

Operating the DataMaster DMT

Version 1.0

Division of Criminal Investigation

Alcohol Section

July 2009

The DataMaster DMT



Operating the DataMaster DMT

- The DataMaster DMT is a scientific instrument designed to analyze a sample of a person's breath and determine the Breath Alcohol Concentration (BrAC) in that sample.
- The DataMaster analyzes the breath sample using infrared absorption spectrometry.

Operating the DataMaster DMT

- The checks that the DataMaster performs of itself, the surroundings, and the breath sample are done to ensure that the testing is performed under the most favorable conditions possible.

Operating the DataMaster DMT

CONTENT

Page

• DataMaster DMT Features	3
• Main Screen	7
• Performing a PBT check	13
• Reprinting tests in Memory	23
• Non-completed tests	26
• Running a test	29
• Performing a non-memory test	45
• Status messages	48
• Running another test on the same individual	59
• Changing the dry gas tank	62
• Correcting date/time	69
• TraCS	71
• Frequently asked questions	72

Operating the DataMaster DMT

DataMaster DMT Features

Operating the DataMaster DMT

DataMaster DMT features

- **Heated breath hose** – if the breath hose temperature is not within pre-set temperature range the test will not be allowed to proceed.
- **RFI antenna** – the antenna is external and part of the breath hose
- **Three (3) IR filters** – the DataMaster DMT has multiple filters to ensure that only ethyl alcohol is being analyzed

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DataMaster DMT features (cont.)

- **Slope Detector** – helps with detecting a negative-going alcohol concentration and with assuring that a deep lung sample was provided by the subject
- **Memory** – the DMT has a great deal more memory than the cdm and also allows for SD card expansion
- **Checklist** – the DataMaster DMT automatically fills out an operational checklist based on the results of a test

Operating the DataMaster DMT

DataMaster DMT features (cont.)

- **External calibration check** – The DMT uses an ethanol dry gas tank to check the calibration with every “RUN” test.
 - The tested value of the external standard has to be within 0.004 or 5%, whichever is greater, of the expected value in order for the test to continue.
 - If the tested value is outside that range, the DMT will indicate a “Standard out of Range” status message.

Operating the DataMaster DMT

DataMaster DMT features (cont.)

- **Internal Calibration check** – The DMT also performs an internal calibration check with every test.
 - The internal standard value must be within +/- 4% of the value found on the certification report in order for the test to proceed.
 - If this value is outside that range, the test will abort and a status message of “**Internal Standard Error**” will appear.

Operating the DataMaster DMT

DataMaster DMT features (cont.)

- **Diagnostic test** – The DMT performs a diagnostic check with every test.
 - If the diagnostic tests fails, the test will abort and the printout will indicate what part of the diagnostic test was outside the parameters set by the manufacturer.

Operating the DataMaster DMT

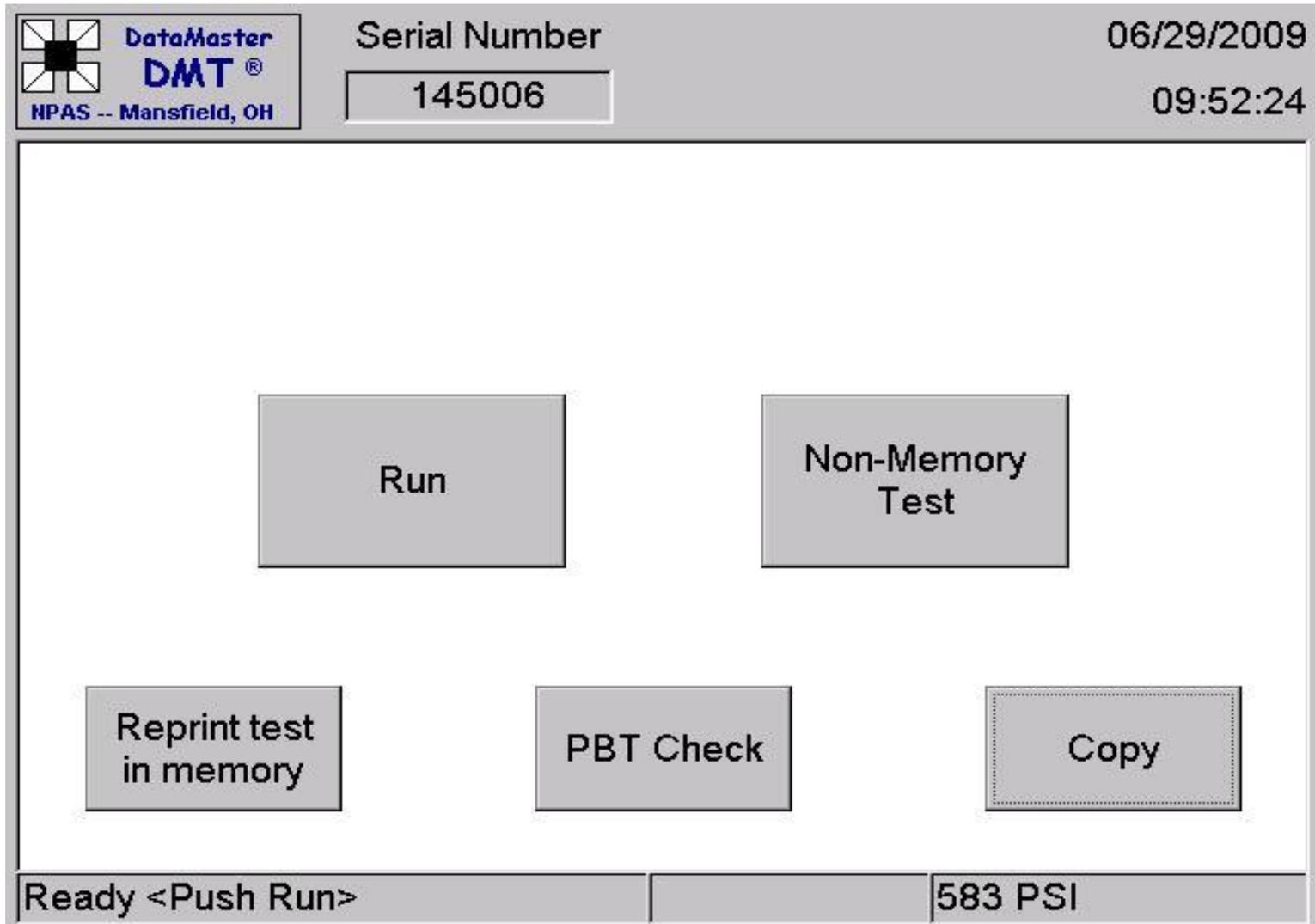
DataMaster DMT features (cont.)

- **Pop-up boxes** – The DataMaster DMT has several “pop-up” boxes advising the operator how to proceed. Some of these messages include: instructing the subject how to provide a breath, replacing the mouthpiece, and collecting an alternate sample when a completed test is not obtained.

Operating the DataMaster DMT

Main Screen

Operating the DataMaster DMT



Operating the DataMaster DMT

- “**RUN**”
 - Pressing this on the screen initiates the testing procedure (or re-starts it as the case may be).
 - You can also press the “**F1**” key on the keyboard or use the “**Subject Test**” in the start menu.
 - This should be used in cases that an evidential breath test is required.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT interface. At the top left is the DataMaster DMT logo with the text "NPAS -- Mansfield, OH". To the right, the "Serial Number" is shown as "145006". The date "08/04/2009" and time "09:05:56" are displayed in the top right corner.

A menu is open on the left side, listing the following options with their corresponding function keys:

- Setup F3
- Functions ▶
- Reports F2
- Subject Test F1
- Supervisor Test F5
- Diagnostic F4
- Calibrate F6
- Technician Mode F7
- Dry Gas Tank Change F8
- Security ▶
- Help ▶

In the main area, there are three buttons: "Non-Memory Test", "PBT Check", and "Copy". The "Copy" button has a dotted border, indicating it is the currently selected option.

At the bottom of the screen, the status bar shows "Ready" on the left and "248 PSI" on the right.

Operating the DataMaster DMT

- “**Non- Memory Test**”
 - This testing procedure can be used for:
work release, verification of a subject’s breath alcohol level is below a facility-set limit for release, routine practice, etc.
 - An operator **does not** need to be certified on the DataMaster DMT in order to use the “Non-Memory Test” procedure.

Operating the DataMaster DMT

- **“COPY”**
 - Pressing this on the screen provides the operator with an additional copy of the last test performed.
 - This is the same as the “CPY” button on the DataMaster cdm.

Operating the DataMaster DMT

- **“Reprint test in memory”**
 - Pressing this on the screen allows the operator to retrieve a previous test that has been stored in the memory of the DataMaster.
 - Tests will remain in the DMT’s memory for a period of approximately one (1) year.
 - If the test is no longer in the DMT’s memory, it may have been uploaded to the DCI server. Please contact the DCI Crime Lab for assistance with retrieving a specific test.

Operating the DataMaster DMT

- “**PBT Check**”

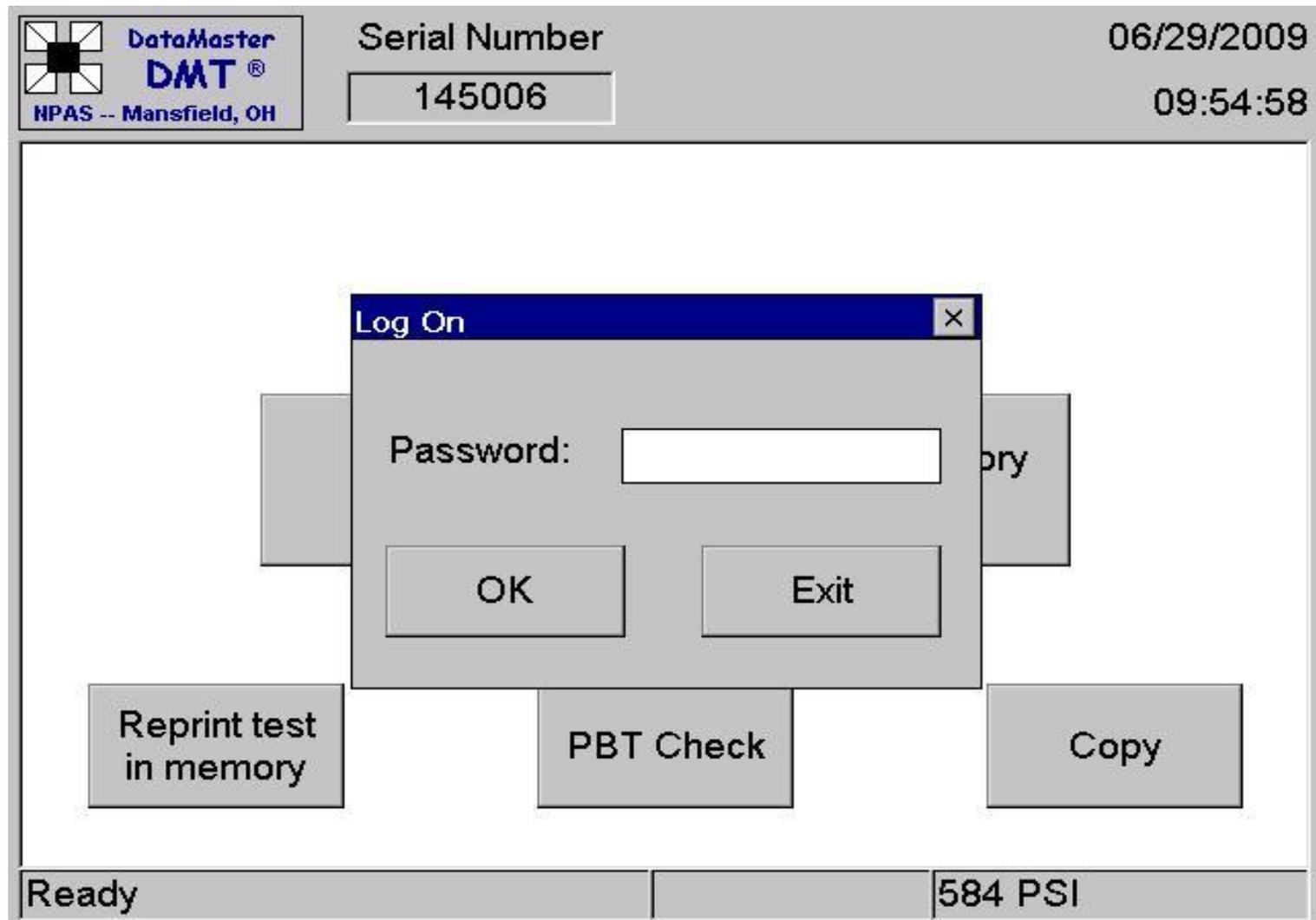
- Pressing this on the screen allows the operator to check the calibration of a handheld PBT device or calibrate the PBT if necessary.
- Note - depending on how many PBTs your department has, it may be more practical to use a stand-alone PBT tank to perform these tasks.

Operating the DataMaster DMT

- **Passwords**

- The DataMaster DMT has three levels of password protection.
- The general-use password for most applications is _____.
- The “**Change Dry Gas Tank**” password will be provided to assigned personnel during installation of the DMT.
- DCI Lab personnel use the third password to perform their technical tasks.
- The “**COPY**” key is not password protected.

Operating the DataMaster DMT



Operating the DataMaster DMT

- Passwords (cont.)
 - If the operator is in a restricted area and enters an incorrect password, the DataMaster will prompt the operator that they do not have high enough security.
 - Press 'OK' to exit.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT[®] with the text "NPAS -- Mansfield, OH" below it. To the right of the logo, the "Serial Number" is displayed as "145006". In the top right corner, the date "08/04/2009" and time "09:48:55" are shown. The main area of the interface is a large white rectangle. Overlaid on this is a smaller window titled "Error" with a close button (X) in the top right corner. The error message reads: "You don't have a high enough security level!". Below the error message is an "OK" button. At the bottom of the main interface, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy". The bottom status bar shows "Ready <Push Run>" on the left and "244 PSI" on the right.

DataMaster
DMT[®]
NPAS -- Mansfield, OH

Serial Number
145006

08/04/2009
09:48:55

Error

You don't have a high enough security level!

OK

Reprint test in memory

PBT Check

Copy

Ready <Push Run>

244 PSI

Operating the DataMaster DMT

Performing a PBT check

Operating the DataMaster DMT

- **PBT Check**
 - The DataMaster DMT allows the operator to check the calibration of preliminary breath testing devices (PBTs) or to calibrate the device if necessary.
 - Press **PBT Check** on the screen.
 - The DataMaster DMT will prompt the operator to enter his/her name, the model/unit type of the PBT and the serial/ID number of the PBT.

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Operator Information

Name(F/M/L)

PBT Information

Unit Type ID #

Operating the DataMaster DMT

- **PBT Check** (cont.)
 - The DataMaster will prompt the officer with the expected target value of the tank. Press “OK” to continue.
 - The DataMaster will instruct the operator to connect the PBT and tubing to the PBT port on the back of the DataMaster. Press “OK” when this is completed.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. The title bar includes the DataMaster DMT logo, the text "NPAS -- Mansfield, OH", and the window title "PBT Check". The main display area shows the following text:

```
-----  
IOWA DEPT. OF PUBLIC SAFETY  
DATAMASTER dmt: 145006  
-----  
Date: 06/  
Time: 10:  
  
OPERATOR  
BLESKACEK  
  
UNIT TYPE  
UNIT ID:  
  
UNITS EXPRESSED IN 9/210L
```

An "Attention" dialog box is overlaid on the screen, containing the message:

External Standard Target Value: 0.075

An "OK" button is located at the bottom of the dialog box.

Operating the DataMaster DMT

DataMaster DMT[®]
NPAS -- Mansfield, OH

PBT Check

UNIT TYPE: INTOXIMETERS FST
UNIT ID: 038625

UNITS EXP

EXTERNAL

SUPPLIER/
CONCENTRA

LOT #: 07
EXP. DATE

External Standard Nominal = 0.100
External Standard Target = 0.094

Attention

Connect tubing and pbt to PBT port
on back of DMT.

OK

Operating the DataMaster DMT



Operating the DataMaster DMT

- “PBT Check” (cont.)
 - The DataMaster will turn the dry gas on for a set period of time (8 seconds).
 - When prompted (depending on which model of PBT you are checking), press the manual acceptance on the PBT if the PBT has not locked in on its own.
It is extremely important to accept the sample while the gas is still on.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. The title bar includes the DataMaster DMT logo and the text "NPAS -- Mansfield, OH" and "PBT Check". The main window contains the following text:

```
UNIT TYPE: INTOXIMETERS FST
UNIT ID: 0789080A2
UNITS EXP
EXTERNAL
SUPPLIER/
CONCENTRA
LOT #: 07
EXP. DATE
```

A modal dialog box titled "Attention" is overlaid on the screen, containing the text "Manually accept sample on PBT" and an "OK" button.

At the bottom of the main window, the following text is visible:

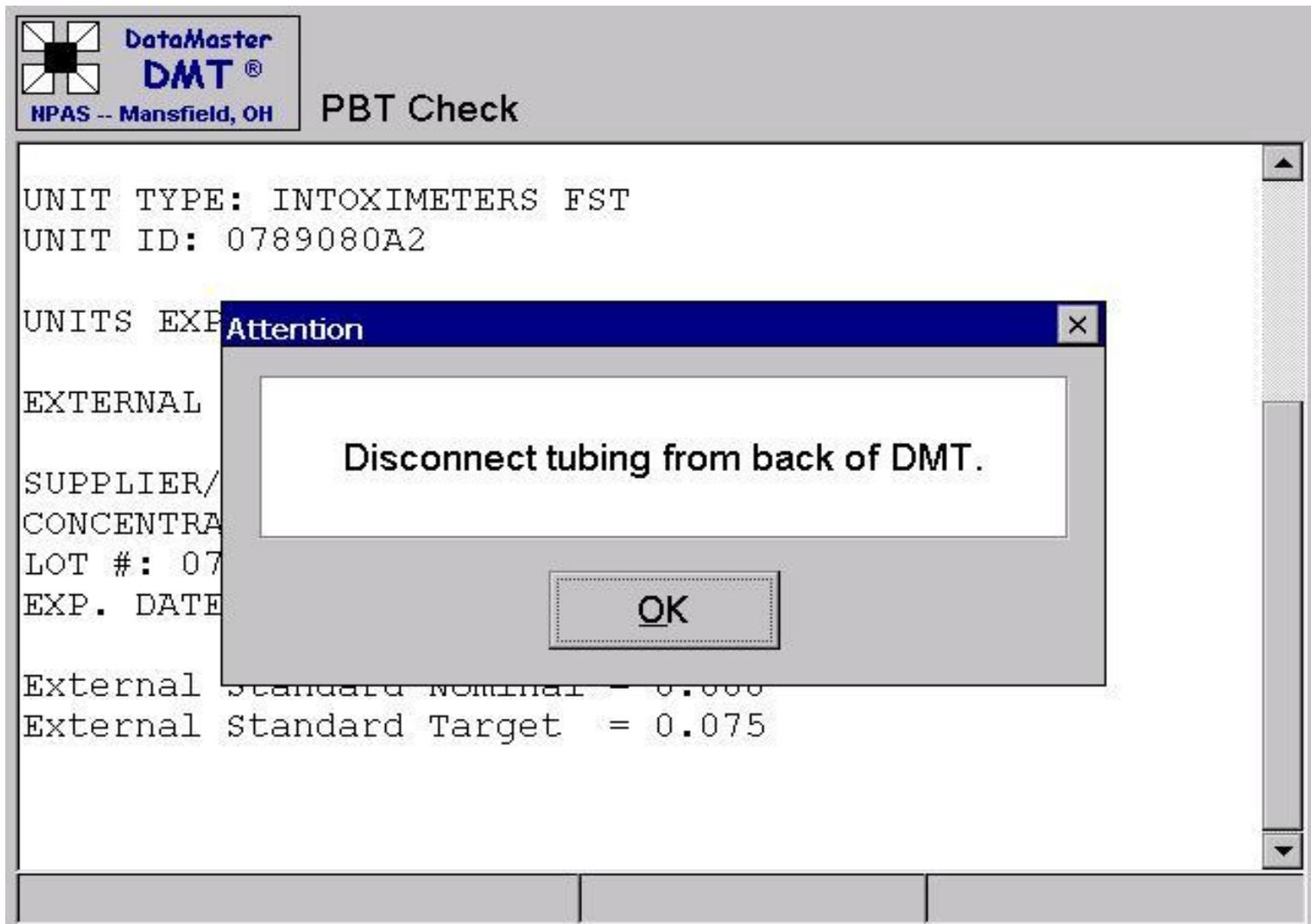
```
External Standard Nominal = 0.000
External Standard Target = 0.075
```

The status bar at the bottom of the window shows "GAS ON" and "0.072".

Operating the DataMaster DMT

- **PBT Check** (cont.)
 - The DataMaster will instruct the operator to remove the tubing from the PBT port on the back of the DataMaster.
 - Disconnect the tubing from the back of the DataMaster. Press “OK”.

Operating the DataMaster DMT



Operating the DataMaster DMT

- “PBT Check” (cont.)
 - The DataMaster will prompt the operator to enter the value obtained on the PBT.
 - If the operator is calibrating the PBT, it is recommended to type “CALIBRATED” within the box.
 - The value entered will be part of the final report.

Operating the DataMaster DMT

The screenshot shows the DataMaster DMT software interface. The main window title is "DataMaster DMT" and "NPAS -- Mansfield, OH". The current dialog is titled "PBT Check". The main window contains the following text:

UNIT TYPE: C
UNIT ID: C

UNITS EXPRESSED IN g/210L

EXTERNAL STANDARD INFO:

SUPPLIER/MANUFACTURER:
CONCENTRATION:
LOT #: 07809080
EXP. DATE: 06/01

External Standard
External Standard

A sub-dialog box titled "PBT Result" is overlaid on the main window. It contains a text input field with the value "0.075" and two buttons: "OK" and "Cancel".

Operating the DataMaster PBT

The screenshot displays the DataMaster PBT software interface. The main window has a title bar with the DataMaster logo and 'NPAS -- Mansfield, OH'. The main content area shows the following text:

UNIT TYPE: INTOXIMETERS FST
UNIT ID: 0789080A2

UNITS EXPRESSED IN g/210L

EXTERNAL STANDARD

SUPPLIER/MANUFACTURER

CONCENTRATION: 0.080

LOT #: 07809080A

EXP. DATE: 06/01

External Standard Nominal = 0.080
External Standard Target = 0.075

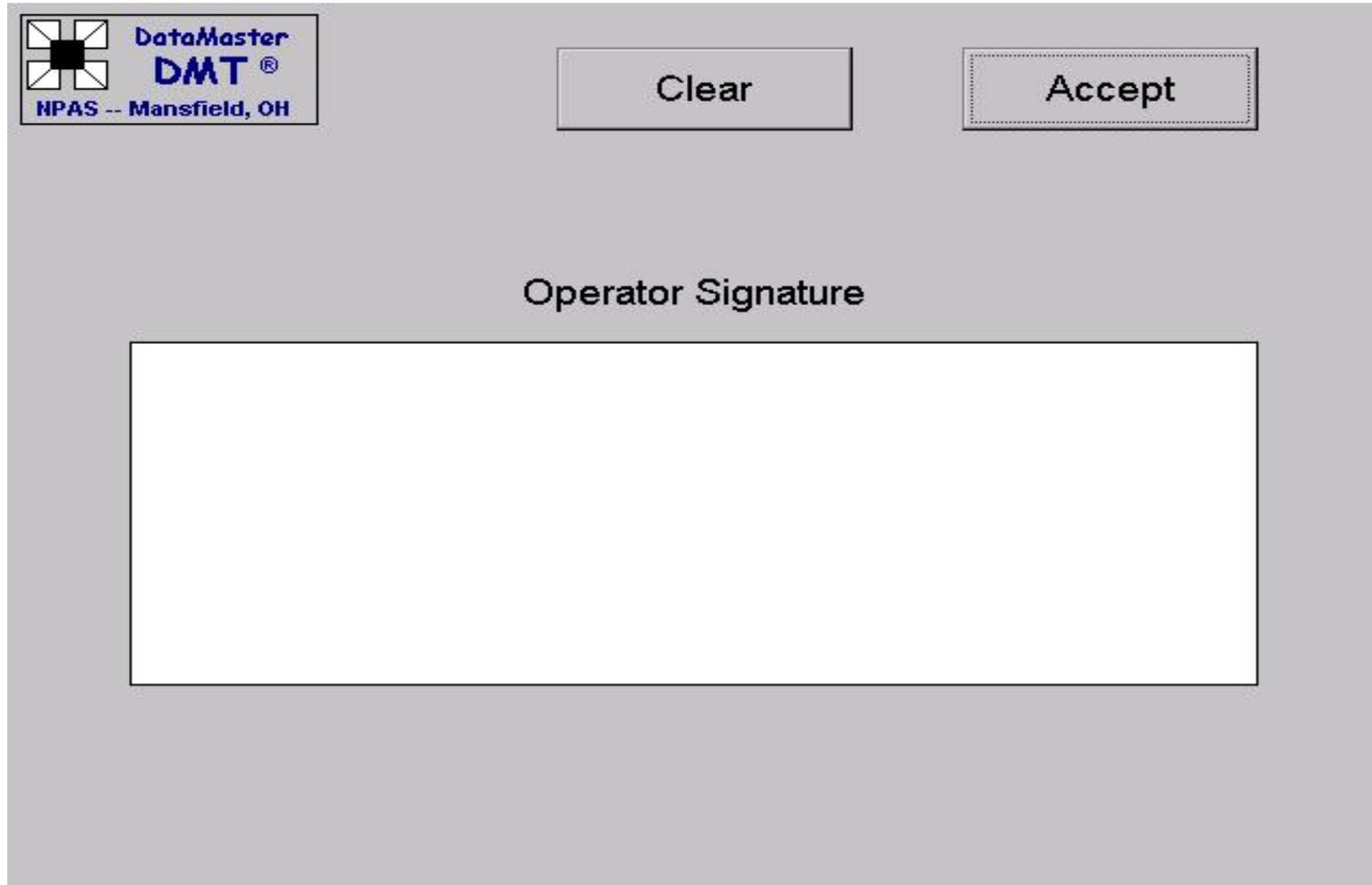
A 'PBT Check' dialog box is open, containing a 'PBT Result' sub-dialog box. The sub-dialog box has a title bar 'PBT Result' and a text input field containing the word 'CALIBRATED'. Below the input field are two buttons: 'OK' and 'Cancel'.

Operating the DataMaster DMT

- “PBT Check” (cont.)

- Prior to the operator entering the PBT result, the DataMaster will purge the alcohol out of the sample chamber.
- The DataMaster will prompt the operator for his/her signature. Sign the screen and press “Accept” to continue.

Operating the DataMaster DMT



The image shows a software interface for DataMaster DMT. In the top-left corner, there is a logo consisting of a black crosshair inside a square, followed by the text "DataMaster DMT®" and "NPAS -- Mansfield, OH". To the right of the logo are two buttons: "Clear" and "Accept". The "Accept" button has a dotted border. Below these buttons is the text "Operator Signature" centered above a large, empty rectangular box for entering a signature.

Operating the DataMaster DMT

- **PBT Check** (cont.)
 - The DataMaster will generate a single page report indicating the operator's name, the date, the model/unit type of the PBT, the serial/ID number of the PBT, the dry gas tank information, and the expected target value of the dry gas tank.
 - The DataMaster will also print the result from the PBT, entered by the operator, on the report.

Operating the DataMaster DMT

PBT TEST
----- IOWA DEPT. OF PUBLIC SAFETY DATAMASTER dmt: 149106 -----
Date: 08/04/2009 Time: 13:24:33
OPERATOR NAME: JIM KJIUHJIUH
UNIT TYPE: FST UNIT ID: ODDF54
UNITS EXPRESSED IN g/210L
EXTERNAL STANDARD INFO:
SUPPLIER/MANUFACTURER: ILMO CONCENTRATION: 0.080 LOT #: 07709080A2 EXP. DATE: 06/01/2011
External Standard Nominal = 0.076 External Standard Target = 0.076
PBT Result: 0.076

Operating the DataMaster DMT

- “PBT Check” (cont.)
 - If it is necessary to re-calibrate the PBT, do so according to the owners manual of the PBT.
 - If the PBT is calibrated, it is suggested that after a short waiting period, re-run the procedure to ensure the PBT was calibrated properly.

Operating the DataMaster DMT

- “PBT Check” (cont.)
 - Please maintain this report. These reports will be accessible to operators through the “Reprint test in memory” box for a period of one year.
 - It is very important to focus on the DataMaster during a PBT check. By not following the prompts, you may obtain an inaccurate reading.

Operating the DataMaster DMT

- “PBT Check” (cont.)
 - The DCI will enter the corrected tank value compensating for altitude when the DMT is installed (external standard nominal value).
 - The DataMaster will automatically correct for barometric pressure.
 - The external standard target value is the value of the tank compensating for both altitude and barometric pressure.
 - If the instrument is moved or transferred to a different agency and the altitude changes by more than 250 feet, please contact the DCI Crime Lab Breath Alcohol Section.

Operating the DataMaster DMT

Reprinting Tests in Memory

Operating the DataMaster DMT

- **“Reprinting tests in memory”**
 - The DataMaster DMT allows operators to retrieve previous subject tests.
 - Press **“Reprint test in memory”** on the screen.
 - Double-click **“Breath Records”**.
 - Double-click the date of the test to be retrieved.

Operating the DataMaster DMT

- “Reprinting tests in memory” (cont.)
 - Double-click the time of the test.
 - Press “**Print**” on the screen.
 - If you need additional copies, continue to press “**Print**”.
 - Note – If your test is no longer in the memory, it may have been uploaded to the DCI server and you will have to contact a member of the Breath Alcohol Section of the DCI Crime Lab to obtain a copy.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. The top left corner features the DataMaster DMT logo and the text "NPAS -- Mansfield, OH". The top right corner has "Print" and "Exit" buttons. The main window is divided into several sections:

- Header:** "IOWA DEPT. OF PUBLIC SAFETY" and "DATAMASTER dmt: 145006".
- Date/Time:** "Date: 06/29/2009" and "Time: 09:46:56".
- Supervisor:** "SUPERVISOR NAME: BLESKACEK JIM".
- Supplier/Manufacturer:** "SUPPLIER/MANUFACTURER: ILMO".
- Concentration:** "CONCENTRATION: 0.080".
- Lot #: 07809080A2**
- Exp. Date:** "EXP. DATE: 06/01/2011".
- Units:** "UNITS EXPRESSED IN g/210L".
- Standards:** "External Standard Nominal = 0.080" and "External Standard Target = 0.075".
- Test Results Table:**

Test Type	Concentration	Time
BLANK TEST	0.000	09:48
INTERNAL STANDARD	0.080	09:48
EXTERNAL STANDARD	0.073	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.073	09:49
BLANK TEST	0.000	09:50

The right side of the interface shows a menu with "Last Ticket" selected, "Options", "Breath Records", and "PBT Records". Below the menu are navigation buttons "<=", "=>", and "1 of 2". At the bottom right is a chromatogram plot with a y-axis from 0.000 to 0.100 and an x-axis from 0 to 30. The plot shows a sharp peak at approximately 5 minutes, reaching a concentration of about 0.075. The right side of the plot has numerical labels: 0.000, 8.00, 16.00, 24.00, 32.00, and 40.00.

Operating the DataMaster DMT



**DataMaster
DMT**[®]
NPAS -- Mansfield, OH

IOWA DEPT. OF PUBLIC SAFETY
DATAMASTER dmt: 000000

Date: 06/16/2009
Time: 15:09:33

UNITS EXPRESSED IN g/210L

BLANK TEST	0.000	15:10
INTERNAL STANDARD	0.079	15:10
SUBJECT SAMPLE (Vol=1.75L)	0.096	15:11
BLANK TEST	0.000	15:13
SUBJECT SAMPLE (Vol=1.82L)	0.096	15:14
BLANK TEST	0.000	15:16
SUBJECT SAMPLE (Vol=1.82L)	0.096	15:17
BLANK TEST	0.000	15:17

Print

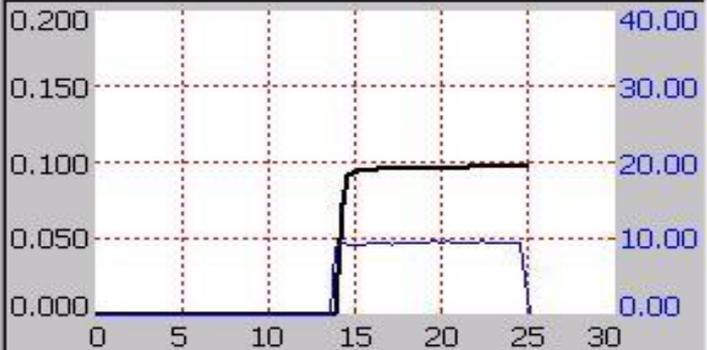
Exit

- Last Ticket
- Options
- Breath Records
 - 06/16/2009
 - 15:09:33**
 - 16:16:22
- PBT Records

<=

=>

1 of 3



0.200
0.150
0.100
0.050
0.000

0 5 10 15 20 25 30

40.00
30.00
20.00
10.00
0.00

Operating the DataMaster DMT

- “Reprinting tests in memory” (cont.)
 - Follow the same procedure to reprint a PBT report. The PBT reports will be found within the PBT records folder.
 - PBT reports will not be uploaded by the DCI. After a period of one year, the test will automatically be deleted from the memory of the DataMaster.

Operating the DataMaster DMT

Non-completed tests

Operating the DataMaster DMT

- Visual Results

- The DCI does not recommend the use of “visual” DataMaster test results as evidence. Safeguards are built into the software to prevent the operator from obtaining the alcohol results on any test other than a completed test.
- If a test is obtained that does not result in a completed test, it is recommended that the operator re-run the test or collect an alternative sample from the suspect.

Operating the DataMaster DMT

- Non-completed tests

- A non-completed test is considered to be any test that results in a status message, Incomplete, or Refusal.
- On tests that do not end in a completed test, the alcohol and breath pattern will appear on the printout. However, there will be no scale associated with the alcohol pattern on the graph section of the printout that could be used to interpret the subject's alcohol level. In addition, the alcohol concentration will not appear in the results section of the printout.

Operating the DataMaster DMT

SUBJECT TEST

IOWA DEPT. OF PUBLIC SAFETY
DATAMASTER dmt: 145906

Date: 06/10/2009
Time: 07:36:54

SUBJECT NAME:
J INNION

DOB: 01/01/2000
SUBJECT'S SEX: M
LICENSE #: NONOJKON
STATE ISSUED: IJ

OFFICER NAME:
J NLNLN
INSTRUMENT LOCATION:
NLNN
CASE NUMBER: LKNLKN
Deprivation Time: 07:00

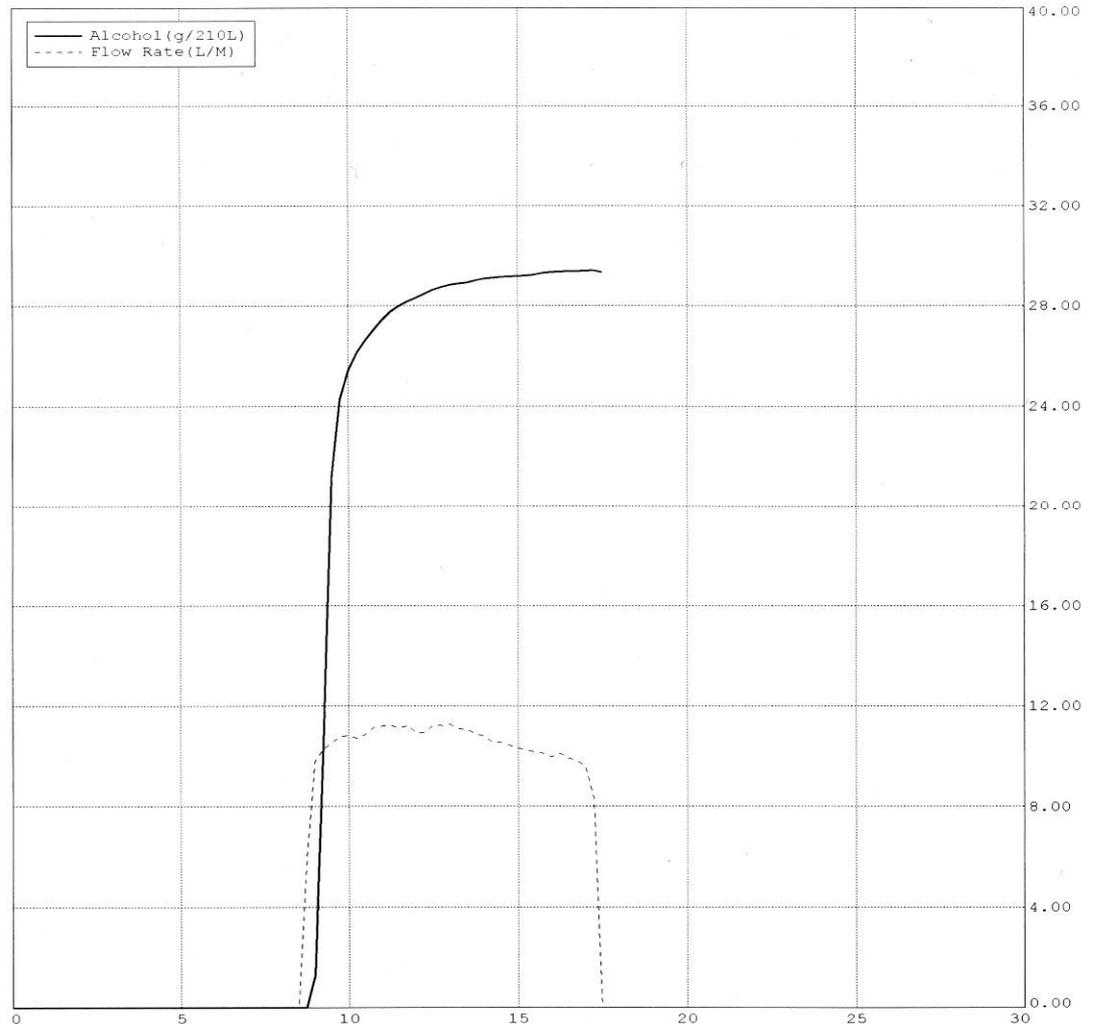
UNITS EXPRESSED IN g/210L

EXTERNAL STANDARD INFO:
SUPPLIER/MANUFACTURER: ILMO
CONCENTRATION: 0.080
LOT #: IJJI
EXP. DATE: 06/01/2011

External Standard Nominal = 0.080
External Standard Target = 0.080

BLANK TEST	0.000	07:37
DIAGNOSTIC CHECK	PASSED	07:38
INTERNAL STANDARD	0.093	07:38
EXTERNAL STANDARD	0.081	07:38
BLANK TEST	0.000	07:39
SUBJECT SAMPLE (Vol=1.52L)		07:39
SUBJECT SAMPLE (Vol=1.52L)		07:39

RFI Detected



Operating the DataMaster DMT

- “**NV**” key
 - The DataMaster DMT does not have an “**NV**” key or any other officer-controlled override key. Therefore, it is very important to either obtain a completed breath test on the subject or collect an alternative sample.

Operating the DataMaster DMT

Running a test

Operating the DataMaster DMT

- Running an evidential breath test

- Press '**RUN**' on the screen or initiate the test through TraCS.

If running the DataMaster without the TraCS interface, the DataMaster will ask you to input the following questions:

- **SUBJECT'S NAME:** (first, middle initial, last)
- **DATE OF BIRTH:** (month/day/year)
- **SEX (M/F):** (M/F)
- **DRIVER'S LICENSE:** (letters, numbers or both)
- **STATE OF ISSUE:** (two letter designation only)
- **INSTRUMENT LOCATION:** (ex. – S.O., P.D., ISP District)
- **OPERATOR'S NAME:** (first, middle initial, last)
- **CASE NUMBER:** (letters, numbers or both)
- **DEPRIVATION TIME:** (enter time based on 24 hr clock)

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - Please enter all the information known at the time of the test. If the subject information is not known, the test will be allowed to proceed leaving the fields blank.
 - The ‘**Instrument Location**’ will automatically default to a specific location but can be changed if the instrument is moved to a different location.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - ‘**DEPRIVATION TIME**’ will be the time when the operator began the **required 15-minute deprivation period**. The data entered is to be in the form of a 24-hour clock (ex. – 1 a.m. = 0100, 4 p.m. = 1600). Do not enter the time displayed on the DataMaster.
 - The subject may not eat, drink, smoke, or place foreign objects into the mouth during the minimum 15-minute deprivation period.

Operating the DataMaster DMT

Subject Information

Name(F/M/L)

License # State Licensed

Date of Birth Sex

General Information

Operator(F/M)

Inst. Location

Cas

Attention

Deprivation time less than 15 minutes.

OK

Cancel OK

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

- “Deprivation Period” (cont.)

- If the operator were to observe that the subject has tobacco, chewing gum or any other foreign matter that can be easily removed, the operator must have the subject remove the item.
 - Re-start the 15-minute deprivation period once the item is removed.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

“Deprivation Period” (cont.)

- Dentures – It is not required that the subject to remove dentures prior to submitting a breath sample. However, if the subject wishes to remove dentures, please start the 15-minute deprivation period from the time the dentures are removed.
- Tongue rings - It is not necessary to remove tongue rings or any other dental or facial jewelry prior to submitting a test on the DataMaster. If removed, please begin the deprivation period from the time they are removed.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

- “**Deprivation Period**” (cont.)

- **Belching** – belching or burping does not require a re-start of the deprivation period.
- **Vomiting/regurgitating** - If the subject should vomit/regurgitate during the deprivation time the operator may allow the subject to rinse his/her mouth with water and **must** re-start the 15-minute deprivation period from that point.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

- “**Deprivation Period**” (cont.)

- **Inhalers** – The use of an inhaler prior to a breath test is allowed. Re-start the 15 minute deprivation period from the completion of the use of the inhaler then test the subject on the DataMaster after the deprivation period has elapsed.

Operating the DataMaster DMT

Subject Information

Name(F/M/L)

License # State Licensed

Date of Birth Sex ▼

General Information

Operator(F/M/L)

Inst. Location

Case # Deprivation Time (24 hr)

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

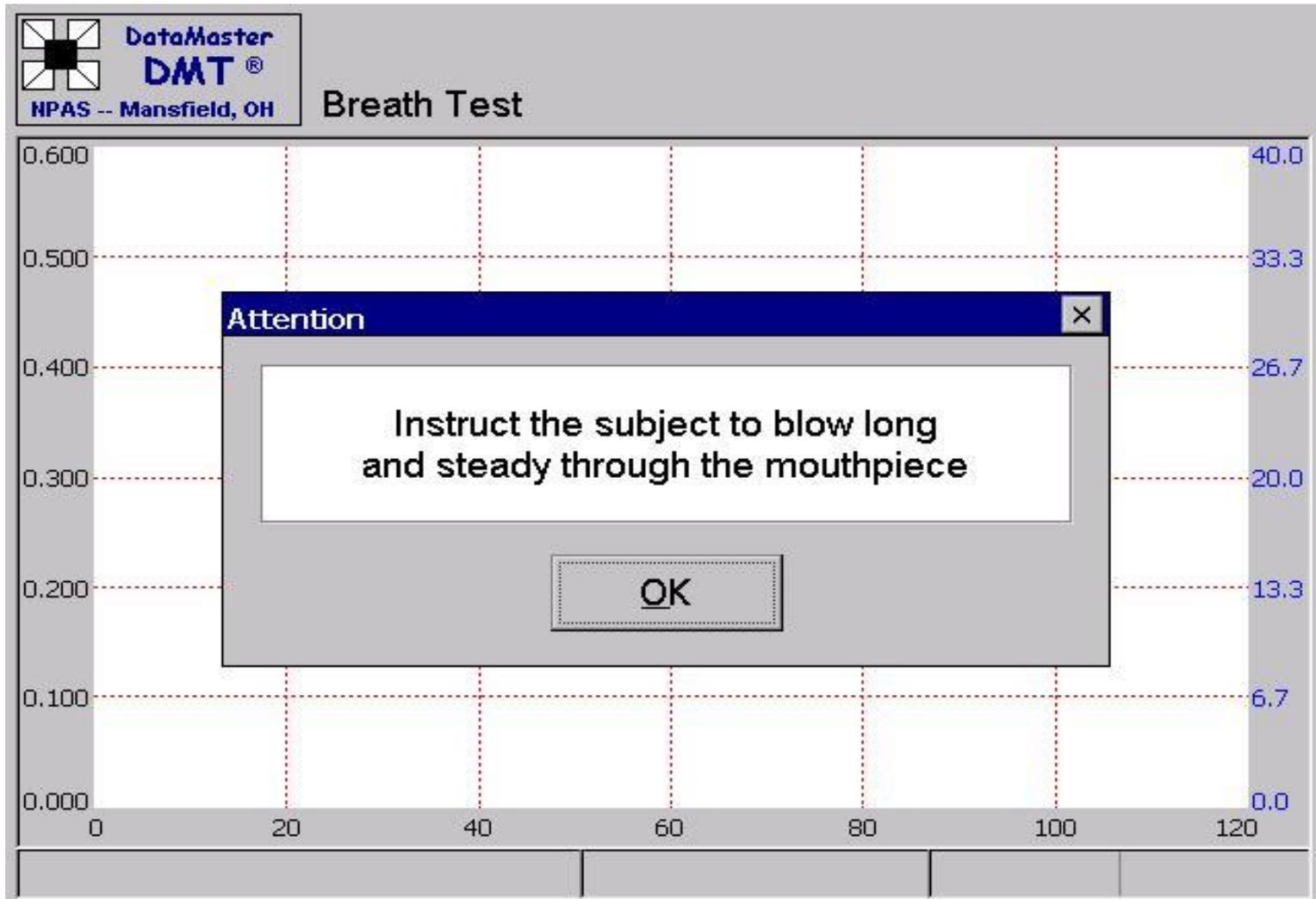
Normal Test sequence when using “RUN”:

- Enter the information
- Blank Test
- Diagnostic Check
- Internal Standard
- External Standard
- Blank Test
- Subject Sample
- Subject Sample
- Blank Test

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - The DCI recommends that the officer instruct the subject to “provide a long and steady breath through the mouthpiece”. However, other instructions given to the individual on how to provide a breath will not bias a test against the subject.
 - Note – the mouthpiece can be placed onto the breath hose at any time prior to the subject providing a breath into the instrument.

Operating the DataMaster DMT



Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - The “**Instruct the subject to blow long and steady...**” box will remain on the screen for two minutes or until the officer presses ‘**OK**’.
 - Press the ‘**OK**’ on the screen prior to the subject beginning their breath.
 - After two minutes without a response from the operator to the prompt noted above, the DataMaster will automatically go to the next step and will begin the two minute breath phase.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - When it is ready, the DataMaster will prompt the subject with a flashing '**PLEASE BLOW**' on the display and beeping tone.
 - When the subject is blowing correctly, the flashing '**PLEASE BLOW**' and beeping tone become a solid '**PLEASE BLOW**' and a solid tone.
 - If this is not occurring, it is permissible to instruct the subject to 'blow harder' in an effort to inform the subject that his/her breath sample flow must be at a flow rate considered acceptable by the DataMaster.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - A solid '**PLEASE BLOW**' and continuous tone must be maintained throughout the delivery of the breath sample in order to satisfy one of the sample requirements.
 - A 'break' in the continuous flow of a breath sample will result in the return of the flashing '**PLEASE BLOW**' and beeping tone and restarts the minimum volume and time requirements.
 - The subject has approximately two minutes from the beginning of the breath phase to provide an adequate breath sample.

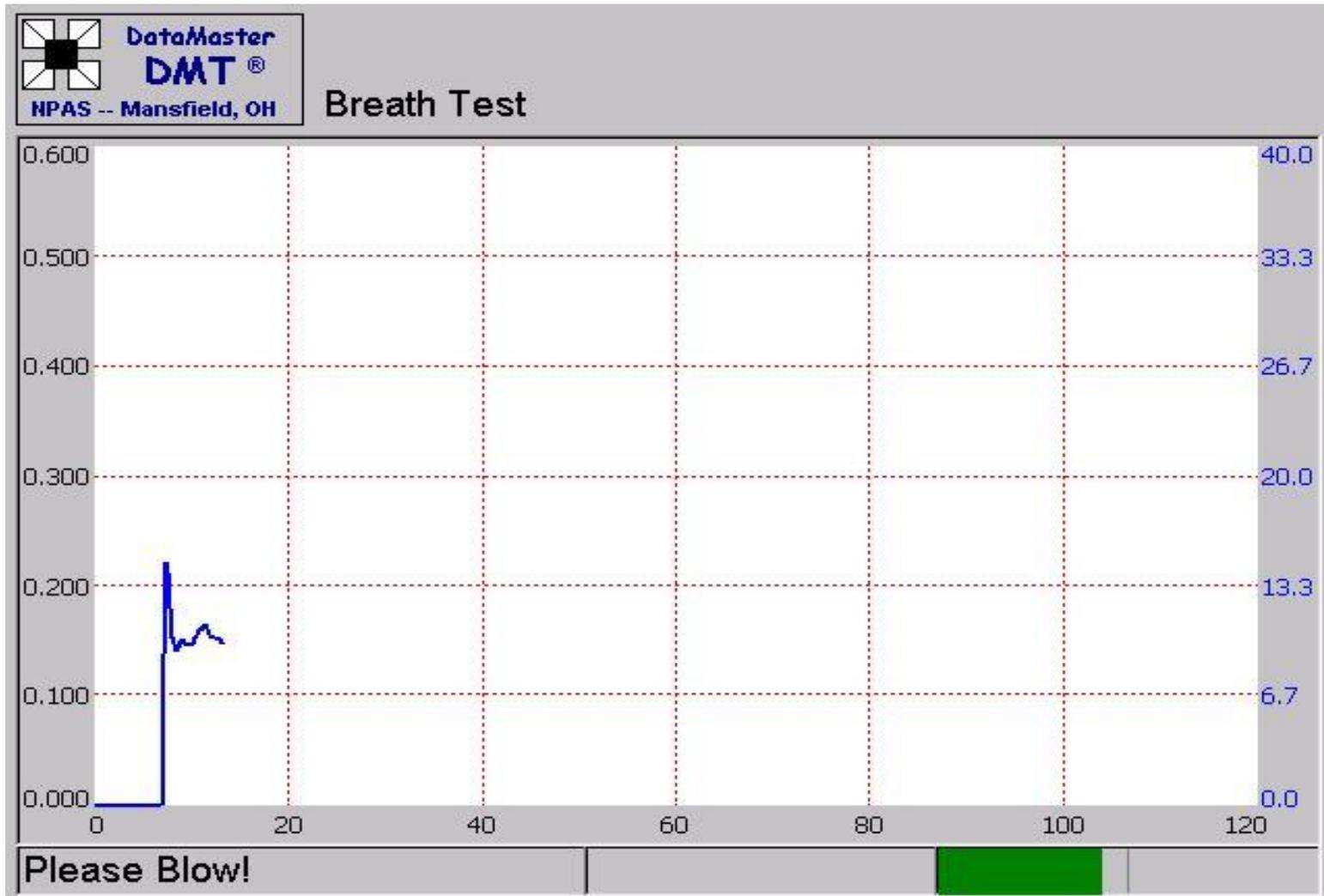
Operating the DataMaster DMT

- Running an evidential breath test (cont.)

Breath Profile Screen

- The DataMaster DMT allows the operator to view the breathing pattern of the subject's breath delivered into the instrument as the person is providing a breath (or not providing a breath).
- The breath pattern will be blue in color on the screen
- Note – the alcohol graph will not be displayed while the subject is providing a breath but will be part of the final printout.

Operating the DataMaster DMT



Operating the DataMaster DMT

- Running an evidential breath test (cont.)

Breath Profile Screen (cont.)

- The subject has reached the necessary volume requirement when the green bar graph has passed the designated line.
- However, the goal is still to have the subject provide a steady breath for as long as they can.

Operating the DataMaster DMT

- **Running an evidential breath test (cont.)**

Breath Profile Screen (cont.)

- The subject does not need to blow for the entire two minutes; only long enough to satisfy the DataMaster's requirements as to an acceptable sample. This may take several seconds though the time will vary from subject to subject.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

Breath Profile Screen (cont.)

- The DataMaster has four requirements for the acceptance of a breath sample: a continuously delivered breath for a minimum time of 4 seconds, a minimum volume of 1.3 Liters, a minimum flow rate of 3-4 L/min, and satisfaction of the slope detector requirements.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

Breath Profile Screen (cont.)

- Once all four requirements are met, the DataMaster will accept the breath once the subject has **stopped blowing into the instrument** (see note below).
- Note – the DataMaster DMT will automatically accept the breath sample when the subject delivers a continuous breath of approximately 3.0 Liters.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - When the DataMaster has accepted a sample, the display will read:

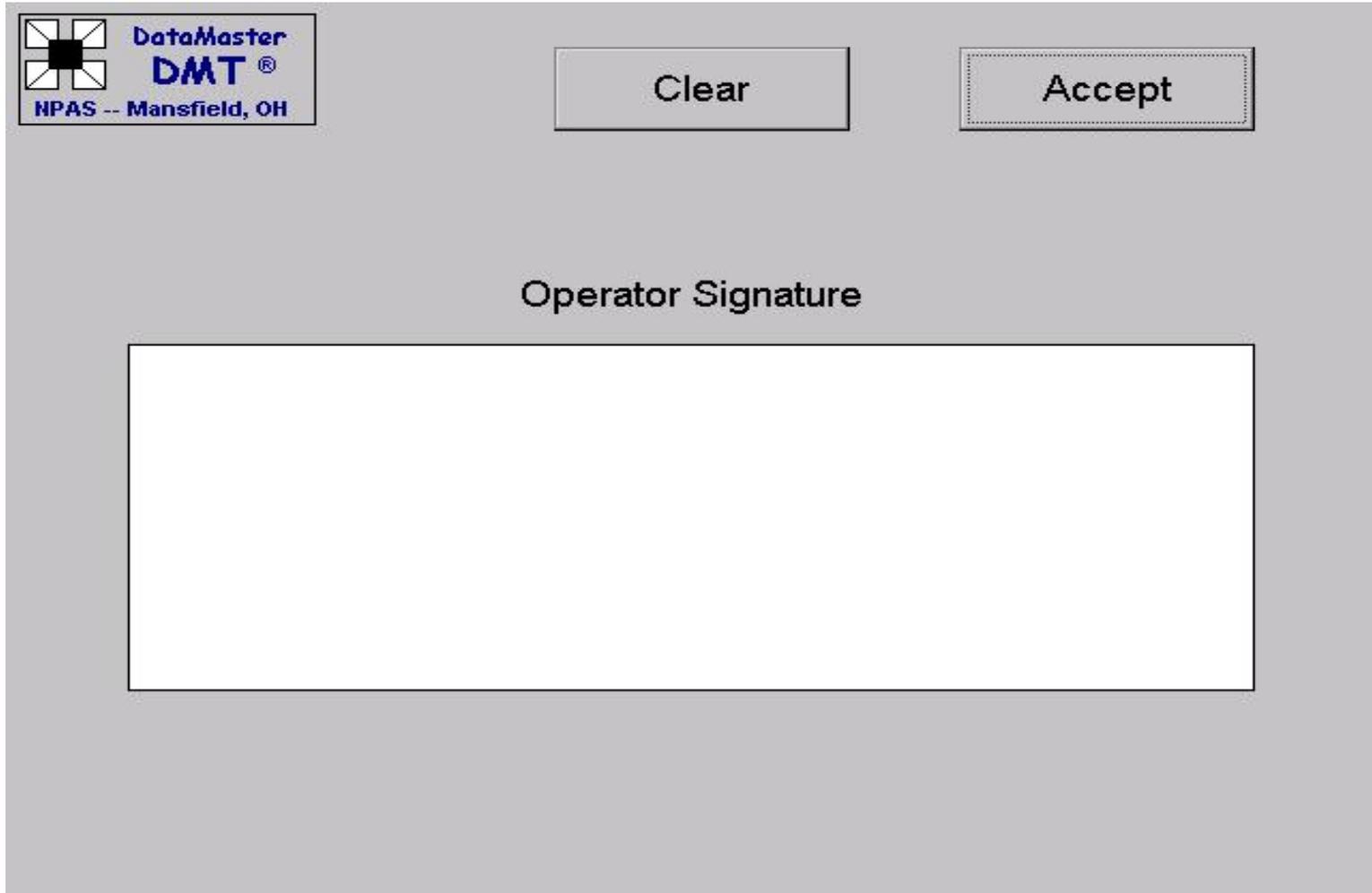
ANALYZING

- The DataMaster will prompt the officer to remove the mouthpiece – press “OK” when complete.
(Note – the mouthpiece may have already been removed prior to the prompt by the DataMaster)

Operating the DataMaster DMT

- Running an evidential breath test (cont.)
 - The DataMaster will analyze the sample twice and then perform its final checks. After the completion of its final checks, the DataMaster will prompt the operator to sign the screen and will then print out the results.
 - If there is a difference between the test results then the lower of the two test results is to be used.

Operating the DataMaster DMT



The image shows a software interface for DataMaster DMT. In the top-left corner, there is a logo consisting of a black crosshair inside a square, followed by the text "DataMaster DMT®" and "NPAS -- Mansfield, OH". To the right of the logo are two buttons: "Clear" and "Accept". The "Accept" button has a dashed border. Below these buttons is the text "Operator Signature" centered above a large, empty rectangular box for entering the signature.

Operating The DataMaster DMT

- Running an evidential breath test (cont.)
 - Three (3) copies of the results should print; one for the county attorney, one for the operator performing the test, and one for the subject. (The number of copies may vary depending on departmental request)
 - Two (2) copies of the checklist should print. If additional copies of the checklist are needed, please make a photocopy of the original or press the “**COPY**” key.
 - For those utilizing the TraCS system, only one copy will be printed by the DataMaster. Press the “**COPY**” key on the DataMaster if additional copies are needed.

Operating the DataMaster DMT

- Running an evidential breath test (cont.)

Operational Checklist

- The DataMaster DMT has an operational checklist that is filled out by the DataMaster every time a “**RUN**” test is performed.
- Please ensure that the checklist is filled out properly based on the test sequence that was performed.

Operating the DataMaster DMT

OPERATIONAL CHECKLIST for the Direct Breath Testing Instrument **DATAMASTER DMT**

This list is prepared in accordance with Iowa Administrative Code
661-157.2(1) (321J) Direct Breath Testing

Section 1

1. Initiate the test through TraCS or press "RUN" on the screen. (F1 or alternative method acceptable also)
Enter data as prompted, and review data if desired.
- Instruct subject to blow a long, steady breath into the mouthpiece.
2. If the instrument does not accept the initial breath, instruct the subject to continue to provide breaths until the instrument accepts the breath
- OR
When prompted with a STATUS MESSAGE, proceed to Section 3.
- OR
When prompted "Did the subject refuse? YES/NO", proceed to Section 2.

Section 2

- Part A. _____ In the opinion of the operator, the subject refused to provide an adequate breath sample.
When prompted "Did the subject refuse? YES/NO", press 'YES'. Remove the mouthpiece.
Printout will read "SUBJECT SAMPLE REFUSED."
- Part B. _____ In the opinion of the operator, the subject was unable to provide an adequate breath sample.
When prompted "Did the subject refuse? YES/NO", press 'NO'. Remove the mouthpiece.
Printout will read "SUBJECT SAMPLE INCOMPLETE"
- OR
Offer the subject another opportunity to provide a breath sample
- OR
Collect an alternative sample.

Section 3 --- USE ONLY IF TEST IS ABORTED DUE TO A STATUS MESSAGE.

1. The instrument aborted a test at any time due to a STATUS MESSAGE. If necessary review the applicable status code in the "Operating the DataMaster DMT" and follow those directions if indicated.
- OR
Offer the subject another opportunity to provide a breath sample
- OR
Collect an alternative sample.

CASE INFORMATION:

Subject: J INNION

Operator J NLNLN

Date: 06/10/2009

Iowa Department of Public Safety
DCI – Criminalistics Laboratory
Ankeny, IA 50023

Operating the DataMaster DMT

SUBJECT TEST

IOWA DEPT. OF PUBLIC SAFETY
DATAMASTER dmt: 145906

Date: 06/10/2009
Time: 07:32:14

SUBJECT NAME:
J NINION

DOB: 01/01/2000
SUBJECT'S SEX: M
LICENSE #: NONON
STATE ISSUED: IA

OFFICER NAME:
J NONJN
INSTRUMENT LOCATION:
NJNON
CASE NUMBER: NOJNOJN
Deprivation Time: 07:00

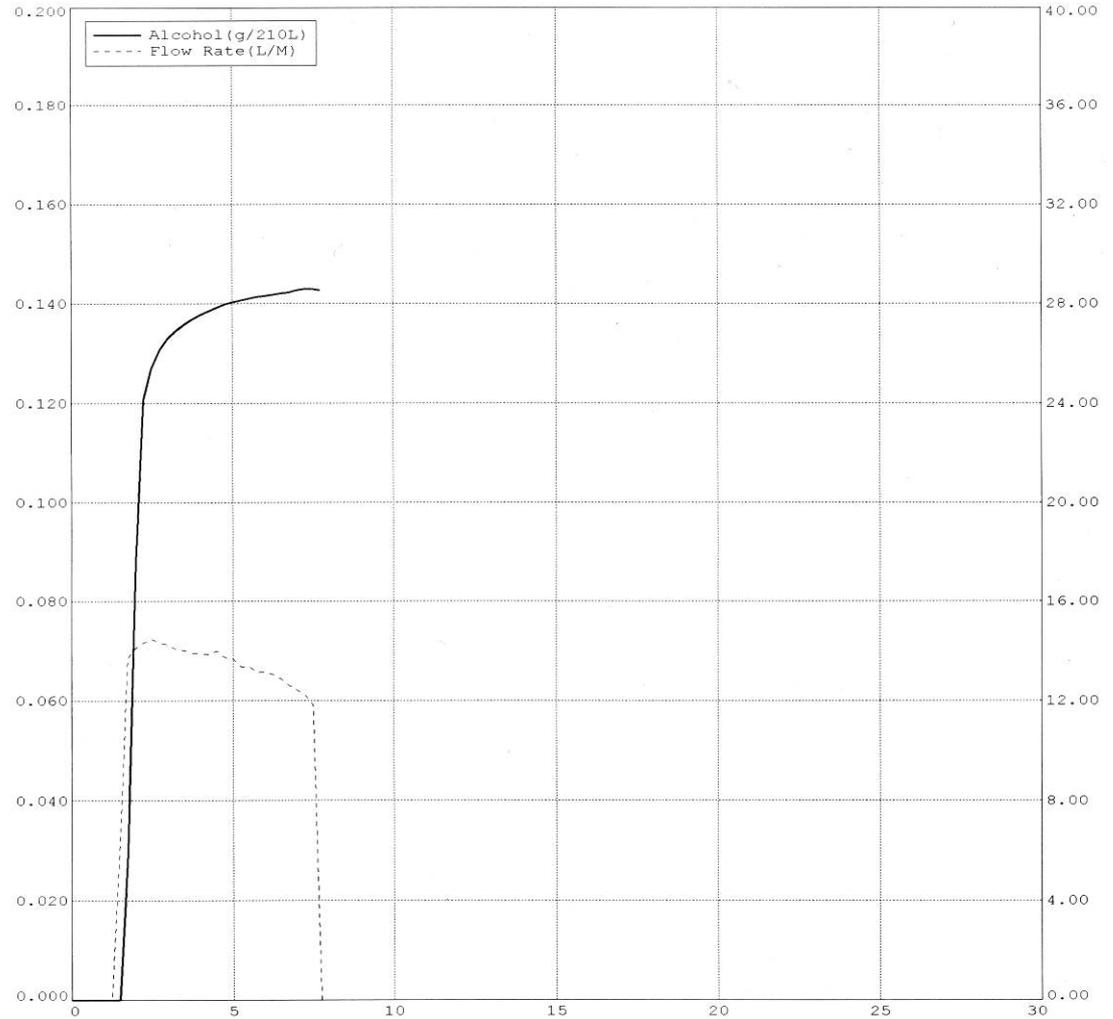
UNITS EXPRESSED IN g/210L

EXTERNAL STANDARD INFO:
SUPPLIER/MANUFACTURER: IIMO
CONCENTRATION: 0.080
LOT #: IJJI
EXP. DATE: 06/01/2011

External Standard Nominal = 0.080
External Standard Target = 0.080

BLANK TEST	0.000	07:33
DIAGNOSTIC CHECK	PASSED	07:33
INTERNAL STANDARD	0.093	07:33
EXTERNAL STANDARD	0.081	07:33
BLANK TEST	0.000	07:34
SUBJECT SAMPLE (Vol=1.38L)	0.142	07:34
SUBJECT SAMPLE (Vol=1.38L)	0.141	07:34
BLANK TEST	0.000	07:36


Operator



Operating the DataMaster DMT

SUBJECT TEST

IOWA DEPT. OF PUBLIC SAFETY
DATAMASTER dmt: 145906

Date: 06/11/2009
Time: 08:24:12

SUBJECT NAME:
J BLESKACEK

DOB: 01/01/2000
SUBJECT'S SEX: M
LICENSE #: JIJOHJOIHOI
STATE ISSUED: IA

OFFICER NAME:
JB KJBKBJB
INSTRUMENT LOCATION:
KBKJBKBJB
CASE NUMBER: BKJBKBJK
Deprivation Time: 08:00

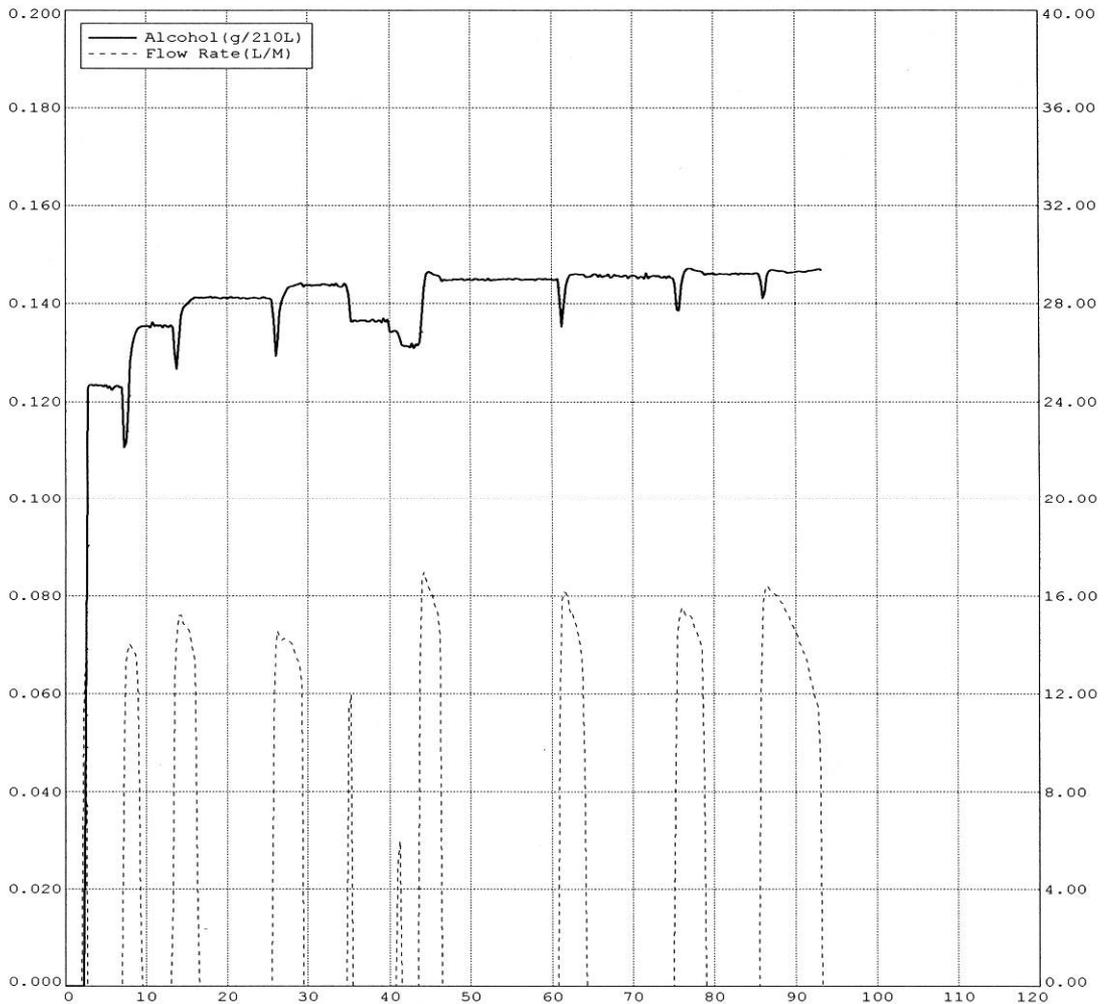
UNITS EXPRESSED IN g/210L

EXTERNAL STANDARD INFO:
SUPPLIER/MANUFACTURER: ILMO
CONCENTRATION: 0.080
LOT #: IJJI
EXP. DATE: 06/01/2011

External Standard Nominal = 0.080
External Standard Target = 0.080

BLANK TEST	0.000	08:25
DIAGNOSTIC CHECK	PASSED	08:25
INTERNAL STANDARD	0.092	08:25
EXTERNAL STANDARD	0.081	08:25
BLANK TEST	0.000	08:26
SUBJECT SAMPLE (Vol=1.80L)	0.147	08:28
SUBJECT SAMPLE (Vol=1.80L)	0.146	08:28
BLANK TEST	0.000	08:29

Operator



Operating the DataMaster DMT

- Running an evidential breath test (cont.)

Incomplete or Refusal

- “**Did the subject refuse? (YES/NO)**” will be asked if the DataMaster has been allowed to go through the 2-minute breath-sampling period without an adequate sample having been provided.
- If this question is answered with a “**YES**” the printout will indicate “**SUBJECT SAMPLE REFUSED**”.
- If this question is answered with a “**NO**” the printout will indicate “**SUBJECT SAMPLE INCOMPLETE**”.

Operating the DataMaster DMT

The screenshot shows the DataMaster DMT software interface. The main window is titled "Breath Test" and includes the DataMaster DMT logo and "NPAS -- Mansfield, OH". The main display area shows the following text:

UNITS EXPRESSED IN g/210L

EXTERNAL STANDARD INFO:

SUPPLIER/

CONCENTRA

LOT #: 07

EXP. DATE

External

External

BLANK TES

DIAGNOSTIC CHECK PASSED 10:23

INTERNAL STANDARD 0.080 10:24

EXTERNAL STANDARD 0.074 10:24

A dialog box titled "Refusal" is overlaid on the main window, asking "Did the subject refuse?". The dialog box has two buttons: "Yes" and "No".

Operating the DataMaster DMT

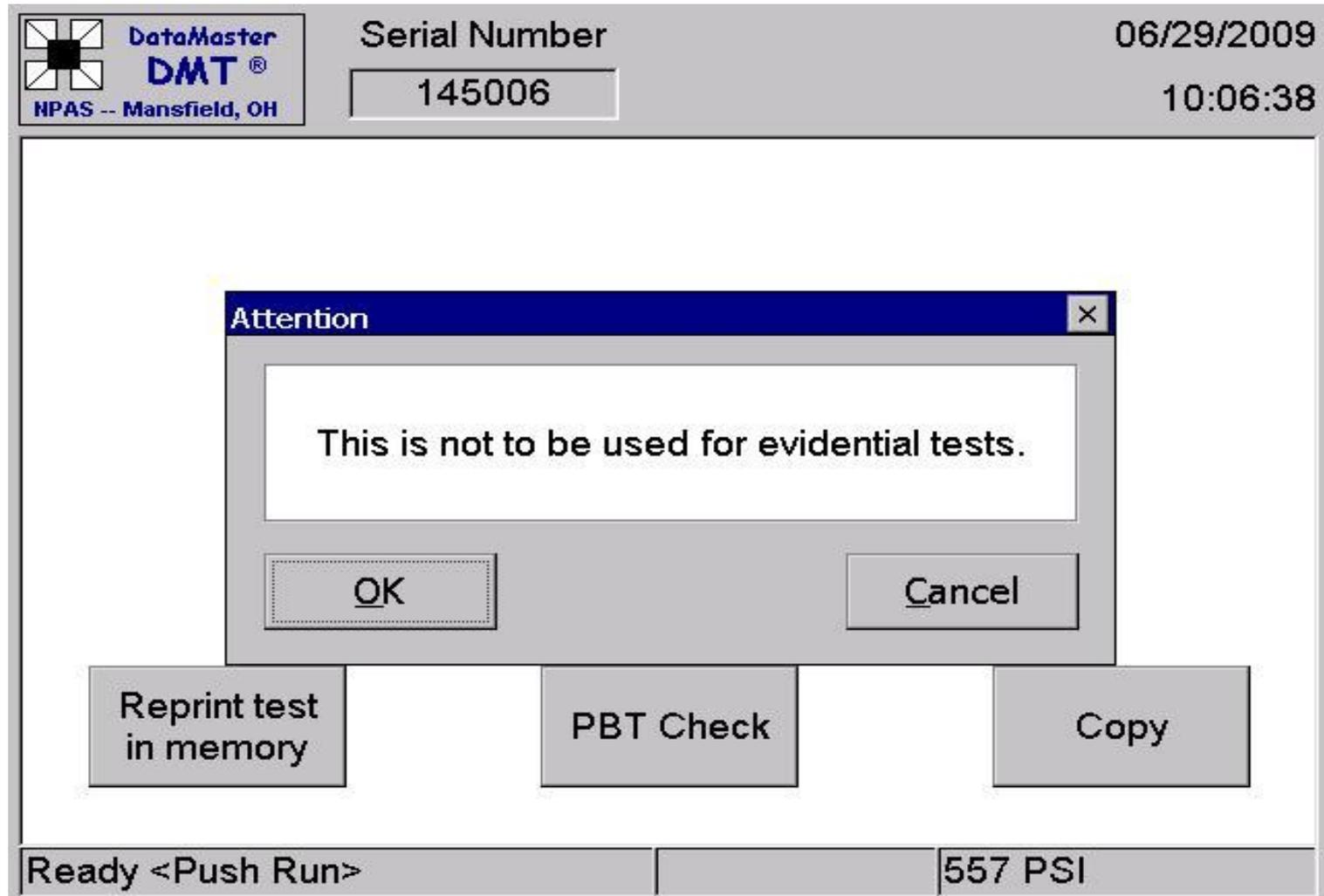
Performing a Non-Memory Test

Operating the DataMaster DMT

- Non-Memory Test

- Pressing this on the screen starts the procedure appropriate to performing a test that will not be used as evidence in court.
- The test is not stored in the memory of the instrument. Only one (1) printout is generated.
- This test procedure should not be used on 0.02 violators or boating while intoxicated.

Operating the DataMaster DMT



Operating the DataMaster DMT

- Non-Memory Test (cont.)
 - You must enter the subject's first and last name.
 - The test will continue with or without the rest of the information entered in each field.
 - If the operator presses the “Enter/Return” key on the keyboard – the DataMaster will prompt the operator to ensure that all the data was entered that was intended to be.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. The main window is titled "Subject Information" and contains several input fields: "Name(F/M/L)" with "JOE" in the first box and "SMITH" in the second, "License #" (empty), "Date of Birth" (placeholder "MM/dd/yyyy"), "State Licensed" (empty), and "Sex" (dropdown menu). Below this is a "General Info" section with fields for "Operator(F/M)", "Inst. Loca", and "Cas". A "Verify Data" dialog box is overlaid on the main window, asking "Would you like to review the entered data?" with "Yes" and "No" buttons. At the bottom of the main window are "Cancel" and "OK" buttons.

Subject Information

Name(F/M/L)

License #

Date of Birth

State Licensed

Sex

General Info

Operator(F/M)

Inst. Loca

Cas

Verify Data [X]

Would you like to review the entered data?

Operating the DataMaster DMT

- Non-Memory Test (cont.)

Normal test sequence when using “Non-Memory Test”

- Enter desired information (Subject’s name is required)
- Blank
- Diagnostic check
- Internal Standard
- Subject Sample
- Blank

Operating the DataMaster DMT



Breath Test

IOWA DEPT. OF PUBLIC SAFETY
DATAMASTER dmt: 145006

Date: 06/29/2009
Time: 10:07:50

NON-MEMORY TEST

SUBJECT NAME:
SMITH JOE

UNITS EXPRESSED IN g/210L

BLANK TEST	0.000	10:08
DIAGNOSTIC CHECK	PASSED	10:08

Operating the DataMaster DMT

Status Messages

Operating the DataMaster DMT

- STATUS MESSAGES (the most common)
 - “RADIO INTERFERENCE”
 - “INVALID SAMPLE”
 - “INTERFERENCE”
 - “AMBIENT FAIL”
 - “PUMP ERROR”

** There are several other status messages. **

Operating the DataMaster DMT

- **STATUS MESSAGES** (cont.)

- **“RADIO INTEFERENCE”**

- Refers to the detection of excessive radio frequency energy. Most likely caused by transmissions from handheld radios or vehicle microphones being used near the instrument.
 - It is recommended to retest the individual and if subsequent tests result in “RFI Detected”, test the subject on a different DataMaster, or collect an alternative specimen from the subject.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. The title bar reads "DataMaster DMT® NPAS -- Mansfield, OH" and "Breath Test". The main window contains the following text:

INSTRUMENT LOCATION:
YG
CASE NUMBER: YG
Deprivation Time: 08:00

UNITS EXP
EXTERNAL
SUPPLIER/
CONCENTRA
LOT #: 07
EXP. DATE

External Standard Nominal = 0.000
External Standard Target = 0.075

An error dialog box is overlaid on the main window, titled "Breath Test stopped for following reason:". The message inside the dialog box reads "RFI Detected". An "OK" button is visible at the bottom of the dialog box.

At the bottom of the main window, there is a "Timed Purge" button.

Operating the DataMaster DMT

- **STATUS MESSAGES** (cont.)

- **“INVALID SAMPLE”**

- Refers to a situation that the DataMaster recognized a negative-going slope or alcohol concentration during the delivery of the breath sample.
 - If subsequent tests continue to result in an **“INVALID”** sample, it is recommended to test the individual on a different DataMaster, or collect an alternative sample from the individual.

Operating The DataMaster DMT

- **STATUS MESSAGES** (cont.)

“INVALID SAMPLE”

- The operator is required to re-start the 15 minute deprivation period after an “INVALID” test is obtained when running a subsequent test on the same subject.
- After an “INVALID” sample when prompted “Run another test Yes/No?”, answering ‘Yes’ will prompt the DataMaster to begin a 15 minute wait before allowing an additional test of the subject.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT with the text "NPAS -- Mansfield, OH". To the right of the logo, the text "Serial Number" is displayed above a text box containing the value "145006". Further right, the date "06/29/2009" and time "10:12:11" are shown. The main area of the interface is a large white rectangle. In the center of this area, a dialog box titled "Attention" is open. The dialog box has a blue title bar with a close button (X) on the right. The main text of the dialog box asks "Run another test?". Below the text, there are two buttons: "Yes" and "No". The "Yes" button is highlighted with a dotted border. Below the dialog box, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy". At the bottom of the interface, there is a status bar with three sections: "Ready <Push Run>", "559 PSI", and a blank space.

DataMaster
DMT®
NPAS -- Mansfield, OH

Serial Number
145006

06/29/2009
10:12:11

Attention

Run another test?

Yes No

Reprint test in memory PBT Check Copy

Ready <Push Run> 559 PSI

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT® with the text "NPAS -- Mansfield, OH". To the right of the logo, the "Serial Number" is displayed as "145006". In the top right corner, the date "06/29/2009" and time "11:05:34" are shown. The main area of the interface is mostly blank, with a central dialog box titled "Attention" that contains the text "Replace the mouthpiece before running another test." and an "OK" button. Below the dialog box, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy". At the bottom of the interface, there is a status bar with the text "Ready <Push Run>" on the left and "554 PSI" on the right.

DataMaster
DMT®
NPAS -- Mansfield, OH

Serial Number
145006

06/29/2009
11:05:34

Attention

Replace the mouthpiece before running another test.

OK

Reprint test in memory

PBT Check

Copy

Ready <Push Run>

554 PSI

Operating the DataMaster DMT

Subject Information

Name(F/M/L)

License # State Licensed

Date of Birth Sex ▼

General Information

Operator(F/M/L)

Inst. Location

Case # Deprivation Time (24 hr)

Operating the DataMaster DMT

- STATUS MESSAGES (cont.)

“INVALID SAMPLE”

- If the operator presses ‘OK’, the DataMaster will begin an automatic re-start of the 15-minute deprivation period before allowing another test.
- After the mandatory waiting period has expired, the DataMaster will prompt the operator to continue to the testing procedure with “Press ‘OK’ to continue”.

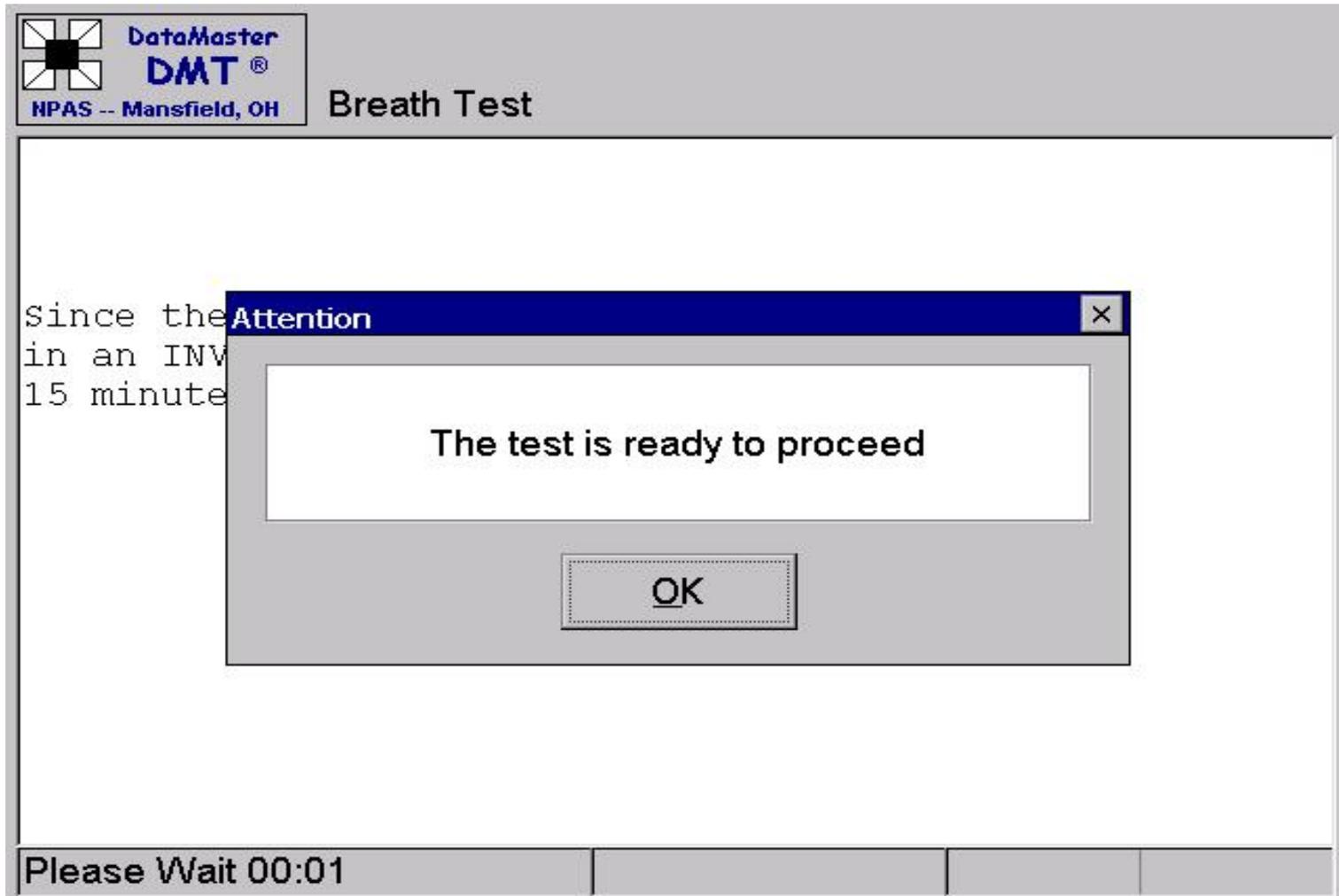
Operating the DataMaster DMT

The screenshot shows a software window titled "Breath Test". In the top-left corner, there is a logo consisting of a black crosshair with a black square in the center, followed by the text "DataMaster DMT®" and "NPAS -- Mansfield, OH". In the top-right corner, there is a button labeled "Abort Test". The main area of the window contains the following text:

Since the previous test on this subject resulted in an INVALID test, an automatic re-start of the 15 minute deprivation period has begun.

At the bottom of the window, there is a status bar with the text "Please Wait 14:45" on the left and three empty rectangular boxes on the right.

Operating the DataMaster DMT



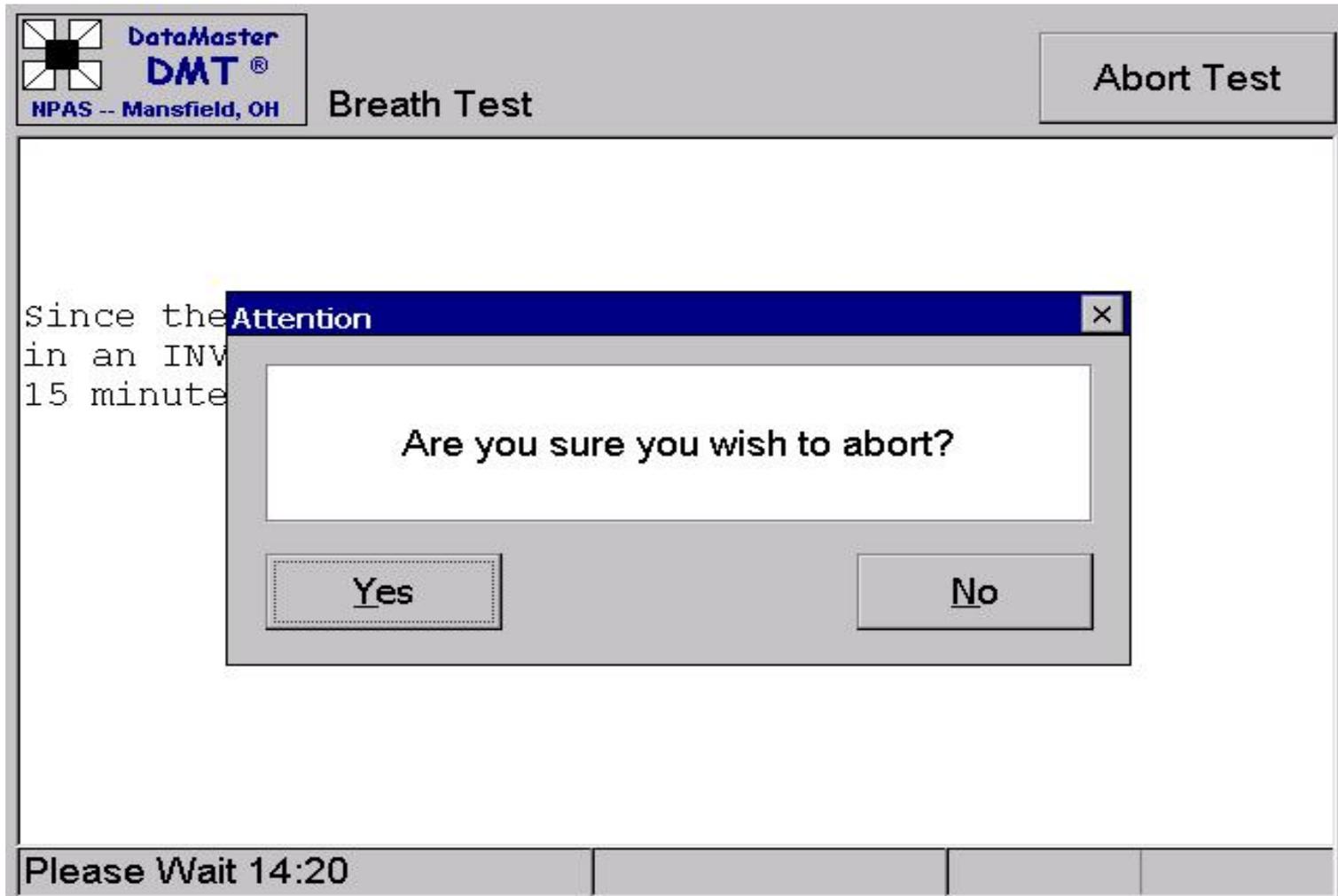
Operating the DataMaster DMT

- STATUS MESSAGES (cont.)

“INVALID” Sample

- ‘ABORT’ – by pressing the ABORT button on the screen the operator will be prompted if they are sure that they wish to abort the test.
 - Answering ‘YES’ will pop-up a box indicating the test was not completed... and pressing ‘OK’ will proceed to the Main screen.
 - If another test is performed on the same subject after an “INVALID” sample, 15 minutes must elapse before re-testing the subject.

Operating the DataMaster DMT



Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT with the text "NPAS -- Mansfield, OH". To the right of the logo, the "Serial Number" is displayed as "145006". The date "08/04/2009" and time "09:35:54" are shown in the top right corner. The main area of the interface is mostly blank, with a central dialog box titled "Test was not a completed test". The dialog box contains the text: "It is recommended to collect an alternate sample or use a different Datamaster." and an "OK" button. Below the dialog box, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy". At the bottom of the interface, there is a status bar with the text "Ready <Push Run>" on the left and "248 PSI" on the right.

DataMaster
DMT[®]
NPAS -- Mansfield, OH

Serial Number
145006

08/04/2009
09:35:54

Test was not a completed test

It is recommended to collect an alternate sample or use a different Datamaster.

OK

Reprint test in memory

PBT Check

Copy

Ready <Push Run>

248 PSI

Operating the DataMaster DMT

- **STATUS MESSAGES** (cont.)

“INTERFERENCE”

- Refers to the situation in which the sample submitted could contain a substance other than alcohol or a combination of alcohol and an interfering substance.
- Re-start the test. If subsequent tests continue to conclude with an “INTERFERENCE” result, it is recommended that an alternative sample be collected from the individual.

Operating the DataMaster DMT

- STATUS MESSAGES (cont.)

- “**AMBIENT FAIL**”

- Refers to the situation that the DataMaster was unable to establish a ‘zero’ alcohol reference utilizing the air around the instrument.
 - Possible sources of this could be a poorly ventilated room, the breath hose pointed near the subject, room deodorizers, or hand sanitizers, etc.
 - Re-start the test. If subsequent tests continue to result in an “**AMBIENT FAIL**”, it is recommended to test the individual on a different DataMaster, or collect an alternative sample from the individual.

Operating the DataMaster DMT

- STATUS MESSAGES (cont.)

- “PUMP ERROR”

- This refers to the situation wherein the DataMaster did not detect proper air flow through the instrument. Check the mouthpiece connector for debris – if debris is present, remove it and run the test again.
 - If the DataMaster continues to give “Pump Error” messages, contact the DCI Laboratory for assistance.

Operating the DataMaster DMT

- ALL STATUS MESSAGES

- If a status message is obtained during a breath test, it does not mean that there is something wrong with the DataMaster. The DataMaster has many safeguards built in to ensure a non-biased result is obtained based on the sample provided.

Operating the DataMaster DMT

- **ALL STATUS MESSAGES** (cont.)
 - If the operator obtains a test that results in a status message, try running the test again.
 - An operator can attempt to obtain a completed test as many times as the operator feels is necessary.
 - If subsequent tests do not end in a completed test, it is recommended to collect an alternate sample from the subject or try a different DataMaster.

Operating the DataMaster DMT

- ALL STATUS MESSAGES (cont.)
 - If a **status message** appears on the display and/or printout or the officer indicates the test was an “**INCOMPLETE**” or “**REFUSAL**”, the DataMaster will not print out a subject’s alcohol result. In addition, the graphic display will not include the alcohol scale.

Operating the DataMaster DMT

**Running another test
On the same individual**

Operating the DataMaster DMT

- Running another test

- If the test performed on a subject does not produce a completed test, the DataMaster is programmed to run an additional test on the same subject.
- The DataMaster will prompt the operator to “Run another test? **Yes/No**”

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT with the text "NPAS -- Mansfield, OH". To the right of the logo, the "Serial Number" is displayed as "145006". In the top right corner, the date "06/29/2009" and time "10:12:11" are shown. The main area of the interface is a large white rectangle. Overlaid on this is a dialog box titled "Attention" with a close button (X) in the top right corner. The dialog box contains the text "Run another test?" and two buttons: "Yes" and "No". Below the dialog box, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy". At the bottom of the interface, there is a status bar with the text "Ready <Push Run>" on the left and "559 PSI" on the right.

DataMaster
DMT®
NPAS -- Mansfield, OH

Serial Number
145006

06/29/2009
10:12:11

Attention

Run another test?

Yes No

Reprint test in memory PBT Check Copy

Ready <Push Run> 559 PSI

Operating the DataMaster DMT

- Running another test (cont.)
 - A “**YES**” will prompt the DataMaster to proceed to the data entry screen, make any changes if necessary and press “**OK**” to begin another test sequence.
 - A “**NO**” will prompt the DataMaster to advise the operator to obtain an alternate sample from the subject or to use a different DataMaster.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT with the text "NPAS -- Mansfield, OH". To the right of the logo, the text "Serial Number" is displayed above a text box containing the value "145006". Further right, the date "08/04/2009" and time "09:35:54" are shown. In the center of the screen, a dialog box titled "Test was not a completed test" is open, containing the message "It is recommended to collect an alternate sample or use a different Datamaster." and an "OK" button. Below the dialog box, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy". At the bottom of the interface, there is a status bar with the text "Ready <Push Run>" on the left and "248 PSI" on the right.

DataMaster
DMT®
NPAS -- Mansfield, OH

Serial Number
145006

08/04/2009
09:35:54

Test was not a completed test

It is recommended to collect an alternate sample or use a different Datamaster.

OK

Reprint test in memory

PBT Check

Copy

Ready <Push Run>

248 PSI

Operating the DataMaster DMT

- Replacing the mouthpiece
 - If the subject fails to deliver an adequate breath sample during the two-minute breath period or a status message appears during the breath test and the operator re-starts the test procedure in an attempt to obtain an adequate breath sample from the subject, it is recommended that a new mouthpiece be utilized at that time.
 - The DataMaster will advise the operator to replace the mouthpiece.
 - Note – An operator is not required to replace the mouthpiece in situations including multiple stops-and-starts during a single breath test phase.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT® with the text "NPAS -- Mansfield, OH". To the right of the logo, the "Serial Number" is displayed as "145006". In the top right corner, the date "06/29/2009" and time "11:05:34" are shown.

In the center of the screen, a dialog box titled "Attention" is open. The dialog box contains the text: "Replace the mouthpiece before running another test." Below the text is an "OK" button.

At the bottom of the main interface, there are three buttons: "Reprint test in memory", "PBT Check", and "Copy".

At the very bottom of the screen, there is a status bar with two sections: "Ready <Push Run>" on the left and "554 PSI" on the right.

Operating the DataMaster DMT

Changing the Dry Gas Tank

Operating the DataMaster DMT



Operating the DataMaster DMT

- Changing the dry gas tank

- The DCI recommends that each DataMaster site assign a few individuals to be responsible for replacing the dry gas tank.
- The “**Dry Gas Tank Change**” procedure is password protected to limit access to assigned personnel only.
- Prior to inserting the tank into the housing, it is recommended to write down the Manufacturer/Supplier, the Lot number, the Concentration (around 0.080), and the Expiration date.

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - The DataMaster is programmed to inform the operator that the dry gas external standard is running low (200 PSI or 1 month prior to expiration of the tank).
 - It is recommended that once “Ready – Change Dry Gas Soon” is seen on the screen that arrangements be made to obtain a replacement tank.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT control panel interface. At the top left is the DataMaster DMT logo, which includes a crosshair icon and the text "DataMaster DMT® NPAS -- Mansfield, OH". To the right of the logo, the "Serial Number" is displayed as "145006" in a text box. Further right, the date "08/04/2009" and time "08:45:21" are shown. The main area of the panel contains five buttons: "Run" and "Non-Memory Test" are positioned in the upper middle section; "Reprint test in memory", "PBT Check", and "Copy" are arranged in a row at the bottom. The "Copy" button has a dotted border. At the very bottom, a status bar shows "Ready <Change Dry Gas Soon>" on the left and "14 PSI" on the right.

DataMaster
DMT®
NPAS -- Mansfield, OH

Serial Number
145006

08/04/2009
08:45:21

Run

Non-Memory
Test

Reprint test
in memory

PBT Check

Copy

Ready <Change Dry Gas Soon> | 14 PSI

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - The DataMaster will not perform a test if the dry gas tank pressure is below 30 PSI.
 - The DataMaster will not perform a test if the dry gas tank is past the expiration date entered during a “**Dry Gas Tank Change**” procedure.

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - To change the tank, open the door which houses the tank.
 - Spin the tank in a counter-clockwise motion until it is free from the regulator
 - Remove the tank from the housing
 - Place a new tank within the housing

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - Spin the tank in a clockwise motion until it is securely connected to the regulator.
 - Ensure that the DMT recognizes the tank pressure by observing the value on the lower right hand corner of the DMT screen. A full tank should read around 1200-1300 PSI (based on an ILMO 110L tank).
 - Close and secure the door

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - The DMT will prompt the operator to perform a ‘Dry Gas Tank Change’ analytical procedure.
 - At the prompt, enter the password and press “OK”
 - At the data entry screen, enter:
 - Supervisor’s Name (person changing the tank)
 - Tank manufacturer/distributor
 - Tank concentration (in g/210, not in PPM) (should be around 0.080)
 - Lot #
 - Expiration Date
 - Press “OK” when complete

Operating the DataMaster DMT

Supervisor Information

Name(F/M/L)

Solution Information

Manufacturer Lot #

Concentration Expiration Date

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - Once the data is entered, the DataMaster will perform a “Dry Gas Tank Change” verification test.
 - The DataMaster will verify that the tank is within the acceptable range of its target value (compensating for barometric pressure).
 - A “RUN” test will not work until this is completed.

Operating the DataMaster DMT

- Changing the dry gas tank (cont.)
 - If the ‘Dry Gas Tank Change’ fails (“Standard Out of Range”), verify the tank is properly screwed into its housing and re-run the procedure.
 - If you continue to experience problems, please contact the DCI Crime Lab and ask for a member of the Breath Alcohol Section.
 - Please fax ‘Dry Gas Tank Change’ printouts to the DCI Lab, care of the Breath Alcohol Section).

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. The title bar reads "DataMaster DMT® NPAS -- Mansfield, OH" and "Dry Gas Tank Change". The main window contains the following text:

```
SUPPLIER/MANUFACTURER: T
CONCENTRATION: 0.090
LOT #: T
EXP. DATE
UNITS EXP
External
External
BLANK TEST
INTERNAL
  Xq = 0.000 (0.11%)
EXTERNAL STANDARD      0.074    10:23
  X[1] = 0.0749 (0.0010) (0.0023)
```

An error dialog box is overlaid on the main window, titled "Dry Gas Tank Change stopped for following reason:". The dialog box contains the message "Standard Out of Range" and an "OK" button.

Operating the DataMaster DMT

Correcting the Date/Time

Operating the DataMaster DMT

- “**Correcting the Date or Time**”
 - To correct the date or time, press the NPAS Icon on the top left of the display.
 - In ‘**Functions**’ - an operator may correct the date or time to the correct time.
 - Press ‘**Set Date/Time**’, highlight the area(s) to be corrected, correct that area(s) accordingly.
 - Press ‘**Apply**’ and then ‘**OK**’ when the date/time is corrected.

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left is the DataMaster DMT logo with the text 'NPAS -- Mansfield, OH'. To the right, the 'Serial Number' is '145006'. The date '08/04/2009' and time '09:07:27' are shown in the top right corner. The main menu is open, showing 'Setup' (F3) and 'Functions' (highlighted in blue). The 'Functions' menu is expanded, listing: 'Set Date/Time' (highlighted in blue), 'Return To Service', 'Remove From Service', 'Set Certification Date', 'Purge Sample Chamber', 'Clear Memory', 'Import/Export', 'Reset Options', 'Filter Test', and 'Detector Monitor'. A 'Copy' button is visible to the right of the menu. The bottom status bar shows 'Ready <Push Run>' and '246 PSI'.

DataMaster DMT® NPAS -- Mansfield, OH	Serial Number 145006	08/04/2009 09:07:27
Setup F3	Functions	Set Date/Time
Reports		Return To Service
Subject Test		Remove From Service
Supervisor Test		Set Certification Date
Diagnostic		Purge Sample Chamber
Calibrate		Clear Memory
Technician Mode		Import/Export
Dry Gas Tank Change		Reset Options
Security		Filter Test
Help		Detector Monitor
		Copy
Ready <Push Run>		246 PSI

Operating the DataMaster DMT

The screenshot displays the DataMaster DMT software interface. At the top left, there is a logo for DataMaster DMT® with the text "NPAS -- Mansfield, OH". To the right of the logo, the "Serial Number" is displayed as "145006". In the top right corner, the date "06/29/2009" and time "09:53:48" are shown.

A "Date/Time" dialog box is open in the center of the screen. It features a calendar for "June 2009" with the date "29" selected. Below the calendar, it says "Today: 06/29/2009". To the right of the calendar, the "Current Time" is displayed as "09:53:48" in a text field with navigation arrows. Below the time field are three buttons: "Apply", "OK", and "Cancel".

At the bottom of the main window, there are three large buttons: "Reprint test in memory", "PBT Check", and "Copy".

The status bar at the very bottom of the window shows "Ready" on the left and "583 PSI" on the right.

Operating the DataMaster DMT

TraCS

(Traffic and Criminal Software)

Operating the DataMaster DMT

- “TraCS”
 - The DataMaster DMT works in a similar fashion to the DataMaster cdm in how it interfaces with the Iowa DOT TraCS program.
 - Utilizing the TraCS interface in no way effects the analytical integrity of the DataMaster DMT. The interface is simply a tool to permit data sharing between the DataMaster and the TraCS software.

Operating the DataMaster DMT

- “TraCS” (cont.)
 - The operator may have to respond to the pop-up boxes on the DMT as they occur in order for the test to proceed.
 - When using TraCS, only 1 printout of the breath test will be printed by the DataMaster.

Operating the DataMaster DMT

Frequently asked questions

Operating the DataMaster DMT

- **The DataMaster appears to have “locked up”, what should I do?**
 - The DataMaster, just like a computerized device, may occasionally “lock up”. There is an On/Off switch located on the back of the unit in the center. Turn the unit off and on again. You will have to wait a minimum of 5 minutes before you will be allowed to run a test.
 - Verify that the date and time are correct – if not reset the date/time per instructions in the manual.

Operating the DataMaster DMT

- **I need to transport the DMT to Ankeny for repairs, should I remove the dry gas tank?**
 - If you are **driving** the DataMaster to the lab then **No**, it is not necessary. It is secured within the housing.
 - If **shipping** the DMT to the lab then **YES**, the tank **MUST** be removed prior to sending. Keep the tank at your location for re-installation after the DataMaster is returned.

Operating the DataMaster DMT

- **Do I have to wait 15 minutes before I can administer a test?**
 - Yes, the 15 minute time period is necessary to eliminate mouth alcohol which could affect a breath test result.
- **The subject has dentures, do they need to be removed prior to running a test?**
 - No, dentures do not have to be removed prior to running a test on an individual.

Operating the DataMaster DMT

- **The subject has asthma, can this affect the breath test?**
 - Asthma will not affect the breath alcohol results although someone with asthma may have a more difficult time meeting the volume requirements of the DataMaster. If the subject needs to use an inhaler, the operator must insure that the individual has not used it within 15 minutes of the breath test.

Operating the DataMaster DMT

- **The subject regurgitated before the breath test, what should I do?**
 - You may have the subject rinse their mouth with water (not required), re-start the 15 minute deprivation period, and when complete, test the individual.
- **The subject has a tongue ring, does it need to be removed prior to testing?**
 - No, a tongue ring will not affect the breath test as long as the deprivation period has been maintained.

Operating the DataMaster DMT

- **The subject is “huffing and puffing” and got an “INVALID” status message, is this common?**
 - Yes, the instrument is programmed to give an “INVALID” response when the instrument sees a negative-going alcohol value. This can occur when a subject blows, introducing alcohol into instrument, pauses, takes a fresh breath of air and blows in again. The fresh air may have a lower alcohol concentration than what is in the instrument already and this then can cause an “INVALID” response. This is why it is important for the individual to provide a long, continuous, steady breath into the instrument.

Operating the DataMaster DMT

- **The test resulted in an “INVALID” status message, do I need to re-start the 15 minute deprivation period?**
 - Yes, the DataMaster DMT software was written to virtually eliminate “INVALID” samples because of ‘starting and stopping’, therefore, to ‘err on the side of caution’, a 15 minute wait was added to force the operator to wait an additional 15 minutes before running another test on the subject.

Operating the DataMaster DMT

- Other than an “**INVALID**” sample, is a re-start of the 15 minute deprivation period necessary or can I re-run the test right away?
 - You can re-run the test right away. Status messages, other than an “**INVALID**” sample, observed on the DataMaster do not require a re-start of the deprivation period.

Operating the DataMaster DMT

- **The subject blew a result higher/lower on the DataMaster compared to my PBT, is there something wrong with either instrument?**
 - No, breath instruments (PBT's and DataMasters) are very accurate at measuring the amount of alcohol on a subject's breath, however, it is the quality (how well the subject provides a breath or how consistent the subject blows into the units) of the breath provided by the individual that can have the greatest effect on the outcome on the results obtained. Another factor to consider is the time difference between the two breath tests; this can also play a role on why the breath tests do not agree.

Operating the DataMaster DMT

- **Can the volume of breath delivered into the instrument affect the test results?**
 - Yes, subjects that provide a low volume of breath that meets the breath requirements may test **lower** than what they would had they provided a higher volume of breath. This benefits the subject but is still a good test. (**see graph**)

Operating the DataMaster DMT

SUBJECT TEST

 IOWA DEPT. OF PUBLIC SAFETY
 DATAMASTER dmt: 145906

 Date: 06/10/2009
 Time: 06:49:12

SUBJECT NAME:
 K NNPN

DOB: 01/01/2000
 SUBJECT'S SEX: M
 LICENSE #: PNNPKNPNPK
 STATE ISSUED: IA

OFFICER NAME:
 H BJBOBB
 INSTRUMENT LOCATION:
 BOJBOJB
 CASE NUMBER: BBOJJB
 Deprivation Time: 06:00

UNITS EXPRESSED IN g/210L

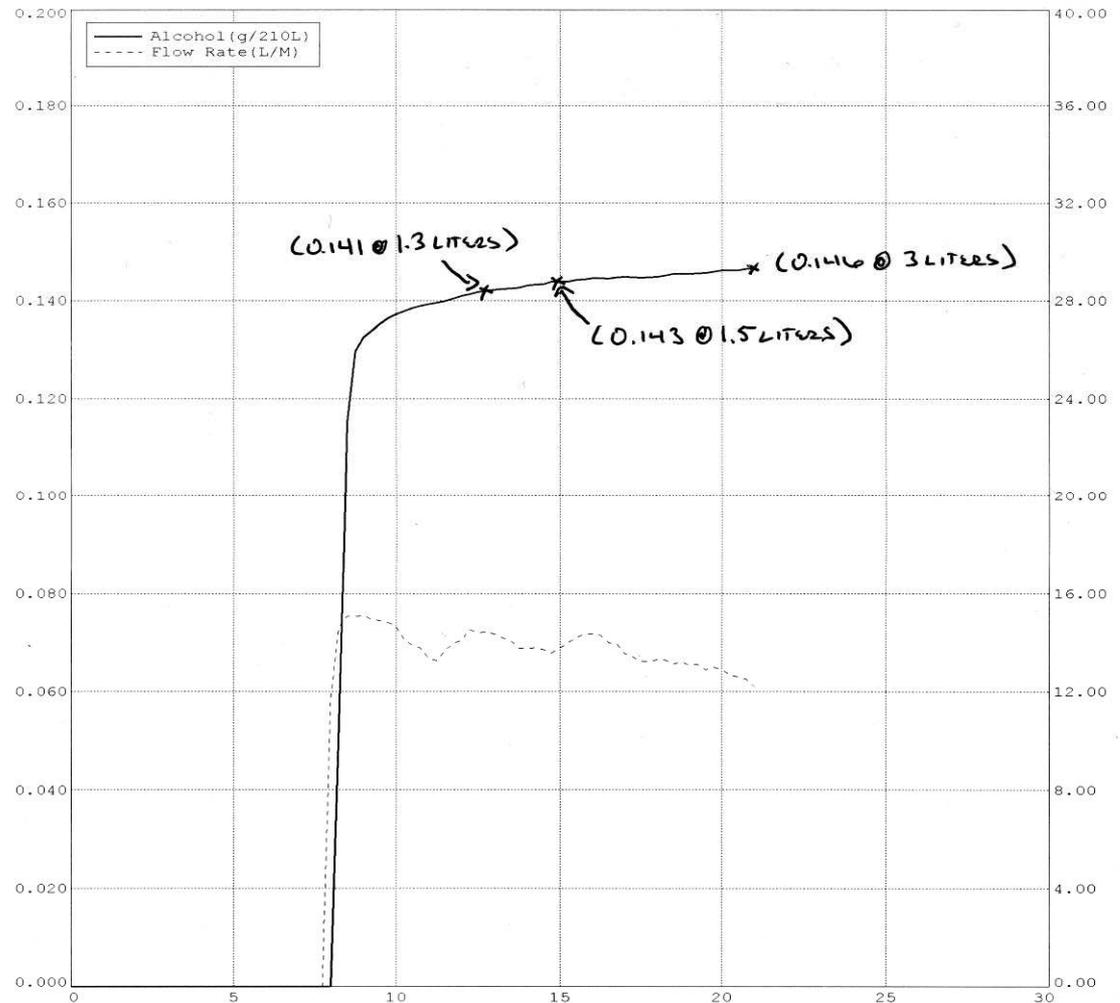
EXTERNAL STANDARD INFO:
 SUPPLIER/MANUFACTURER: ILMO
 CONCENTRATION: 0.080
 LOT #: IJJI
 EXP. DATE: 06/01/2011

External Standard Nominal = 0.080
 External Standard Target = 0.080

BLANK TEST	0.000	06:50
DIAGNOSTIC CHECK	PASSED	06:50
INTERNAL STANDARD	0.093	06:50
EXTERNAL STANDARD	0.081	06:50
BLANK TEST	0.000	06:51
SUBJECT SAMPLE (Vol=3.04L)	0.146	06:52
SUBJECT SAMPLE (Vol=3.04L)	0.146	06:52
BLANK TEST	0.000	06:53



Operator _____



Operating the DataMaster DMT

- Can I re-test the subject if the test results are lower than I expected and I believe that the subject did not provide a good breath sample?
 - Once the DataMaster has accepted the sample, analyzed it and produced a valid result, the subject is no longer under any obligation to provide another breath sample.

Operating the DataMaster DMT

- **The DataMaster “clicked” while the subject was still providing a breath, why?**
 - The DataMaster has a breath volume requirement of 1.3 - 3.0 Liters of breath. Once the DataMaster obtains approximately 3.0 Liters of continuously delivered breath, it will automatically accept the breath even though the subject is still blowing.

Operating the DataMaster DMT

- **When do I need to put on the mouthpiece?**
 - The mouthpiece can be put on the breath hose at any time prior to the subject blowing into the instrument.
- **I lost the printout, how do I get another one?**
 - If your test was the last one run, press the “**COPY**” button, otherwise use the “**Reprint test in memory**” to obtain a copy of tests that are less than 1 year old.

Operating the DataMaster DMT

- **I have not been trained to operate the DataMaster, but have seen it done several times, can I run a test on a suspected individual?**
 - No, only certified operators on the DataMaster DMT may run an evidential test using the DataMaster. Non-memory tests can be performed by non-certified personnel.
- **There is a switch box connected to the DataMaster, am I supposed to use it?**
 - The switch box is used in combination with TraCS. It is not needed when running a test when you press the “**RUN**” key and enter the information traditionally.

Operating the DataMaster DMT

- **I am not certified on the DataMaster, how do I get trained?**
 - Contact the DCI Lab and arrange for training at the lab in Ankeny.
- **The DataMaster is susceptible to static electricity, what can I do to prevent a static discharge from damaging the DataMaster?**
 - The best thing you can do is always touch the metal case of the DataMaster before touching the keyboard. Anti-static mats and/or removing carpeting or carpet mats may also help.

Operating the DataMaster DMT

- **The subject is diabetic and on insulin, can this affect the breath test?**
 - Unlikely. Insulin itself has no impact on a breath alcohol instrument. However, if the subject is in ketoacidosis, their body may be generating ketones. The DataMaster has interference filters specifically designed to detect compounds that are not ethanol. If these compounds are present in sufficiently high quantities, the DataMaster will abort the test and indicate a “**INTERFERENCE**” status message.

Operating the DataMaster DMT

- The subject burped aloud during the deprivation period, do I need to re-start the 15 minutes?
 - No, a burp is only a gas and will not significantly effect a test. The DataMaster analyzes the end-expiratory air from a subject.

Operating the DataMaster DMT

- **** These instructions are furnished to the DataMaster DMT operator during training that the operator may comply with Iowa Administrative Code 661-157.2 (321J).**