

ALCOTEST 9510 PARAMETER REPORT

Equipment

Serial No.: ARMH-0005
 Firmware: 8326739 1.5
 WinCE application: 8326738 2.9
 Configuration: 8326737 3.10

Date: 03/15/2023
 Time: 09:51:37

Parameter

min. blow time	5.0	s
min. breath volume for females of age 60+	1.2	L
min. breath volume for all other	1.5	L
min. blow flow	4.5	L/min
plateau detection limit	4	%
plateau detection start conc.	70	microgram/L
neg. flow detection (part. vacuum)	10.0	hPa
neg. flow detection sensitivity	10	
cal. gas abort volume	0.4	L
result-to-zero limit	0.0050	%BAC
ambient air check limit	0.0049	%BAC
interference det. d-criterion limit abs.	38	microgram/L
interference det. d-criterion limit rel.	10.0	%
interference det. t-criterion limit abs.	8	microgram/L
interference det. t-criterion limit rel.	2.1	%
IR CO2 offset	10	microgram/L
IR H2O offset	4	microgram/L
EC H2O offset	0	microgram/L
Value-based EC aging comp. on/off (1/0)	0	
Time-based EC aging comp. on/off (1/0)	1	
Time-based EC aging comp. per month	0.2	%
Time-based EC aging comp. maximum	3.0	%
EC fatigue comp. max. sum	15000	
EC fatigue comp. factor	50	
EC fatigue comp. minutes	180	
mouth alc. mark limit	500	
mouth alc. lower limit	30	
mouth alc. slope	6	
mouth alc. zero limit	50	
mouth alc. max. neg. sum	6	
mouth alc. max. 2nd derivative	35	

ALCOTEST 9510 CERTIFICATION REPORT - WET ADJUST (PART I)
Deal Borough

Equipment

Inst. Model No.: ALCOTEST 9510 Serial No.: ARMH-0005
Firmware: 8326739 1.5 Config.: 8326737 3.10 WinCE: 8326738 2.9

Wet Adjust Record

Wet Adjust File No.: 82 Wet Adjust Date: 03/15/2023 Wet Adjust No.: 3
Wet Adjust Time: 10:23:13

Concentration: 0.100 %
Adjusting Unit: X-Cal 2000 Adj. Unit Ser. No.: ARND-0003 Adj. Unit Exp.: 10/05/2023
Solution Lot No.: 21230 Soln. Bottle No.: 1160 Adjust Soln. Exp.: 06/23/2023

Preadjust Simulator Temp.: 34.00 degree C
Postadjust Simulator Temp.: 34.00 degree C

Result

Procedure completed successfully.

Coordinator

Last Name: Mimikos - First Name: Nicholas MI: E Badge No.: 7413

On this date, I certified the above instrument in accordance with the Alcotest 9510 operator training and procedures established by the NJSP Office of Forensic Sciences.



Signed:

Date: 03/15/2023

ID: 3

ALCOTEST 9510 CERTIFICATION REPORT - DRY ADJUST (PART II)
Deal Borough

Equipment

Inst. Model No.:	ALCOTEST 9510	Serial No.:	ARMH-0005		
Firmware:	8326739 1.5	Config.:	8326737 3.10	WinCE:	8326738 2.9

Dry Adjust Record

Dry Adjust File No.:	83	Dry Adjust Date:	03/15/2023	Dry Adjust No.:	3
		Dry Adjust Time:	10:40:44		

Concentration:	0.100 %				
Dry Gas Lot No.:	302-402448281	Adjust Gas Exp.:	05/19/2025		
Barom. Model No.:	Mensor CPG2300	Barom. Serial No.:	41001275	Barom. Cert. Exp.:	10/14/2023
Pre-adjust Amb. Pressure:		1009 hPa	Post-adjust Amb. Pressure:		1009 hPa

Result

Procedure completed successfully.

Coordinator

Last Name: Mimikos -	First Name: Nicholas	MI: E	Badge No.: 7413
----------------------	----------------------	-------	-----------------

On this date, I certified the above instrument in accordance with the Alcotest 9510 operator training and procedures established by the NJSP Office of Forensic Sciences.

IPR #. 1907413

Signed:

Date: 03/15/2023

ID: 3

ALCOTEST 9510 CERTIFICATION REPORT - LINEARITY (PART III)
Deal Borough

Equipment

Inst. Model No.: ALCOTEST 9510 Serial No.: ARMH-0005
Firmware: 8326739 1.5 Config.: 8326737 3.10 WinCE: 8326738 2.9

Linearity Record

Linearity File No.: 84 Lin. Date: 03/15/2023 Lin. No.: 3

0.040% Dry Gas Lot No.: 1486624	Adjust. Gas Exp.: 04/26/2024
0.080% Dry Gas Lot No.: 1346773	Adjust. Gas Exp.: 07/08/2023
0.160% Dry Gas Lot No.: 1523726	Adjust. Gas Exp.: 07/16/2024
0.300% Dry Gas Lot No.: 1511968	Adjust. Gas Exp.: 06/21/2024

Data Summary

Function	Result %BAC	Time hh:mm:ss	Barometric Pres. [hPa]	Comment(s) or Status Code
Ambient Air Blank	0.000	10:58:11		*TEST PASSED*
Control .04 Test 1 EC	0.039	10:58:50	1009	*TEST PASSED*
Control .04 Test 1 IR	0.039	10:58:50	1009	*TEST PASSED*
Ambient Air Blank	0.000	10:59:55		*TEST PASSED*
Control .04 Test 2 EC	0.039	11:00:10	1010	*TEST PASSED*
Control .04 Test 2 IR	0.039	11:00:10	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:01:40		*TEST PASSED*
Control .08 Test 3 EC	0.078	11:02:17	1010	*TEST PASSED*
Control .08 Test 3 IR	0.079	11:02:17	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:03:26		*TEST PASSED*
Control .08 Test 4 EC	0.080	11:03:41	1010	*TEST PASSED*
Control .08 Test 4 IR	0.080	11:03:41	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:05:08		*TEST PASSED*
Control .16 Test 5 EC	0.157	11:05:45	1010	*TEST PASSED*
Control .16 Test 5 IR	0.158	11:05:45	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:07:01		*TEST PASSED*
Control .16 Test 6 EC	0.160	11:07:16	1010	*TEST PASSED*
Control .16 Test 6 IR	0.160	11:07:16	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:08:47		*TEST PASSED*
Control .30 Test 7 EC	0.291	11:09:20	1010	*TEST PASSED*
Control .30 Test 7 IR	0.295	11:09:20	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:10:45		*TEST PASSED*
Control .30 Test 8 EC	0.296	11:10:57	1010	*TEST PASSED*
Control .30 Test 8 IR	0.297	11:10:57	1010	*TEST PASSED*
Ambient Air Blank	0.000	11:11:35		*TEST PASSED*

Result

All tests within acceptable tolerance.

Coordinator

Last Name: Mimikos - First Name: Nicholas MI: E Badge No.: 7413

On this date, I certified the above instrument in accordance with the Alcotest 9510 operator training and procedures established by the NJSP Office of Forensic Sciences.

TPR II / AB # 7413

Signed:

Date: 03/15/2023

ID: 3

ALCOTEST 9510 CYLINDER INSTALLATION REPORT - INLET 1
Deal Borough
SERIAL NUMBER: ARMH-0005

Equipment

Inst. Model No.:	ALCOTEST 9510	Serial No.:	ARMH-0005	WinCE:	8326738 2.9
Firmware:	8326739 1.5	Config.:	8326737 3.10	Cyl1 Install No.:	1
Cyl1 Install File No.:	28	Cyl1 Install Date:	06/08/2022		

Control Tests (0.100%)

Installation Inlet:	#1 (Upper)	Post test active Cyl.:	#1 (Upper)
Dry Gas Lot No.:	1507099	Dry Gas Lot Exp.:	06/11/2024

Data Summary

Function	Result %BAC	Time hh:mm:ss	Barometric Pres. [hPa]	Comment(s) or Status Code
Ambient Air Blank	0.000	15:20:42		*TEST PASSED*
Control Test 1			1010	*TEST PASSED*
EC Result	0.098	15:21:28		*TEST PASSED*
IR Result	0.100	15:21:28		*TEST PASSED*
Ambient Air Blank	0.000	15:22:32		*TEST PASSED*
Control Test 2			1010	*TEST PASSED*
EC Result	0.099	15:22:57		*TEST PASSED*
IR Result	0.100	15:22:57		*TEST PASSED*
Ambient Air Blank	0.000	15:24:02		*TEST PASSED*
Control Test 3			1009	*TEST PASSED*
EC Result	0.100	15:24:27		*TEST PASSED*
IR Result	0.100	15:24:27		*TEST PASSED*
Ambient Air Blank	0.000	15:24:52		*TEST PASSED*

Result

All tests within acceptable tolerance.

Coordinator

Last Name: ALCOTT - First Name: KEVIN MI: W Badge No.: 6704

On this date, I certified the above instrument in accordance with the Alcotest 9510 operator training and procedures established by the NJSP Office of Forensic Sciences.

Sgt. K A 6704

Signed:

Date: 06/08/2022

ID: 1

ALCOTEST 9510 CYLINDER INSTALLATION REPORT - INLET 2
Deal Borough
SERIAL NUMBER: ARMH-0005

Equipment

Inst. Model No.:	ALCOTEST 9510	Serial No.:	ARMH-0005	WinCE:	8326738 2.9
Firmware:	8326739 1.5	Config.:	8326737 3.10	Cyl2 Install No.:	1
Cyl2 Install File No.:	29	Cyl2 Install Date:	06/08/2022		

Control Tests (0.100%)

Installation Inlet:	#2 (Lower)	Post test active Cyl.:	#2 (Lower)
Dry Gas Lot No.:	1507099	Dry Gas Lot Exp.:	06/11/2024

Data Summary

Function	Result %BAC	Time hh:mm:ss	Barometric Pres. [hPa]	Comment(s) or Status Code
Ambient Air Blank	0.000	15:28:25		*TEST PASSED*
Control Test 1			1009	*TEST PASSED*
EC Result	0.098	15:29:10		*TEST PASSED*
IR Result	0.100	15:29:10		*TEST PASSED*
Ambient Air Blank	0.000	15:30:15		*TEST PASSED*
Control Test 2			1009	*TEST PASSED*
EC Result	0.099	15:30:39		*TEST PASSED*
IR Result	0.100	15:30:39		*TEST PASSED*
Ambient Air Blank	0.000	15:31:44		*TEST PASSED*
Control Test 3			1009	*TEST PASSED*
EC Result	0.099	15:32:08		*TEST PASSED*
IR Result	0.101	15:32:08		*TEST PASSED*
Ambient Air Blank	0.000	15:32:33		*TEST PASSED*

Result

All tests within acceptable tolerance.

Coordinator

Last Name: ALCOTT - First Name: KEVIN MI: W Badge No.: 6704

On this date, I certified the above instrument in accordance with the Alcotest 9510 operator training and procedures established by the NJSP Office of Forensic Sciences.

Sgt. K A 6704

Signed:

Date: 06/08/2022

ID: 1

CERTIFICATE OF ANALYSIS
EBS - ETHANOL BREATH STANDARD

DRAEGER INC HOUSTON
HOUSTON, TX 77085

REF#: 21775557
DOC#: US44302405855
CUST. ITEM #: 4401036
DATE: Jun, 10, 2021

METHOD OF ANALYSIS: IR Breath Alcohol Analyzer
ANALYTICAL ACCURACY: +/-0.002 BrAC or +/-2% whichever is greater.
CALGAS LOT#: 1507099
ETHANOL IN NITROGEN

PRODUCT EXPIRATION: Jun. 11, 2024

COMPONENT	PPM	(BrAC)
ETHANOL	260.5	(0.100)
NITROGEN	BAL	

REFERENCE STANDARD	CYLINDER	CONCENTRATION PPM
N.M.I. TRACEABLE STANDARDS*	ND50144	260.6

* Certification traceability is recognized by NIST through the CIPM MRA.

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44.
Calibration test 219908, 219911, 219909, or 219926 dated, 6th January 2021 applies.

Analytical:

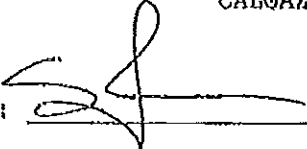
Analytical Instruments Calibrated Using NMI Traceable Standards.
Certification Numbers: ND50144-20201218, A679, ND18363-20191203, A650

No affecting environmental conditions during analysis.

*NMI is recognized by NIST through the Mutual Recognition Agreement (CIPM MRA).
CALGAS calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

MANUFACTURED DATE: Jun. 11, 2021

CALGAS CYLINDER SIZE: 6D

APPROVED BY : 

"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

CALGAS, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410)228-6400 Fax: (410)228-4251

CERTIFICATE OF ANALYSIS
EBS - ETHANOL BREATH STANDARD

DRAEGER INC HOUSTON
HOUSTON, TX 77085

REF#: 21775557
DOC#: US44302405855
CUST. ITEM #: 4401036
DATE: Jun. 18, 2021

METHOD OF ANALYSIS: IR Breath Alcohol Analyzer
ANALYTICAL ACCURACY: +/-0.002 BrAC or +/-2% whichever is greater.
CALGAS LOT#: 1507099
ETHANOL IN NITROGEN

PRODUCT EXPIRATION: Jun. 11, 2024

COMPONENT	PPM	(BrAC)
ETHANOL	260.5	(0.100)
NITROGEN	BAL	

REFERENCE STANDARD	CYLINDER	CONCENTRATION PPM
N.M.I. TRACEABLE STANDARDS*	ND50144	260.6

* Certification traceability is recognized by NIST through the GIPM MRA.

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44. Calibration test 219900, 219911, 219909, or 219926 dated, 6th January 2021 applies.

Analytical:

Analytical Instruments Calibrated Using NMI Traceable Standards.
Certification Numbers: ND50144-20201218, A679, ND18363-20191203, A650

No affecting environmental conditions during analysis.

*NMI is recognized by NIST through the Mutual Recognition Agreement (GIPM MRA).
CALGAS calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

MANUFACTURED DATE: Jun. 11, 2021

CALGAS CYLINDER SIZE: 6D

APPROVED BY : 

"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

CALGAS, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410)228-6400 Fax: (410)228-4251



Dräger

Alcotest 9510

CERTIFICATE OF ACCURACY

This is to certify that the Alcotest 9510 has been tested for accuracy and found to be in compliance with the National Highway Traffic Safety Administration Standard for evidential breath testing devices. The Alcotest 9510 is compliant as a "mobile" and "nonmobile" EBT with 49 FR 48854, 49 FR 48864, and 58 FR 48705. The manufacturer recommends accuracy verification of this instrument within 12 months of the calibration date below, or sooner, according to your state's specifications.

Certification Date:

Serial Number:

5/31/2022

ARMH-9405

Draeger, Inc. _____ *CR*



State of New Jersey

OFFICE OF THE ATTORNEY GENERAL
DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE
POST OFFICE BOX 7068
WEST TRENTON, NJ 08628-0068
(609) 882-2000

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

GURBIR S. GREWAL
Attorney General

PATRICK J. CALLAHAN
Colonel

CERTIFICATION OF ANALYSIS
0.100 PERCENT BREATH ALCOHOL SIMULATOR SOLUTION

ACCEPTANCE SPECIFICATIONS FOR BREATH ALCOHOL SIMULATOR SOLUTION: Ethyl alcohol concentration within, but not exceeding, the range of 0.1174 to 0.1246 grams per 100 milliliters of solution.

MANUFACTURER: Draeger, Inc.

ANALYSIS DATE: 07/08/2021

BREATH ALCOHOL SIMULATOR SOLUTION LOT NUMBER: 21230

Representative samples of the above-referenced Lot Number were tested by Gas Chromatography and found to have a mean ethyl alcohol concentration range of 0.1200 to 0.1218 grams per 100 milliliters of solution.

This lot of breath alcohol simulator solution may be utilized as a known traceable standard for the purpose of conducting periodic tests, pursuant to N.J.A.C. 13:51-4.3, of approved breath test instruments (N.J.A.C. 13:51-3.5) utilized by law enforcement agencies in this State. The manufacturer's expiration date for this lot of breath alcohol simulator solution is June 23, 2023.

As Assistant Chief Forensic Scientist for the Division of State Police, I hereby certify and attest that the tests and results documented in this Certificate of Analysis were performed at the Office of Forensic Sciences of the Division of State Police on properly functioning and calibrated instruments and equipment. All procedures utilized are accurate, objective, and performed on a routine basis by personnel within the Office of Forensic Sciences, in accordance with their professional duties and responsibilities.

Michael Kennedy
Assistant Chief Forensic Scientist
NJSP Office of Forensic Sciences

Sworn to and subscribed before me this 20 day of July, 2021.

Notary

KAREN E. STAHL
NOTARY PUBLIC OF NEW JERSEY
Commission # 60110622
My Commission Expires 6/13/2024



An Internationally Accredited Agency

New Jersey Is An Equal Opportunity Employer
Printed on Recycled Paper and Recyclable





Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77085
PO Number: US74302835073

Certificate/ISO Number: 5-E0Z7D-160-1 Revision 0

Manufacturer: Drager Safety AG & Co. KGaA
Model Number: X-Cal 2000
Description: Breath Alcohol Simulator
Serial Number: ARND-0003
ID: NONE

As-Found: In Tolerance
As-Left: In Tolerance
Issue Date: Oct 05, 2022
Calibration Date: Oct 05, 2022
Due Date: Oct 05, 2023

Calibrated To: Customer Specification
Calibration Procedure: 1-AC103519-1

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2017. Accredited calibrations performed within the Lab Scope of Accreditation are indicated by the presence of the Accrediting Body Logo and Certificate Number. Any measurements on an accredited calibration not covered by the Lab Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000, the customer Purchase Order and/or Quality Agreement requirements, ISO 9001:2015, ANSINCSSL 2540.1-1994 (R2002), and ISO 10012:2003, as applicable. When specified contractually, the requirements of ISO TS16949:2009, 10CFR21, 10CFR50 App. B, ASME NQA-1:2012, and ANSINCSSL 2540.3-2006 (R2013) are also covered.

Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed on this certificate.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

Uncertainties are reported with a coverage factor $k=2$, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; these tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. Any number of factors can cause a unit to drift out of tolerance at any time following its calibration. Limitations on the uses of this instrument are detailed in the OEM's operating instructions. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).



Customer: DRAEGER INC
 7256 S SAM HOUSTON PKWY W
 STE 100
 HOUSTON, TX 77085
 PO Number: US74302835073

Certificate/SO Number: 5-E0Z7D-160-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process		Units	TUR
						O	T		
Function Checks									
Bubble Check			P	P	P				
Seal Check			P	P	P				
Temperature Source: Accuracy Test	34.00°C	±(0.02 °C)	33.98	34.02	33.99 °C	2.2e-002	2.5e-002	°C	0.9 : 1
Temperature Source: Stability Test	0.00°C	±(0.02 °C)	-0.02	0.02	0.00 °C	5.0e-003	1.3e-002	°C	4.0 : 1

Field not applicable.

Traceable Standards

Asset	Manufacturer	Model Number	Description	Cat Date	Due Date	Traceability Number	Use
05H1259	AccuMac Corporation	AM1760-12-S	Secondary SPRT	10-Jan-22	31-Jan-23	15-805H1259-3-1	AF/AL
HP927312	Hart Scientific/Fluke	1575	Super Thermometer	18-May-21	30-Nov-22	5-8HP927312-5-1	AF/AL

The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.

Environmental Data

Temperature	Relative Humidity	Temp / RH Asset	Lab Area	Lab Description
70.61°F /21.45°C	46.30%	Dewk14	G	Temperature

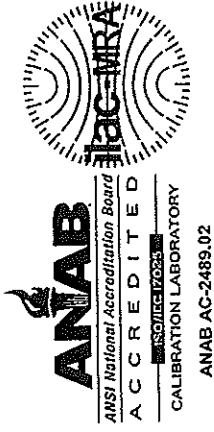
Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77085
PO Number: US74302835073



Certificate/ISO Number: 5-E0Z7D-160-1 Revision 0

Decision Rule

When compliance statements are present, they are reported without factoring in the effects of uncertainty and comply with the guidelines as follows: The acceptance zone is defined as: less than or equal to the high limit, and/or greater than or equal to the low limit. The rejection zones are defined as greater than the high limit and/or less than the low limit. Single measurement results in the acceptance zone are identified as in-tolerance. Single measurement results in the rejection zone are identified as out-of-tolerance (OOT). When all measurement results are in the acceptance zone for repeated measurements, for the same characteristic, the test is identified as in-tolerance. For repeated characteristic measurements, a single measurement result in the rejection zone, will cause the test to be identified as out-of-tolerance (OOT). Data rejection for cause, (outliers) is permitted after the "Determining and Verifying Out Of Tolerance (OOT) and/or Op Fail Readings" procedure outlined in this document has been completed and the anomalous reading cannot be repeated, and the anomalous reading does not represent the system under test. Statements of conformity are binary.



Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77085
PO Number: US74302835073

Certificate/SO Number: 5-E0Z7D-160-1 Revision 0

Legend

Topic	Description
Accuracy	UUT specification that establishes expected tolerances and a time limit (calibration interval) over which the instrument is expected to hold these tolerances
As Found	Initial measurement results
As Left	Measurement results after adjustment and/or repair
Blank Data Field	Test is not applicable for the UUT
Cal Process Uncertainty (CPU)	The uncertainty of calibration process for the reported measurement result
Calibration Date	Indicates the date that the calibration was completed
Cover Factor (k)	A measure of uncertainty that defines an interval about the measurement result
Due Date	Indicates the end of the calibration cycle as requested by the customer
Issue Date	Indicates the date that the calibration has passed the Data Review Process and was signed by an authorized signatory or the date that a revision to the original certificate has been issued
Low / High Limits	Establishes UUT acceptable performance limits for the test measurement
Measurement Uncertainty	The dispersion of the values attributed to a measured quantity
OOA	Out of Acceptance (#)
OOT	Out of Tolerance (*)
Setpoints	Measurement target values
Traceability	Unbroken chain of comparisons relating an instrument's measurements to a known standard(s)
Traceability Number	Unique identifier(s) used to document traceability of calibration standards
TUR	Test Uncertainty Ratio, ratio of the tolerance or specification of the test measurement in relation to the uncertainty in measurement results
UUT	Unit Under test

CALIBRATED BY TRANSCAT

CERTIFICATE OF CALIBRATION



Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77085
PO Number: US74302835073

Certificate/SO Number: 5-E0Z7D-160-1 Revision 0



Calibrated At:
16115 Park Row
Houston, TX 77084

Facility Responsible:
16115 Park Row
Houston, TX 77084
800-828-1470

Unit Barcode:

0900B436552

Date Received: October 03, 2022
Service Level: R9

Calibrated By:  Camden Alford Camden Alford Calibration Technician	Electronically Signed By: Camden Alford Oct 05, 2022 09:21:45 -04:00	Reviewed By:  Scott D. Caine Scott D. Caine Lab Manager	Electronically Signed By: Scott D. Caine Oct 05, 2022 09:45:00 -04:00
--	--	---	---



Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77085
PO Number: US74302885073

Certificate/ISO Number: 5-E0Z7D-220-1 Revision 0

Manufacturer: Mensor Corp
Model Number: CPG2300
Description: Portable Barometer
Serial Number: 41001275
ID: NONE

As-Found: In Tolerance
As-Left: In Tolerance
Issue Date: Oct 14, 2022
Calibration Date: Oct 14, 2022
Due Date: Oct 14, 2023

Calibrated To: Manufacturer Specification
Calibration Procedure: 1-AC107288-0

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2017. Accredited calibrations performed within the Lab Scope of Accreditation are indicated by the presence of the Accrediting Body Logo and Certificate Number. Any measurements on an accredited calibration not covered by the Lab Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000, the customer Purchase Order and/or Quality Agreement requirements, ISO 9001:2015, ANSI/NCCL Z540.1-1994 (R2002), and ISO 10012:2003, as applicable. When specified contractually, the requirements of ISO TS16949:2009, 10CFR21, 10CFR50 App. 5, ASME NQA-1:2012, and ANSI/NCCL Z540.3-2006 (R2013) are also covered.

Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed on this certificate.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

Uncertainties are reported with a coverage factor $k=2$, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; those tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. Any number of factors can cause a unit to drift out of tolerance at any time following its calibration. Limitations on the uses of this instrument are detailed in the OEM's operating instructions. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).



Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77085
PO Number: US74302835073

Certificate/SO Number: 5-E0Z7D-220-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	As Found/As Left		Cal Process Uncertainty (k=2; ±)	Measurement Uncertainty (k=2; ±)	Units	TUR
			Low Limit	High Limit				
Pressure Measure: 552 to 1172 mbara Range								
	550.1 mbara	±(0.015% FS)	549.9	550.3	1.2e-002	1.2e-001	mbara	16.5 : 1
	610.0 mbara	±(0.015% FS)	609.8	610.2	1.3e-002	1.2e-001	mbara	14.9 : 1
	680.4 mbara	±(0.015% FS)	680.2	680.6	1.5e-002	1.2e-001	mbara	13.4 : 1
	734.3 mbara	±(0.015% FS)	734.1	734.5	1.6e-002	1.2e-001	mbara	12.4 : 1
	804.7 mbara	±(0.015% FS)	804.5	804.9	1.8e-002	1.2e-001	mbara	11.3 : 1
	864.9 mbara	±(0.015% FS)	864.7	865.1	1.9e-002	1.2e-001	mbara	10.5 : 1
	924.9 mbara	±(0.015% FS)	924.7	925.1	2.0e-002	1.2e-001	mbara	9.8 : 1
	985.2 mbara	±(0.015% FS)	985.0	985.4	2.2e-002	1.2e-001	mbara	9.2 : 1
	1043.9 mbara	±(0.015% FS)	1043.7	1044.1	2.3e-002	1.3e-001	mbara	8.7 : 1
	1114.2 mbara	±(0.015% FS)	1114.0	1114.4	2.5e-002	1.2e-001	mbara	8.2 : 1
	1174.6 mbara	±(0.015% FS)	1174.4	1174.8	2.6e-002	1.2e-001	mbara	7.7 : 1
	924.9 mbara	±(0.015% FS)	924.7	925.1	2.0e-002	1.2e-001	mbara	9.8 : 1
	864.9 mbara	±(0.015% FS)	864.7	865.1	1.9e-002	1.2e-001	mbara	10.5 : 1
	804.7 mbara	±(0.015% FS)	804.5	804.9	1.8e-002	1.2e-001	mbara	11.3 : 1

Field not applicable.



Customer: DRAEGER INC
 7256 S SAM HOUSTON PKWY W
 STE 100
 HOUSTON, TX 77085
 PO Number: US74302835073

Certificate/SO Number: 5-E0Z7D-220-1 Revision 0

Traceable Standards

Asset	Manufacturer	Model Number	Description	Cal Date	Due Date	Traceability Number	Use
DW11BA	Fluke/DH Instruments	PG7601	Piston Gauge	12-Apr-22	12-Apr-23	5-&DW11BA-13-1	AF/AL
DW11CA	Fluke/DH Instruments	MS-AMH-38	AMH Mass Set	19-Sep-22	19-Dec-22	5-&DW11CA-18-1	AF/AL
DW11LOW	Fluke/DH Instruments	PC-7100/7600-10-TC	Gas Piston-Cylinder Module	8-Apr-22	30-Apr-27	5-&DW11LOW-3-1	AF/AL
DW11MASS	Fluke/DH Instruments	MS-AMH-38	AMH Mass Set	29-Dec-21	31-Dec-22	5-&DW11MASS-6-1	AF/AL

The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.

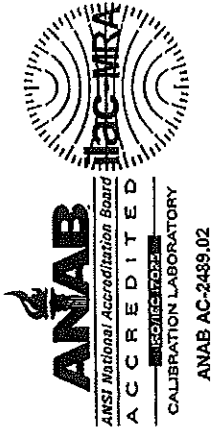
Environmental Data

Temperature	Relative Humidity	Temp / RH Asset	Lab Area	Lab Description
71.10°F /21.72°C	52.20%	05H1297	B	GP Pressure

Decision Rule

When compliance statements are present, they are reported without factoring in the effects of uncertainty and comply with the guidelines as follows: The acceptance zone is defined as: less than or equal to the high limit, and/or greater than or equal to the low limit. The rejection zones are defined as greater than the high limit and/or less than the low limit. Single measurement results in the acceptance zone are identified as in-tolerance. Single measurement results in the rejection zone are identified as out-of-tolerance (OOT). When all measurement results are in the acceptance zone for repeated measurements, for the same characteristic, the test is identified as in-tolerance. For repeated characteristic measurements, a single measurement result in the rejection zone, will cause the test to be identified as out-of-tolerance (OOT). Data rejection for cause, (outliers) is permitted after the "Determining and Verifying Out Of Tolerance(OOT) and/or Op Fail Readings" procedure outlined in this document has been completed and the anomalous reading cannot be repeated, and the anomalous reading does not represent the system under test. Statements of conformity are binary.

CALIBRATED BY TRANSCAT CERTIFICATE OF CALIBRATION



Customer: DRAEGER INC
 7256 S SAM HOUSTON PKWY W
 STE 100
 HOUSTON, TX 77085
 PO Number: US74302835073

Certificate/SO Number: 5-E0Z7D-220-1 Revision 0

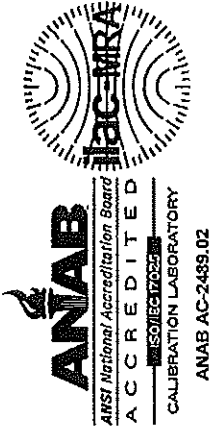
Legend

Topic	Description
Accuracy	UUT specification that establishes expected tolerances and a time limit (calibration interval) over which the instrument is expected to hold these tolerances
As Found	Initial measurement results
As Left	Measurement results after adjustment and/or repair
Blank Data Field	Test is not applicable for the UUT
Cal Process Uncertainty (CPU)	The uncertainty of calibration process for the reported measurement result
Calibration Date	Indicates the date that the calibration was completed
Cover Factor (k)	A measure of uncertainty that defines an interval about the measurement result
Due Date	Indicates the end of the calibration cycle as requested by the customer
Issue Date	Indicates the date that the calibration has passed the Data Review Process and was signed by an authorized signatory or the date that a revision to the original certificate has been issued
Low / High Limits	Establishes UUT acceptable performance limits for the test measurement
Measurement Uncertainty	The dispersion of the values attributed to a measured quantity
OOA	Out of Acceptance (#)
OOT	Out of Tolerance (*)
Setpoints	Measurement target values
Traceability	Unbroken chain of comparisons relating an instrument's measurements to a known standard(s)
Traceability Number	Unique identifier(s) used to document traceability of calibration standards
TUR	Test Uncertainty Ratio, ratio of the tolerance or specification of the test measurement in relation to the uncertainty in measurement results
UUT	Unit Under test

CALIBRATED
BY **TRANSCAT**

CERTIFICATE OF CALIBRATION

Customer: DRAEGER INC
7256 S SAM HOUSTON PKWY W
STE 100
HOUSTON, TX 77084
PO Number: US74302835073



Certificate/SO Number: 5-E0Z7D-220-1 Revision 0


Calibrated At:
16115 Park Row
Houston, TX 77084


Facility Responsible:
16115 Park Row
Houston, TX 77084
800-828-1470

Unit Barcode:

09008429643

Date Received: October 03, 2022
Service Level: RS

Calibrated By:

Fritz Cardona
Calibration Technician

Reviewed By:

Jesh Solleau for
Electronically Signed By:

Oct 14, 2022 09:53:35 -04:00
Fritz Cardona
Calibration Technician

Oct 14, 2022 14:53:44 -04:00
Scott D. Caine
Lab Manager

Certificate - Page 5 of 5

Customer Number: 1-659111-00C
OPS-F20-014R10 09/29/21 FP001R9 4/9/2021

CERTIFICATE OF ANALYSIS

EBS - ETHANOL BREATH STANDARD

NJSP DEPT OF LAW AND PUBLIC SAFETY

Sales order: 1111663404

Date: July 05, 2022

METHOD OF ANALYSIS: IR Breath Alcohol Analyzer

ANALYTICAL ACCURACY: +/-0.002 BrAC or +/-2% whichever is greater.

CALGAZ LOT#: 302-402448281

ETHANOL IN NITROGEN

Product Expiration: May 19, 2025

COMPONENT	PPM	(BrAC)
ETHANOL	260.5PPM	(0.100)
NITROGEN	BAL	
AVERAGE ANALYTICAL VALUE	PPM	(BrAC)
ETHANOL	263.2	(0.101)

REFERENCE STANDARD	CYLINDER	CONCENTRATION PPM
N.M.I. TRACEABLE STANDARDS*	ND38434	260.4

* CERTIFICATION TRACEABLE TO NATIONAL METROLOGY INSTITUTE TRACEABLE STANDARDS

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44.

Calibration test 283190, 283189, 283188, or 283192 dated 6th January 2022 applies

Analytical:

Analytical Instruments Calibrated Using NMI Traceable Standards.

Certification Numbers: ND38434-20211028, A679, A650, ND38462-20211027, ND18363-20211104, ND50144-20201218

No effecting environmental conditions during analysis.

*NMI is recognized by NIST through the Mutual Recognition Agreement (CIPM MRA).

CALGAZ calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

Manufactured Date: May 19, 2022

APPROVED BY:



We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request.

CALGAZ, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410) 228-6400 Fax: (410) 228-4251

ANALYSIS CERTIFICATION

METHOD OF PREPARATION : GRAVIMETRIC / PRESSURE TRANSFILLING

METHOD OF ANALYSIS : IR Breath Alcohol Analyzer

ACCURACY : ± 0.002 BrAC or $\pm 2\%$ whichever is greater.

LOT NO. & QTY.	COMP. 1 C ₂ H ₅ OH	COMP. 2 N ₂	COMP. 3	COMP. 4	COMP. 5	COMP. 6	Exp Date
1486624 (8)	104.2PPM (0.040 BrAC)	BALANCE					04/26/24

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited Company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44.

Calibration test 219908, 219911, 219909, or 219926 dated, 6th January 2021 applies.

WEIGHT SETS USED: Kit#80141, Test#3094344A, Kit#106, 27, 103, 107, 113, 22, Test#VA-21-12587-L,F,T,P, Kit#IM1966, Test#VA-21-12587N, Kit#35, 104, 39, 105, 108, 109, 111 Test#VA-21-12587-I.

No affecting environmental conditions during analysis.

CALGAZ calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

REQUESTED BY : DRAEGER INC

CUSTOMER PURCHASE ORDER NUMBER : US44302368647

PACKING LIST NUMBER : 21272590

CERTIFICATION DATE : April 26, 2021

ANALYSIS BY : Steven Plutchen
Quality Representative

"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

CALGAZ, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410)228-6400 Fax: (410)228-4251

ANALYSIS CERTIFICATION

METHOD OF PREPARATION : GRAVIMETRIC / PRESSURE TRANSFILLING

METHOD OF ANALYSIS : IR Breath Alcohol Analyzer

ACCURACY : ± 0.002 BrAC or $\pm 2\%$ whichever is greater.

LOT NO. & QTY.	COMP. 1 C ₂ H ₅ OH	COMP. 2 N ₂	COMP. 3	COMP. 4	COMP. 5	COMP. 6	Exp Date
1346773 (24)	208.4PPM (0.080 BrAC)	BALANCE					07/08/23

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited Company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44.

Calibration test 121088, 121097, 121091, or 121100 dated, 18th January 2019 applies.

WEIGHT SETS USED: Kit #92231, Test #2740564, Kit # 03610, Test # VA-19-1135 T3 Test # VA-19-11350B, T5 Test #VA-19-11350F, VA-19-11350E, VA-19-11350D, IM1966 Test VA-18-11340H

No affecting environmental conditions during analysis.

CALGAZ calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

REQUESTED BY : DRAEGER INC

CUSTOMER PURCHASE ORDER NUMBER : UH54302105642

PACKING LIST NUMBER : 16572762

CERTIFICATION DATE : July 8, 2020

ANALYSIS BY : *Steve Plutschel*
Quality Representative

"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

CALGAZ, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410)228-6400 Fax: (410)228-4251

CERTIFICATE OF ANALYSIS
EBS - ETHANOL BREATH STANDARD

DRAEGER INC HOUSTON
HOUSTON, TX 77085

REF#: 22053560
DOC#: US44302425104
CUST. ITEM #: 4401040
DATE: Jul. 16, 2021

METHOD OF ANALYSIS: IR Breath Alcohol Analyzer
ANALYTICAL ACCURACY: +/-0.002 BrAC or +/-2% whichever is greater.
CALGAZ LOT#: 1523726
ETHANOL IN NITROGEN

PRODUCT EXPIRATION: Jul. 16, 2024

COMPONENT	PPM	(BrAC)
ETHANOL	416.8	(0.160)
NITROGEN	BAL	

REFERENCE STANDARD	CYLINDER	CONCENTRATION PPM
N.M.I. TRACEABLE STANDARDS*	ND50144	260.6

* Certification traceability is recognized by NIST through the CIPM MRA.

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44.

Calibration test 219908, 219911, 219909, or 219926 dated, 6th January 2021 applies.

Analytical:

Analytical Instruments Calibrated Using NMI Traceable Standards.

Certification Numbers: ND50144-20201218, A679, ND18363-20191203, A650

No affecting environmental conditions during analysis.

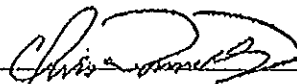
*NMI is recognized by NIST through the Mutual Recognition Agreement (CIPM MRA).

CALGAZ calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

MANUFACTURED DATE: Jul. 16, 2021

CALGAZ CYLINDER SIZE: 6D

APPROVED BY : _____



"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

CALGAZ, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410)228-6400 Fax: (410)228-4251

CERTIFICATE OF ANALYSIS
EBS - ETHANOL BREATH STANDARD

DRAEGER INC HOUSTON
HOUSTON, TX 77085

REF#: 21775602
DOC#: US44302405855
CUST. ITEM #: 4401041
DATE: Jun. 23, 2021

METHOD OF ANALYSIS: IR Breath Alcohol Analyzer
ANALYTICAL ACCURACY: +/-0.002 BrAC or +/-2% whichever is greater.
CALGAZ LOT#: 1511968
ETHANOL IN NITROGEN

PRODUCT EXPIRATION: Jun. 21, 2024

COMPONENT	PPM	(BrAC)
ETHANOL	781.5	(0.300)
NITROGEN	BAL	

REFERENCE STANDARD	CYLINDER	CONCENTRATION PPM
N.M.I. TRACEABLE STANDARDS*	ND50144	260.6

* Certification traceability is recognized by NIST through the CIPM MRA.

TRACEABILITY

Preparation:

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company using NIST traceable weights and meets or exceeds the requirements of NIST Handbook 44.

Calibration test 219908, 219911, 219909, or 219926 dated, 6th January 2021 applies.

Analytical:

Analytical Instruments Calibrated Using NMI Traceable Standards.

Certification Numbers: ND50144-20201218, A679, ND18363-20191203, A650

No affecting environmental conditions during analysis.

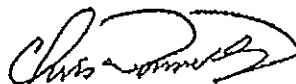
*NMI is recognized by NIST through the Mutual Recognition Agreement (CIPM MRA).

CALGAZ calibration devices were found to meet all applicable requirements of the National Highway Traffic Safety Administration Model Specifications for calibrating units for breath alcohol testers.

MANUFACTURED DATE: Jun. 21, 2021

CALGAZ CYLINDER SIZE: 6D

APPROVED BY :



"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

CALGAZ, a division of Airgas USA LLC
821 Chesapeake Drive, Cambridge, MD 21613-0149
Phone: (410)228-6400 Fax: (410)228-4251

DEPARTMENT OF
Water and Public Safety
 This is to certify that

Nicholas E. Mimikos

New Jersey State Police

IS QUALIFIED AND CAPABLE TO INSTRUCT CLASSICAL BREATH ANALYSIS PURSUANT TO CHAPTER 112-6

THE LAWS OF 1966 IN THE OPERATION OF THE Alcotest 9510

AS SET FORTH IN THE REGULATIONS

ON VENTILATED HAND AT TEST ON NEW JERSEY THE 8th DAY OF June

THIRTEEN AND Twenty One

[Signature]
 IN WITNESS
 NEW JERSEY STATE POLICE

[Signature]
 ATTORNEY GENERAL
 STATE OF NEW JERSEY

DEPARTMENT OF
Water and Public Safety
 This is to certify that

Nicholas E. Mimikos

Breath Test Coordinator/Instructor

IS QUALIFIED AND CAPABLE TO INSTRUCT CLASSICAL BREATH ANALYSIS PURSUANT TO CHAPTER 112-6

THE LAWS OF 1966 IN THE OPERATION OF THE Alcotest 9510

AS SET FORTH IN THE REGULATIONS

ON VENTILATED HAND AT TEST ON NEW JERSEY THE 8th DAY OF June

THIRTEEN AND Twenty One

[Signature]
 IN WITNESS
 NEW JERSEY STATE POLICE

[Signature]
 ATTORNEY GENERAL
 STATE OF NEW JERSEY

ORIGINAL COURSE DATES

DATE	Refresher Course PLACE	INSTRUCTOR
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

S.P. 293B (Rev. 01/18)

ORIGINAL COURSE DATES

DATE	Refresher Course PLACE	INSTRUCTOR
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

S.P. 293B (Rev. 01/18)