ALCOTECTOR®

MODEL BAC-100

Instructions Manual
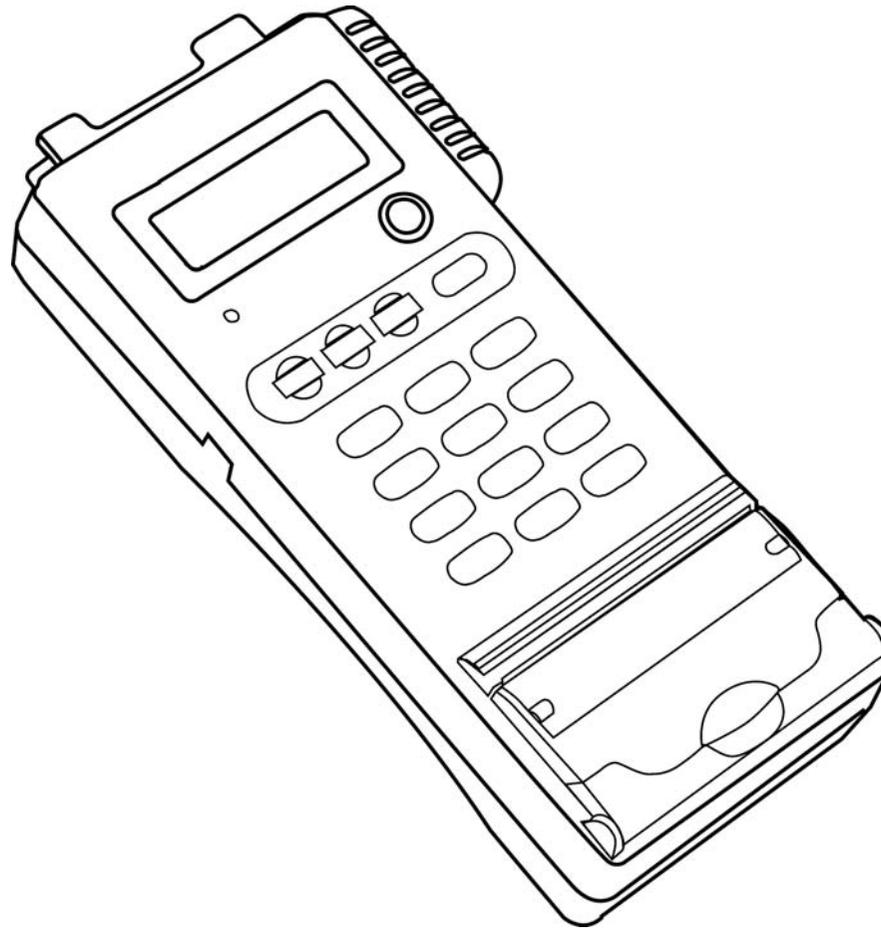
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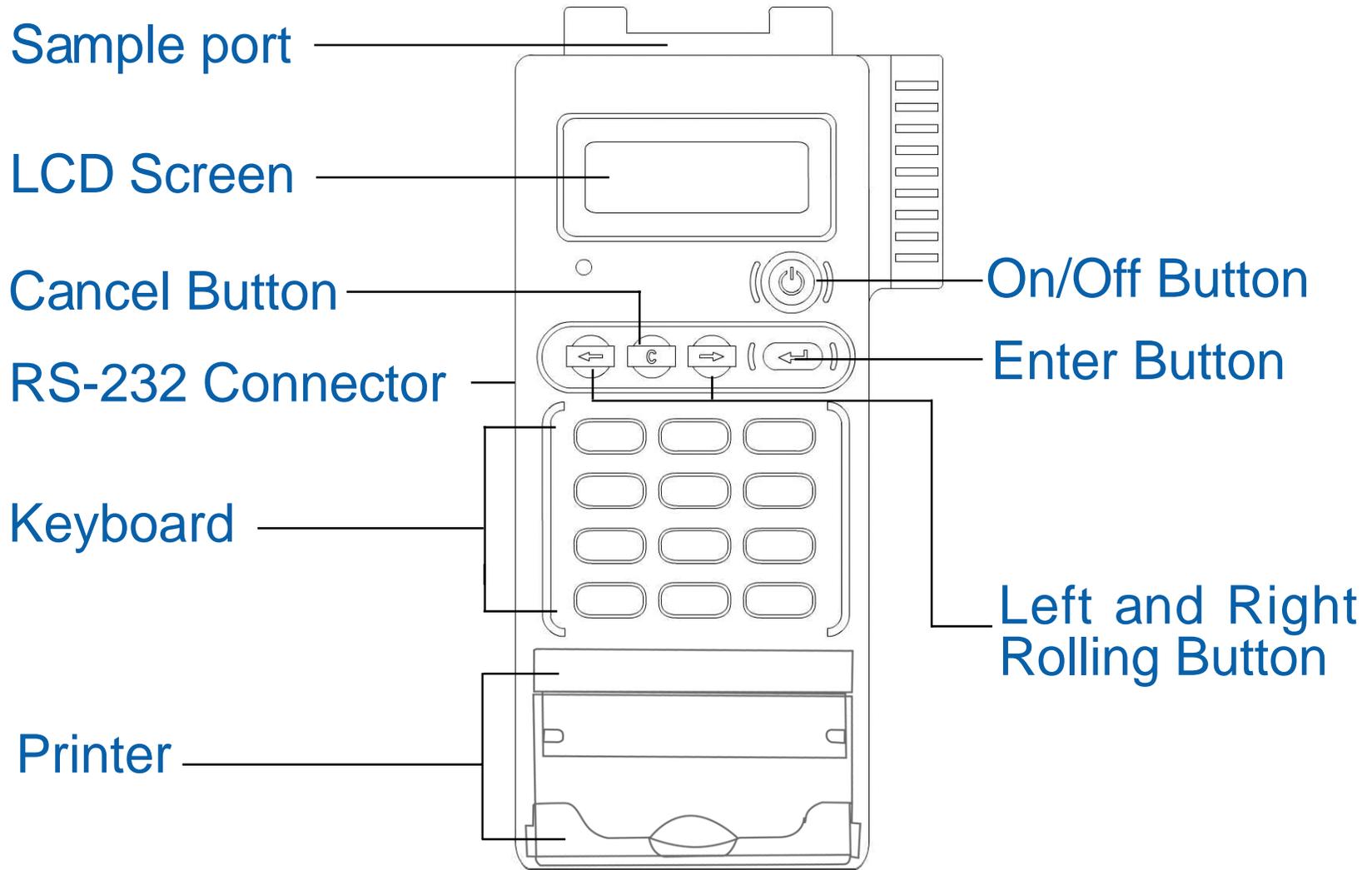
OPERATOR NEEDS TO READ OPERATORS MANUAL AND BECOME FAMILIAR WITH THE ABOVE FEATURES BEFORE USING AND RETAIN THE MANUAL FOR FUTURE REFERENCE.

INSTRUMENT FEATURES

PLEASE REFER TO DIAGRAMS ON PAGE 2

1. **DISPOSABLE MOUTHPIECE**
   For sanitary reasons each Guth Ultrap mouthpiece is individually packaged and sealed. Anew mouthpiece should be attached to sample port of the Alcotector for each test to prevent any contamination from the previous sample. Attach the Guth Ultrap mouthpiece to the sample port of the Alcotector.

2. **LCD DISPLAY**
   A highlighted LCD display that will display correspoding instructions and alcohol concentration of the subject being tested. Ability to change the contrast of the display for easy readout for the operator depending on lighting conditions.

3. **ENTER BUTTON**
   Use the **ENTER** button to manually take a sample if subject is unable to provide a valid sample when **MANUAL TEST** is highlighted on the display. The **ENTER** button is aso used by supervsiors to access various commands in the menu screen.

4. **ON/OFF BUTTON**
   Press the ON/OFF button to turn the ALCOTECTOR on or off.

5. **EXTERNAL POWER CONNECTOR**
   Connector for 12v car (cigarette) adapter or optional 12v AC power transformer.

6. **RS-232 CONNECTOR**
   Use an RS-232 cable to upload subject tests stored in the Alcotector memory and access supervisory menu functions.

7. **Key Board**
   Use keyboard to input the character into the Alcotector.

8. **Cancel Button**
   Use keyboard to delete the character you inputted or cancel the action you did.

INTRODUCTION

The ALCOTECTOR is a state of the art instrument used to detect Ethyl Alochol from a valid breath sample. The ALCOTECTOR uses an electrochemical fuel cell to measure the concentreation of alcohol from the sample of ex-pired breath from a human subject. If alcohol is present, a corresponding voltage is generated from the fuel cell, which is proportional to the alcohol contect of the sample provided by a human subject. This voltage isthen sent to the CPU and converted to a subject's BAC which is then displayed on the display of the ALCOTECTOR.

Instrument Features:

1. Test record storage can be as high as 2000 entries depending on version of software being used. Capability of uploading subject tests for record keeping.

2. Use of the Guth Ultrap disposable mouthpiece to prevent foreign matter from entering ALCOTECTOR.

3. A hard metal case is included for storage of the Alcotector and accessories for easy transport. When not in use, the Alcotector should be stored in its metal case to prevent damage from occurring.

4. Ability to run as often as needed. Recovery time between tests on average is 30 seconds between positive tests.

Powered by 4 AA rechargeable batteries. Batteries are located behind sliding cover on the back of the unit. The Alcotector will indicate battery power by displaying a picture of the battery and level of power left in battery. A cigar plug adapter is also included for use by the operator.

PRE-TEST CONDITIONS

Operating temperature range of the Alcotector is 0°C ~ 40°C. Use of the Alcotector within this temperature range will limit condensation from a subjects breath to insure an accurate reading from a breath sample.

It is recommended that the operator observe the 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 readings from mouth alcohol.

Eliminate all sources of Radio Frequency interference (i.e. transmitting portable radios; cell phones; etc.) when conducting a subject test with the Alcotector.
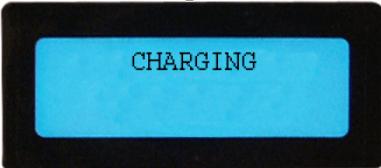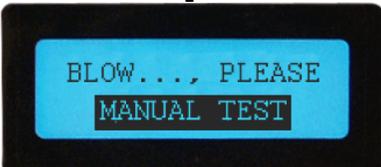
OPERATING INSTRUCTIONS (KEYBOARD NOT IN USE)

```
ALCOTECTOR<V100>
    BAC-100
```

1. Press "On/Off" button to turn on the Alcotector. Software vision and model number displayed on screen.

```
09/14/2004
23:22:42
```

2. Date and time displayed on screen.

```
CHARGING
```

3. Alcotector take around ten seconds to charge and "CHARGING" displayed on screen.

```
BLOW..., PLEASE
MANUAL TEST
```

If no blow

```
NO BLOWING
Refuse    Repeat
```

```
NO BLOWING
<Enter> to print
```

If testee did not blow, user can select "Refuse" and press "Enter" button to print.
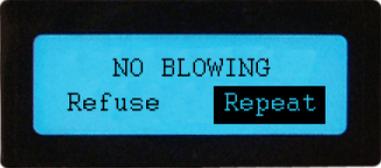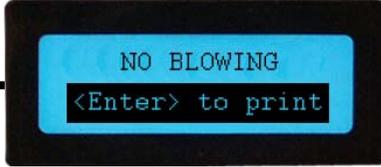
```
NO BLOWING
Refuse    Repeat
```

4. When Alcotector displays "BLOW……, PLEASE", connect disposable mouthpiece to Alcotector and instruct subject to take a deep breath and blow until BEEP tone is heard.
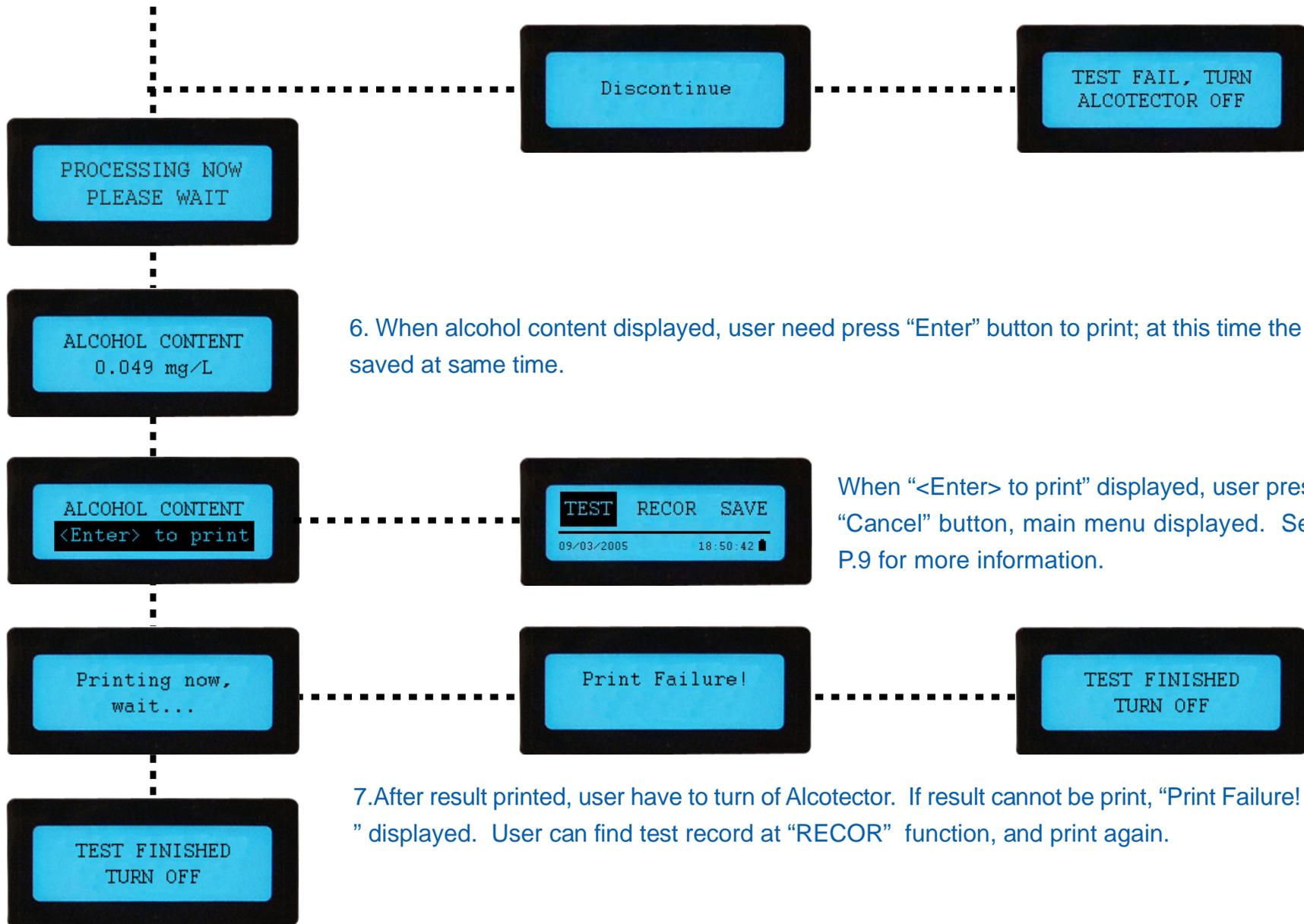
If testee did not blow, user can select "Repeat" and test again.

OPERATING INSTRUCTIONS (KEYBOARD NOT IN USE)

```
Discontinue
```

```
TEST FAIL, TURN
ALCOTECTOR OFF
```

```
PROCESSING NOW
PLEASE WAIT
```

```
ALCOHOL CONTENT
0.049 mg/L
```

6. When alcohol content displayed, user need press "Enter" button to print; at this time the result saved at same time.

```
ALCOHOL CONTENT
<Enter> to print
```

```
TEST   RECOR   SAVE
09/03/2005          18:50:42
```

When "<Enter> to print" displayed, user press "Cancel" button, main menu displayed. See P.9 for more information.

```
Printing now,
wait...
```
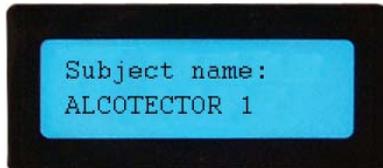
```
Print Failure!
```

```
TEST FINISHED
TURN OFF
```

7.After result printed, user have to turn of Alcotector. If result cannot be print, "Print Failure! " displayed. User can find test record at "RECOR" function, and print again.

```
TEST FINISHED
TURN OFF
```
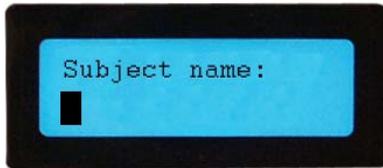
KEYBOARD

To activate "Keyboard" see P. 9.

When "Keyboard" has been activated, use should see the following screen after turn on the Alcotector.

To input letter and number:

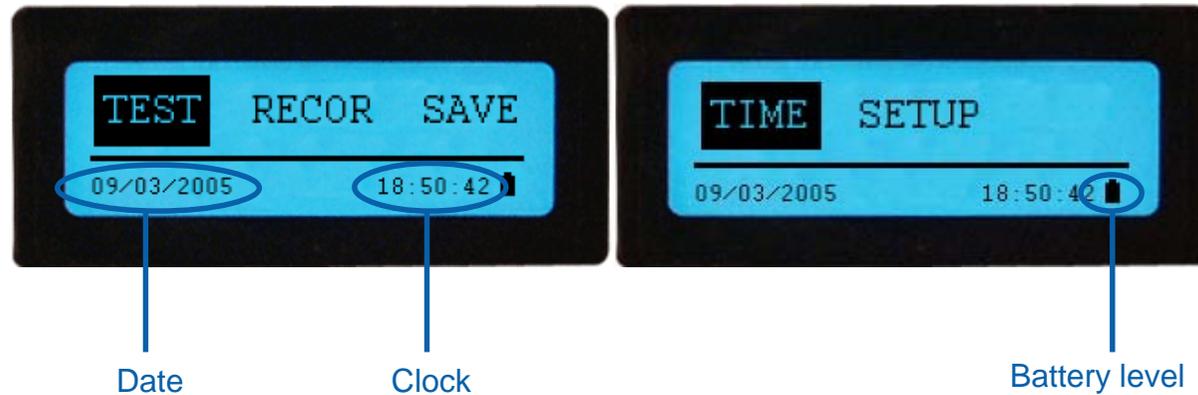"A" = press number 2 two times

"L" = press number 5 four times

"   " = press number 1 two times

"1" = press number 1 one time

To cencel input letter or number, just press "Cencel" button.

OTHER MENU FUNCTIONS

To access supervisory functions, the C2H5OH must be turned off. Press and hold the "Right Rolling" button while turning the BAC-100 on. After several seconds, the menu screen will appear on the display. To access a menu option, simply press the FUNCTION button until the function you want to perform is highlighted and press the ENTER button. A description of the menu functions is provided below.

TEST   RECOR   SAVE

09/03/2005   18:50:42

TIME   SETUP

09/03/2005   18:50:40

Date   Clock

Battery level

RECORD
BAC-100 will display all data from all subject tests. Use left or right rolling button on keypad to display previous or later test records. When finished reviewing records, press cancel to return to main menu.

Record date

Record number ——— <000004> 09/03 16:32 ——— Record time

C0.051gms%

Concentration of the result ——— No.WAT89EC-1 ——— Car/vehicle number

ID-GUTH

Driving licence/Badge number

Other recorded information not showing on the record screen.

OTHER MENU FUNCTIONS

SAVE
Using the RS-232 cable you can upload subject tests from the BAC-100 using available software to a spreadsheet on your computer.

TIME
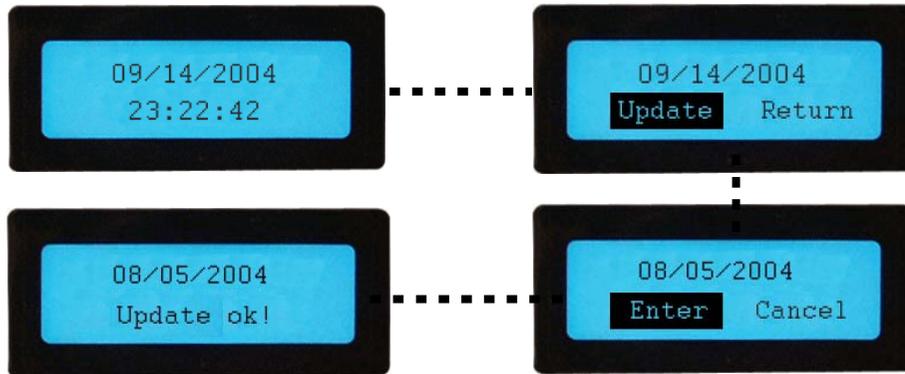
To update the time, press the ENTER button. Highlight update and press the enter button. Press the FUNCTION button to move the high-lighted cursor to the number you want to change. Using the keypad displayed on your computer, change the date and time. When you are finished, press the ENTER button and display will show "Update OK".

SETUP
There are 4 options under the "SETUP" menu and can be selected by using the "FUNCTION" button to highlight the desired option.

1. ALERT CONC change the tone depending on the concentration level detected by the BAC-100.
2. PRINT COPIES Does not apply to the WAT unit as no printer is used.
3. CONTRAST use this option to change the contrast of the display.
4. KEYBOARD use or no use keyboard.

For use of SETUP functions, please see "Master User Manual" or contact your local agaent.

PRINTER

Build-in pinter is a patent technologic patent by Well Company.

Handle
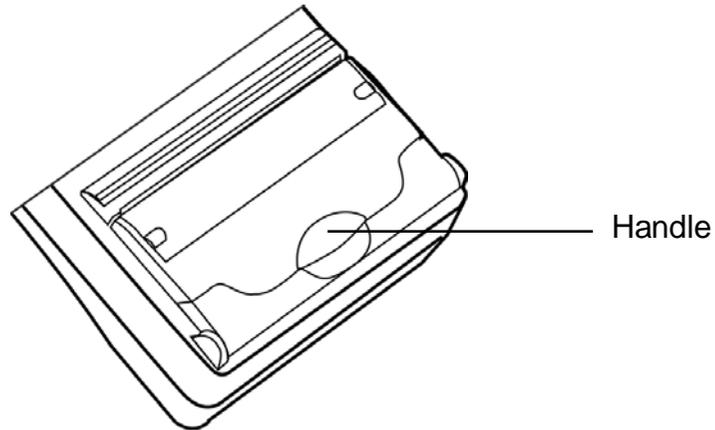
CAUTION! Please use 4 pieces rechargeable batteries. Batteries capacity no less than 2100 mAh. Customer can buy a high quality rechargeable battery on www.well-co.com. The rechargeable batteries that power the Alcotector or printer must be disposed of properly and may need to be recycled. Refer to your battery's label for battery type. Contact your local recycling centre for proper disposal methods. Never dispose of batteries in a fire because they may explode.

CHANGE PAPER
To change paper, pull the handle. When insert a new roll of paper, make sure glossy side of paper is keep close to dentation.

BATTERY LIFE
Four full charged 1800mAh rechargeable batteries can print around 30 meters paper.   When battery power is under the standard output power, the printer indicating lamp signal three flash a train.

Guth Laboratories, Inc.

Website: www.guthlabs.com

Well Company

Website: www.well-co.com

C4 Development Ltd.

Website: www.c4.com.hk