

# ***INTOXILYZER 5000***

Quick Reference Materials

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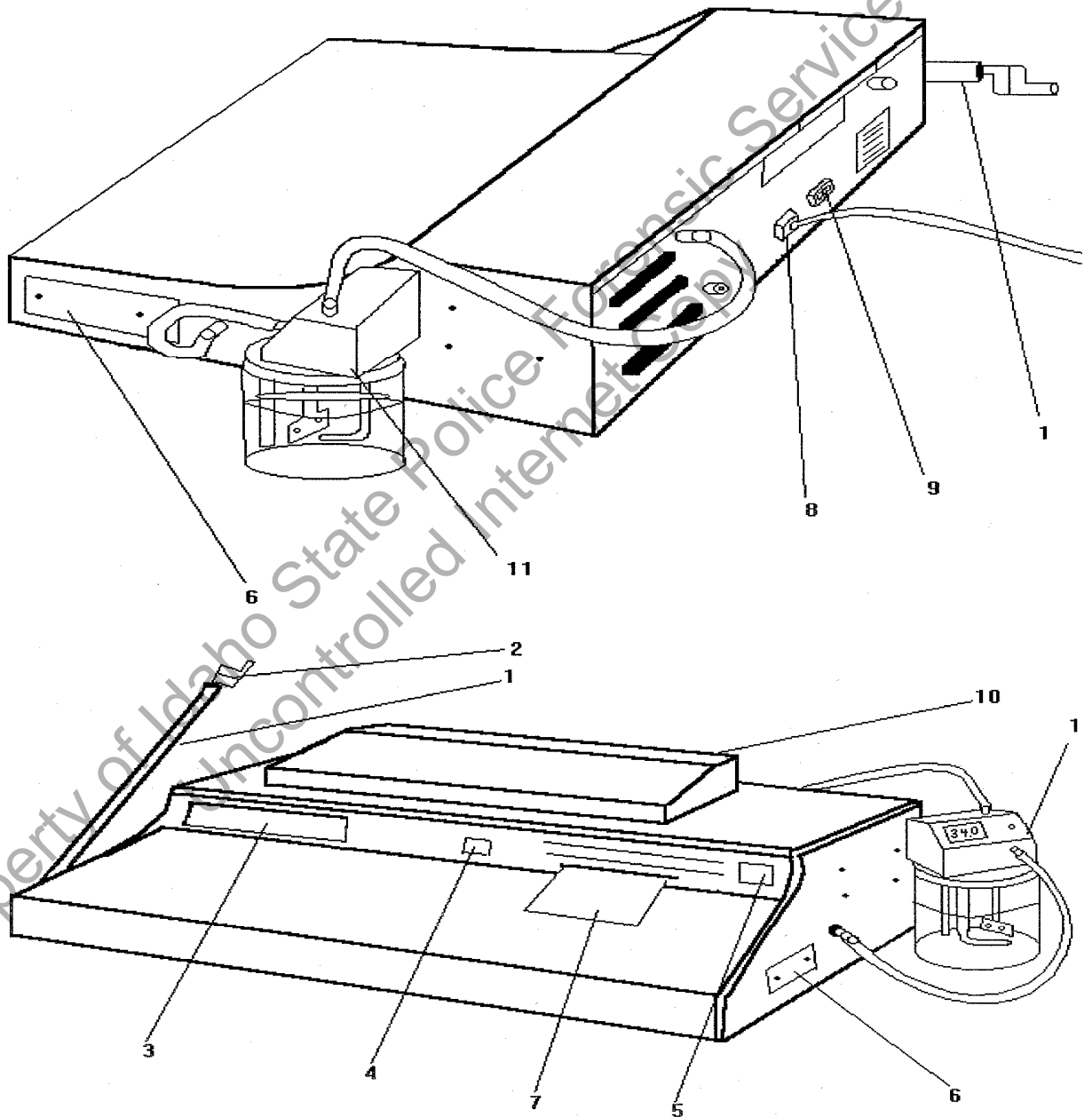
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## History

Revision #	Effective date	History
0	12/16/2010	New Quick Reference

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# FRONT AND BACK VIEWS OF THE INTOXILYZER 5000



## PARTS OF THE INTOXILYZER 5000

To familiarize yourself with the parts, controls, and indicators of the Intoxilyzer 5000 breath analysis instrument, refer to the illustration on the previous page and the cross-referenced explanations listed below.

1. Breath Tube - A heated reinforced plastic tube through which the subject blows. It also acts as an antenna to detect RFI.
2. Mouthpiece - A disposable, clear plastic part which fits in the end of the breath tube, accepts the subject's breath, and prevents unwanted substances from entering the instrument.
3. Digital Display - A sixteen character alpha-numeric readout that relates which operation the instrument is performing and displays various other messages as well as the results of the breath test.
4. Start Test Switch - A green push button switch used to initiate a test or indicate a refusal.
5. Power Switch - A red push button switch used to apply AC power to the instrument.
6. Key Latch - A hardened steel plate that may be unlocked with a key to expose the mode selection switches. Older instruments (66 series) only.
7. Evidence Card - A multi-copy card that provides a printed record of the instrumental breath test. Some instruments utilize an external printer which provide a printed record on a 8.5 x 11 sheet of paper.
8. Power Cord - A cord that supplies power to the instrument.
9. Computer Reset Switch - A rocker switch activated in isolated circumstances to cancel all operations and return the instrument to its initial "Not Ready" condition.
10. Keyboard - A standard computer keyboard which allows the operator to type answers to questions.
11. Simulator - An apparatus that introduces an alcohol vapor of and approved solution into the breath testing instrument.

## SIMULATORS

Alongside the Intoxilyzer 5000 you will notice a Glass Jar with a top containing a thermometer, a heating device, and a propeller. This apparatus is called a simulator. **It is essential to the breath testing sequence that the simulator be on and connected properly, if it is not, the instrument will abort its testing sequence and no results will be obtained.**

Things to remember about the simulator.

1. The hoses need to be hooked up correctly. If they are not the Intoxilyzer 5000 may be flooded.
2. The simulator contains an approved solution of alcohol and water. In the event that the simulator is knocked over or the glass jar is broken a potential for electrical shock may be produced.
3. When the simulator is knocked over there is a potential for solution to enter the hoses and be sucked into the instrument during the performance verification. This may flood the instrument.
4. Your Breath Testing Specialist is trained to handle the majority of problems that may arise. Inform a BTS if you experience any problems that prevent you from obtaining a valid breath test.

<u>TEST SEQUENCE</u>	<u>DISPLAY READS</u>	<u>OPERATOR ACTION</u>
1. Push Green Start Button	“INSERT CARD” (flashing) <i>Instruments with external printers may not display this.</i>	Insert an evidence card into the card slot located on the front panel of the instrument
2. Question series for Idaho	See question series in this document.	Answer each question and press the return/enter button to save the information
3. Air blank	“AIR BLANK”, displayed then scrolls through the time (TIME HR:MIN ZONE), the date (DATE MM/DD/YY), and then displays the result of the air blank (AIR BLANK .##) where .## is the alcohol concentration obtained during the air blank.	No action needed
4. Internal Standard Check	<p>“INTERNAL STD”</p> <p>A. If the internal standards pass “INT STD PASS” will be displayed and the test sequence will continue.</p> <p>B. If the internal standards do not pass “INTERNAL FAILED” will be displayed and the test sequence ends.</p>	<p>No action needed. Test sequence continues.</p> <p><b><u>IF THE INTERNAL STANDARDS FAIL THE INSTRUMENT WILL NOT LET YOU CONTINUE TESTING.</u></b></p>

<p>6. Calibration Check (performance verification)</p>	<p>“CAL. CHECK “</p> <p>a. If the performance verification passes “CAL CHECK .###” is displayed where .## is the alcohol concentration of the simulator solution.</p> <p>B. If the performance verification check does not pass “ OUT OF TOLERANCE” is displayed and the testing sequence ends. (See step 11)</p>	<p>No action needed. Test sequence continues.</p> <p><b><u>IF THE PERFORMANCE VERIFICATION CHECK DOES NOT PASS THE INSTRUMENT WILL NOT LET YOU CONTINUE TESTING.</u></b></p>
<p>7. Air Blank</p>	<p>“AIR BLANK .##” where .## is the alcohol concentration obtained during the air blank.</p>	<p>No action needed</p>



<p>8. Breath Test #1</p>	<p>“PLEASE BLOW INTO MOUTHPIECE UNTIL TONE STOPS”</p> <p>“PLEASE BLOW/R” (flashing)</p> <p>If the subject stops blowing before providing a sufficient sample, “PLEASE BLOW” flashes on the display and a beep sounds every 5 seconds.</p> <p>“SUBJECT .##” is then displayed where .## is the BrAC obtained.</p>	<p>Request the subject to blow into the mouthpiece.</p> <p>Request the subject to blow into the mouthpiece.</p>
<p>9. Air Blank</p>	<p>“AIR BLANK .##” is displayed where .## is the alcohol concentration obtained during the air blank.</p>	<p>No action needed</p>

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<p>10. Breath Test #2</p>	<p>“PLEASE BLOW INTO MOUTHPIECE UNTIL TONE STOPS”</p> <p>“PLEASE BLOW/R” (flashing)</p> <p>If the subject stops blowing before providing a sufficient sample, “ PLEASE BLOW” flashes on the display and a beep sounds every 5 seconds.</p> <p>“SUBJECT .##” is then displayed where .## is the BrAC obtained.</p>	<p>Request the subject to blow into the mouthpiece.</p> <p>Request the subject to blow into the mouthpiece.</p>
<p>11. Air Blank</p>	<p>“AIR BLANK .##” is displayed where .## is the alcohol concentration obtained during the air blank.</p>	<p>No action needed</p>
<p>12. End of Testing Sequence</p>	<p>QUESTION</p> <p>“TEST COMPLETE”</p> <p>“PRINTING”</p> <p>“INTOXILYZER 5000, ect” (rolling across the screen)</p>	<p>A question about drug testing will appear if this is a DUI.</p> <p>Remove the evidence card <u>after</u> it is released by the instrument.</p> <p>Enter all required data in the logbook.</p>

\*\*\* after the second breath test, if the first two samples collected are not within 0.020 of each other, then instrument should ask for a third sample to be submitted to the instrument.

**AN INCORRECT OPERATIONAL PROCEDURE OR CONDITION** will cause the instrument to either cancel or complete a mode sequence and print one of the following messages on the evidence card.

1. **"INVALID TEST"** - Either the Start Test button was pushed at the wrong time, the evidence card was partially pulled from the printer, or the subject blew into the mouthpiece at the wrong time.
2. **"\* 23"** – The IR source (lamp) is out.
3. **"UNABLE TO OBTAIN STABLE REFERENCE"; "INVALID TEST"** - The microprocessor was unable to obtain a stable reference signal.
4. **"\* DEFICIENT SAMPLE - VALUE PRINTED WAS HIGHEST OBTAINED"** - The subject did not provide an adequate breath sample within three minutes. The instrument printed the highest obtainable BrAC value indicated by the asterisk (\*) printed before "SUBJECT TEST".
5. **"INHIBITED RFI"; "INVALID TEST"** - High level radio frequency interference is present.
6. **"INTERFERENT DETECTED HAVE BLOOD DRAWN"** - The subject's breath sample contained a substance, such as acetone, that absorbed the same infrared frequencies as alcohol.
7. **"INVALID SAMPLE .XX"; "REPEAT OBSERVATION PERIOD BEFORE RETESTING SUBJECT"** - The slope detector was activated during a breath testing sequence and printed "INVALID SAMPLE .XX" in place of "SUBJECT TEST .##".
8. **"INTERNAL STANDARDS FAILED"** - One or more of the Internal Standards did not pass because they were not within their operational range.
9. **"OUT OF TOLERANCE - SEQUENCE ABORTED "** - The results obtained for the performance verification check were outside the high and low limits set for the solution.
10. **"CHECK AMBIENT CONDITIONS"; "INVALID TEST"** - The instrument detected a substance in its surroundings that may interfere with the breath test.
11. **"INSTRUMENT RANGE EXCEEDED"; "INVALID TEST"** - The concentration of the sample exceeded the range of the instrument set at 0.600 BrAC.

**EXPLANATION OF USER QUESTIONS FOR IDAHO TESTING PROGRAM**

<b>QUESTION ON DISPLAY</b>	<b>CARD COPY</b>	<b>DATA BANK</b>	<b>COMMENTS</b>
<b>SUBJ LAST NAME=</b>	X	X	Up to 20 letters for each, no -.: 'etc.
<b>SUBJ FIRST NAME=</b>	X	X	
<b>SUBJ MIDDLE INIT=</b>	X	X	Middle initial.
<b>SUBJ OLN=</b>	X	X	Entered as up to 20 numbers and/or letters.
<b>STATE OF ISSUE=</b>	X	X	Two letter postal code.
<b>SUBJ DOB = MMDDYY</b>	X	X	Entered as month, day, and year (e.g. 070552).
<b>SUBJ SEX (M/F) =</b>		X	
<b>OPER LAST NAME =</b>	X	X	Up to 20 letters for each, no _.: 'etc.
<b>OPER FIRST NAME=</b>	X	X	
<b>OPER MID INIT =</b>	X	X	Middle initial.
<b>OPER ID NO=</b>		X	Entered as a number w/o dashes.
<b>ARREST AGENCY</b>	X	X	Entered as 4 numbers; accident report code.
<b>DRINK LOCATION</b>		X	Entered as a 7 digit code, premise number.
<b>DUI ARREST Y/N</b>		X	Answer yes if person arrested for DUI.
If answer is Y:			
<b>DATE OF STOP/ACC</b>		X	Date of stop or accident (eg. 062493).
<b>TIME OF STOP/ACC</b>		X	2400 hour military time.
<b>ACCIDENT Y/N</b>		X	Answer yes if person was in an accident.
If answer is Y: (N answer skips next questions only)			
<b>INJURIES Y/N</b>		X	Was anyone injured?
<b>PROP. DAMAGE Y/N</b>		X	Was there any property damage?
<b>DEATH(S) Y/N</b>		X	Was anyone killed?
<b>REVIEW DATA Y/N</b>			If you want to check answers, use Y.
On DUI tests a question is asked after a complete breath test is conducted and the subject did not refuse any samples.			
<b>DECP/DRE Y/N</b>		X	One question or the other activated; answer yes if you are going to ask the subject to give a blood sample and/or a urine sample for drug testing.
<b>DRUG TEST Y/N</b>		X	

Printout is issued and test is complete.

<b>CARD DATA</b>		
<b>QUESTION ON DISPLAY</b>	<b>COPY</b>	<b>BANK</b>
		<b>COMMENTS</b>

**DUI ARREST Y/N** if answer is N:

<b>JUV. CONSUME Y/N</b>	X	Illegal consumption.
<b>WORK RELEASE Y/N</b>	X	
<b>COURT ORDER Y/N</b>	X	Court ordered test.
<b>OTHER Y/N</b>	X	Any other reason not covered above.

**REVIEW DATA Y/N** If you want to check answers, check Y.

Complete breath test conducted and printout issued. End of test.

**OTHER INFORMATION**

Other information such as the lot number, values obtained for simulator checks, and data for the simulator counter can be found on the printout. This information is also stored in the data bank.

<b>ITEM</b>	<b>CARD COPY</b>	<b>DATA BANK</b>	<b>COMMENTS</b>
<b>LOT NUMBER</b>	X	X	Entered by the breath testing specialist 10 alphanumeric characters.
<b>SIMULATOR COUNTER</b>	X	X	Counts the number of performance verification checks that has been performed with a particular solution.
<b>SIMULATOR CHECK</b>	X	X	The results of the performance verification check performed during the testing sequence.

**DISPLAY MESSAGES AND COMMANDS**

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 Issuing Authority—ISPFS Quality Manager  
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The Intoxilyzer 5000 breath analysis instrument visually communicates by displaying the following messages and commands. Commands "flash" to indicate that the instrument expects a response.

<u>MESSAGE OR COMMAND</u>	<u>MEANING</u>
"NOT READY"	The instrument is purging the sample chamber and initializing the computer, processor, and printer.
"PROM CHECK ####"	The instrument is finding a checksum of all program bytes and is comparing it to an internal checksum.
"TEMP CHECK"	The instrument is checking the temperature of the sample chamber.
"RAM CHECK ##"	The instrument is checking each byte in RAM for possible failure.
"PROCESSOR CHECK"	The computer is testing the output of the processor, the stability of the signal, and the speed of the filter wheel.
"PRINTER CHECK"	The instrument is checking the movement of the printer head.
"CAL. CHECK"	The instrument is performing a performance verification check by analyzing the vapor produced from the simulator solution.
" INVALID LOT NO"	An invalid lot number was entered during the instrument setup.
"INTERNAL STD"	The instrument is checking to see if the internal standards are within their operational range.
"DIAGNOSTIC OK"	The instrument did not find a malfunction while performing diagnostic checks on its components and operational standards.

MESSAGE OR COMMAND

MEANING

"CLOCK ERROR"	The instrument is indicating where a malfunction exists.
"PROM ERROR ####"	
"TEMP ERROR"	
"PRINTER ERROR"	
"RAM ERROR"	The number following "RAM ERROR" denotes the actual address location of error.
"PROCESSOR ERROR 1"	No sync pulse was found. A problem exists in the sync pulse chain.
"PROCESSOR ERROR 2"	The sync pulse rate is out of range.
"PROCESSOR ERROR 3"	An unacceptable negative processor drift was found.
"PROCESSOR ERROR 4"	An unacceptable positive processor drift was found.
"PROCESSOR ERROR 5"	The processor's reference value is out of range.
Rolling across the display - "INTOXILYZER MODEL 5000 --- PUSH BUTTON TO START TEST"; "PUSH BUTTON (flashing)"; "TIME ##HR ##MIN"	The instrument is ready for operation; you may begin a test by pushing the Start Test button.
"INSERT CARD (flashing)"	The instrument is requesting that an evidence card be inserted.
"AIR BLANK"	The instrument is purging the sample chamber and internal and external breath tubes.
"TIME ##HR ##MIN"	Local time.
"DATE MM/DD/YY"	Current date.
"}}}}..."	The instrument is establishing a zero reference point.

**MESSAGE OR COMMAND**

**MEANING**

"UNSTABLE REF"

The microprocessor was unable to obtain a stable reference signal from the processor. The instrument halts the test.

"PLEASE BLOW INTO MOUTHPIECE UNTIL TONE STOPS"; "PLEASE BLOW/R (flashing)"

The instrument is requesting the subject to blow into the mouthpiece until the tone stops. Starting when this command appears on the display, the subject has three minutes to deliver an adequate breath sample. If the subject does not provide a sample in this time the instrument will automatically printout a refusal. Another method for documenting a refusal is to press the green START TEST button while the message "PLEASE BLOW/R" is displayed.

"PLEASE BLOW (flashing)"

The subject stopped blowing before providing a sufficient sample. "PLEASE BLOW" flashes and a beep sounds every five seconds until the subject begins blowing, or until three minutes have lapsed from the time the instrument initially requested the subject to blow into the mouthpiece.

"SUBJECT TEST .##"

The instrument is displaying the subject's breath alcohol concentration in grams per 210 liters of breath.

"AIR BLANK .##"

The instrument is displaying the amount of alcohol remaining in the sample chamber while the sample chamber is being purged. Accordingly, during the purge operation, the number following "AIR BLANK" gradually decreases to .00.

"CAL. CHECK .###"

The instrument is displaying the simulated vapor concentration obtained for the performance verification check.

**MESSAGE OR COMMAND**

**MEANING**



"INT STD PASS"	The internal standards were within the operational range of the instrument.
"TEST COMPLETE"	The test and all printing are complete.
"INVALID TEST"	Either the Start Test button was pushed at the wrong time or the evidence card was pulled from the printer. The instrument cancels the test.
"INVALID SAMPLE"	The slope detector was activated during a breath testing sequence.
"INHIBITED - RFI"	High level radio frequency interference is present. The instrument cancels the test.
"DEFICIENT SAMPLE"	The subject did not supply an adequate breath sample within three minutes.
"INTERFERENT"	The subject's breath sample contains a substance, such as acetone, that absorbs infrared energy at the same frequencies that alcohol absorbs. When this occurs the instrument completes the sequence, and prints "INTERFERENT DETECTED HAVE BLOOD DRAWN" on the evidence card.

## TONES

In addition to communicating through displayed messages and commands, the Intoxilyzer 5000 breath analysis instrument also communicates by sounding three distinct tones:

1. A beep sounds after the completion of each mode (operation).
2. A continuous tone sounds while a subject blows into the mouthpiece.
3. A low-high tone sounds intermittently for five seconds in the event of a malfunction, incorrect operational procedure, unfulfilled test requirement, or when START is pressed for a refusal.

Starting when the instrument displays the command "PLEASE BLOW INTO MOUTHPIECE UNTIL TONE STOPS"; "PLEASE BLOW/R (flashing)", the subject has three minutes to deliver an adequate breath sample. If the subject stops blowing before delivering an adequate breath sample and before the lapsing of three minutes, "PLEASE BLOW" flashes on the display and a beep sounds every five seconds. The beeping stops when the subject again begins to blow or the three minutes have lapsed.

### Evidence Card Jammed in Printer

If an evidence card jams in the printer, push the Start Test button. The instrument will invalidate the test and try to return the evidence card. If the instrument does not return the evidence card, gently pull the card from the printer. In the event that a section of the card tears off and remains jammed in the printer, consult a Breath Testing Specialist.

### Preventative Maintenance

1. To assure adequate clearance and ventilation, locate the instrument away from a back wall and on a hard surface.
2. Keep the instrument away from temperature extremes. The instrument's operational range is 68°F to 86°F (20°C to 30°C); storage temperature range is -20°F to 140°F (-29°C to 60°C).
3. Keep the instrument clean and away from dust; any non-abrasive glass cleaner can be used to clean the instrument's outer surface.
  - a. **Spray the cleaner on a cloth and wipe. Never spray directly onto the instrument.**
4. Do not place heavy objects on top of the instrument.
5. Never place anything containing a liquid on the instrument, this includes coffee and soda.

## GENERAL INFORMATION: QUESTIONS AND ANSWERS

**Q. What if I have problems with running the Intoxilyzer 5000?**

- a. Contact your agency's Breath Testing Specialist he/she is trained to resolve many problems you may encounter with the Intoxilyzer 5000.

**Q. Who can run the Intoxilyzer 5000?**

- a. Any individual certified as an operator by the Idaho State Police Forensic Services, may operate the Intoxilyzer 5000. Certification will be periodically renewed and governed by policy as outlined in the SOP/Analytical Method.

**Q. How are performance verification check and maintenance records to be kept?**

- a. All records associated with breath testing are to be kept and maintained at the agency. They are to be kept in accordance with the procedures followed by the agency for such records. However the breath testing specialist is responsible to see that this is accomplished.

**Q. How long must our agency keep printouts, log sheets, certification records, and maintenance records?**

- a. To comply with IDAPA rules and regulations they must be maintained for a period of three years.

**Q. Why must the results be entered on the log sheet?**

- a. The log, as well as the printout, is the official legal record of all test results. If the printer fails to operate, or if the printout is later lost, or unreadable, the test is still acceptable provided the results are recorded on the log sheet.

**Q. Can the Intoxilyzer 5000 detect acetone and other interferents?**

- a. Yes. The instrument will check for acetone and other interferents during the subject test. If an interfering substance is detected the instrument will display "INTERFERENT", complete the test, and print the results. The instrument will also print "INTERFERENT DETECTED HAVE BLOOD DRAWN."

**Q. What if the subject provides one breath sample, but refuses to blow a second or third time?**

- a. If the subject refuses to blow the second time, press the green START TEST button when "PLEASE BLOW/R" shows on the display.