

INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-007097 Location: TOXL

- A. Flow Sensor Calibration and Verification Check (Level 3,M,C,F)
1. Replaced o-rings if damaged
 2. Flow Meter Serial Number: 40655 & 55260
 3. Air Supplied to Intoxilyzer® 8000 at:
 - a. 5 L/min 15 L/min 30 L/min
 4. Flow Rate Calibration Printout Attached
 - a. Correlation ≥ 0.99000
 5. Flow Sensor Calibration Verification (Level 3,D,F)
 - a. 10 L/min: 0. 164 L/S X 60 Sec/min = 9.84 L/min
 - b. 20 L/min: 0. 320 L/S X 60 Sec/min = 19.2 L/min
 - c. Flow Rates within ± 1 L/min of Expected Value

- B. Gas Tank Sensor Check (Level 3,D,G)
1. Display: 326 psi Regulator: 300 psi
 2. Display and Regulator within 50 psi
 3. Completed tare of tank sensor if needed (Level 3,M,C,G)

- C. Optical Bench Calibration and Verification Check (Level 3,M,C,O)
1. Autocalibration Printout Attached
 - a. Max Power Res Value ≥ 10
 - b. Auto Range Res Value ≥ 4
 2. Simulator Solutions for Optical Bench Calibration Adjustment
 - a. Set # Solutions to Run at 5

Soln.	g/210 L	Lot No.	Exp. Date	Simulator SN
1	0.000 (ACTUAL)	NA – MilliQ H ₂ O	NA – MilliQ H ₂ O	DR 7111
2	0.040 (0.040)	20060	2.10.22	DR 7351
3	0.080 (0.080)	19100	3.26.21	DR 7345
4	0.150 (0.150)	20150	3.16.22	DR 7344
5	0.300 (0.30) (0.298)	19010	1.3.21	DR 5190

3. 0.100 AC Calibration Gas for H₂O Adjustment
 - a. Lot No. 07220100A1 Cyl No. 9 Exp. Date: 5.5.22
4. Atmospheric Pressure
 - a. 956 mbar Displayed by Intoxilyzer® 8000
 - b. 956 mbar Adjusted to using barometer
 - c. 956 mbar on Auto Calibration Report printout
5. Screen displayed “Calibration Success”

6. Calibration Adjustment Printout Attached
- a. Solution 1 Avg % Abs \leq 0.2500
- b. Solution 2-5 REL STD DEV \leq 3.000
- c. Residual (g/210 L) Values for Solutions 1-5 \leq 0.0020 for 3 μ m and 9 μ m channels
- d. Dry Gas H₂O Adjustment Sum for 3 μ m and 9 μ m channels within \pm 10

	Average		H ₂ O Adjust		
3 μ m	<u>3858</u>	+	<u>903</u>	=	<u>4761</u>
9 μ m	<u>4177</u>	+	<u>584</u>	=	<u>4761</u>

7. Optical Bench Calibration Verification (Level 1, S and C)
- a. Wet Calibration Check
- i. Low AC Known Value \leq 0.03 AC: 0.020 AC
Sim. SN: MP5321 Lot No.: 201810D Exp. Date: 10.24.20
- ii. High AC Known Value \geq 0.25 AC: 0.250 AC
Sim. SN: MP5290 Lot No.: 201911B Exp. Date: 11.5.21
- b. Dry Calibration Check: Known Value 0.08 AC
Lot No. 34418080 A2 Cyl No. 7 Exp. Date: 2.5.21
Test 1 0.080 AC Test 4 0.081 AC Test 7 0.081 AC
Test 2 0.080 AC Test 5 0.081 AC Test 8 0.080 AC
Test 3 0.080 AC Test 6 0.080 AC Test 9 0.081 AC
Average 0.080 AC
- c. Wet Calibration Check and Dry Calibration Check AC results are within \pm 0.005 or \pm 5% (whichever is greater) of stated value.

D. Remarks/Maintenance: CALIBRATION ADJUST DUE TO
PROFICIENCY TEST.

Instrument is acceptable to be used in the field.

Charles Ed
Breath Analyst Signature

9.3.20
Date

NA
Reviewed by

NA
Date

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007097
Location = TOXL 8164.16.00 09/18
09/03/2020 12:29

Flow Rate Calibration*****

1: Rate (Liters/min) = 5
 SQRT(Diff) = 7.277
2: Rate (Liters/min) = 15
 SQRT(Diff) = 11.832
3: Rate (Liters/min) = 30
 SQRT(Diff) = 21.770

Dependent Data Scale Factor = 100000 L/min

Independent Data Scale Factor = 256

Rounded Slope = 660

Rounded Intercept = -636264

Correlation = 0.99537



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-007097
 09/03/2020 14:36:37

Auto Calibration

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```

    <<<<<      3um      >>>>>
    -----
Solution = 0.000 g/210L or 0.0000 mg/l, Samples = 4, Discarded = 1
  Sample      % Abs      (% Abs Ref)      % Abs      (% Abs Ref)
Sample #1     0.1440      (-0.0070)        0.1870      (-0.0080)
Sample #2     0.1570      (0.0180)         0.1880      (-0.0040)
Sample #3     0.1630      (0.0360)         0.2000      (-0.0080)
Sample #4     0.1390      (0.0680)         0.1800      (0.0120)
Avg % Abs     0.1530      (0.0407)         0.1893      (-0.0000)
STD DEV       0.0125      (0.0253)         0.0101      (0.0106)
REL STD DEV   8.163      (62.274)         5.317      (6818049536.000)
  
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    <<<<<      9um      >>>>>
    -----
Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1
  Sample      % Abs      (% Abs Ref)      % Abs      (% Abs Ref)
Sample #1     0.8330      (-0.0090)        1.5390      (0.0010)
Sample #2     0.8840      (0.0040)         1.5250      (0.0300)
Sample #3     0.8930      (-0.0030)        1.5420      (0.0210)
Sample #4     0.8600      (0.0200)         1.5160      (0.0470)
Avg % Abs     0.8790      (0.0070)         1.5277      (0.0327)
STD DEV       0.0171      (0.0118)         0.0132      (0.0132)
REL STD DEV   1.941      (168.426)        0.864      (40.419)
  
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    <<<<<      3um      >>>>>
    -----
Solution = 0.080 g/210L or 0.3810 mg/l, Samples = 4, Discarded = 1
  Sample      % Abs      (% Abs Ref)      % Abs      (% Abs Ref)
Sample #1     1.5820      (-0.0210)        2.8690      (-0.0110)
Sample #2     1.5940      (-0.0010)        2.8580      (0.0230)
Sample #3     1.6090      (0.0000)         2.8320      (0.0430)
Sample #4     1.6560      (-0.0180)        2.8770      (0.0270)
Avg % Abs     1.6197      (-0.0063)        2.8557      (0.0310)
STD DEV       0.0323      (0.0101)         0.0226      (0.0106)
REL STD DEV   1.997      (159.726)        0.791      (34.139)
  
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    <<<<<      9um      >>>>>
    -----
Solution = 0.150 g/210L or 0.7143 mg/l, Samples = 4, Discarded = 1
  Sample      % Abs      (% Abs Ref)      % Abs      (% Abs Ref)
Sample #1     2.8880      (-0.0300)        5.0630      (-0.0080)
Sample #2     2.8740      (0.0000)         5.0930      (0.0080)
Sample #3     2.9290      (-0.0060)        5.0880      (0.0210)
Sample #4     2.9090      (0.0060)         5.0850      (0.0260)
Avg % Abs     2.9040      (0.0000)         5.0887      (0.0183)
STD DEV       0.0278      (0.0060)         0.0040      (0.0093)
REL STD DEV   0.959      (0.000)          0.079      (50.681)
  
```

```

    <<<<<      3um      >>>>>
    -----
Solution = 0.298 g/210L or 1.4190 mg/l, Samples = 4, Discarded = 1
  Sample      % Abs      (% Abs Ref)      % Abs      (% Abs Ref)
Sample #1     5.5060      (-0.0200)        9.5670      (-0.0120)
Sample #2     5.4860      (0.0240)         9.5610      (0.0400)
Sample #3     5.5120      (0.0220)         9.5620      (0.0490)
Sample #4     5.5230      (0.0110)         9.5640      (0.0450)
Avg % Abs     5.5070      (0.0190)         9.5623      (0.0447)
STD DEV       0.0190      (0.0070)         0.0015      (0.0045)
REL STD DEV   0.345      (36.842)         0.016      (10.095)
  
```

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-007097
 09/03/2020 14:36:37

Auto Calibration

pg 2 of 2

<<<< 3um >>>>

 Zero Order Coef -368.10
 First Order Coef 2540.44
 Second Order Coef 18.58

<<<< 9um >>>>

 -259.19
 1390.68
 12.58

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0004
0.040	0.039	0.0005
0.080	0.080	0.0003
0.150	0.150	-0.0005
0.298	0.298	0.0001

Act (g/210L)	Fit (g/210L)	Residual (g/210L)
0.000	0.000	-0.0001
0.040	0.040	0.0002
0.080	0.080	-0.0001
0.150	0.150	-0.0000
0.298	0.298	0.0000

<<<< 3um >>>>

<<<< 9um >>>>

Solution = 0.100 g/210L or 0.4762 mg/l, Samples = 4, Discarded = 1

Sample	3um	9um
Sample #1	3880.00	4194.00
Sample #2	3844.00	4181.00
Sample #3	3848.00	4164.00
Sample #4	3882.00	4188.00
Avg	3858.0000	4177.6665
STD DEV	20.8806	12.3423
REL STD DEV	0.541	0.295
H2O adjust (mg/l*10k)	903	584

Atmospheric Pressure = 956

*****CALIBRATION SUCCESSFUL*****



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-007097
 09/03/2020 14:36:37

Auto Calibration
 Max Power Res Value = 57
 Auto Range Res Value = 41

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007097
Location = TOXL 8164.16.00 09/18
09/03/2020 15:19

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	15:20
02 Std. Sol.	0.020	15:21
03 Room Air	0.000	15:21
04 Std. Sol.	0.020	15:22
05 Room Air	0.000	15:23
06 Std. Sol.	0.020	15:23
07 Room Air	0.000	15:24

08 Sim Temp = 34.0°C

Simul Ser No = MP5321

Std Sol No = 201810D

County = 08

Oper No. = 666666



Operator Signature

CHARLES EDER

Remarks:

Low Ac
0.020 Ac

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007097
Location = TOXL 8164.16.00 09/18
09/03/2020 15:47

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	15:48
02 Std. Sol.	0.245	15:49
03 Room Air	0.000	15:49
04 Std. Sol.	0.246	15:50
05 Room Air	0.000	15:50
06 Std. Sol.	0.246	15:51
07 Room Air	0.000	15:52

08 Sim Temp = 34.0°C

Simul Ser No = MP5290

Std Sol No = 201911B

County = 08

Oper No. = 666666



Operator Signature

CHARLES EDER

Remarks:

HIGH AC
0.250 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007097
Location = TOXL 8164.16.00 09/18
09/03/2020 16:01

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:02
02 Std. Gas	0.080	16:02
03 Room Air	0.000	16:02
04 Std. Gas	0.080	16:03
05 Room Air	0.000	16:03
06 Std. Gas	0.080	16:04
07 Room Air	0.000	16:04

Lot No = 34418080A2
Cyl No = 7
Exp Date = 02/05/2021
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007097
Location = TOXL 8164.16.00 09/18
09/03/2020 16:05

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:06
02 Std. Gas	0.081	16:06
03 Room Air	0.000	16:06
04 Std. Gas	0.081	16:07
05 Room Air	0.000	16:07
06 Std. Gas	0.080	16:08
07 Room Air	0.000	16:08

Lot No = 34418080A2
Cyl No = 7
Exp Date = 02/05/2021
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK
0.080 AC

Form 106-I8000

Intoxilyzer Test Record and Checklist
NDOAG Crime Lab. Div., Bismarck, ND 58501

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-007097
Location = TOXL 8164.16.00 09/18
09/03/2020 16:12

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:13
02 Std. Gas	0.081	16:13
03 Room Air	0.000	16:14
04 Std. Gas	0.080	16:14
05 Room Air	0.000	16:15
06 Std. Gas	0.081	16:15
07 Room Air	0.000	16:15

Lot No = 34418080A2
Cyl No = 7
Exp Date = 02/05/2021
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks:

CALIBRATION CHECK
0.080AC

Form 106-I8000