

INTOXILYZER® 8000 CALIBRATION ADJUSTMENT

Intoxilyzer® 8000 Serial Number: 80-003067 Location: TOXL

- A. Flow Sensor Calibration and Verification Check (Level 3,M,C,F)
1. Replaced o-rings if damaged ^{ADJUST} ^{VERIFY}
 2. Flow Meter Serial Number: 55260 & 40655
 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: 375 psi Regulator: 350 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)	201808D	8.22.20	DR7347
3	0.080 (0.081)	201807C	7.25.20	DR5114
4	0.150 (0.151)	201811E	11.25.20	DR5131
5	0.300 (0.298)	19010	1.3.21	DR7346

3. 0.100 AC Calibration Gas for H₂O Adjustment
 - a. Lot No. 13518100 A3 Cyl No. 6 Exp. Date: 8.5.20
4. Atmospheric Pressure
 - a. 938 mbar Displayed by Intoxilyzer® 8000
 - b. 950 mbar Adjusted to using barometer
 - c. 948 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>4459</u>	<u>302</u>		<u>4761</u>
9 μ m	<u>4547</u>	<u>214</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: MP3061 Lot No.: 201810D Exp. Date: 10.24.20
- ii. High AC Known Value \geq 0.25 AC: 0.300 AC 0.250 AC
Sim. SN: MP3067 Lot No.: 201911B Exp. Date: 11.5.21
- b. Dry Calibration Check: Known Value 0.08 AC
Lot No. 24119080A1 Cyl No. 9 Exp. Date: 11.5.21
Test 1 0.079 AC Test 4 0.080 AC Test 7 0.079 AC
Test 2 0.079 AC Test 5 0.079 AC Test 8 0.079 AC
Test 3 0.079 AC Test 6 0.080 AC Test 9 0.080 AC
Average 0.079 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: CAL. ADJ. DUE TO ATMOSPHERIC SENSOR READING 938 mbar AND ACTUAL ATMOSPHERIC PRESSURE IS 950 mbar.

Instrument is acceptable to be used in the field.

Charles E. Ed
Breath Analyst Signature

4.17.20
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 80-003067
Location = TOXL 8164.14.00 09/16
04/17/2020 15:39

Flow Rate Calibration*****

1: Rate (Liters/min) = 5
 SQRT(Diff) = 5.000
2: Rate (Liters/min) = 15
 SQRT(Diff) = 10.723
3: Rate (Liters/min) = 30
 SQRT(Diff) = 20.926

Dependent Data Scale Factor = 100000 L/min

Independent Data Scale Factor = 256

Rounded Slope = 609

Rounded Intercept = -236750

Correlation = 0.99894



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-003067
 04/17/2020 15:57:31

Auto Calibration

	<<<<< 3um >>>>>		<<<<< 9um >>>>>	
	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)

Solution = 0.000 g/210L or 0.0000 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	0.0860	(0.0100)	0.1160	(0.0070)
Sample #2	0.0690	(0.0610)	0.1200	(0.0350)
Sample #3	0.0540	(0.0910)	0.1160	(0.0270)
Sample #4	0.0450	(0.1020)	0.1230	(0.0230)
Avg % Abs	0.0560	(0.0847)	0.1197	(0.0283)
STD DEV	0.0121	(0.0212)	0.0035	(0.0061)
REL STD DEV	21.651	(25.064)	2.935	(21.565)

Solution = 0.040 g/210L or 0.1905 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	0.7440	(0.0200)	1.4580	(-0.0120)
Sample #2	0.7440	(0.0300)	1.4640	(0.0020)
Sample #3	0.7660	(0.0160)	1.4590	(0.0180)
Sample #4	0.7700	(0.0250)	1.4860	(-0.0020)
Avg % Abs	0.7600	(0.0237)	1.4697	(0.0060)
STD DEV	0.0140	(0.0071)	0.0144	(0.0106)
REL STD DEV	1.842	(29.977)	0.977	(176.383)

Solution = 0.081 g/210L or 0.3857 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	1.4120	(0.0000)	2.7970	(-0.0050)
Sample #2	1.4060	(-0.0020)	2.7840	(-0.0070)
Sample #3	1.4420	(-0.0380)	2.7920	(-0.0150)
Sample #4	1.4330	(-0.0520)	2.7980	(-0.0370)
Avg % Abs	1.4270	(-0.0307)	2.7913	(-0.0197)
STD DEV	0.0187	(0.0258)	0.0070	(0.0155)
REL STD DEV	1.313	(84.111)	0.252	(78.991)

Solution = 0.151 g/210L or 0.7190 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	2.6100	(-0.0250)	5.0480	(-0.0340)
Sample #2	2.6090	(-0.0090)	5.0370	(0.0000)
Sample #3	2.5710	(0.0000)	5.0290	(-0.0100)
Sample #4	2.5470	(0.0150)	5.0400	(-0.0020)
Avg % Abs	2.5757	(0.0020)	5.0353	(-0.0040)
STD DEV	0.0313	(0.0121)	0.0057	(0.0053)
REL STD DEV	1.214	(606.218)	0.113	(132.288)

Solution = 0.298 g/210L or 1.4190 mg/l, Samples = 4, Discarded = 1				
Sample	% Abs	(% Abs Ref)	% Abs	(% Abs Ref)
Sample #1	4.9780	(-0.0080)	9.5890	(-0.0060)
Sample #2	4.9760	(0.0250)	9.5880	(0.0020)
Sample #3	4.9940	(0.0150)	9.6030	(0.0330)
Sample #4	4.9910	(0.0410)	9.6210	(0.0150)
Avg % Abs	4.9870	(0.0270)	9.6040	(0.0167)
STD DEV	0.0096	(0.0131)	0.0165	(0.0156)
REL STD DEV	0.193	(48.574)	0.172	(93.402)

TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-003067
 04/17/2020 15:57:31

Auto Calibration

<<<<< 3um >>>>>			<<<<< 9um >>>>>		
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Zero Order Coef	-193.07			-183.50	
First Order Coef	2822.77			1425.40	
Second Order Coef	12.57			7.44	
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Act	Fit	Residual	Act	Fit	Residual
(g/210L)	(g/210L)	(g/210L)	(g/210L)	(g/210L)	(g/210L)
0.000	-0.001	0.0007	0.000	-0.000	0.0003
0.040	0.041	-0.0011	0.040	0.040	-0.0005
0.081	0.081	-0.0001	0.081	0.081	0.0001
0.151	0.150	0.0006	0.151	0.151	0.0002
0.298	0.298	-0.0001	0.298	0.298	-0.0000
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<<<<< 3um >>>>>		<<<<< 9um >>>>>	
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Solution = 0.100 g/210L or 0.4762 mg/l, Samples = 4, Discarded = 1			
Sample			
Sample #1	4422.00	4559.00	
Sample #2	4444.00	4541.00	
Sample #3	4472.00	4556.00	
Sample #4	4461.00	4545.00	
Avg	4459.0000	4547.3335	
STD DEV	14.1067	7.7675	
REL STD DEV	0.316	0.171	
H2O adjust (mg/l*10k)	302	214	

Atmospheric Pressure = 948

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



TOXL
 Intoxilyzer - Alcohol Analyzer
 Model 8000 SN 80-003067
 04/17/2020 15:57:31

Auto Calibration
 Max Power Res Value = 28
 Auto Range Res Value = 15

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

CMI, Inc. Intoxilyzer Alcohol Analyzer
North Dakota Model 8000 SN 80-003067
Location = TOXL 8164.14.00 09/16
04/17/2020 16:38

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:38
02 Std. Sol.	0.019	16:39
03 Room Air	0.000	16:40
04 Std. Sol.	0.020	16:40
05 Room Air	0.000	16:41
06 Std. Sol.	0.020	16:42
07 Room Air	0.000	16:42

08 Sim Temp = 34.0°C

Simul Ser No = MP3061
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 80-003067
Location = TOXL 8164.14.00 09/16
04/17/2020 16:43

WET CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:44
02 Std. Sol.	0.252	16:44
03 Room Air	0.000	16:45
04 Std. Sol.	0.252	16:46
05 Room Air	0.000	16:46
06 Std. Sol.	0.252	16:47
07 Room Air	0.000	16:47

08 Sim Temp = 34.0°C

Simul Ser No = MP3067
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 80-003067
Location = TOXL 8164.14.00 09/16
04/17/2020 16:49

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:50
02 Std. Gas	0.079	16:50
03 Room Air	0.000	16:51
04 Std. Gas	0.079	16:51
05 Room Air	0.000	16:52
06 Std. Gas	0.079	16:52
07 Room Air	0.000	16:52

Lot No = 24119080A1
Cyl No = 9
Exp Date = 11/05/2021
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 80-003067
Location = TOXL 8164.14.00 09/16
04/17/2020 16:53

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:53
02 Std. Gas	0.080	16:54
03 Room Air	0.000	16:54
04 Std. Gas	0.079	16:54
05 Room Air	0.000	16:55
06 Std. Gas	0.080	16:55
07 Room Air	0.000	16:56

Lot No = 24119080A1
Cyl No = 9
Exp Date = 11/05/2021
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks: CALIBRATION CHECK

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 80-003067
Location = TOXL 8164.14.00 09/16
04/17/2020 16:56

DRY CAL CHECK

Test	AC	Time
01 Room Air	0.000	16:57
02 Std. Gas	0.079	16:57
03 Room Air	0.000	16:57
04 Std. Gas	0.079	16:58
05 Room Air	0.000	16:58
06 Std. Gas	0.080	16:59
07 Room Air	0.000	16:59

Lot No = 24119080A1
Cyl No = 9
Exp Date = 11/05/2021
County = 08 Oper No. = 666666



Operator Signature
CHARLES EDER

Remarks:

CALIBRATION CHECK
0.080 AC

Form 106-I8000