

# Alaska Scientific Crime Detection Laboratory

## DataMaster Repair Form

Effective: 3/20/2025

Version: 2.0

Instrument #: 100382

Analyst(s): C. OBryant

Start Date: 4/15/25

### Reason for Repair

Modem will not upload.

### Troubleshooting/Repair

Replaced modem + successfully uploaded.

When putting the side wall back on the instrument restarted twice when a wire was moved. It also gave off a small amount of smoke near the filter wheel assembly.

Investigation revealed the filter wires were exposed (black covering partially covered, partially not).

Resulted in many filter wheel errors.

Replaced the filter wheel solenoid gun and cleaned all filters + IS with a dry cotton swab.

Retesting resulted in elevated IS values >4% but successfully passed 24/25 Filter wheel tests.

Recommended Adjustment

- |  |   |
|--|---|
| <input type="checkbox"/> VOC (attached)                            | <input type="checkbox"/> Verify software version <u>COB 4/17/25</u> |
| <input type="checkbox"/> VOC Internal Standard value $\leq 3.00\%$ | <input type="checkbox"/> Non-Drinking Subject Test (attached)       |
| <input checked="" type="checkbox"/> Ready for Adjustment           | <input type="checkbox"/> Ready for Calibration                      |
| <input type="checkbox"/> Further Repair Needed                     | <input type="checkbox"/> Return to Factory                          |
| <input type="checkbox"/> Proceed to Close Out                      |   |

End Date: 4/17/25

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 04/17/2025  
Time: 12:02:38

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

TEMPERATURES

Sample Chamber = 48.6°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 44.3°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.72 V PASSED  
(0.98 V - 2.28 V)  
Cooler Voltage = 1.52 V PASSED  
(1.03 V - 2.39 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 541 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.557 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 FAILED  
Xq = 0.081 15.00% (0.00% - 4.00%)

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 04/17/2025  
Time: 12:02:38

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

TEMPERATURES

Sample Chamber = 48.6°C PASSED  
Breath Tube = 44.3°C PASSED

PUMP INFO  
Flow Rate = 4.557 L/M PASSED

DETECTOR INFO  
PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO  
Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD FAILED

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 04/17/2025  
Time: 12:00:10

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

TEMPERATURES

Sample Chamber = 48.9°C                    PASSED  
(44.0°C - 52.0°C)  
Breath Tube       = 42.8°C                   PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage     = 1.72 V                   PASSED  
(0.98 V - 2.28 V)  
Cooler Voltage = 1.52 V                   PASSED  
(1.03 V - 2.39 V)  
Bias Voltage     = 80 V                    PASSED  
(48 V - 112 V)  
Chopper Freq    = 539 Hz                   PASSED  
(475 Hz - 575 Hz)  
Barometer        = 29.3 in

PUMP INFO

Flow Rate = 4.576 L/M                   PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON                                    PASSED  
(0.003 v <= 0.010 v)  
PUMP OFF                                  PASSED  
(0.003 v <= 0.010 v)

FILTER INFO

Filter 1                                   PASSED  
Filter 2                                   PASSED  
Filter 3                                   PASSED

INTERNAL STANDARD

Xq = 0.080 16.19%                    FAILED  
(0.00% - 4.00%)

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 04/17/2025  
Time: 12:00:10

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
Breath Tube = 42.8°C PASSED

PUMP INFO  
Flow Rate = 4.576 L/M PASSED

DETECTOR INFO  
PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO  
Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD FAILED

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 04/17/2025  
Time: 11:42:32

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

TEMPERATURES

Sample Chamber = 48.8°C                    PASSED  
(44.0°C - 52.0°C)  
Breath Tube       = 46.5°C                PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage    = 1.72 V                    PASSED  
(0.98 V - 2.28 V)  
Cooler Voltage = 1.62 V                    PASSED  
(1.03 V - 2.39 V)  
Bias Voltage    = 80 V                      PASSED  
(48 V - 112 V)  
Chopper Freq   = 537 Hz                   PASSED  
(475 Hz - 575 Hz)  
Barometer       = 29.3 in

PUMP INFO

Flow Rate = 4.534 L/M                    PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON                                    PASSED  
(0.003 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                        FAILED  
Xq = 0.089 6.23% (0.00% - 4.00%)

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
-----

Date: 04/17/2025  
Time: 11:42:32

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
Breath Tube = 46.5°C PASSED

PUMP INFO  
Flow Rate = 4.534 L/M PASSED

DETECTOR INFO  
PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO  
Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD FAILED

# VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100382

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 04/17/2025

## External Standard Test Values

## Diagnostic Check

### VERSIONS

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

### TEMPERATURES

Sample Chamber = 48.6°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

### SETTINGS

Lamp Voltage = 1.72 V PASSED  
(0.98 V - 2.28 V)  
Cooler Voltage = 1.62 V PASSED  
(1.03 V - 2.39 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 535 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

### PUMP INFO

Flow Rate = 4.576 L/M PASSED  
(3.500 L/M - 6.500 L/M)

### DETECTOR INFO

PUMP ON PASSED  
(0.005 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 = 0.088 7.24% (0.00% - 4.00%) FAILED

Diagnostic Check Failed



# VERIFICATION OF CALIBRATION REPORT

*of DataMaster dmt Breath Test Instrument*

*State of Alaska*

Serial #: 100382

*Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program*

Date:04/17/2025

## External Standard Test Values

## Diagnostic Check

### VERSIONS

DMT: 3.02

PIC: 3.02

Modem: 2.6

Questions: 2.2

### TEMPERATURES

Sample Chamber = 48.6°C

PASSED

Breath Tube = 48.1°C

PASSED

### PUMP INFO

Flow Rate = 4.576 L/M

PASSED

### DETECTOR INFO

PUMP ON

PASSED

PUMP OFF

PASSED

### FILTER INFO

Filter 1

PASSED

Filter 2

PASSED

Filter 3

PASSED

### INTERNAL STANDARD

FAILED

Diagnostic Check Failed