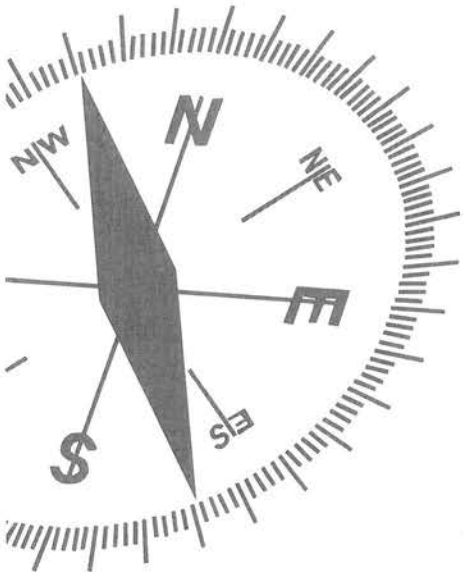
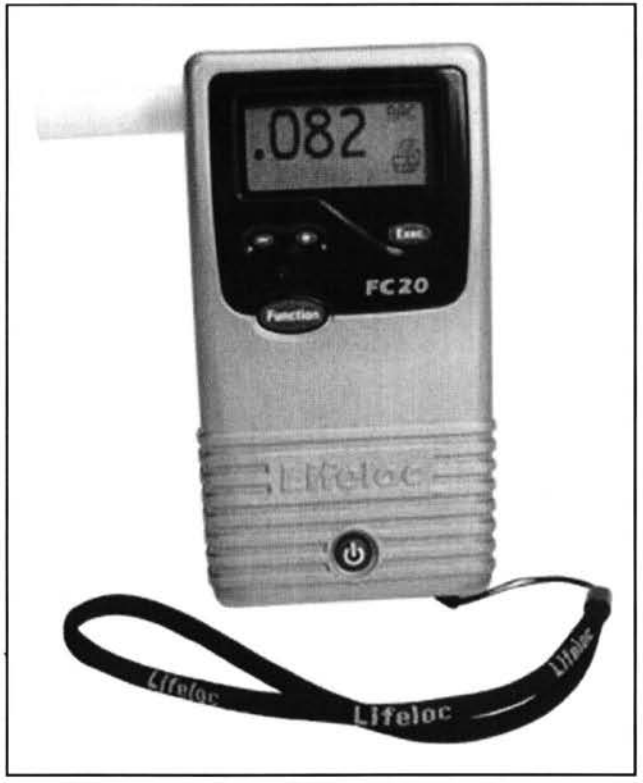
Lifeloc Technologies, Inc.

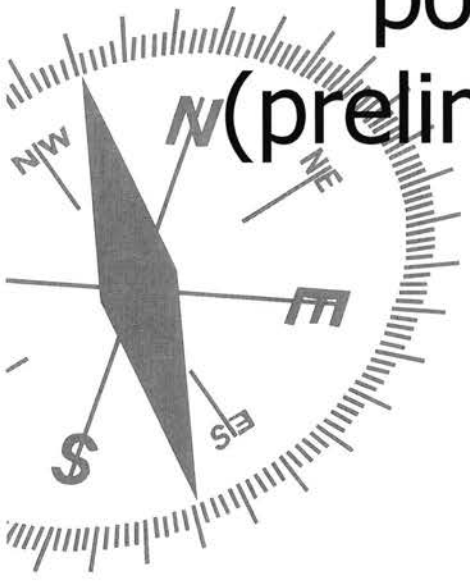
FC20 Training Program





Goal

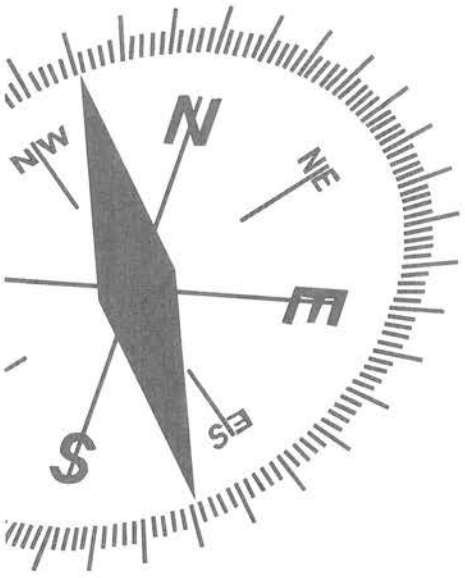
To train you as Instructors on the operation, calibration and basic maintenance of the Lifeloc FC20 portable breath alcohol tester (preliminary screening device –PAS).



Agenda

- Section 1: Introduction
- Section 2: Basic Operation and Taking a Test
- Section 3: FC20 Settings and Status
- Section 4: Printing
- Section 5: Calibration
- Section 6: Troubleshooting & Maintenance
- Practicals
- Test

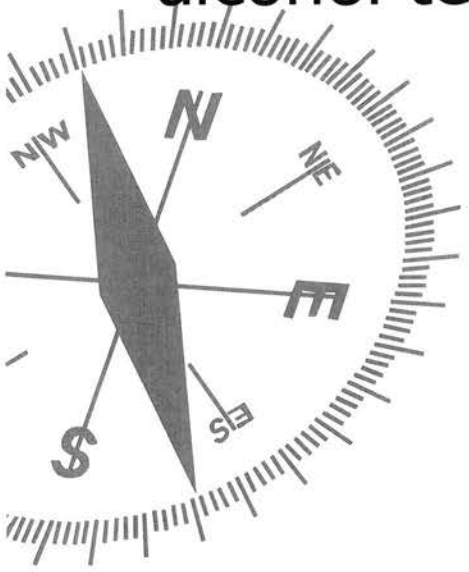
Section 1



Introduction

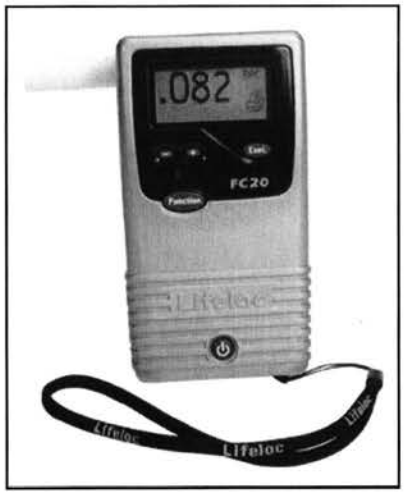
Overview

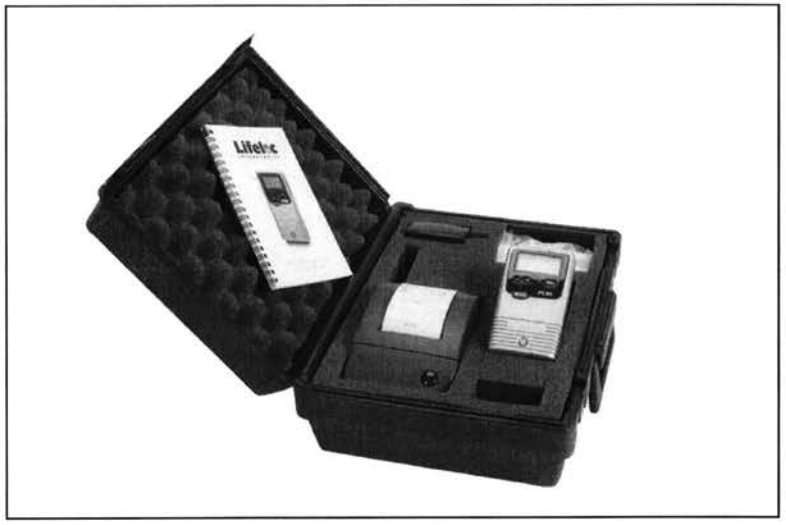
- The FC20 breath alcohol tester is manufactured in Denver, Colorado, by Lifeloc Technologies, Inc
- The FC20 utilizes an alcohol-specific fuel cell
- The FC20 is DOT approved as an evidential breath alcohol tester



The FC20

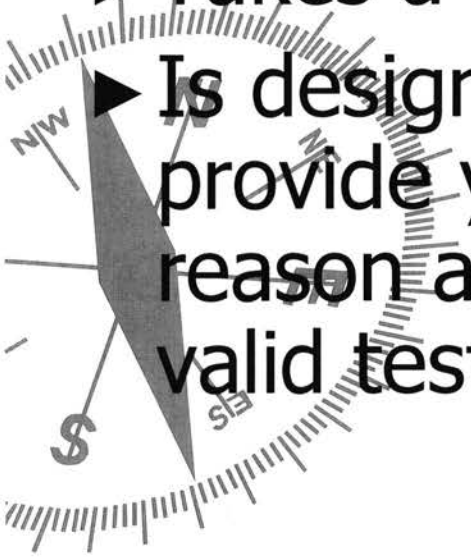
- The FC20 is part of the state-of-the-art FC Series family of portable breath alcohol testers
- The FC20 is sold as either a stand alone instrument or in conjunction with a printer in a printer kit
- The FC20 can also be combined with DataTrak software to facilitate printing to your personal computer





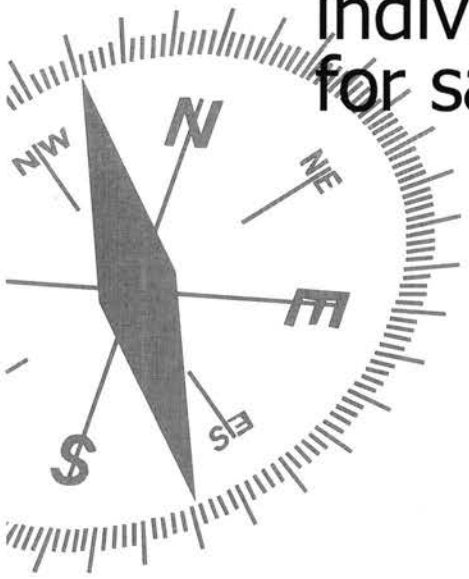
The advanced FC20:

- Get results on a positive test in 10 seconds or less
- Takes subsequent tests in 30 seconds or less with no limit
- Takes a test automatically
- Is designed to provide a valid test result **or** provide you with clear messages as to the reason and corrective action to secure a valid test



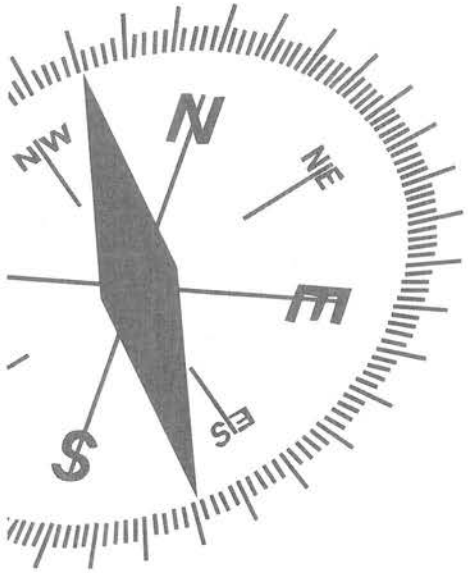
Auto Testing

- A new mouthpiece should be used for each test administered
- Mouthpieces are individually wrapped for sanitary reasons



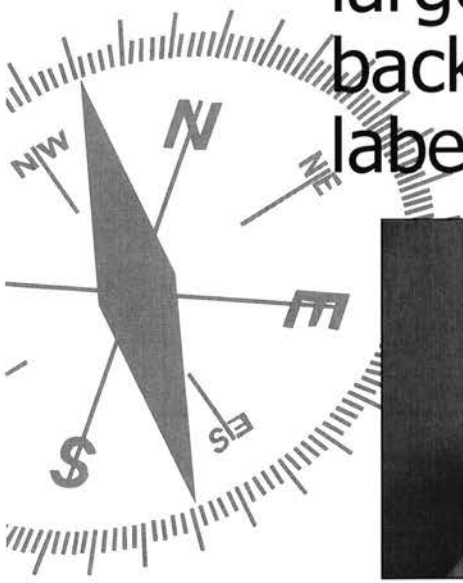
Auto Testing

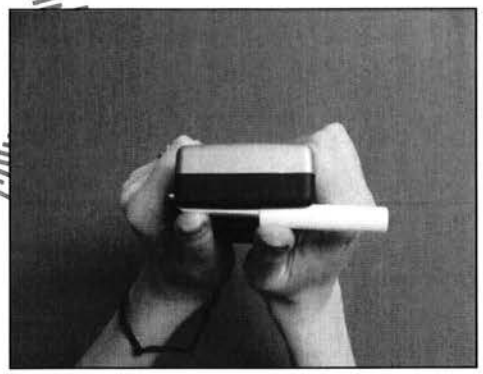
- Remove mouthpiece from wrapper, taking care not to touch the round, receiving end of the mouthpiece

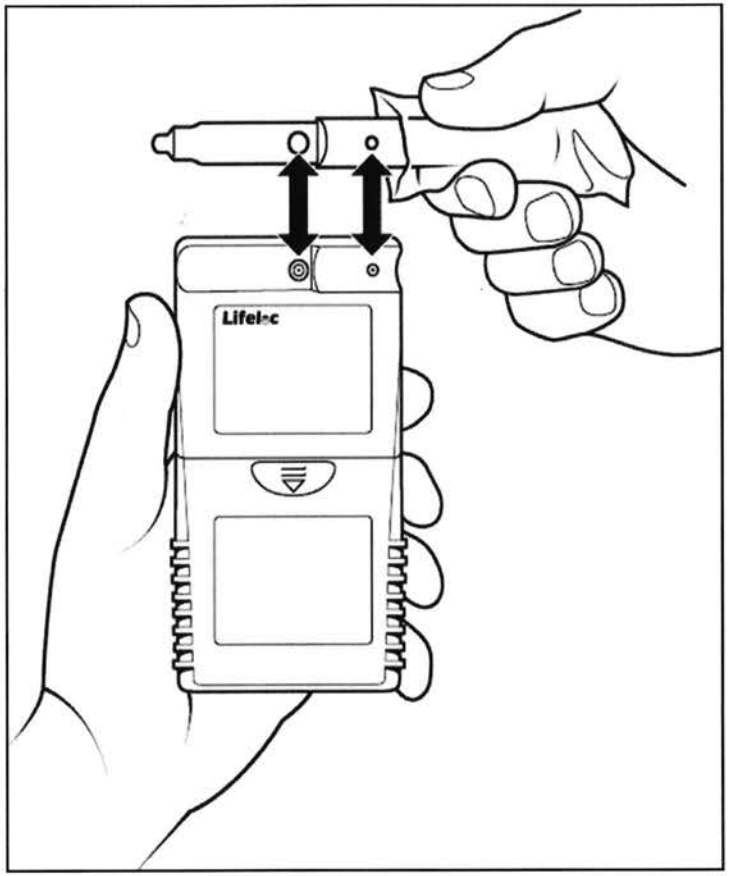


Auto Testing

- Attach the mouthpiece to the back of the FC20 by lining up the largest hole in the mouthpiece with the largest port on the back of the FC20, labeled "Port"

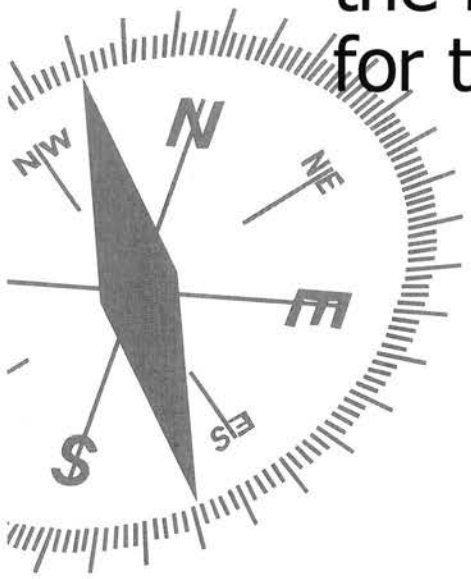






Auto Testing

- With the mouthpiece attached and the graphic display on the front of the instrument reading "AUTO TEST", the FC20 is now ready for testing

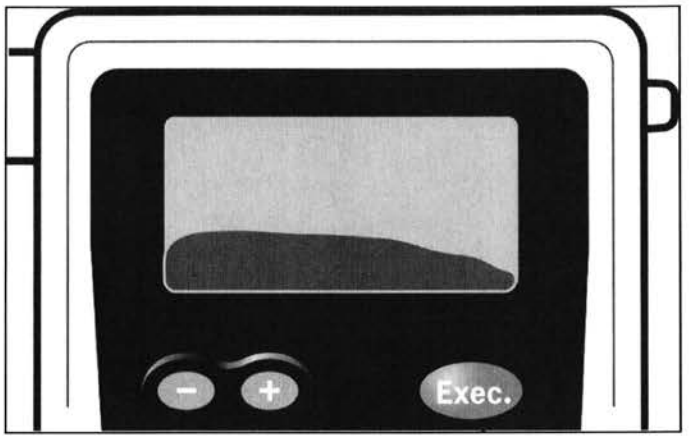


Auto Testing

- Position the subject so that they are able to blow into the mouthpiece while standing
- Instruct the subject to blow into the mouthpiece <u>firmly and steadily for as long as they can</u>
- <u>Do not</u> instruct them to blow as <u>hard</u> as they can

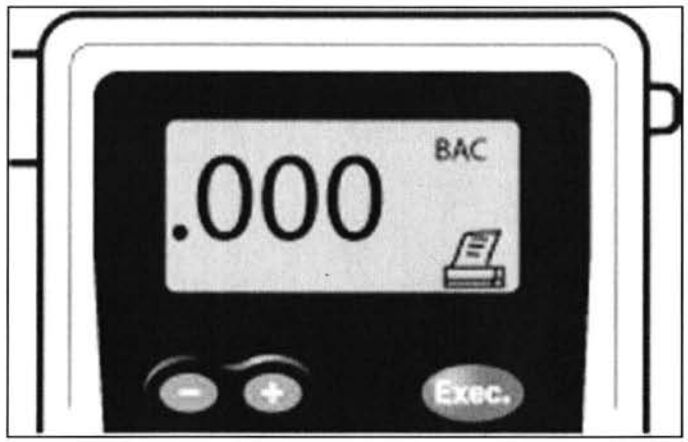
Auto Testing – Breath Flow

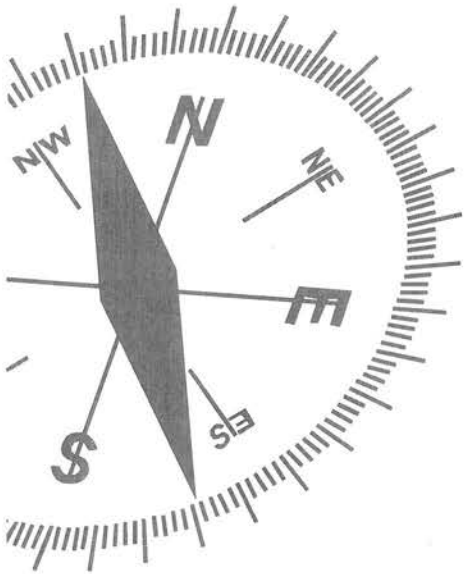
- While the subject is blowing, the FC20 will display a graph indicating the volume of breath
- When the FC20 senses a sufficient volume, the sample will be taken automatically signified by a single beep



Auto Testing

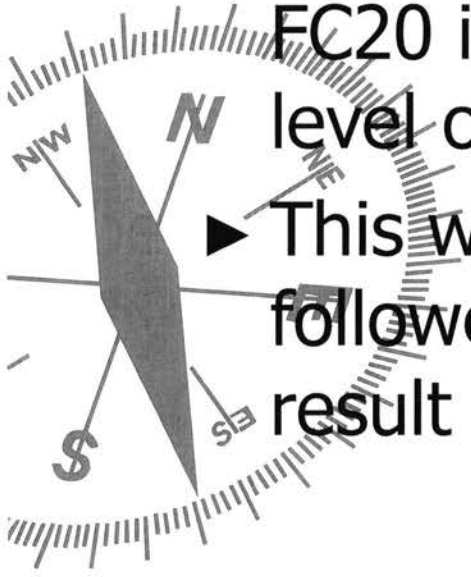
- If there is no alcohol present in the sample, the display will read .000 immediately

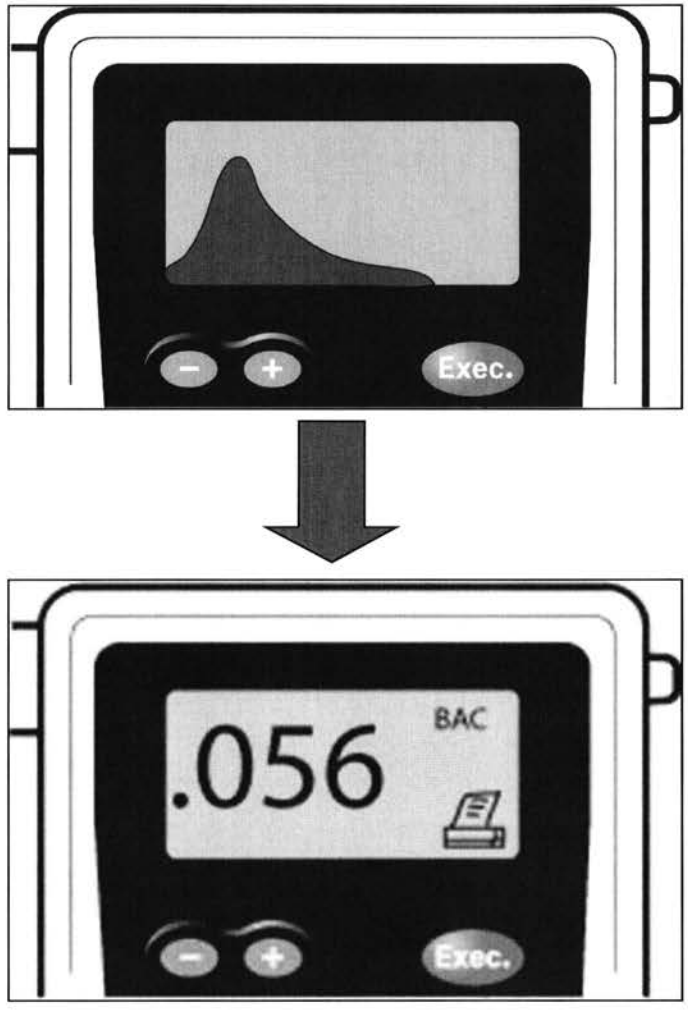




Auto Testing – Alcohol Curve

- If alcohol is present in the sample, a second graph will appear signaling alcohol is detected and that the FC20 is calculating the level of the sample
- This will be immediately followed by a numerical result



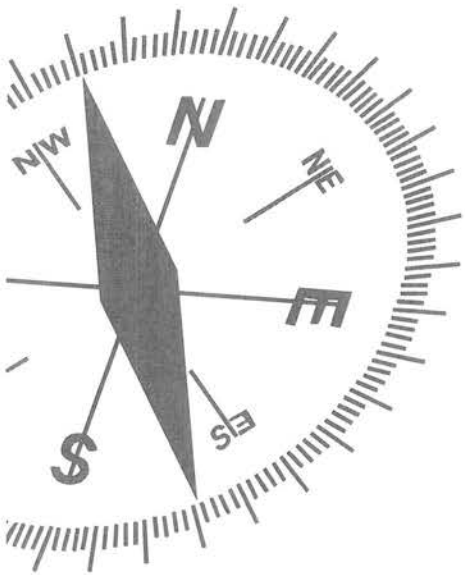


Manual Override of an Automatic Test

- Remain in Auto Test Mode and while the subject is still blowing, as they near the end of their breath, press and release the **Execute** button
- The FC20 will beep and take the sample immediately

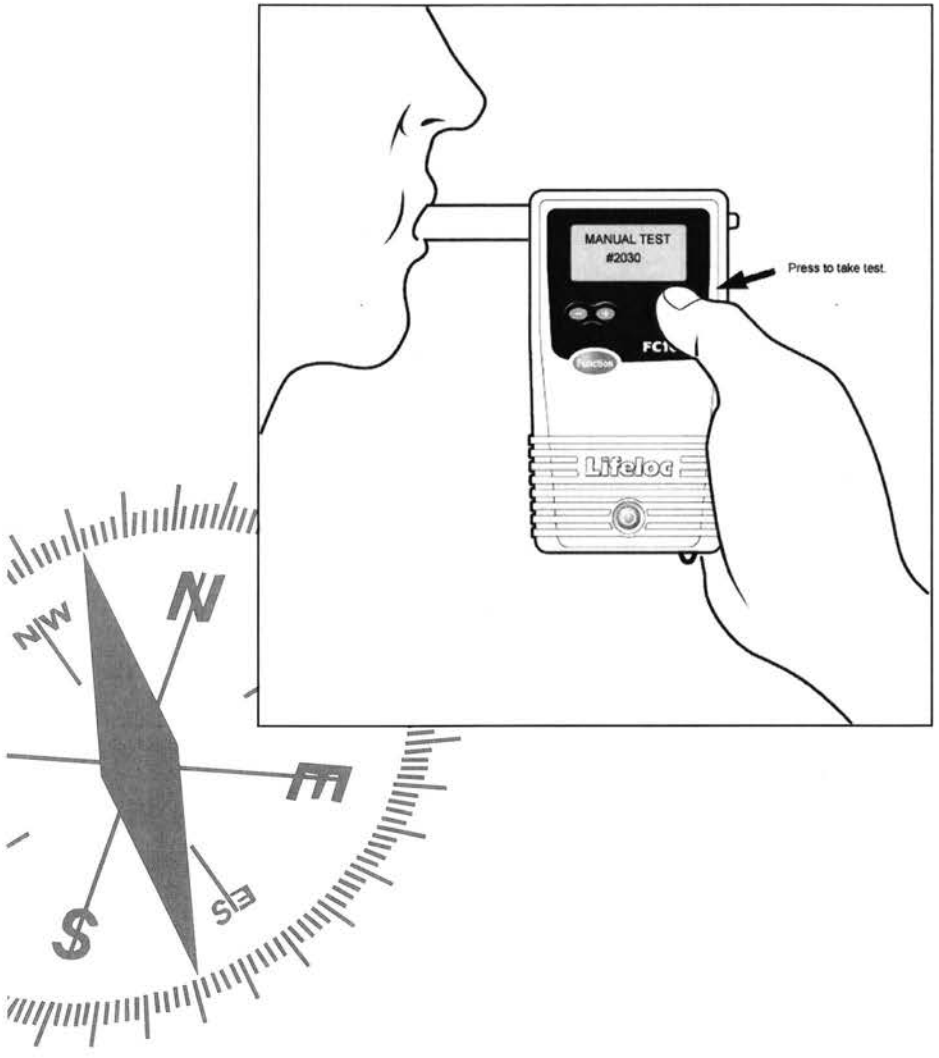
- Note: Take care to press and release the **Execute** button ***while*** the subject is blowing into the mouthpiece.

Manual Testing



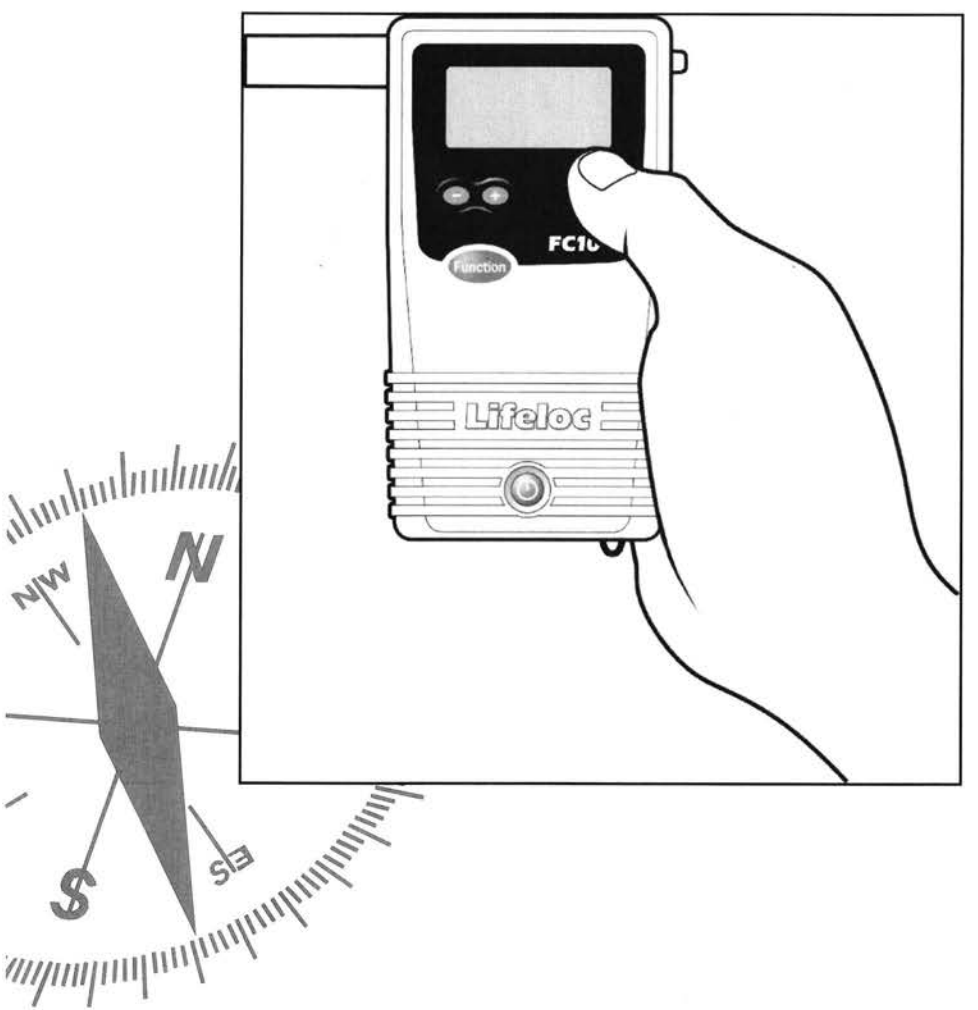
- With the unit on, attach the mouthpiece to the back of the FC20
- Press the **Function** button until the display reads "MANUAL TEST"
- You are now ready to administer a Manual test

Manual Testing



- Position the subject so that they are able to blow into the mouthpiece while standing
- Instruct the subject to blow into the mouthpiece <u>firmly and steadily for as long as they can</u>
- <u>Do not</u> instruct them to blow as <u>hard</u> as they can

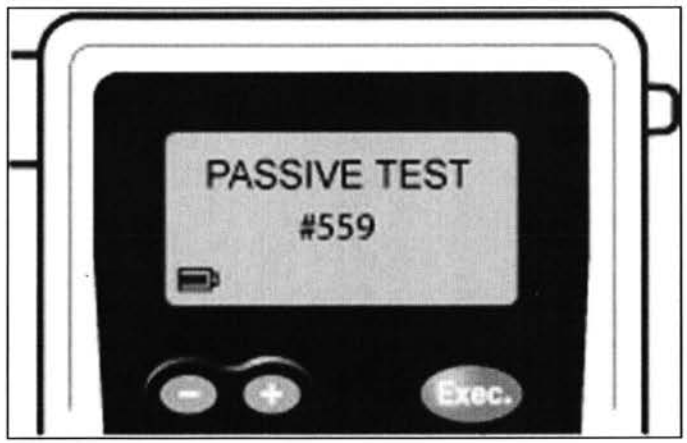
Manual Testing



- While the subject is blowing, as they near the end of their breath, press and release the **Execute** button
- The FC20 will beep and take the sample immediately

Passive Testing

- Passive testing is performed without the use of a mouthpiece and can be used to test for the *presence* of alcohol on either a subject's breath or in a container or space
- A passive test will determine only the *presence* of alcohol and gives no measurement of the amount of alcohol in a sample

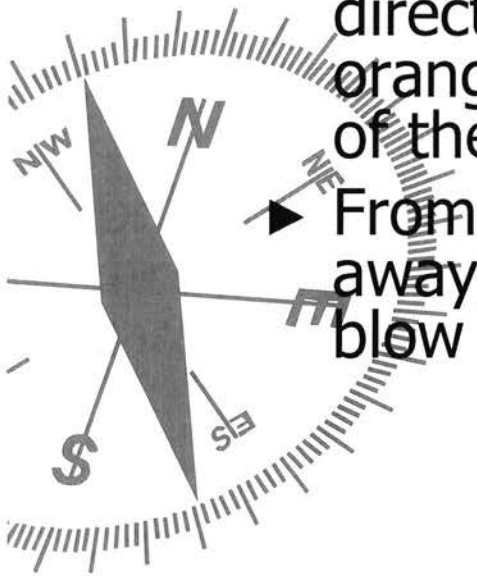


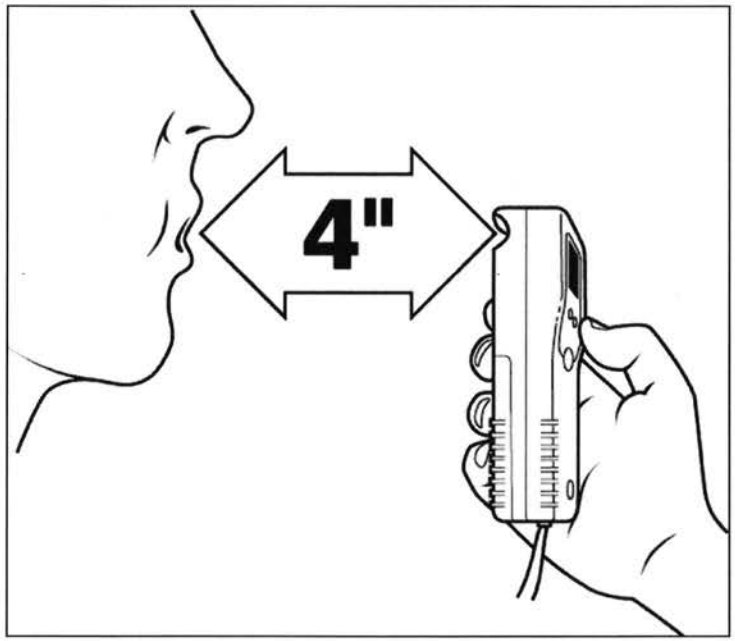
Passive Testing

- Since passive testing is not quantitative, it should be used in "zero tolerance" situations
- Or in situations where large numbers of people need to be tested quickly such as check points, events, work release, etc

Passive Testing

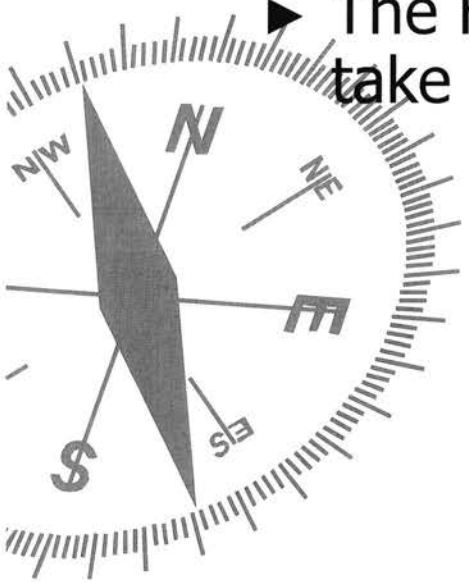
- With the FC20 on, press the **function** button repeatedly until the display reads "Passive Test"
- Position the subject so that they are able to blow directly towards the orange port on the back of the FC20
- From approximately 4" away, instruct them to blow towards the port

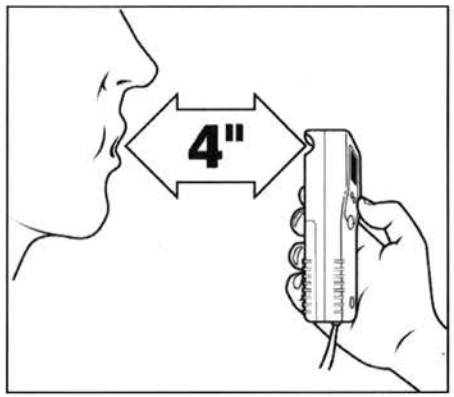




Passive Testing

- While the subject is blowing, making sure there is a steady stream of breath, press and release the **Execute** button
- The FC20 will beep and take the sample

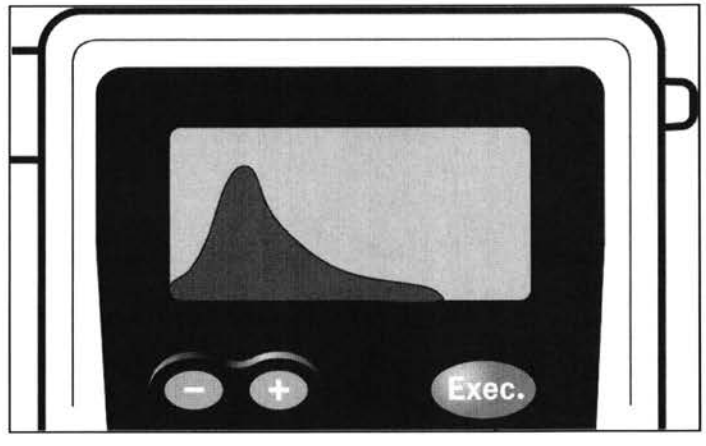


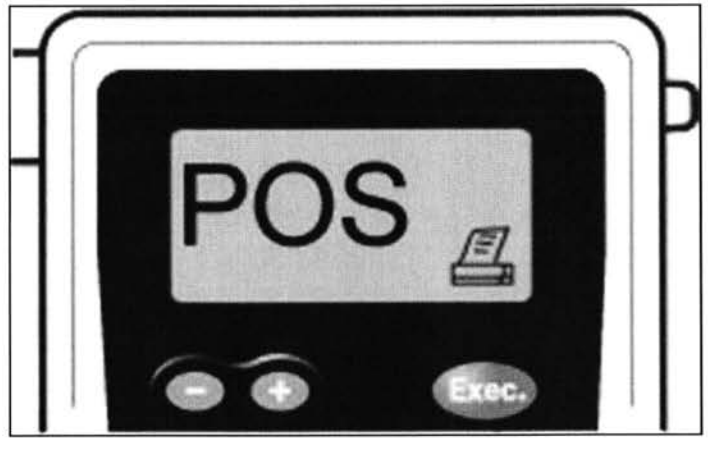


- If there is no alcohol present in the sample, the display will read "NEG" immediately

Passive Testing

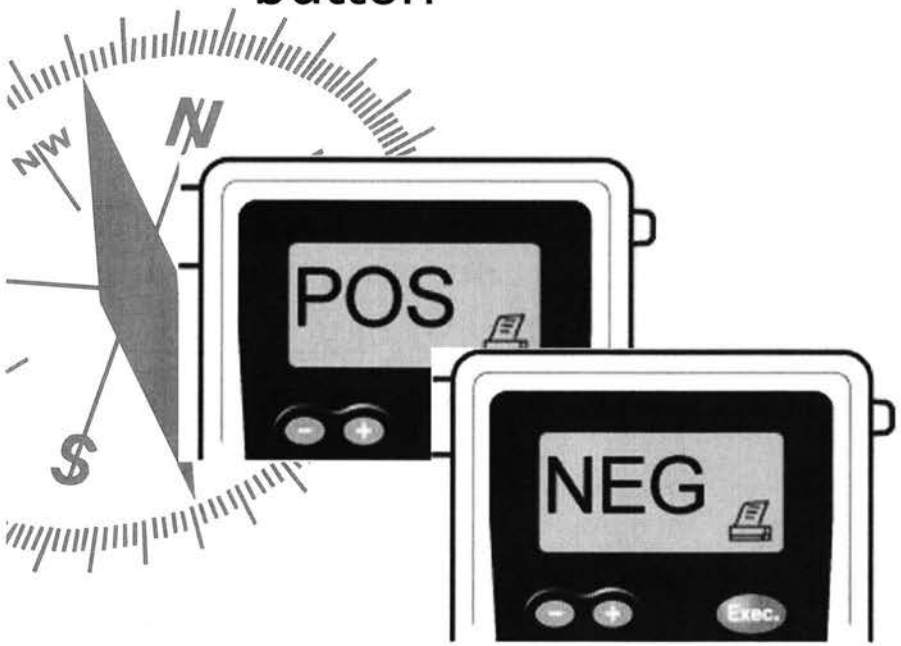
- If there is alcohol present in the sample, a graph will appear, signaling alcohol is detected and that the FC20 is calculating the sample. This will be followed by a screen reading "POS"





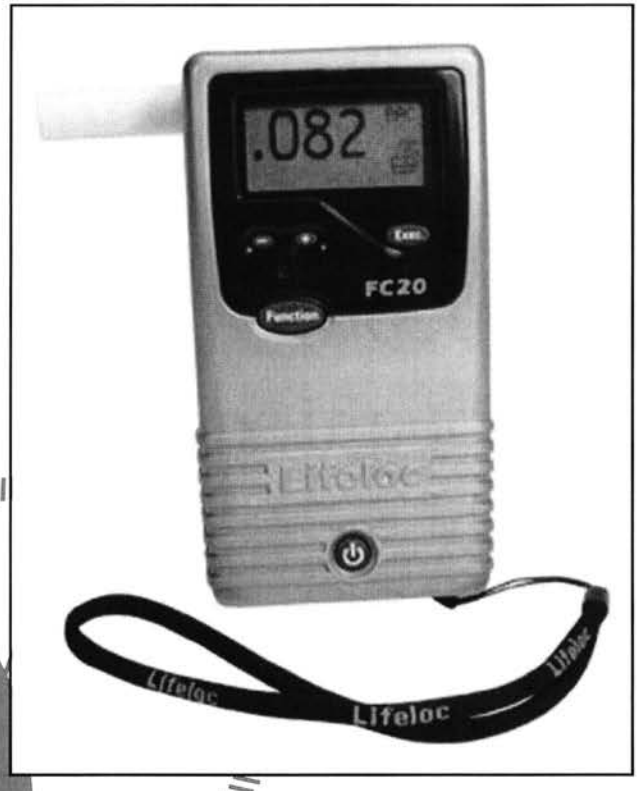
Passive Testing – Open Container

- With the display reading "Passive Test", hold the orange port on the FC20 directly over the open container or space you wish to test then press and release the **Execute** button



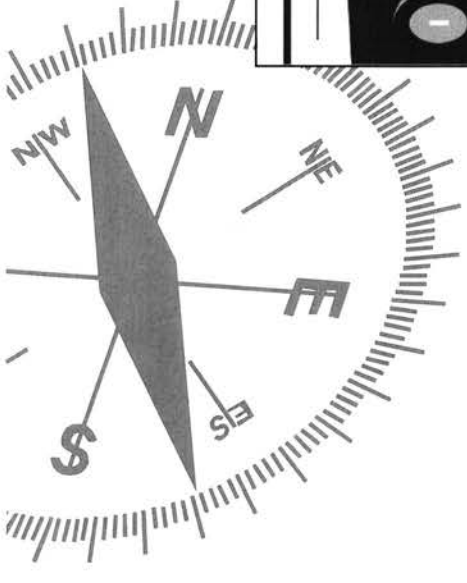
- If alcohol is detected, the display will read "POS"
- If there is no alcohol detected, the display will read "NEG"

User Prompts



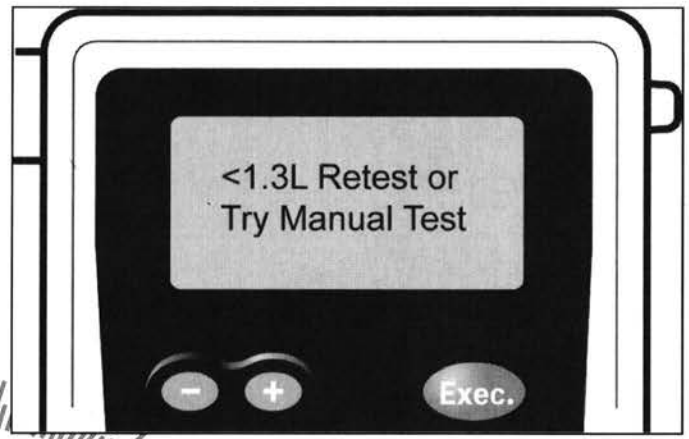
- The FC20 is designed to detect a variety of conditions that could produce an invalid test
- If such a condition exists, the FC20 will text message exactly what error or interference occurred and prompt the user what to do next

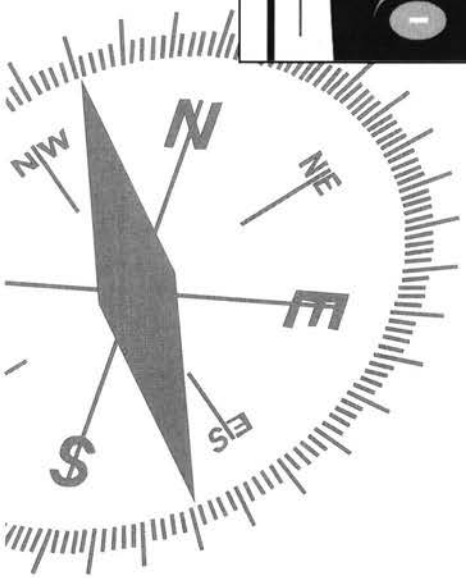
User Prompt
Flow Error Retry & Blow Steadily



- When the subject stops their breath abruptly or does not complete their exhalation, you will see this message
- Retry test and instruct the subject to blow firmly and steadily for as long as they can or simply take a manual test

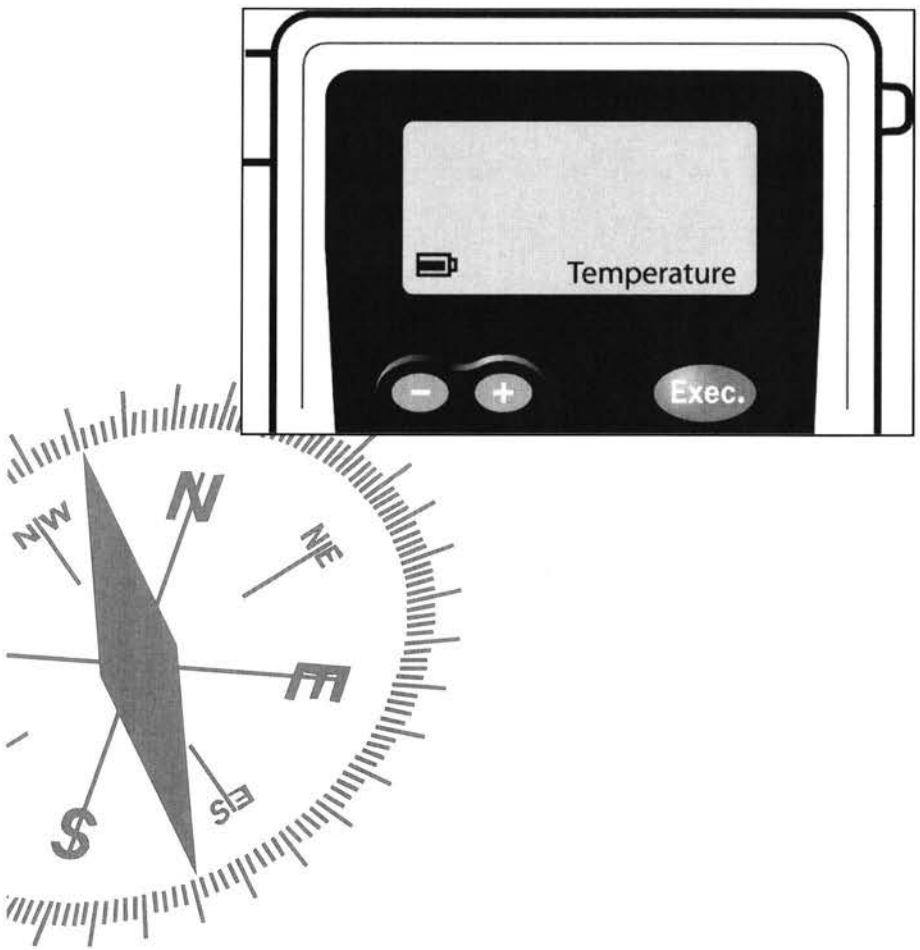
User Prompt
<1.3L Retest or Try Manual Test





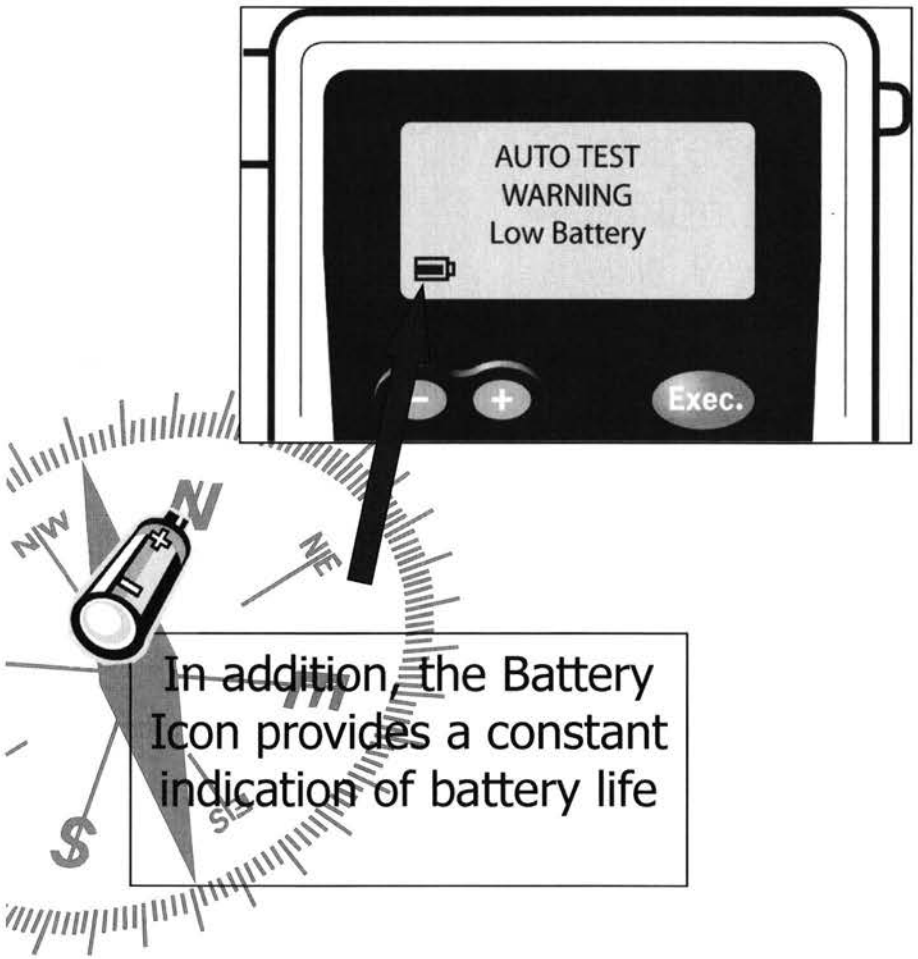
- To achieve an accurate sample, a fuel cell device requires a minimum 1.3 Liters of breath
- When the subject fails to provide the minimum required breath sample, you will see this message
- Retry test and instruct the subject to blow firmly and steadily for as long as they can or simply take a manual test

User Prompt
Temperature



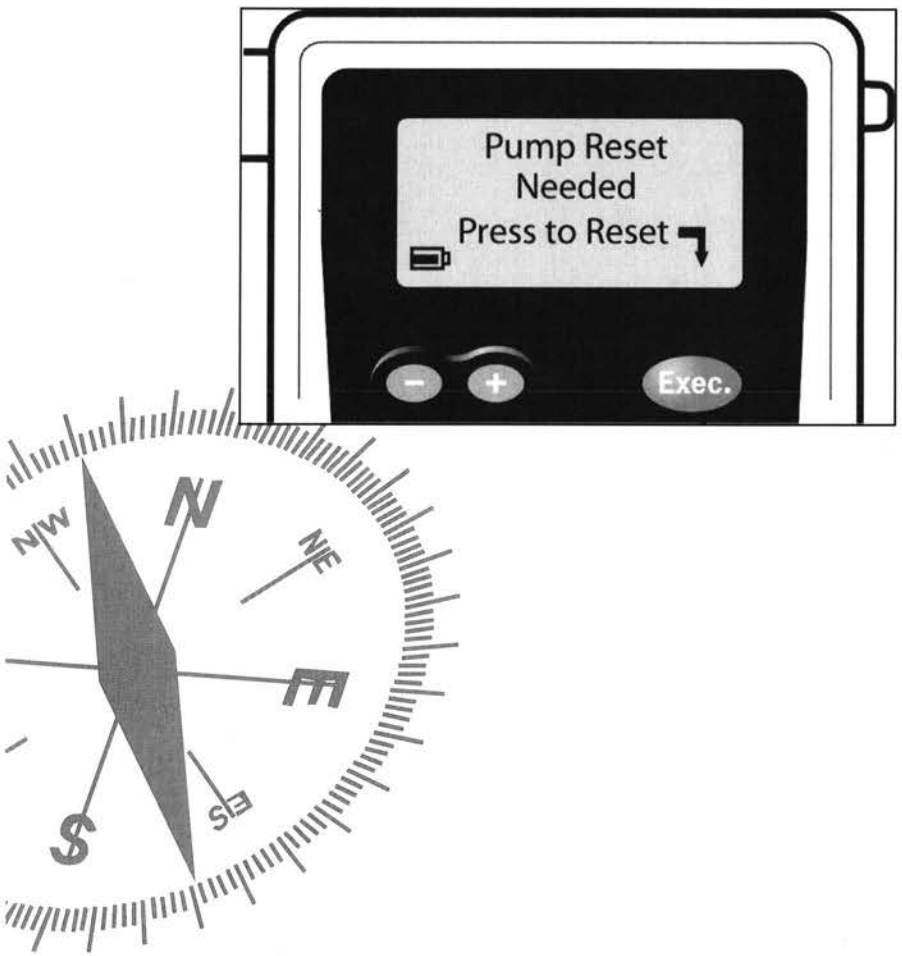
- Fuel cell based alcohol testers are designed to operate within an internal temperature range of 32-105º F
- When the internal temperature of the FC20 reaches above or below the range, you will see this message
- Remove the FC20 from the extreme temperature environment until the internal temperature is within the range and retry test

User Prompt
Low Battery



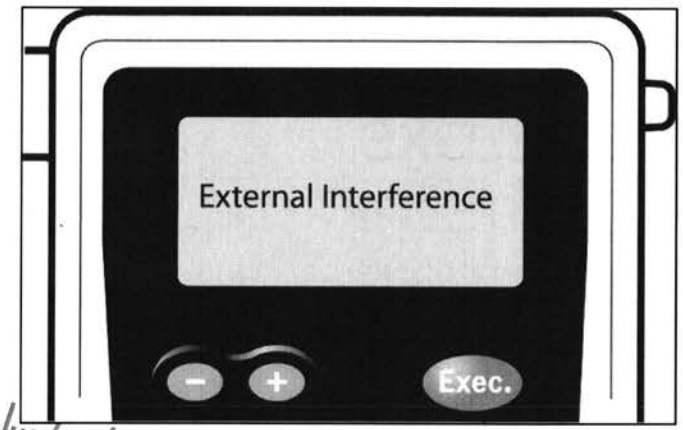
- The FC20 is capable of running thousands of tests on a single set of 4 quality alkaline "AA" batteries
- When the battery voltage is too low to take a test, you will see this message
- Replace with set of 4 quality alkaline "AA" batteries and retry test
- Lifeloc highly recommends keeping 4 extra "AA" batteries in your FC20's case.

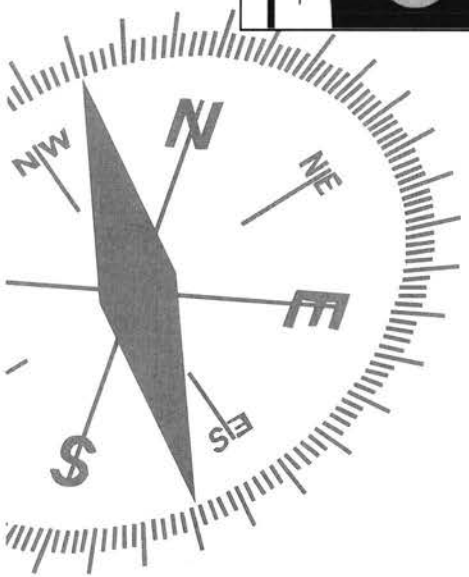
User Prompt
Pump Reset



- The FC20 utilizes a motorized pump to draw the breath sample to the fuel cell
- If the pump needs reset you will see this message
- Press the **Execute** button to reset the pump

User Prompt
External Interference





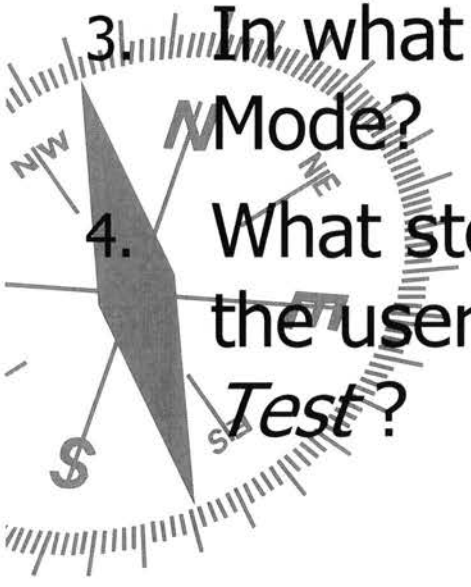
- If the FC20 senses excess outside interference or RF frequencies, you will see this message
- Move to a different location, several feet away, and retry test

Additional User Prompts

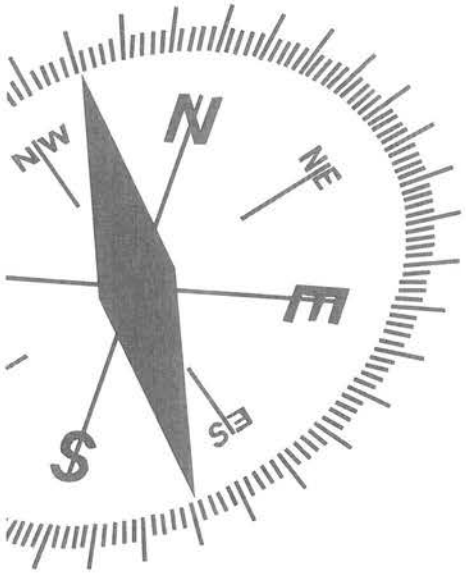
- *>.6* - Alcohol level too high for instrument to read
- *Calibration /Cal Check Expiring* – Unit is within 48 hours of needing a Calibration or Calibration Check (optional)
- *Printer Error*
- *Low Li Battery* –Internal real time clock battery needs replaced

Taking a Test Review Questions

1. How do you instruct a subject to provide a breath sample?
2. How do you manually override an Automatic Test?
3. In what instances should you utilize the Passive Mode?
4. What steps should you take if your FC20 displays the user prompt: *<1.3L Retest or Try Manual Test*?



Section 3



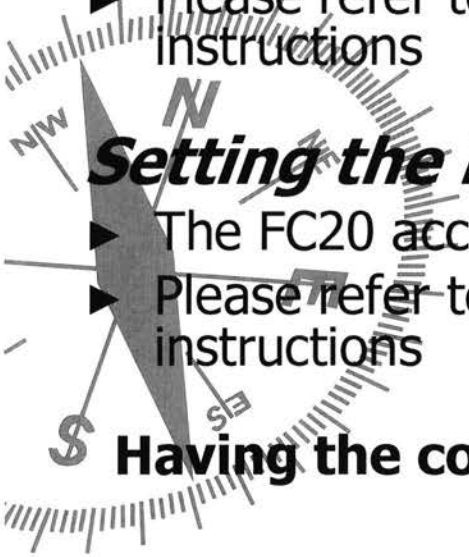
Settings and Status

USER Settings

The FC20 utilizes a long life lithium battery which allows it to maintain the time and date even when the unit is off.

Setting the Time on your FC20

- You will need to change the time on your FC20 initially as it is set at Mountain Time and to adjust to and from daylight savings
- Please refer to page 20 or your FC20 user's manual for complete instructions



Setting the Date on your FC20

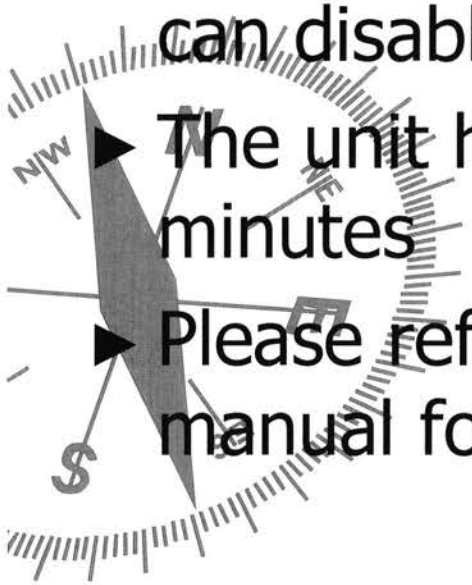
- The FC20 accounts for leap years
- Please refer to page 20 of your FC20 user's manual for complete instructions

Having the correct date and time is especially important as this information appears on all print outs.

USER Settings Continued

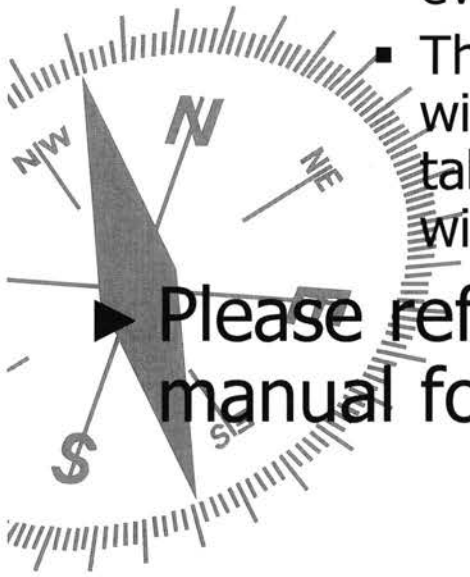
Auto Shutoff Time

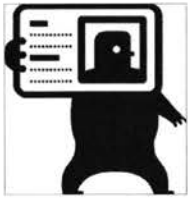
- The FC20 allows you to choose the amount of time it remains on before automatically shutting off. This time is between 1 and 15 minutes or you can disable this feature
- The unit has a factory default shutoff time of 5 minutes
- Please refer to page 22 of your FC20 user's manual for complete instructions



I.D. Entry Explained

- The FC20 allows you to enter 2 different I.D. numbers and/or names: the Operator (Batch I.D.) and the Subject I.D.
  - The Batch I.D. remains the same once entered, until changed again. If entered, it is stored and printed out with every test result
  - The Subject I.D. is unique to each test. If turned on, you will be prompted to enter a Subject I.D. every time you take a test. The Subject I.D. will be stored and printed out with the test result
- Please refer to pages 23 to 24 of your FC20 user's manual for complete instructions





Trigger Mode

The FC20 has 2 methods of sampling breath:

When in Auto Test, "Precise Volume" takes the sample for analysis after 1.5 liters of breath flow has been submitted. This is the preferred method of the CHP and all units will arrive from the factory with this as the default trigger mode.

or

When in Auto Test, "End of Breath", which is unique to Lifeloc and tests deep lung air.

Display Settings

The FC20 has several additional settings, allowing you to customize the unit to best fit you're your needs

LCD Display Contrast

- This setting allows you to increase or decrease the brightness of the display
- The factory default is set at 5
- To adjust the display's brightness, please see page 29 of your FC20 user's manual

Display Settings Continued

Test Order

- This setting allows you to change the order in which the test modes appear.
- The factory setting:
  1) Auto Test (Default)
  2) Manual Test
  3) Passive Test
- The order may be changed to:
  1) Passive Test (Default)
  2) Auto Test
  3) Manual Test
- Please refer to page 29 of your FC20 user's manual for complete instructions

Display Settings Continued

- The FC20 also allows you to set the results format to obtain either a:
  - ✓3 digit BAC Numerical Result (factory default)

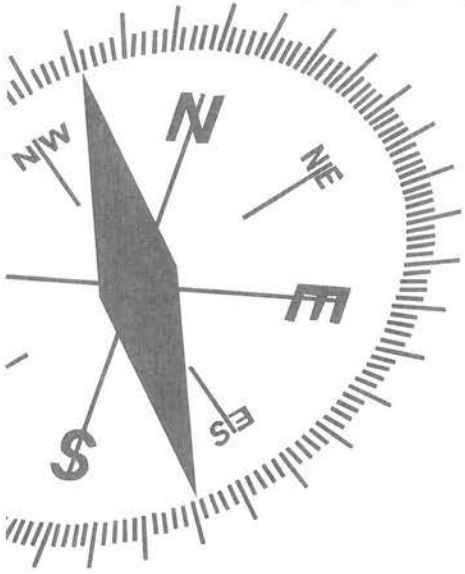
  or
  - ✓Pass / Warn / Fail
- Please refer to page 31 of your FC20 user's manual for complete instructions

Status

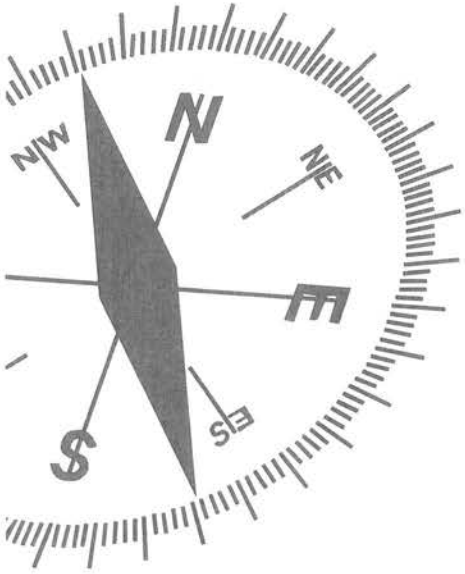
- Status menu options allow you to:
  - Check the serial number, software version, and date of last software update
  - Check battery status: Percent of battery life remaining, and voltage
  - Check internal operating temperature of unit

Settings & Status Review Questions

1. When should you have to adjust the time on your FC20?
2. When does the "Precise Volume" trigger mode take a breath sample?



Section 4



Printing

Print Settings

Printer Selection

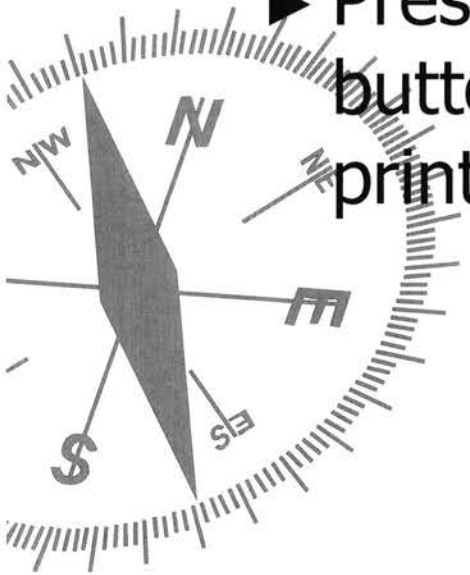
Each unit must be set-up with the appropriate device prior to printing.

- Be sure to select the DP Printer

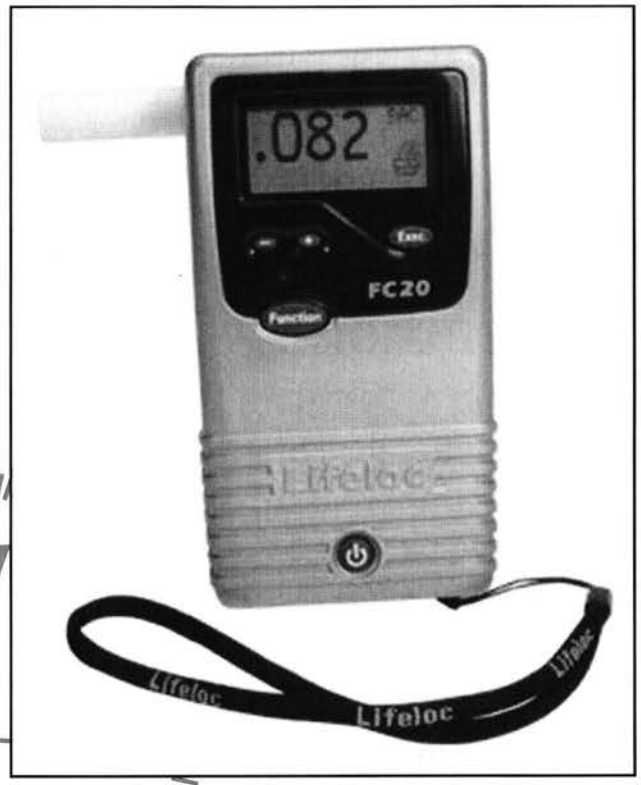
- Please refer to page 27 of your FC20 user's manuals for complete instructions

Printing Test Results

- Plug the printer into the connector on the side of the FC20
- Verify Printer is on
- Press the **Execute** button under the printer icon to print



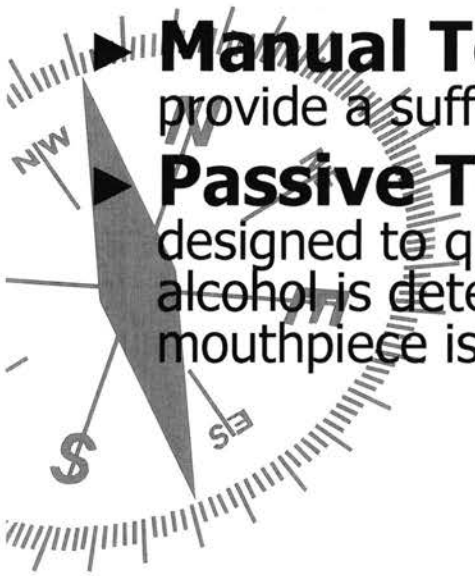
Basic Operation



- To turn on the FC20, press and hold the power button. You will hear an ascending beep signifying "power up", after which it will perform a short self-diagnostic check. This check assures that the fuel cell is ready for a test and is commonly referred to as "**auto zeroing.**"
- After the diagnostic check is complete, you will hear another short beep, signaling that the FC20 is ready to begin testing.

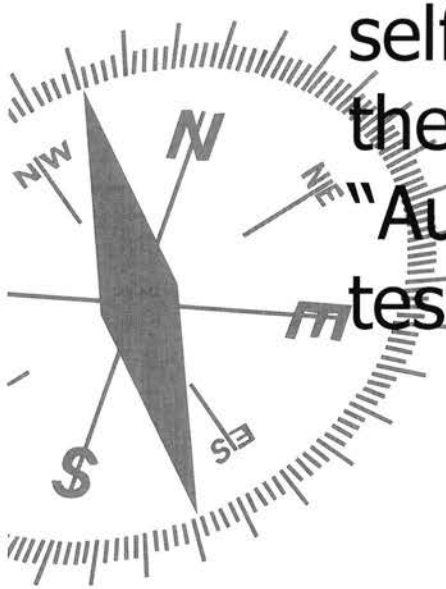
Breath Testing Modes Explained

- **Automatic (Auto) Test** is the most used and highest accuracy test. The FC20 monitors the subject's breath and automatically takes the sample once it has received a sufficient breath sample.
  - *Manually Overriding an Automatic Test* allows the completion of a test in the instance that a subject may have diminished lung capacity and cannot activate the Auto Test on their own.
- **Manual Test** is normally used only when the subject is unable to provide a sufficient air sample for the automatic test.
- **Passive Test** is a quick screen to detect alcohol but is not designed to quantify the results. Passive results are reported as POS if alcohol is detected, NEG if alcohol is not detected. In this mode no mouthpiece is required.



Auto Testing

- To administer an Auto Test, turn the FC20 on by pressing the power button. After the FC20 has completed it's self-diagnostic check the display will show "Auto Test" and the test number.

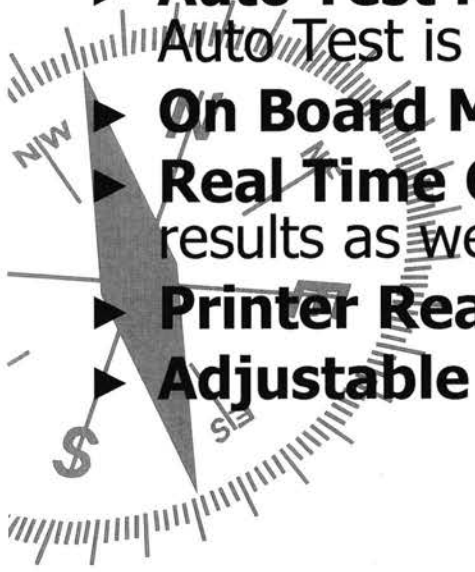


Basic Operation

- The FC20 is powered by four AA batteries
- These provide approximately 160 hours of on time or up to 8000 tests

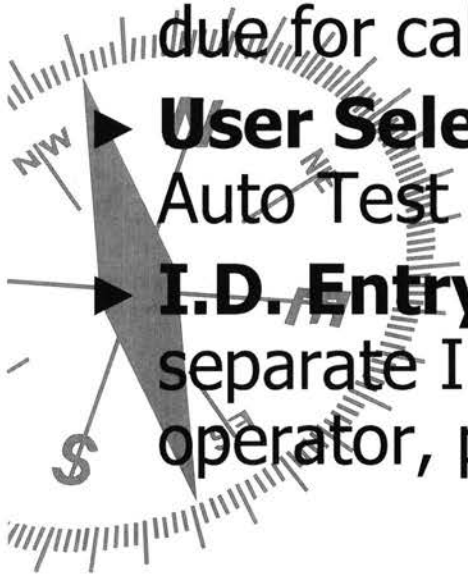
Standard Features:

- **Large Graphic LCD Display**, capable of showing numbers, letters, icons, and plain-English text messages
- When used in low-light situations, the LCD display is automatically illuminated with a **back-light**
- **Automatic Calibration**, software controlled adjustments, no screwdriver or tools necessary
- **Auto Test Mode**, the easiest, simplest way to take a test - Auto Test is fast, accurate, and virtually "hands-free"
- **On Board Memory,** stores the **last*** 500 tests
- **Real Time Clock**, store time and date information with test results as well as calibration and cal check results
- **Printer Ready**, print out any or all results
- **Adjustable Auto Shut-Off**, preserves battery life

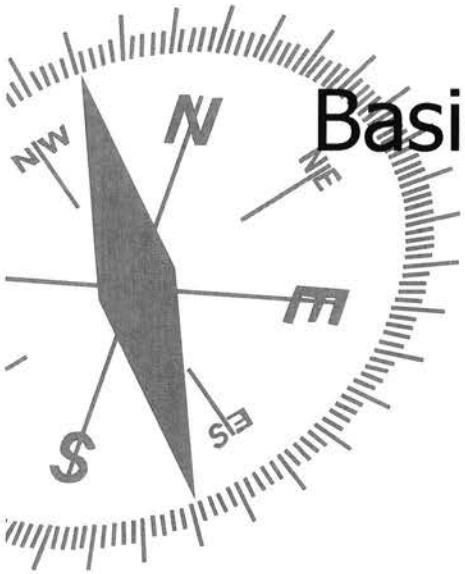


More Standard Features:

- **Passive Testing**, check for the presence of alcohol without using a mouthpiece
- **Two Printout Options**, long or short
- **Calibration / Calibration Check Reminder with Lock-out**, prevents you from using an FC20 when it is due for calibration (optional)
- **User Selectable Test Order**, allows choice of either Auto Test or Passive Test default mode
- **I.D. Entry Capability**, capable of storing two separate I.D.s, one for subject and one for user, operator, precinct, etc

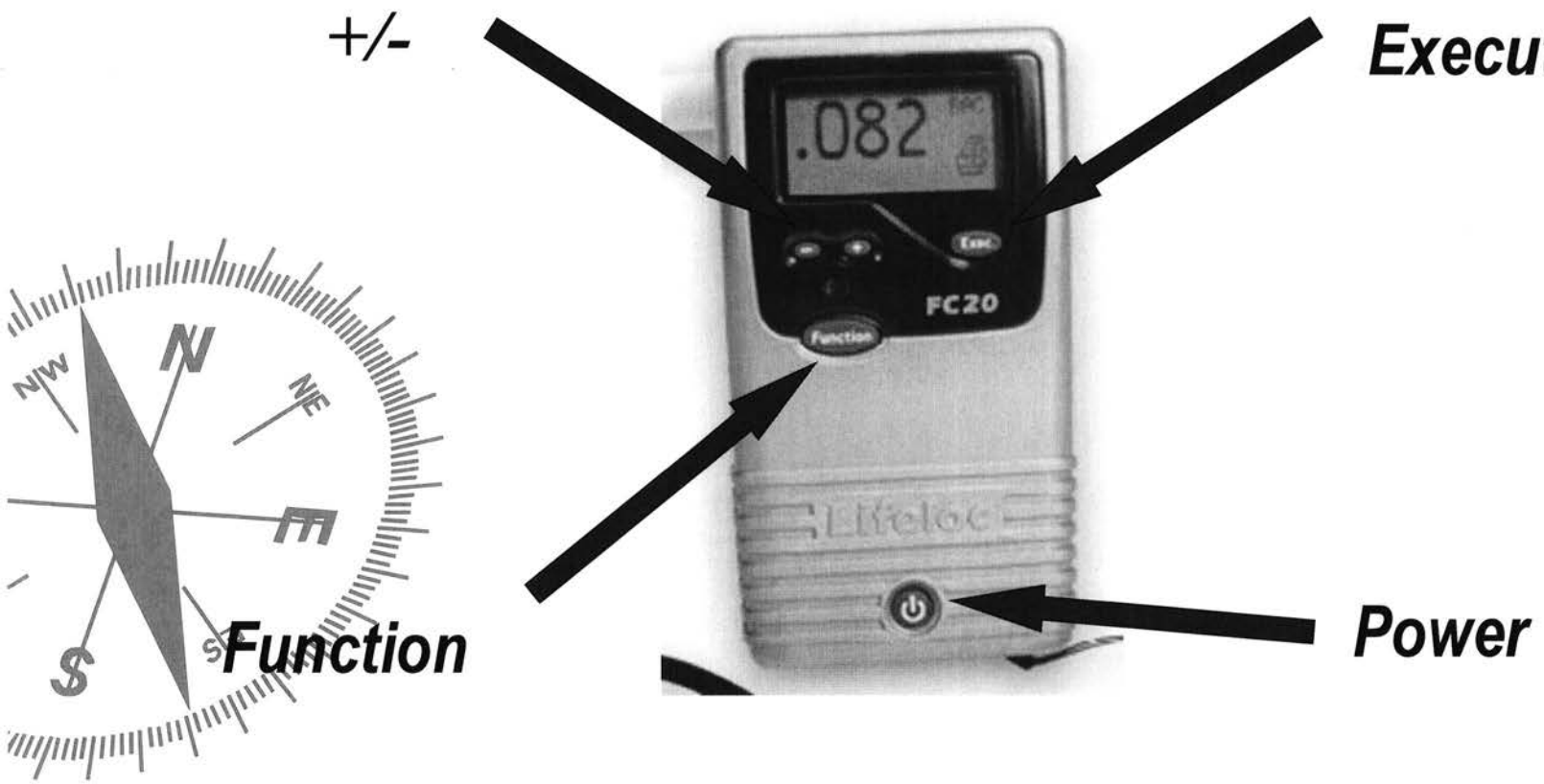


Section 2



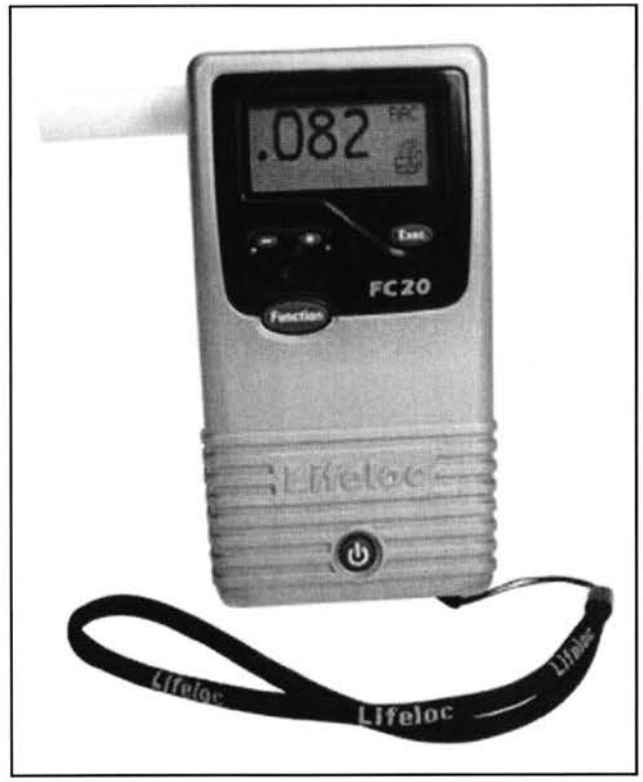
Basic Operation and Taking a Test

The FC Overview:
Simple operation is the key



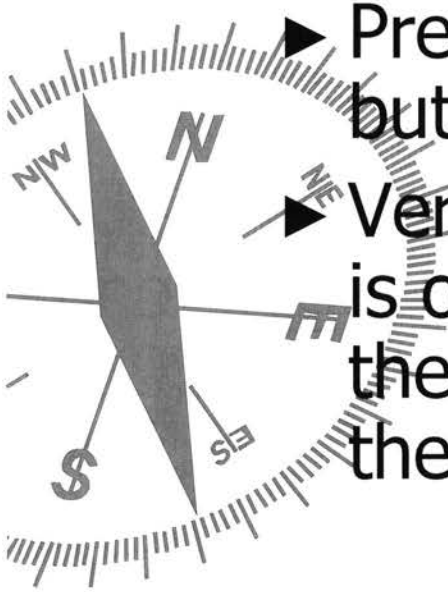
Printing a Specific Test

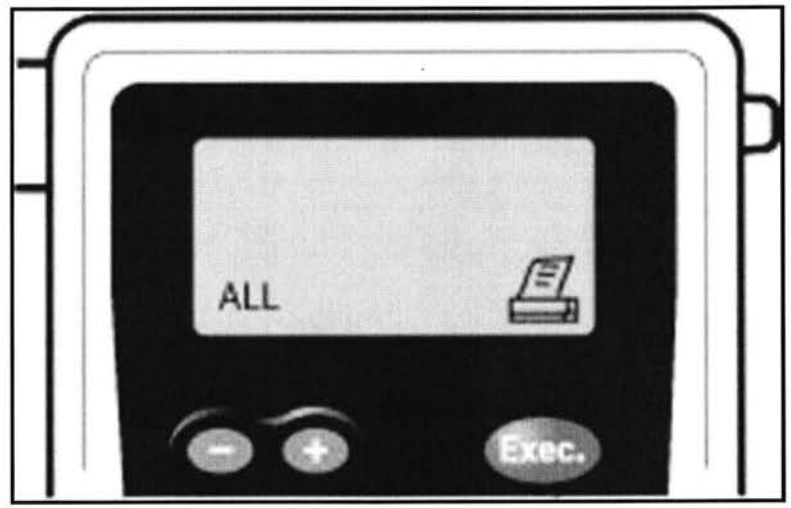
- To print a specific test, press the **Function** button until the printer icon is displayed
- Press the + or - button to select the test number you wish to print
- Verify that the printer is on and plugged into the FC20, then press the **Execute** button



Printing All Stored Tests

- To print all stored tests, press the **Function** button until the printer icon is displayed
- Press the + or - button to select "All"
- Verify that the printer is on and plugged into the FC20, then press the **Execute** button





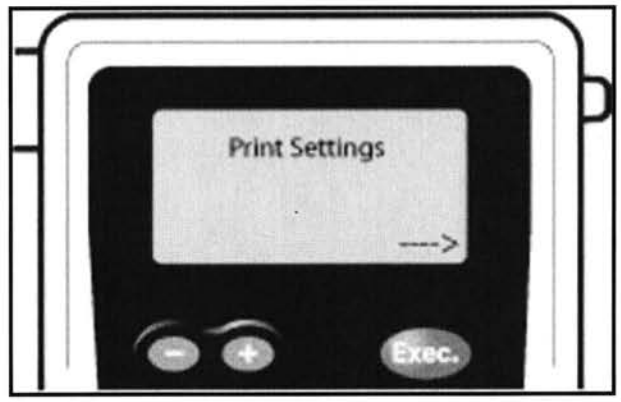
Printing Calibrations/Cal Checks

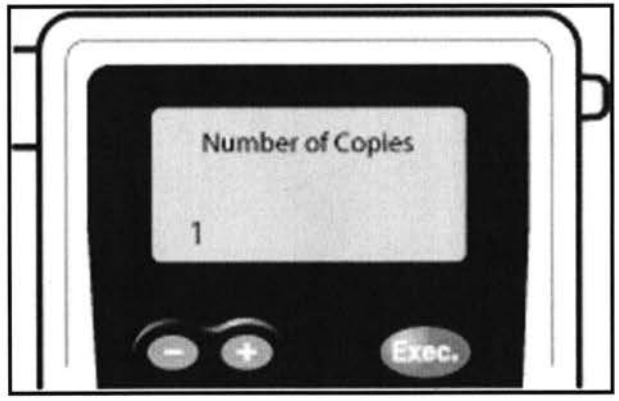
- To print the last calibration/Cal Check, press the **Function** button until the printer icon is displayed
- Press the + or – until the display reads "Cal/Cal Chk"
- Verify that the printer is on and plugged into the FC20, then press the **Execute** button

Print Settings

The FC20 allows you to customize how you print test results

- You can choose to print 1, 2 or 3 copies of a test
- The factory default is 1 copy
- Please refer to page 31 of your FC20 user's manual for complete instructions

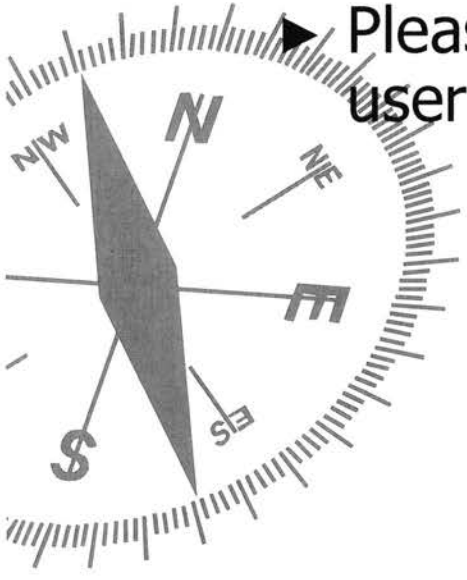




Print Settings

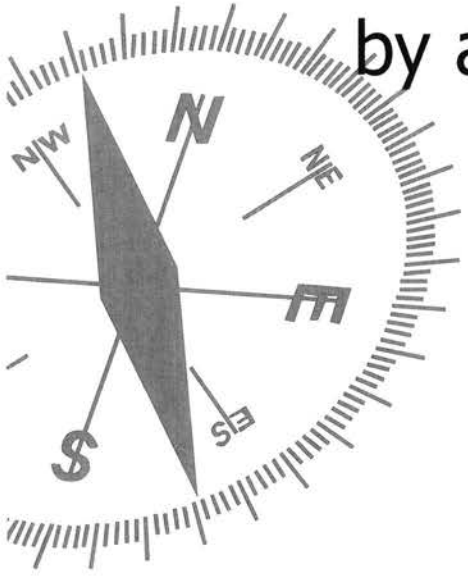
Print Format

- The FC20 will allow you to print either a long or short version of the test results
- In addition to test results, the long version includes the calibration/calibration check information
- The factory default is the short version
- Please refer to pages 27 and 28 of your FC20 user's manual for complete instructions



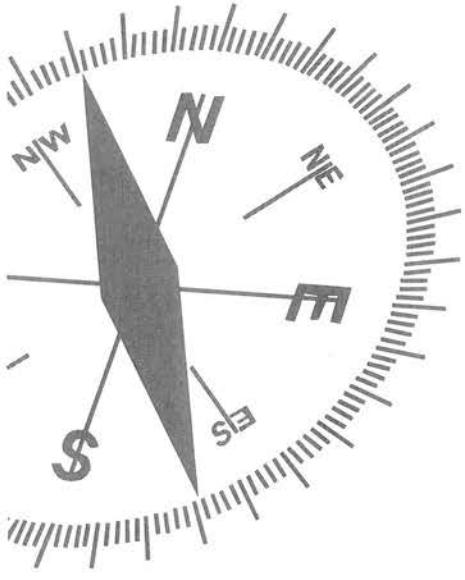
DataTrak™

DataTrak is a software program developed by Lifeloc exclusively for use with Lifeloc's breath testing equipment. Ordered separately, DataTrak software enhances the capabilities of the FC20 by allowing it to communicate with a computer.

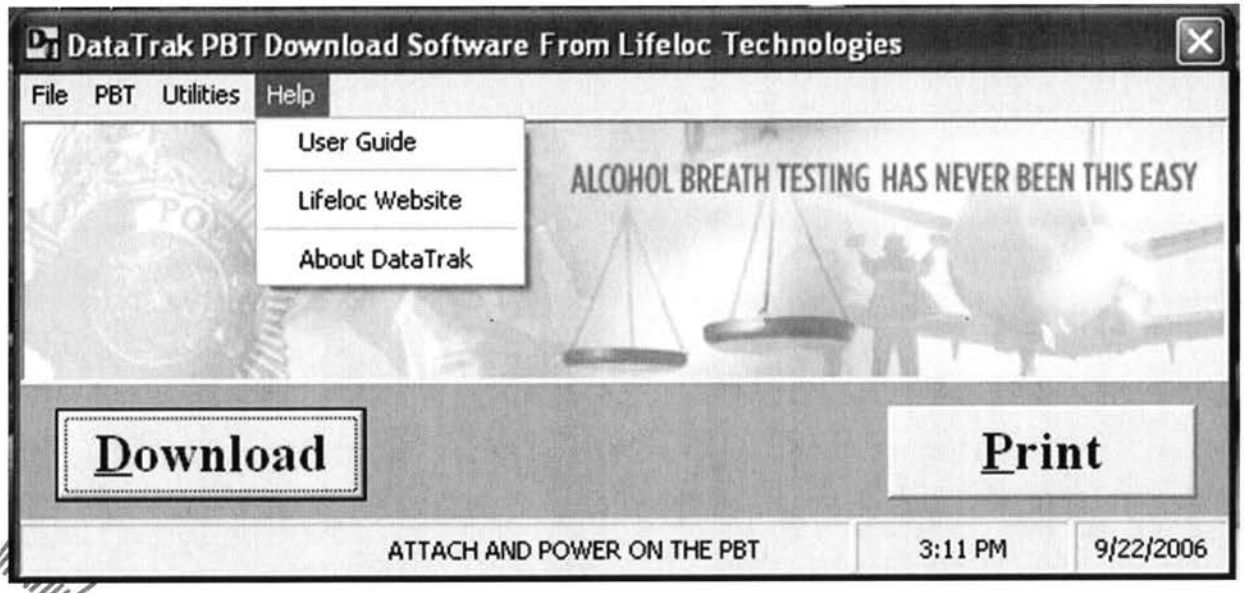


DataTrak Includes....

- Software on CD with Cable
- Easy to install step-by-step instructions
- Detailed user's guide

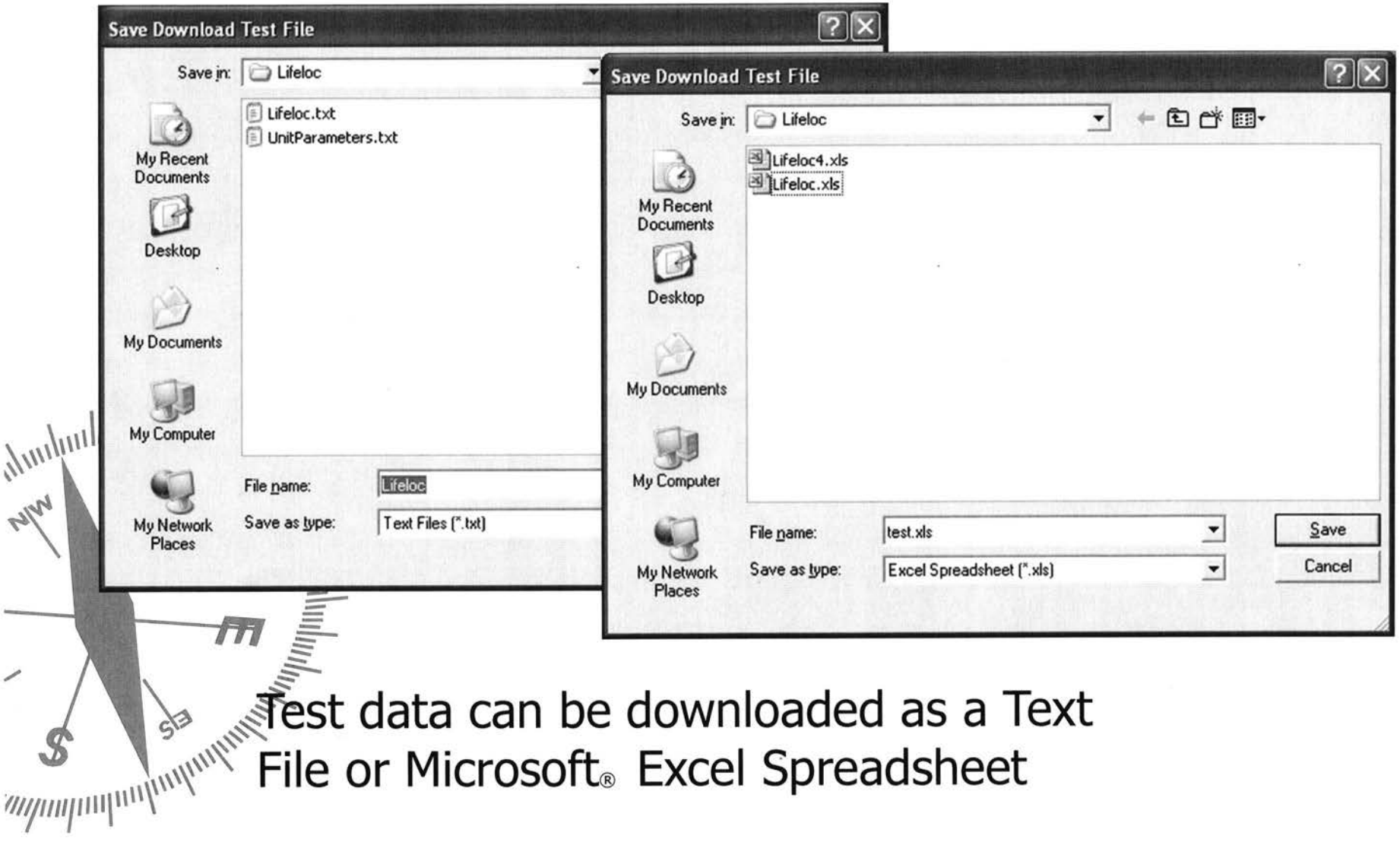


DataTrak



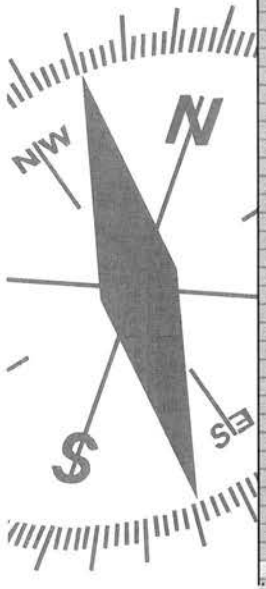
DataTrak software offers the FC20 operator the capability to both download test data onto a PC and to print results on a PC printer

DataTrak



Test data can be downloaded as a Text File or Microsoft® Excel Spreadsheet

DataTrak
Excel SpreadSheet



Microsoft Excel - Lifeloc1.xls

File Edit View Insert Format Tools Data Window Help — Type a question for help

U53

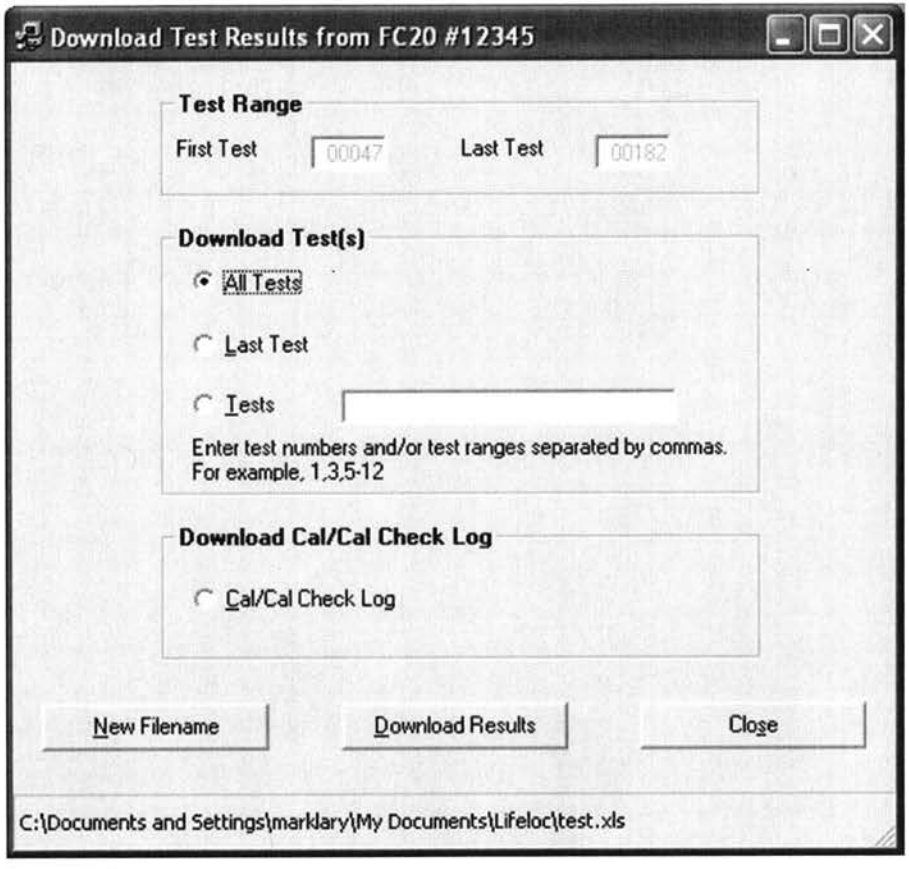
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Test #	BAC	ID	Test Time	Test Date	Test Type	Total Flow	Air Blank Results	Air Blank Time	Cal Factor	Cal Time	Cal Date	Calibration Check Results	Calibration Check Time	Calibration Check Date	Batch ID	Unit Serial Number	Unit Model	Software Version	Status
6	9	0.259		11:21	9/2/2004	AUTO TEST	1.400			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
7	10	0.000		12:22	9/4/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
8	11	NEG		9:37	10/1/2004	PASSIVE TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
9	12	0.051		9:39	10/1/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
10	13	0.000		7:30	10/2/2004	AUTO TEST	1.800			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
11	14	0.000		9:53	10/2/2004	AUTO TEST	1.300			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
12	15	0.000		11:33	10/8/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
13	16	0.000		11:35	10/8/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
14	17	0.000		11:36	10/8/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
15	18	0.000		11:36	10/8/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
16	19	NEG		11:40	10/8/2004	PASSIVE TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
17	20	NEG		11:41	10/8/2004	PASSIVE TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
18	21	0.000		13:46	10/8/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
19	22	0.000		17:12	10/26/2004	AUTO TEST	2.300			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
20	23	0.000		17:14	10/26/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
21	24	0.000		17:15	10/26/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
22	25	0.000		9:06	11/6/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
23	26	0.000		9:09	11/6/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
24	27	0.000		9:44	11/6/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
25	28	0.000		9:47	11/6/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
26	29	0.000		11:49	11/6/2004	AUTO TEST	3.100			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
27	30	0.000		11:51	11/6/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
28	31	0.000		18:07	11/9/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
29	32	0.000		18:10	11/9/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
30	33	0.000		19:26	11/9/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
31	34	0.000		19:28	11/9/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
32	35	0.000		19:29	11/9/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
33	36	0.141		14:42	11/16/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
34	37	0.000		19:19	11/30/2004	AUTO TEST	1.900			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
35	38	NEG		19:21	11/30/2004	PASSIVE TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
36	39	0.000		16:57	12/2/2004	AUTO TEST	1.500			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
37	40	0.000		16:59	12/2/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
38	41	NEG		17:02	12/2/2004	PASSIVE TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
39	42	0.000		19:30	12/7/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
40	43	0.000		19:30	12/7/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
41	44	0.000		19:31	12/7/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
42	45	0.000		19:32	12/7/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
43	46	0.000		9:16	12/11/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
44	47	0.000		9:40	12/11/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
45	48	0.000		9:40	12/11/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
46	49	0.000		9:40	12/11/2004	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
47	50	0.000		14:02	1/13/2005	AUTO TEST	2.600			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
48	51	0.000		18:48	1/13/2005	AUTO TEST	2.400			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
49	52	0.000		10:43	1/27/2005	AUTO TEST	3.900			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
50	53	0.000		15:17	2/1/2005	AUTO TEST	3.100			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
51	54	0.000		8:21	2/2/2005	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
52	55	0.000		17:59	2/3/2005	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000
53	56	0.000		17:59	2/3/2005	MANUAL TEST	0.000			1.313	8:21	7/16/2004	0.099	8:24	7/16/2004		1298	FC20	3.10d	0000

Start | Inbox - Microsof... | Suggestion - Me... | FW: new "T" s... | DataTrak Fact ... | Lifeloc | Microsoft Ex... | untitled - Paint | 8:58 AM

DataTrak

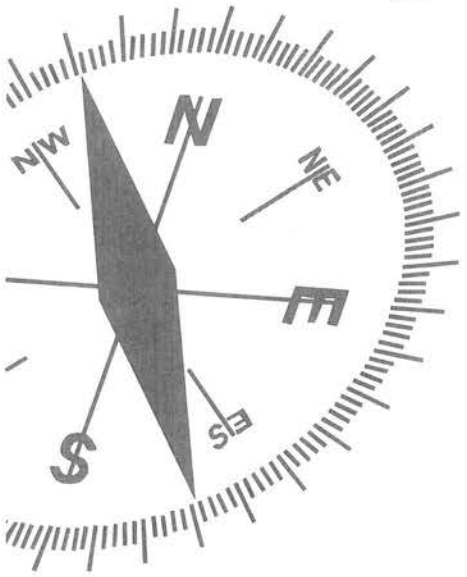
You choose what to download

- Select all tests or specify particular tests
- Calibration/Cal Check log



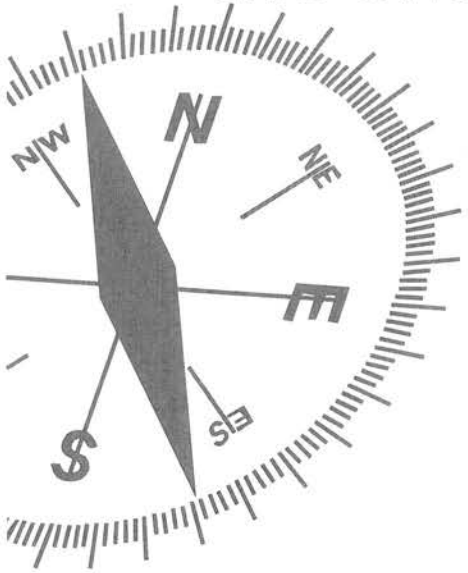
DataTrak

- This information has been provided to familiarize you with DataTrak; detailed instructions will not be included in this training session.

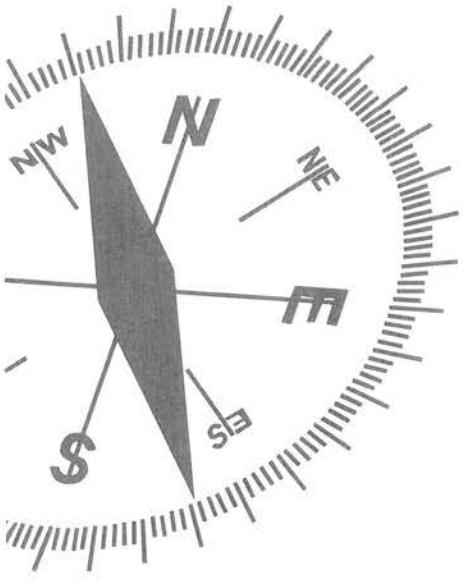


Printing Review Questions

1. What are the required steps to print a test result to a model DP printer?
2. What is the primary difference between the short and long print out?



Section 5



Calibration

About Calibration

The FC20 is a diagnostic device which will require calibration from time to time

The FC20 comes from the factory calibrated. Most Departments and Agencies have a calibration schedule which must be adhered to based upon their individual program policies

Please consult your program administrator for your calibration schedule

Calibration Explained

Calibration of the FC20 compares its internal setting to a known alcohol standard, thereby providing it with the baseline from which it can actually calculate the subject's alcohol level

The FC20 can be calibrated with either Dry Gas or a Wet Bath Simulator

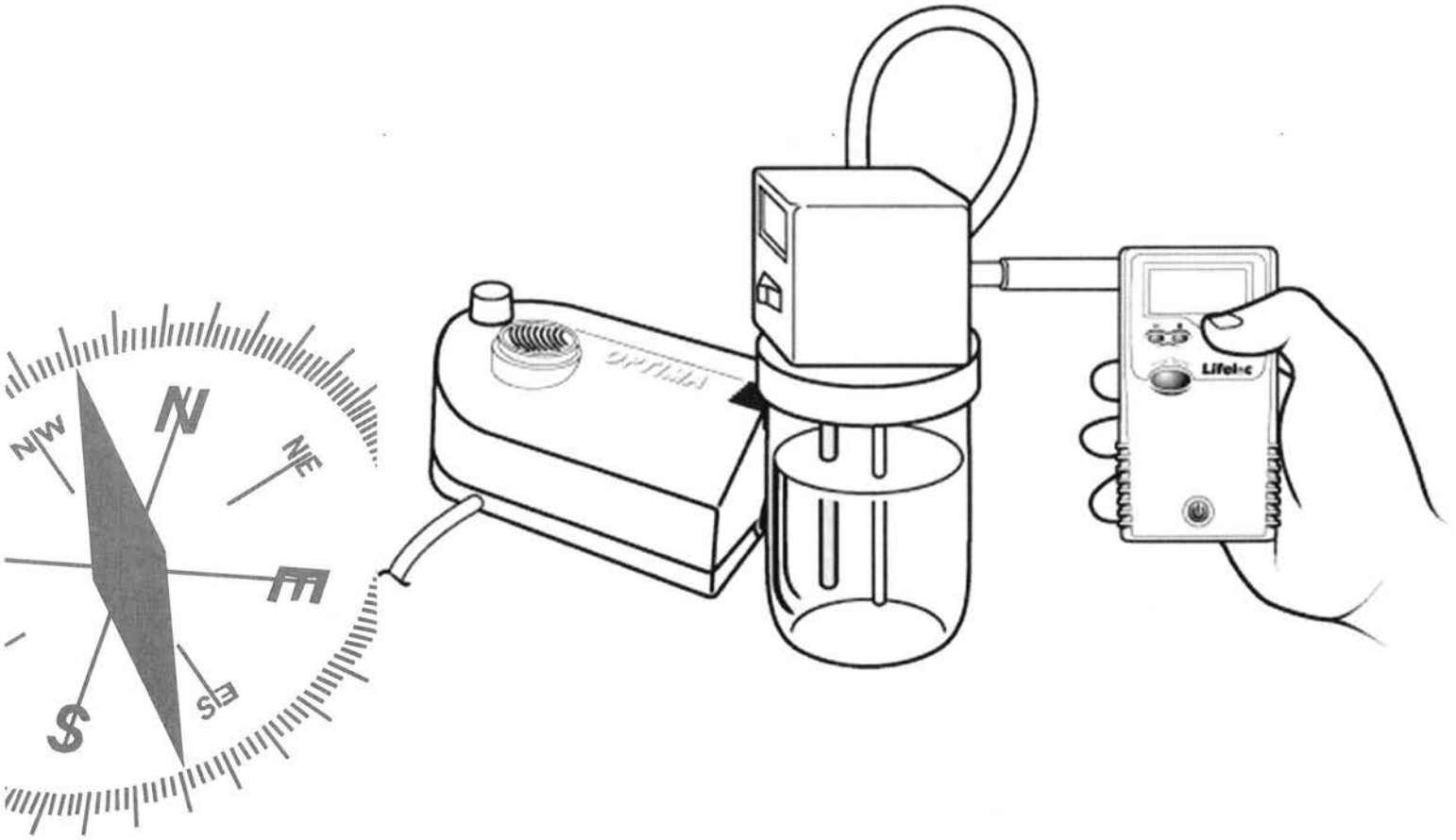
The FC20 must have an internal temperature between 67°F and 100°F to calibrate

Calibration Recommendations

Lifeloc recommends you calibrate your FC20:

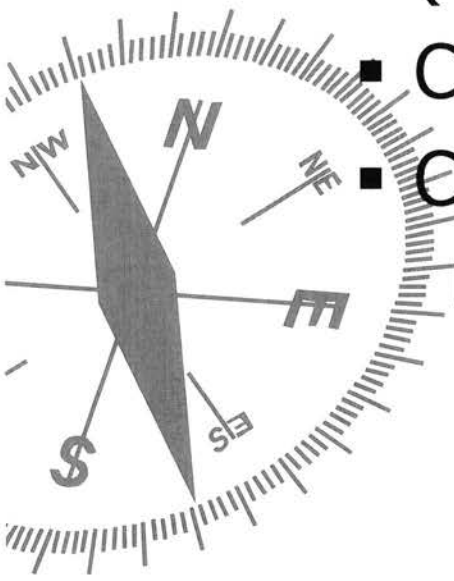
- ►Once every 12 months, regardless of how many tests you have performed
- ►OR, after two failed Calibration Checks
- ►OR, at intervals specified by your Internal Policies, Quality Assurance Plan, or State Regulations such as Title 17

Performing a Calibration /Wet Bath



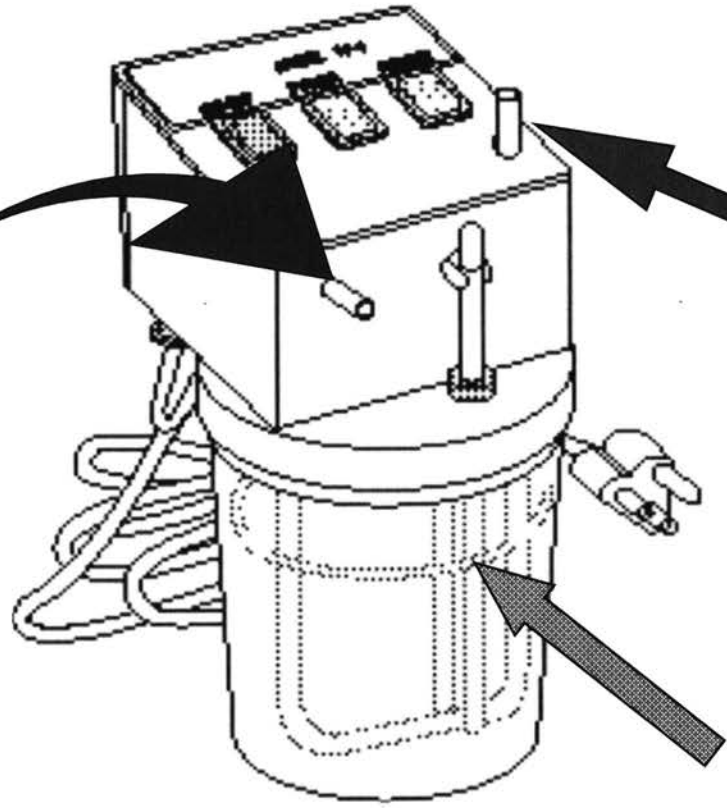
Calibration /Wet Bath -Equipment

- Wet Bath
  - Simulator
  - Calibration Pump (optional)
  - Calibration Adapter Kit
  - Certified Solution
    - Verify expiration date



Wet Bath Calibration

Solution Must be heated to 34°C (93°F) before Calibration



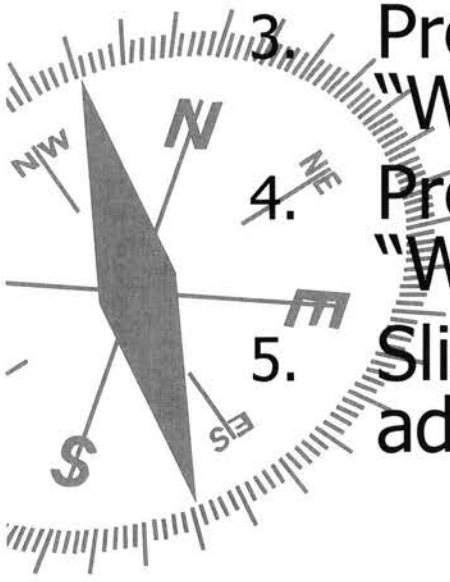
Gently blow into the simulator until 1/2 inch high bubbles appear on surface of solution

Connect FC mouthpiece to tube, using adapter kit

Wet Bath Calibration

Verify the Calibration Standard is set correctly

1. Verify the Standard Type is set to "WET BATH"
2. Press **Function** button until display reads "CALIBRATION"
3. Press **Execute** button. The display will read "WET CHECK"
4. Press the **Function**. The display will read "WET CALIBRATION"
5. Slide the mouthpiece over the mouthpiece adapter



Wet Bath Calibration (Cont.)

6. Turn on the calibration pump or blow into the input tube to create ½ inch of bubbles on the surface of the solution
7. After blowing for a minimum of 3 seconds press and release the **Execute** button to take the sample. Continue to blow for another 3 seconds
8. The display will read "CAL COMPLETE"
9. Wait 2 minutes and perform the required Cal Check

Accuracy Check

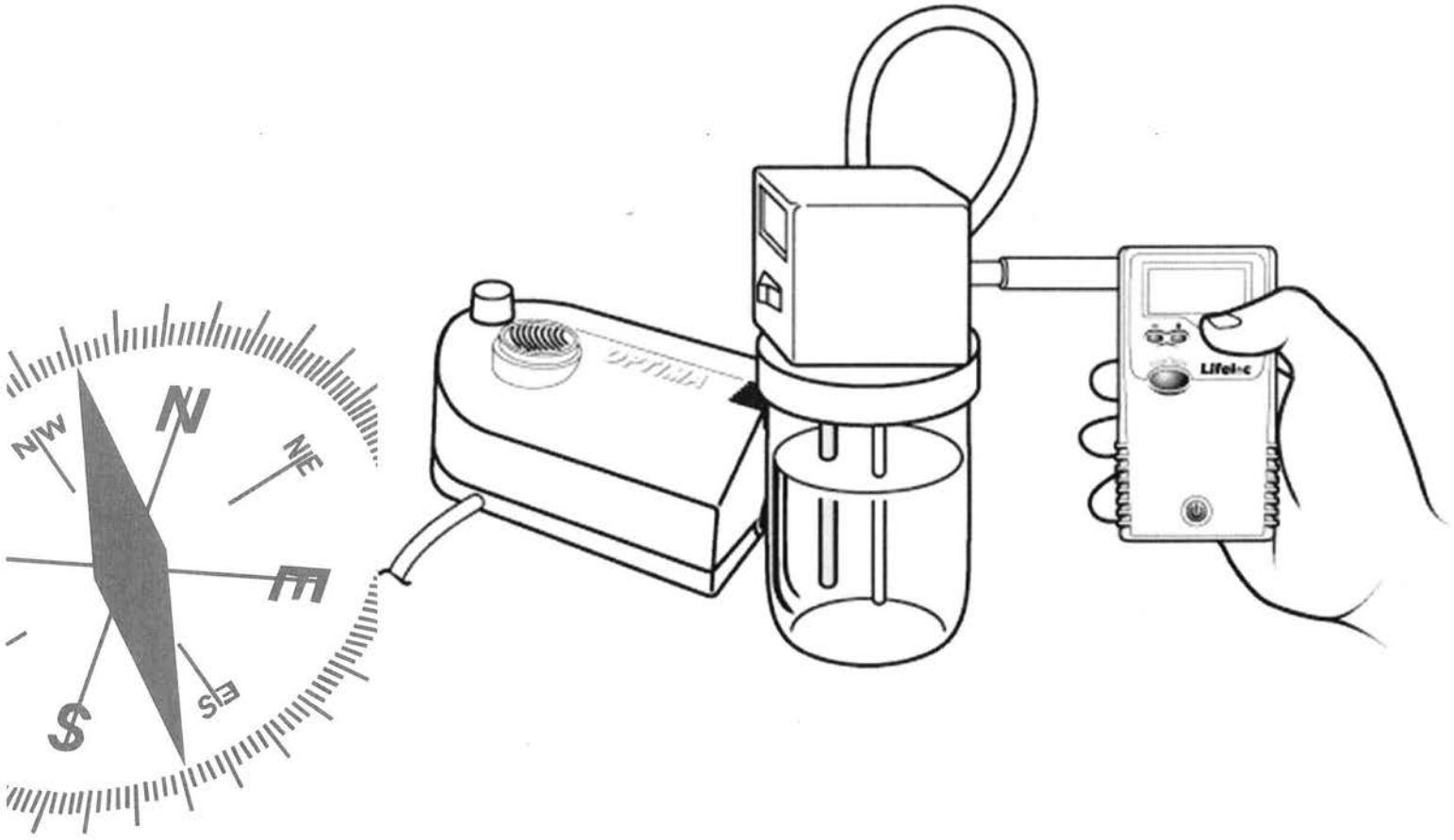
- Sometimes referred to as Verification, Accuracy Check or External Calibration Check
- Verifies the FC20 is calibrated and functioning properly
- The display will read a result that should be within +/- .005 BAC of the standard
- Your FC20 will **require** you to conduct a Calibration Check immediately following a Calibration

Accuracy Check

Lifeloc recommends you check your FC20:

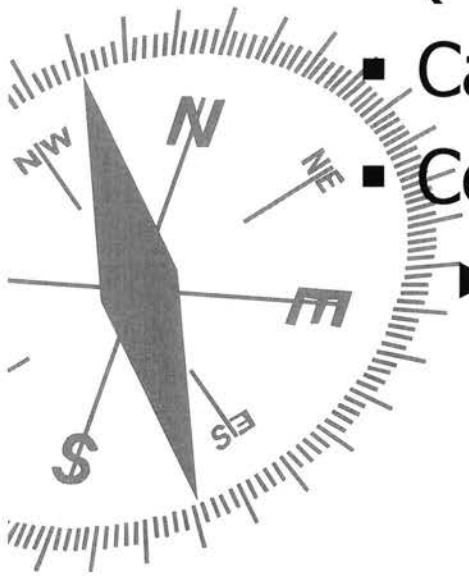
- Once every 30 days
- OR, at intervals specified by your Internal Policies, Quality Assurance Plan, or State Regulations such as Title 17

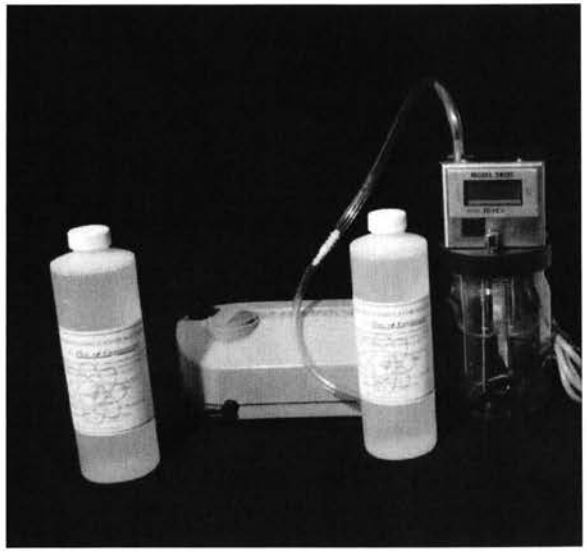
Performing an Accuracy Check
Wet Bath



Accuracy Check
Wet Bath - Equipment

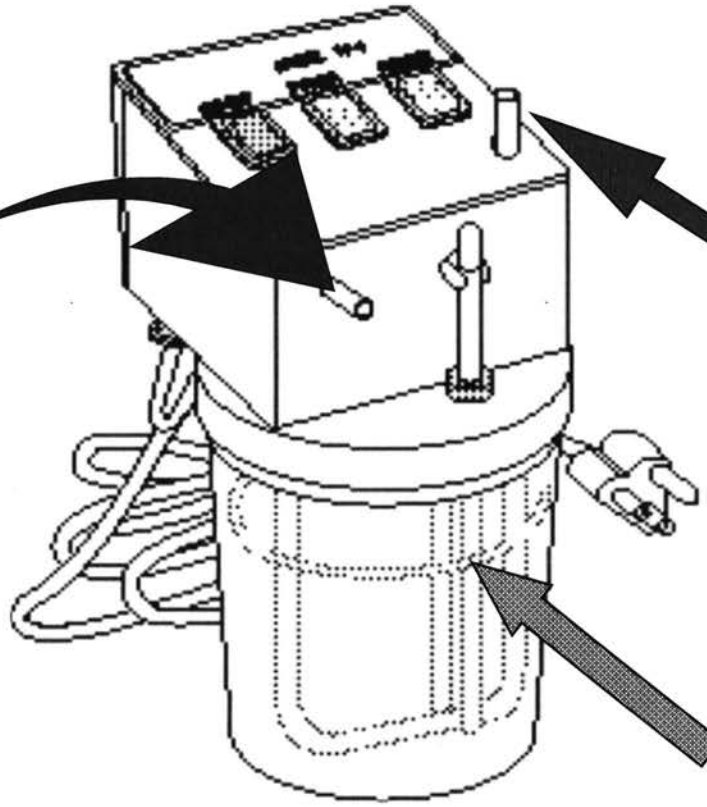
- Wet Bath
  - Simulator
  - Calibration Pump (optional)
  - Calibration Adaptor Kit
  - Certified Solution
    - Verify expiration date



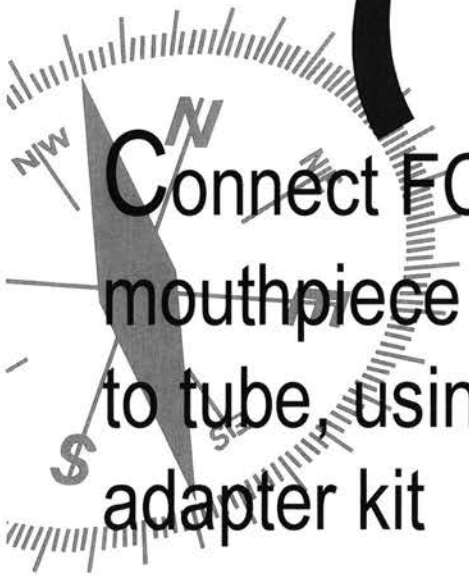


Wet Bath Cal Check

Solution Must be heated to 34°C (93°F) before Cal Check



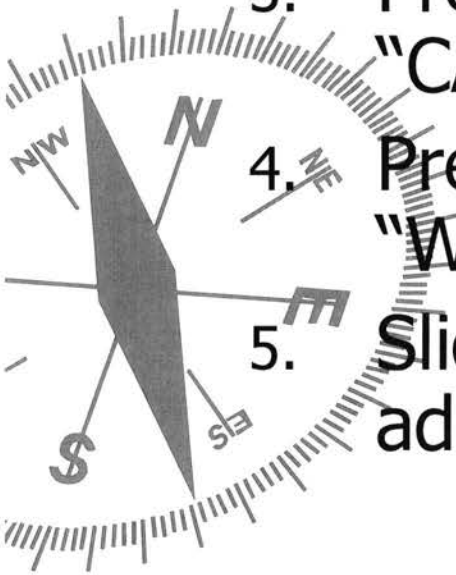
Gently blow into the simulator until 1/2 inch high bubbles appear on surface of solution



Connect FC mouthpiece to tube, using adapter kit

Wet Bath Cal Check

1. Verify the Calibration Standard is set correctly
2. Verify the Standard Type is set to "WET BATH"
3. Press **Function** button until display reads "CALIBRATION"
4. Press **Execute** button. The display will read "WET CHECK"
5. Slide the mouthpiece over the mouthpiece adapter



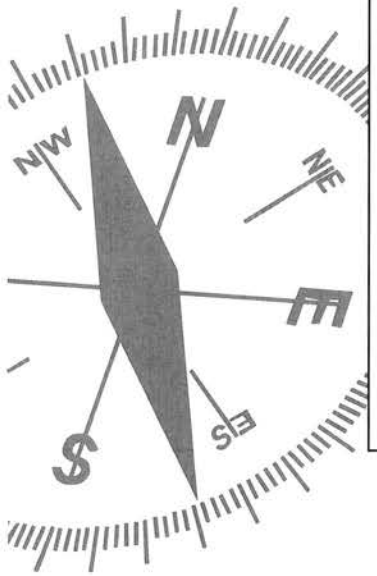
Wet Bath Cal Check (Cont.)

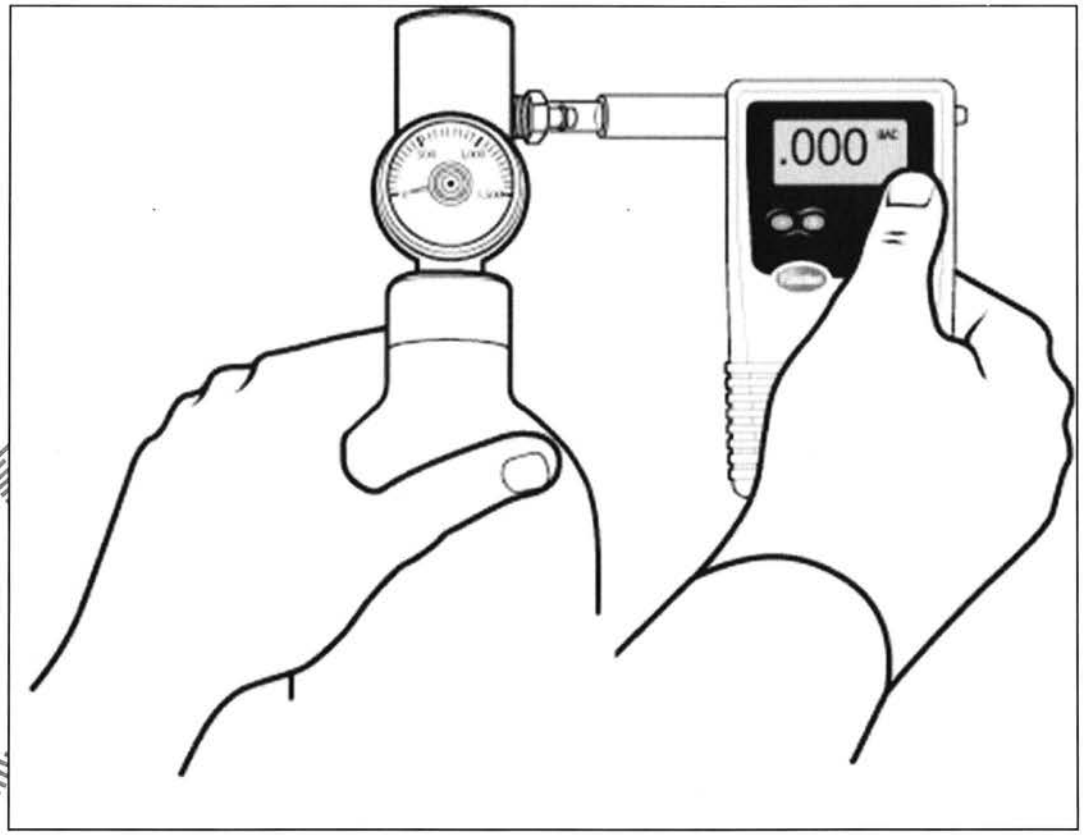
6. Turn on the calibration pump or blow into the input tube to create ½ inch of bubbles on the surface of the solution
7. After blowing for a minimum of 3 seconds press and release the **Execute** button to take the sample. Continue to blow for another 3 seconds
8. The unit will display the results
9. If the results are not within specifications, you will need to conduct another Cal Check
10. If the results are again not within specifications, you will need to conduct another Calibration and Cal Check

Dry Gas Cal Check Equipment

- Dry Gas
  - Dry Gas Calibration Kits-34 Liter & 105 Liter
  - Replacement tanks will work with most manufacturer's equipment
  - Calibration Adaptors
  - Regulators

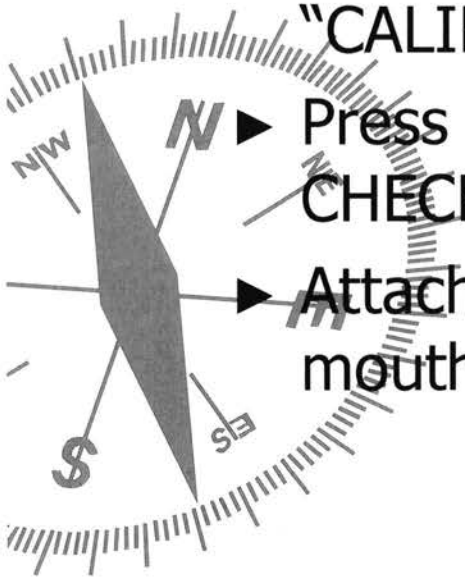
Performing a Cal Check /Dry Gas





Dry Gas Cal Check

- Verify the Calibration Standard is set to the calculated corrected standard
- Verify the Standard Type is set to Dry Gas
- Verify the cylinder is not excessively cold
- Press the Function button until display reads "CALIBRATION"
- Press Execute button. The display will read "DRY CHECK"
- Attach the FC mouthpiece to the regulator using the mouthpiece adapter



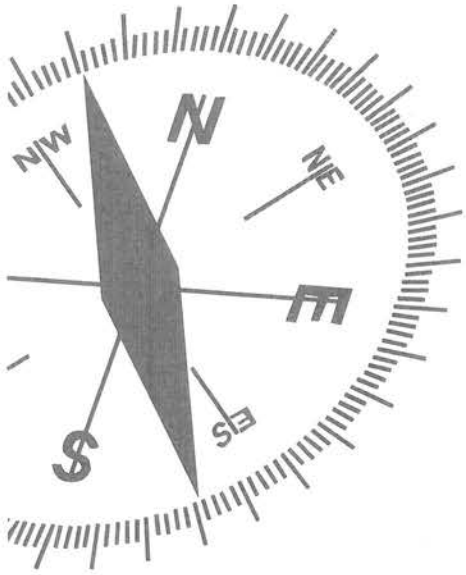
Dry Gas Cal Check

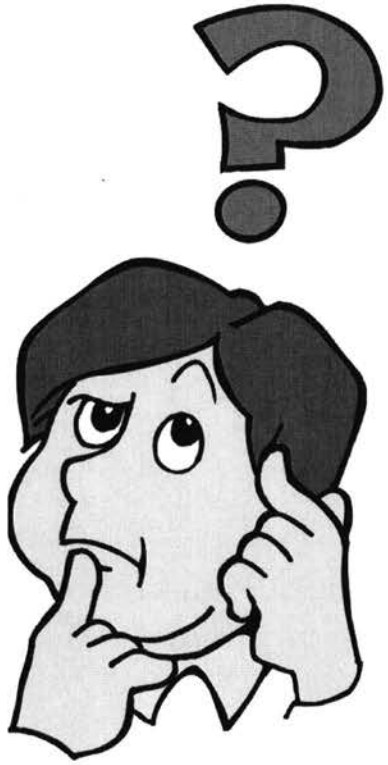
- Press and hold the regulator button to deliver a gas sample
- After a minimum of 3 seconds press and release the Execute button to take the sample
- After 3 more seconds release the regulator button to discontinue gas flow, read and/or print the Cal Check results

Example of Cal Check Problems

- Incorrect type selected: Wet vs. Dry
- Standard set wrong
- Simulator Tube too long (wet bath)
- Leaky simulator or connections (wet bath)
- Failure to conduct Altitude Compensation if needed
- To fast with buttons (wet or dry)
- Overused solution (wet bath)

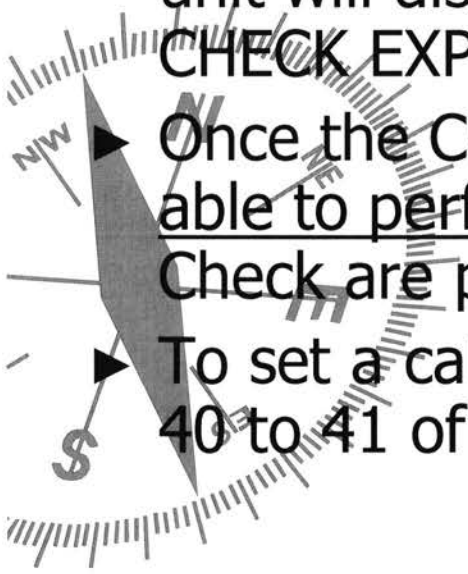
Questions





Calibration/Cal Check Lockout

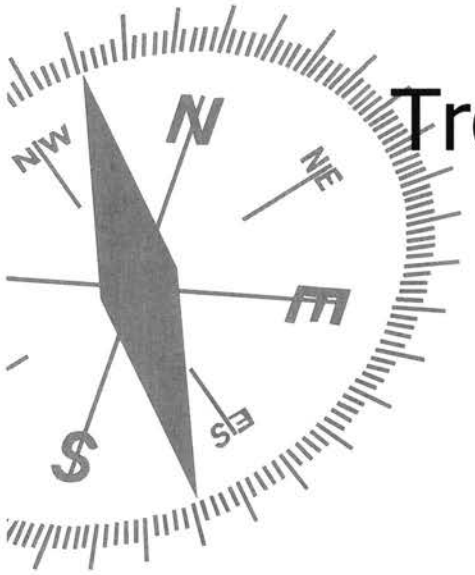
- The calibration/cal check lockout allows you to prevent usage of your FC20 if it is not calibrated or cal checked in a specified time period
- You can specify time periods of up to 999 days between calibrations or cal checks
- Beginning 48 hours before the specified lock-out time, the unit will display "WARNING CAL EXPIRING", "WARNING CHECK EXPIRING" or both
- Once the Calibration/Cal Check has expired; you will not be able to perform a test until the Calibration and or Cal Check are performed
- To set a calibration/cal check lockout, please refer to pages 40 to 41 of your FC20 user's manual



Calibration Review Questions

1. What temperature does the alcohol solution need to be heated to?
2. After performing a calibration, how long should you wait before performing a cal check?
3. What might cause a calibration/cal check to fail?

Section 5

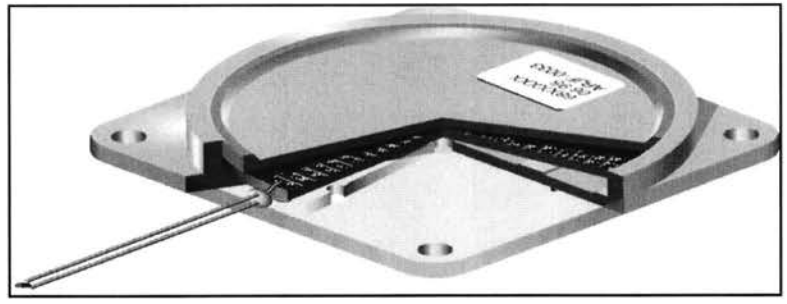


Troubleshooting, Maintenance and Service

The Fuel Cell

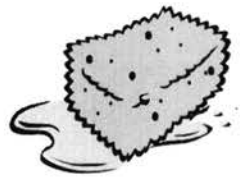
Fuel cells are highly durable sensors that are capable of providing accurate breath alcohol results for years. There are however, precautions you should take to make certain that these devices perform for the longest period of time possible:

- **USE THE DEVICE.** Fuel cells like moisture; it is a good idea to take tests periodically to provide needed moisture to the fuel cell, especially in dry climates. You do not need alcohol, just breath.
- **AVOID CIGARETTE SMOKE.** Make certain no one is permitted to blow cigarette smoke into the unit. This can damage the fuel cell.



Cleaning

Use a mild disinfectant cleaner and a soft cloth on the outside of the case is recommended periodically to keep your unit clean. Do not use alcohol to clean the unit



Batteries

The four AA batteries in your FC20 should last for about 160 hours of "On" time which can equate to as many as 6000 to 8000 tests. It is recommended you use only high-quality alkaline batteries with your unit

- Do not use rechargeable batteries

Service

If your FC20 should require repairs or maintenance, Lifeloc is there for you! Just an email or phone call will put you in contact with our technical support personnel

To Send Your FC20 in for Repair:

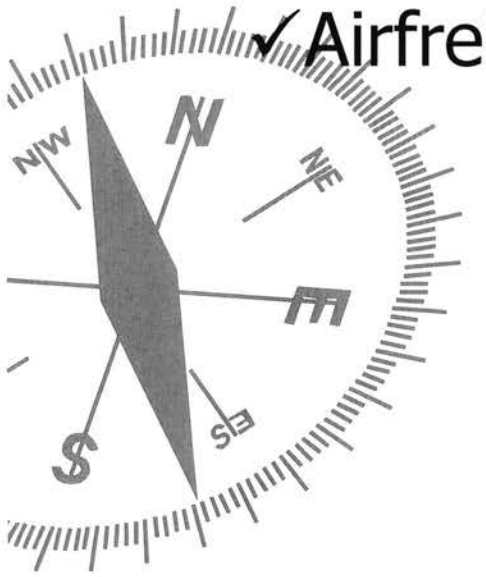
- Call for a Return Authorization (RA#)
- Ship the unit to Lifeloc with the RA# on the outside of the box and freight paid
- Lifeloc repairs the unit (typically under 4 business days) and ships the unit back 3-day air

Lifeloc Technologies
Toll Free: (303)431-9500
service@lifeloc.com

Lifeloc Factory Warranty

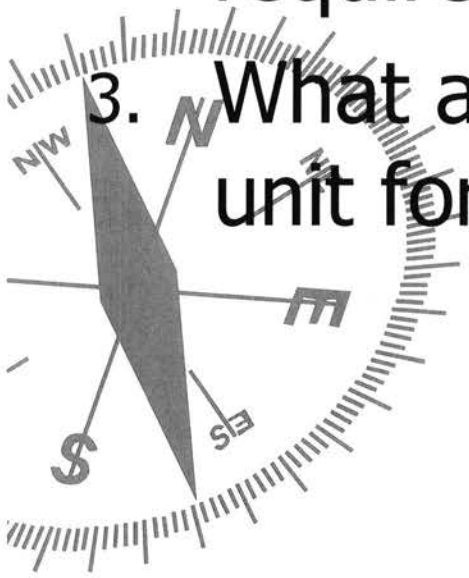
1 Year Parts and Labor Limited Warranty

- ✓Parts and Labor on Covered Repairs
- ✓Software Updates as Applicable
- ✓Airfreight Back To Customer (U.S.)



Maintenance and Troubleshooting Review Questions

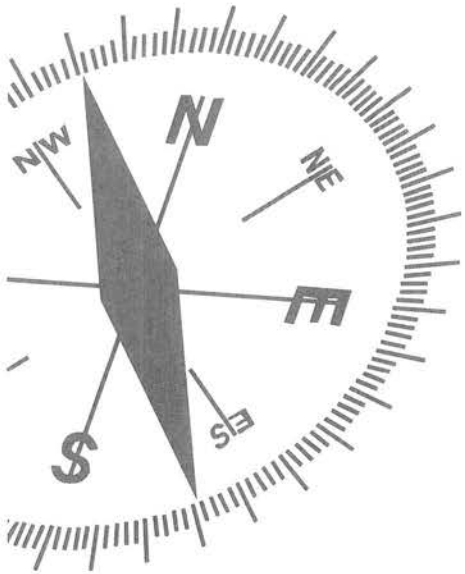
1. What steps should you take to help maintain your FC20's fuel cell?
2. What type of batteries does the FC20 require?
3. What are the required steps to return a unit for service?



Practicals

1) Perform an Auto Test
2) Perform a Manual Override of an Auto Test
3) Perform a test in Manual Mode
4) Perform a Passive Test
5) Perform a Wet Bath Calibration
6) Perform a Wet Bath Accuracy Check
7) Perform a Dry Gas Calibration
8) Perform a Dry Gas Accuracy Check

Written Test



Thank You

For additional information, please contact Lifeloc Technologies, Inc. at:

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Wheat Ridge, CO 80033

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