

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	5699	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	Sartorius 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:**

- Following the procedure outlined in the NIBIN SOP, create a Case ID.
 - Case ID: Bench Test 1/1/2015 (insert date of monthly check)
 - Supervisor: Select person conducting monthly check
 - Law Agency: CT-SP Forensic Science Lab Meriden
 - Event Type: Other
- Following the procedure outlined in the NIBIN Entry and Hits SOP, create an Exhibit.
 - Exhibit Number: 1
 - Caliber: 9mm
 - Firing Pin Shape: Circle
 - Event Type: Other
- Acquire images of the standard cartridge case that is kept in the NIBIN room; then Submit and Synchronize.
- 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.
- 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.
- Delete the correlation once it has been reviewed.
- Notify the Unit supervisor if the results are out of the acceptable range.

References:

- Firearms Unit Uncertainty of Measurement Budget
- NIBIN SOP
- BrassTrax HD3D Training Guide (current edition)
- MatchPoint+ Training Guide (current edition)