

# Alaska Scientific Crime Detection Laboratory

## DataMaster Calibration Form

Effective: 1/23/2024

Version: 4.0

Instrument #: 100377 Analyst or Technician Name: Kija Swisher

DataMaster DMT Calibration Start Date: 6/6/24

### Diagnostic Test

- Perform Diagnostic Test (View Details)
- Internal Standard Value  $\leq$  3.00%

Supervised case work  
with Derek Walton  
06/13/24

### Technician Screen and Calibration Factors

- Adjust Voltages (if needed)
  - Lamp (2.60 V Maximum)
  - Bias
  - Cooler (2.00 V Maximum)
  - Chopper Frequency
  - Detector Voltage (-0.100V to 0.100V)
- Set RFI Sensitivity
- Adjust internal barometer reading to match NIST-traceable barometer  
Barometer/Thermometer/Hygrometer S/N: 230307229  
Calibration Due Date: 5/2/25

- Verify Volume Setting (1.50 L +/- 0.10 L), adjust if needed (Did not adjust due to glitch)
- Print Technician Screen — on tech screen, instrument began to glitch, screen turned orange and began to flash. Restarted instrument and orange screen came back. Was unable to continue - KS 6/6/24.
- Print "Cal Factors"

### Minimum Volume Test

- Perform Minimum Volume (Subject) Test: \_\_\_\_\_ liters (1.3 L to 1.7 L)

### As Left Linearity Testing

Barometric Pressure (in Hg) \_\_\_\_\_ Temperature(C) \_\_\_\_\_ Relative Humidity(%) \_\_\_\_\_

Approved Concentrations (g/210L): 0.020, 0.040, 0.080, 0.100, 0.150, 0.300

### Functional Tests

- Incomplete
- Invalid
- Interference (Volatiles) — Print with View Details
- Maximum Attempts Exceeded
- Radio Frequency Interference (RFI)

1. Acetone Reagent Lot Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
Simulator S/N: \_\_\_\_\_ Thermometer Verification Performed?
2. Isopropanol Reagent Lot Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
Simulator S/N: \_\_\_\_\_ Thermometer Verification Performed?
3. Negative (Ethanol Only) Lot Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_  
Simulator S/N: \_\_\_\_\_ Thermometer Verification Performed?

Calibrated External Thermometer S/N: \_\_\_\_\_  
Calibration Due Date: \_\_\_\_\_

Calibration Rejected  
KS 6/6/24

### Administrative

- Verify Stylus Calibration
- Reset Options
- Clear Memory
- Verification of Calibration (VOC)
- Perform Non-Drinking Subject Test
- Upload Instrument
- Remove Dry Gas Tank Before Shutdown
- Add Ready for Tech Review Note

### Completion

Lab Work End Date: \_\_\_\_\_

Data Interpretation Date (Technician): \_\_\_\_\_ (if applicable)

Data Interpretation Date (Analyst): \_\_\_\_\_

All printed copies are uncontrolled.

Approved by: Chemistry Supervisor

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100377

Date: 06/06/2024  
Time: 05:44:26

VERSIONS

DMT: 3.02  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.6°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.6°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.73 V PASSED  
(1.04 V - 2.42 V)  
Cooler Voltage = 1.61 V PASSED  
(0.97 V - 2.25 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 526 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.6 in

PUMP INFO

Flow Rate = 5.727 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.002 V <= 0.010 V)  
PUMP OFF PASSED  
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.086 1.30% (0.00% - 4.00%) PASSED

Technician Screen

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DATAMASTER dmt: 100377  
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Date: 06/06/2024  
Time: 6:06 AM

Temperatures (°C)  
Sample Cell: 49.2°C  
Breath Tube: 43.3°C

Current Barometer 29.2 in  
Volume (Ltr) 0.00

Settings  
Lamp: 1.73 V  
Bias: 80 V  
Cooler: 1.61 V  
Chopper: 522 Hz

Voltages (V)  
Flow: 1.06 V  
Detector: -0.077 V

REJECTED

CALIBRATION FACTORS

Alaska Department of Public Safety  
DATAMASTER dmt: 100377

Date: 05/06/2024  
Time: 02:59:59

OPERATOR NAME:  
INTOX I METERS  
CERTIFICATE #: 99999

Ca	=	0.0992		
CAL	=	0.998938	0.800	<= CAL < 1.200
b1	=	0.0004	0.0000	<= b1 < 0.0040
b2	=	0.0050	0.0010	<= b2 < 0.0100
b3	=	0.0005	0.0000	<= b3 < 0.0040
Xq	=	0.0869	0.0500	<= Xq < 0.2000
a21	=	1.175031	1.050	<= a21 < 1.300
a31	=	0.384629	0.300	<= a31 < 0.800

REJECTED