



Professional Breath Alcohol Analyzer

With Fuel Cell Sensor

FIT333



IMPORTANT: Many factors (e.g. environment gas residue, smoke & various smell in human mouth, etc...) may affect the Blood Alcohol Concentration (BAC) level, so the Readings are For Reference Only.

Neither the reseller nor manufacturer accept any liability arising from the use of this unit.

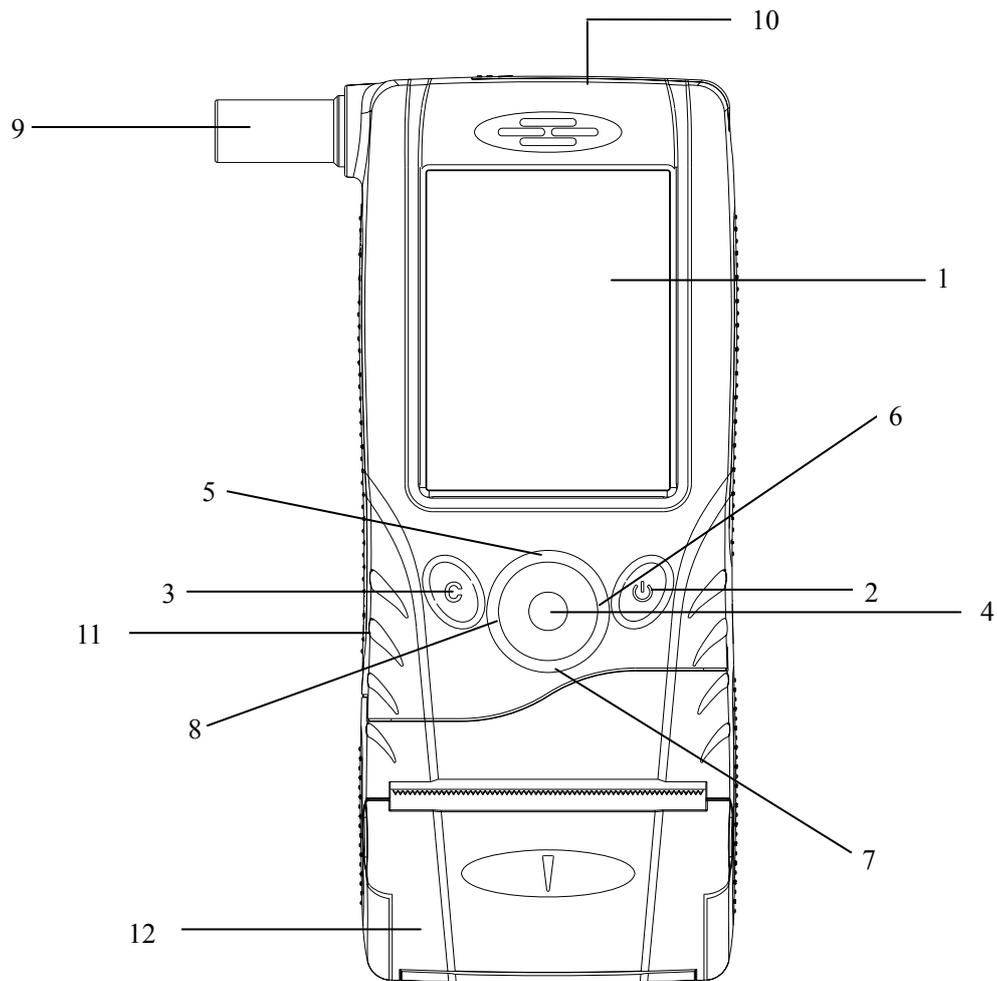
DO NOT drink before you drive!

www.group-fit.com

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Measuring instrument



1. LCD with tough panel
2. Power Key
3. Back Key
4. "OK" Button
5. UP Key
6. Right Key
7. Down Key
8. Left Key
9. Mouth piece
10. Inner tube
11. USB Jack(Connect computer)
12. Printer

What is What? (Accessory detail information see Page 7)



1. Measuring instrument
2. Mouthpiece, 25pcs
3. Big mouthpiece (connect the mouthpiece to blowing), 1pcs
4. Car adaptor, 1pcs
5. Power adaptor, 1pcs
6. Wireless receive module, 1pcs
7. USB Car adaptor (connect the unit machine directly charging in the car), 1pcs
8. PC Download cable, 1pcs (Option accessory)
9. Wireless Launch module, 1pcs
10. Leather sheath, 1pcs
11. Printer paper, 4pcs
12. Charger, 1pcs
13. Rechargeable Batteries **1.2V AA Ni-H(2400mAh or above)**, 4pcs (Option accessory)

Thanks for purchasing our FiT333 Professional Fuel Cell Digital Alcohol Analyzer. FiT333 gives you a precision digital indication of your breath alcohol content and thus your possible concentration of intoxication. To achieve the high accuracy, user should study this manual carefully. And any use of the FiT333 requires full understanding and strict observation of these instructions.

Basic Scientific Principles

Fuel Cell sensor is using the electrochemical reaction for platinum against ethanol molecules, gives the most stable and reliable measuring technology.

Declaration: This manual **should** be read before use.

Liability for proper function or damage

Never unscrew the FiT333. **Warranty not valid** if any screws had being loosened or warranty label had being broken. Serviced or repaired by personnel not employed by FiT Service centre or authorized by FiT or if the instrument is used in a manner not conforming to its intended use.

Maintenance

Repair/maintenance of the FiT333 should only be carried out by trained technician from authorized FiT professional breath alcohol tester Service Center.

Only authentic FiT spare parts can be used for maintenance.

Intended Use

- * Don't put this product in high temperature, high humidity or high dust environment.
- * Don't knock this product, especially do not press the TFT-LCD by force.
- * Don't dismantle the machine and use the alcohol, thinner or benzene to clean the surface of the product and its components.
- * Don't use in the area prohibiting using of wireless devices.
- * Don't use in the flammable and explosive environment.
- * Please use the touch pen when doing the touch screen calibration
- * Before use, please fully charge up the Handset using the provided accessory charger.

General Conditions

- Use a new mouthpiece for each person being tested.
- Make sure no alcohol and solvent vapors (disinfectants) in the ambient air.
- Do not allow a high alcohol concentration to reach the sensor. For instance, from drinking alcohol, eating alcohol containing foods or rinsing the mouth with alcohol mouth washer just before measurement.
- Keep away from the antenna of mobile phones or transmitters.

Conditions for Tested Person

To begin, rinse out your mouth with water or non-alcoholic drinks before using the unit. Abstain from smoking (for 10 minutes) or drinking (for at least 15 minutes.) Actual residues of alcohol in the mouth may enhance the measured values. This may also occur by aromatic drinks (e.g. fruit juices), alcoholic mouthwashes or mouth sprays, medicines and drops, as well as by burping and vomiting.

Breathe evenly and normally before the test.

Important:

DO NOT EAT, DRINK, OR SMOKE FOR 20 MINUTES PRIOR TO UNDERTAKING A TEST. FAILURE TO DO SO MAY IMPAIR RESULTS AND DAMAGE THE UNIT.

REMEMBER: NEVER DRINK & DRIVE – THE ONLY SAFE LEVEL IS ZERO

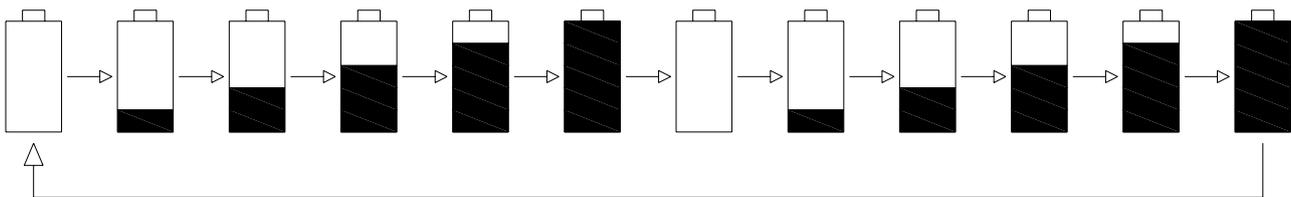
Preparation

Batteries

- Gently press onto the lock of the battery compartment and remove cover.
- Observe correct polarity when inserting the batteries!
- Insert 4pcs rechargeable **1.2V AA Ni-H (2400mAh or above)** batteries in the battery compartment.
- Close battery cover.



- If the battery symbol on the display indicates “**empty**”, please charge it as soon as possible.
Connect the provided power supply with the USB port.
The charging process is indicated by a pulsing display of the charging symbol.



Power up

Install the rechargeable battery into the battery compartment.
Press the “Power Key” key 3 seconds to turn ON the tester,
then enter into the main interface.

Press the “Power Key” few seconds (above 3 seconds) to turn OFF the tester.

When the machine on, user can use either normal keys or touch screen for key operation



Operation instructions

1. Quick Start: - User can direct activate alcohol test without key in the vehicle no. and user name, etc...

- 1.1 Insert a new mouthpiece in **CORRECT** orientation.
- 1.2 Press the “Quick Start” icon on the main menu, The LCD will shows “Please Wait” with percentage bar chart while discharging the sensor. It will then follows by “Warming up” with bar chart when per-heating the sensor. Then LCD shows “Ready”, user can start the alcohol test. Insert the mouthpiece into chamber inlet.
 - i. Automatic test: Evenly blow into the mouth piece for about 6 seconds with a continuous “Beep” sound announcement.
 - ii. Manual test: If user can not do the automatic test (drunk or try to cheat), press the OK key for 1 second to take sample
- 1.3 If the breath sample flow rate is too soft or duration is too short, “Blow Abort or too Short” will be shown on the display. Acknowledge the message by pressing the button "OK" and then return the main menu. Repeat 1.1 to test again.

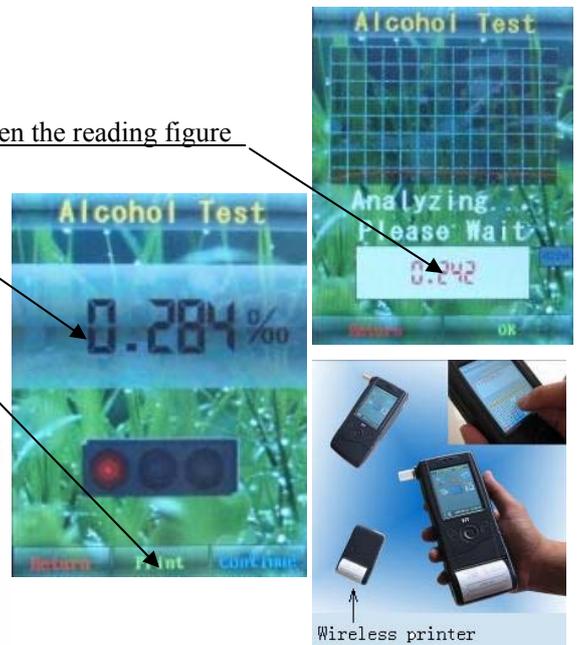


- 1.4 If the breath sample is taken successfully, the display will show

“Analyzing...
Please wait”
“Sampling” and then the reading figure

The machine will analyze the breath sample. The test result will then be shown on the display after analyzing.

- 1.5 Press “Continue” icon to start another test or press “Print” to print the test result. Press “Return” to return back into the main menu;



- 1.6 Remove and change a new mouthpiece after each test. Push the REJECT trigger to repel the mouth piece



- 1.7 Printer: The printer can be detached from the tester (Option: The detached printer can be connected to a wireless module and become a wireless printer)

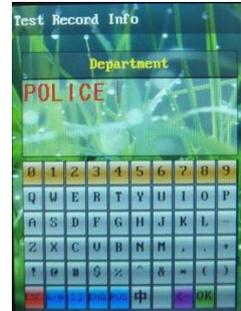
2. Alcohol Menu

2.1 Alcohol Test:



Formal test requires user key in all detailed information:

User must input the Inspector name, Inspector ID, Department, Driver Name, Driver ID, Number of Vehicle and Test Place before the alcohol testing.



2.1.1 Select the “Alcohol

Test” and enter into the alcohol test mode. User can input the required information either by touch screen or navigating keys to select & “OK” key to confirm.

2.1.2 Input the Inspector name and press “OK” go to next step

2.1.3 Input the Inspector ID and press “OK” go to next step

2.1.4 Input the Department and press “OK” go to next step

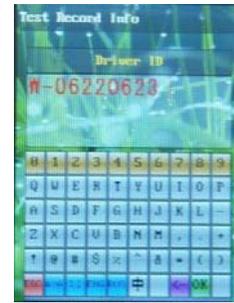
2.1.5 Input the Driver Name and press “OK” go to next step

2.1.6 Input the Driver ID and press “OK” go to next step

2.1.7 Input the Number of Vehicle and press “OK” go to next step

2.1.8 Input the Test Place and press “OK” and enter into the alcohol test automatically.

2.1.9 Repeat the 1.1 – 1.6 to do the breath alcohol test. Press “Print” to print the test result.



The printout contains:-

Test number, test place, Time, Inspector Name, Driver Name, Number of Vehicle, Temperature and Test Result.



(Caution) Residue test: Since residue will affect the test result and user should make sure no residue left inside the chamber.

The machine will detect the residue inside the chamber before each test. If residue detected, it will warn the user and abort the test. The display will show

“Error Residue detected”

User either

1. Wait for few minutes to perform the test
2. Blow fresh air to clear the residue
3. Change a new inner tube and mouth piece



Change a new inner tube and mouth piece

If test time above 30 minutes, please change a new inner tube or allow the device to rest for 3 minutes.

2.2 Alcohol Setting (Suitable for Service Center only):

Select the “Alcohol Setting” menu, and input the supervisor password. Then, shows the sub-menu as following: Alcohol Unit, Alcohol Alert, “mg/L: Permillage”, Reset Test Times and Maximum test Times.

① Alco Unit Setup

Set the unit to Permillage (%BAC), Percentage (%BAC) and mg/L.

② Alco Alert Setup

Alert level: BAC2(0.2%BAC) , BAC3(0.3%BAC) , BAC5 (0.5%BAC) and BAC8 (0.8%BAC)

③ “mg/L” Setup: Convention ratio setting (mg/L Vs permil): 2.0; 2.1; 2.2 or 2.3.

④ Reset Test Times:

Reset the number of time of test being done. After calibration, this number will reset to zero and alcohol test can be continued. If the LCD display shows "The period of validity is overtimes!", it is required to reset this test times.



⑤ Max Times:

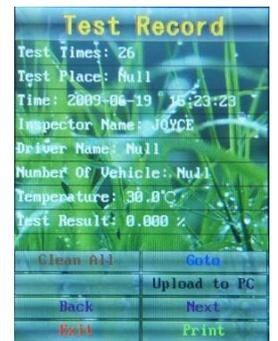
Use can adjust the Test Times and set Maximum number of Test Times.

2.3 Alcohol Calibrate:

Enter the calibration mode by input the supervisor password together with a hardware key. Only allowed to perform this function by FiT or FiT Authorized service center (The detailed calibration procedure will only provided to FiT authorized dealer or service centre.)

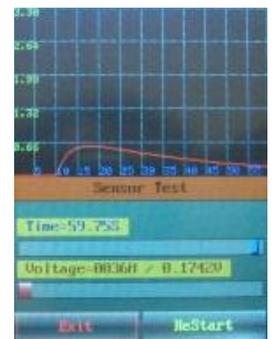
2.4 Test record:

- 2.4.1. Review all records by pressing “Back” or “Next” icon.
- 2.4.2. Go to: input the test number to search the test result of the desired number of test
- 2.4.3. Print: print out the test record providing the printer being connected
- 2.4.4. Clean all: Clear or delete all records.
- 2.4.5 Upload to PC: connect the computer using FiT download cable, open the PC application software and press upload. Detail please refers to the data upload software manual.
- 2.4.6. Exit: return to previous menu.



2.5 Sensor Test:

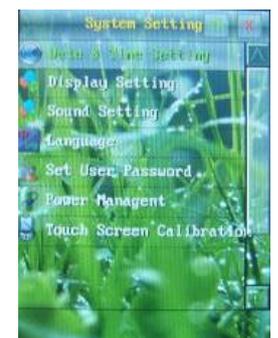
Press Restart and blow **alcohol breath** (about 0.05%BAC) into chamber through the blow tube for about six seconds and observe the sensor sensitivity & waveform as attached. If the cure is a straight line, it means the sensor already lost the sensitivity and need to change a new sensor.



3. System setting:

Press the  to enter into the system setting mode:

- 3.1 Date & Time Setting: User can set the date and time and confirm by pressing “OK” key
- 3.2 Display Setting: User can set the background image & background.
- 3.3 Sound Setting: User can set the Click sound and Key tone.
- 3.3 Language: English, Chinese and Russia option.
- 3.4 Set User Password: User can set the user password. The minimum digit of the password is one-digit and the maximum is eight-digit. After setting the password, all menus require the password to access (except password is 00000000).



Caution: User should take care the password. User can only ask FiT service centre to reset the password if user forgot it. Service centre may charge for this service.

3.5 Power Managent: set the period of power auto off and backlight time

3.6 Touch Screens Calibrate: When the touch screen setting shift, it can be re-calibrated. If the touch-screen has been corrupted, press and hold the screen for about 5 seconds in the system adjustment mode, it will automatically enter the touch screen calibration menu. Follows and touches the five subsequence red "+" tags. After setting, it will automatically return back to main manual.

4. Misc

4.1 Real Time: Shows Real Time details.

4.2 Calendar: Shows Calendar details.

4.3 Calculator: Basic calculator function.

4.4 Power Info: Shows Power Info details.

4.5 System Info: Show FiT333 detail information in display such as:

Device Name, Device SN, CPU Clock, ROM Version, ROM Date and ROM ID.

4.6 File Download: Service centre use ONLY.



(Caution: if this mode work is activated, it can only be terminated by cutting off the main power.)

5. Low temperature operation(less than -5°C)

Change the wireless printer module as following.



Use the provided car adaptor and connect to car cigarette plug.
Then use the wireless printer to printing the test result as following.



Caution: Keep the wireless printer in warm area. (inside the car)

6. Software Update (only suitable for FiT service centre)

7. Accessory:

Standard accessory	
Skin sheath(1pcs)	09Y03672
Writing pen(1pcs)	08Y02638
Hand strip(1pcs)	08Y03335
USB Car adaptor(1pcs)	09Y03825
charging seat(1pcs)	09Y03822
Car adaptor(1pcs)	09Y03824
Power adaptor(1pcs)	09Y03823
Big mouthpiece(1pcs)	09Y03821
Printing paper(4pcs)	09Y03826
Mouthpiece(25pcs)	07Y02049
Use manual(1pcs)	09Y03828
Option accessory	
Inner tube	09Y03647
Metal case	09Y03928
Accumulators 1.2VAANi-H (2400mAh or above) (4pcs)	09Y03684
Hardware key	
PC download cable	09Y03827

8. Specification

1. LCD : TFT 3.2" TFT QVGA display with touch panel
2. Range : 0.0%BAC to 4.0%BAC
3. Measurement precision: Standard deviation $\pm 0.5\%$ BAC or $\pm 5\%$ of the measurement (Room temp.) Drift: typically $< 0.8\%$ of the measurement value/month
4. Voltage: 4 *AA 1.2V Ni-H (2400mAh or above) rechargeable battery.
5. Operating Temperature: -20°C to $+70^{\circ}\text{C}$ (0°C to $+40^{\circ}\text{C}$ for optimum operation)
6. Dimension: : $\sim 188*78*33$ (mm)
7. Weight: 300g (net weight)

9. Calibration:

Does the FiT tester require calibration? Yes. While some 'novelty' breathalyzers cannot be recalibrated, serious devices such as the FiT tester must and can be recalibrated to ensure consistent accuracy. Consumers should be wary of units that cannot be calibrated as their accuracy will eventually waver. First innovation Technology provides a calibration service which can be organized by e-mailing support@group-fit.com.

10. How often should I re-calibrate the FiT tester?

The FiT tester can remain accurate for 6 months of use. The more frequent the use, the more the unit will need to be calibrated. According to D/N31051, we recommend recalibration on a 6 monthly (or earlier) basis to ensure maximum accuracy.

NB* It is important to observe the recommended 20 minute pause without consuming any alcohol, cigarettes or anything else before testing. Failure to do this can shorten the life of the sensor. In such cases, the sensor can be permanently damaged or may need more frequent calibration. This user manual should be read carefully for information on caring for the unit sensor.

User can have a fast sensor that to see whether the sensor is in good condition. (Please refer section 2.5)

Many factors (e.g. environment gas residue, smoke & various smell in human mouth, etc...) may affect the BAC level, so the readings are For Reference Only. Neither the reseller nor manufacturer accepts any liability arising from the use of the unit. Don't drink before you drive!

Made in china.