

# **MODEL:** Mercury

# **Instruction Manual**



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# **STRUCTURES**



Operator needs to read operation manual and familiar with the operation before using. Retain the manual for future reference.

# **INSTRUMENT FEATURES**

# PLEASE REFER TO DIAGRAME ON PAGE 1

### 1. DISPOSABLE MOUTHPIECE

For sanitary reason, each mouthpiece is individually packed and sealed. New mouthpiece should be attached to sample port for each test to prevent any contamination from the previous sample.

### 2. SAMPLING CUP

Sampling Cup is reusable. Attach sampling cup to the sample port. Do not touch the sampling cup with the mouth while providing a breath sample. Remove the sampling cup after use and clean it by alcohol for next use.

# 3. BUTTON TO REMOVE MOUTHPIECE

For sanitary reason, the mouthpiece can be removed by push the button underneath the mouthpiece.

4. TOUCH SCREEN DISPLAY

A touch screen display that will display corresponding instructions and alcohol concentration of the subject being test. Select the icons and buttons on the screen by using the stylus pen provided.

### 5. ON/OFF BUTTON

Press and hold the On/Off button to turn on or turn off the device.

### 6. EXTERNAL POWER CONNECTORS

Connectors for 12V to 6V car (cigarette) adapter.

### 7. USB connector

Use an USB cable to upload test records stored in the memory and upgrade the software.

# **ICON DESCRIPTION**



1	Weekday Indicator	5	Standard Test
2	Time Indicator	6	Test Records
3	Battery Indicator	7	Setting
4	Screening Test without Input	8	Date Indicator



Previous Screen/Cancel



Next Screen/Confirm



Main Screen





Repeat Test

# **TOUCH SCREEN CALIBRATION**

If the touch screen is not sensitive enough, please calibrate the screen. Press and hold the On/Off button (right button) and then press the Function button (left button) immediately. Follow the instruction on the screen to calibrate the screen.

# INTRODUCTION

It is a state of the art instrument used to detect Ethyl Alcohol from a valid breath sample. It uses an electrochemical fuel cell to measure the concentration of alcohol from the sample of the expired breath from a human subject. If alcohol is present, a corresponding voltage is generated from the fuel cell, which is proportional to the alcohol content of the sample provided by a human subject. This voltage is then sent to the CPU and converted to a subject's BAC which is then displayed.

#### **Instrument Features:**

- 1. Test record storage is more than 10,000 entries depending on the length of the records being stored. Capability of uploading test records for record keeping.
- 2. Use disposable mouthpieces or sampling cups to prevent foreign matter from entering.
- 3. A plastic case is included for storing the device and accessories for easy transport. When not in use, the device and accessories should be stored in this plastic case to prevent damage.
- 4. Ability to run as often as needed. Recovery time between tests on average is 30 seconds between positive tests.
- 5. Powered by 4 AA alkaline batteries. Batteries are located behind the sliding cover on the back of the device. The level of power left in the batteries is indicated on the screen. A cigarette plug adapter is also included for use by the operator.
- Storage temperature range is -25°C to 70°C, storage humidity is 15% to 90%, inappropriate storage of the device will shorten the lifespan of the fuel cell sensor.

# **OPERATING INSTRUCTIONS**

# **Pre-test Conditions**

- 1. Operating temperature range is -10°C to 50°C. Use within this temperature range will limit condensation from a subject breath to insure an accurate an accurate reading from a breath sample.
- It is recommended that the operator to observe a subject for about 20 minutes before administering the breath test to insure that nothing is consumed or expelled from the mouth of the subject. Following this procedure will eliminate reading from mouth alcohol.



# **Standard Test with Input**

- 1. Attach a disposable mouthpiece onto the sample port.
- 2. Input information by a stylus pen.

NOTE: Maximum 16 characters for each input.

- 3. When displays "Please Blow", take a deep breath and blow until BEEP tone stops.
- 4. Test result displays on the display.
- 5. If printer is using, select is to print the test result.
- 6. Select

to start another test.

- 7. If testee did not blow within 30 seconds, tester can select "Refuse" to confirm the testee refused to do the test; or select "Test Again" to allow testee to do the test again.
- 8. If testee failed to give a valid breath sample, tester can select "Discontinue" to confirm; or select "Test Again" to allow testee to do the test again.
- 9. A passive test can be performed by select "Passive" during the testee is blowing.
- 10. Push the button underneath the mouthpiece to remove the mouthpiece.



# **Screening Test**

- 1. Attach a sampling cup onto the sample port.
- 2. When displays "Please Blow", take a deep breath and blow to the sampling cup until BEEP tone stops.
- "Alcohol Detected" or "No Alcohol" displays on the display. 3.
- A passive test can be performed by select "Passive" during the testee is 4. blowing.
- Select 🙋 to start another test. 5.
- If "Alcohol Present", use mouthpiece to perform a standard test to obtain an 6. accurate test result with reading.
- **NOTE:** Screening Test is only used for screening tests, it is to check whether alcohol is found in the breath sample. An accurate test result can only be obtained by standard test.
- NOTE: Test records of the screen tests cannot be printed nor stored.



# **Test Record**

- 1. Over 5,000 test records can be stored, depending on the length of the records.
- 2. Individual test record can be printed by selecting



3. Use  $\bigcirc$  or  $\bigcirc$  to move to the previous or next record.





### 1. Date & Time

- i. Set correct Date and Time.
- ii. Select "Update" to confirm.

# 2. Auto Off

- i. Select time limit to turn off the device automatically.
- ii. Select 💽 to confirm

# 3. Print

- i. Select "Auto Print" to print the result automatically after each test without selecting "Print".
- ii. Select number of printout copies needed for test result equal to 0 (=0) and exceed 0 (>0).

iii. Select 💽 to confirm.

**NOTE:** If no printout needed for a test result equal to 0, select "0" for "=0".

### 4. Cali

- i. When the screen displays "Calibration Needed", send the device for calibration.
- ii. A password is needed for calibration to ensure calibration is performed by eligible persons.
- iii. Please refer to Calibration Instruction.

# 5. Advanced Setting

- i. Only legitimated persons are allowed for advanced setting.
- ii. A Password is needed.
- iii. Please refer to Advanced Setting Instruction.

# 6. Keyboard

i. Disselect "Keyboard" to turn off the keyboard.

# PRINTER

A Bluetooth thermal printer can be used with the device.



# PRINT

If a printer is equipped, press the ON/OFF button on printer, and the indicating lamp should turn on. If an alcohol tester with the print feature is used, make sure the S/N number on the printer is the same as the tester. To turn off the printer, press and hold the ON/OFF button on printer until the indicating lamp flash and off.

# **INSERT PAPER**

Pull the handle. When inserting a new roll of paper, make sure glossy side of paper is kept close to dentation.

NOTE: If nothing can be printed, change the side of the paper and try again.

# BATTERY

Use a lithium battery with capacity of 1800 mAh. A charger is provided. The charger can be powered by the car battery with a 12V adapter provided.

# STANDARD TERMAL PAPER SIZE

6cm X 630cm







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