*	n/a	n/a	n/a	11-132	Checked annually in-house; recorded in log book. Calibrated every 5 years by lab-approved vendor, earlier if noticeable damage.
n/a	Amtek force gage	L-30	17111	17111	11-132	Calibrated every 3 years, earlier if noticeable damage. Checked monthly with 2 lb. and 5 lb. NRA static weights; recorded in log book.
n/a	NIBIN BrassTrax acquisition unit	n/a	n/a	n/a	11-145	Checked internally monthly**); maintained by FTI as needed.
n/a	Denver Instruments metric weights set*	854050.7	07-J77257	n/a	11-132	Checked annually in-house; recorded in log book. Calibrated every 5 years by lab-approved vendor; earlier if noticeable damage.
n/a	Gage blocks	n/a	A1230	n/a	11-132	Calibrated every 5 years by lab-approved vendor; earlier if noticeable damage.
n/a	Savage Range Systems (indoor range)	n/a	n/a	n/a	B-25	Cleaned every 5 years by lab-approved vendor, sooner if necessary.

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n/a	Vertical water recovery tank	n/a	n/a	n/a	11-127	Water changed monthly, sooner if necessary.
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\*The NRA static weights and the metric weights set are traceable to National Institute of Standards and Technology (NIST) standards.

**\*\*Procedure for NIBIN Monthly Check:**

1. Following the procedure outlined in the NIBIN SOP, create a Case ID.
  - a. Case ID: Bench Test 1/1/2015 (insert date of monthly check)
  - b. Supervisor: Select person conducting monthly check
  - c. Law Agency: CT-SP Forensic Science Lab Meriden
  - d. Event Type: Other
2. Following the procedure outlined in the NIBIN Entry and Hits SOP, create an Exhibit.
  - a. Exhibit Number: 1
  - b. Caliber: 9mm
  - c. Firing Pin Shape: Circle
  - d. Event Type: Other
3. Acquire images of the standard cartridge case that is kept in the NIBIN room; then Submit and Synchronize.
4. When the correlation is returned, review the results, ensuring that the current month's acquisition has hit against previous entries. Previous entries should be in the Top 20.
5. Print the images of the entry and the Correlation Results Filtering, initial and date the pages, and store them in the NIBIN Monthly Control Log binder.
6. Delete the correlation once it has been reviewed.
7. Notify the Unit supervisor if the results are out of the acceptable range.

**References:**

1. Firearms Unit Uncertainty of Measurement Budget
2. NIBIN SOP
3. BrassTrax HD3D Training Guide (current edition)
4. MatchPoint+ Training Guide (current edition)