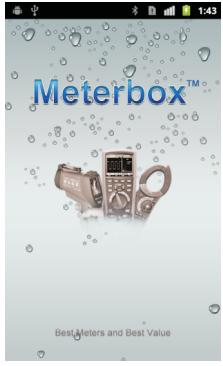
Meterbox User Manual (for Android)

Please read this manual before switching the unit on.
Important safety information inside.

Contents

Meterbox is a smart mobile software for meters' cloud computing. Using this software, the measured data can be transmitted to smart mobile via Bluetooth. Users can share the meter data with cloud storage and cloud computing of the meters' cloud service by a smart mobile. These can satisfy the continuous growing on-demand of business in the mobile era, and help users to achieve the functions which other meters can't realize.



a. Back Splint of Meters:
Meterbox can make the ordinary meter becomes an industrial high-end meter, realizes some functions (status trend capture, remote duty, time measurement, event alarm, etc.) which only high-end meter does. Meanwhile, it makes the complex measuring work like playing games, free and relaxed.

b. Friendly User Interface:
Provide the meter measuring panel; Display real-time measuring curve; Review historical data; Analyze meter data; Access meter cloud service conveniently, realize the data multipoint sharing and powerful calculation capacity as a mainframe; Powerful function of data export which convenient for different uses measured data.

c. Meter Cloud Storage:
Provide virtual storage and virtual computing services of the meter on demand. Users can realize the meter data centralized management and multipoint sharing by connecting Meter Cloud, and can obtain powerful calculation capacity as a mainframe, manage, share and protect business data safely and properly.

d. Meter Cloud Computing:
Large number works of computing and storing can be accomplished in meter cloud server, and the user's business computing can be added and deleted through the network, therefore, mobile can break through the limit of software function, computing power, storage capacity to achieve the powerful calculation and storage function as a mainframe.

1.Meter Operation
The meter function with Meterbox is the same operating as a traditional meter. When use all sorts of these professional meters, users can feel familiar as using his own mobile. The meter communicates with Meterbox via Bluetooth. Power on the meter, and open meter Bluetooth, the meter enters into Bluetooth communication mode. When the mobile Meterbox is correct matching with the meter and connecting successfully, Meterbox can measure the meter data.

2.Meter Connection
Meterbox supports various measuring meter. To connect the meter, Meterbox have to enter the Meterbox's **Measure** interface  . Users choose one meter from the searched bluetooth meter they are using.
Click one item of the searched meter list, (the meter has entered into Bluetooth mode), Meterbox will match with bluetooth meter (the default pairing code: 1234 or 0000). When matching successfully, Meterbox combines with the meter to be a **Cloud Meter** and enter **Measure Panel**.

Notes: Some Android systems like version 2.3, it can't support other software to pair with meter automatically, so you need to enter the phone's Settings/wireless and network panel to turn on the Bluetooth, then enter the Bluetooth Settings panel to start searching device, then click the device to pair with it.

3.Measurement Mode

Meterbox **Cloud Meter** supports the following measurement mode:

- **Local meter mode**
- **Cloud meter mode**
- **Cloud meter local mode**

To change measurement mode, please enter the Meterbox's **Setup** interface 

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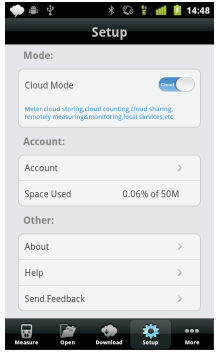


Users click **Cloud Mode** toggle to show 

to enter **Cloud meter local mode** and **Cloud Meter** mode; while click **Cloud Mode** toggle to show 

to enter **Local meter mode.**

a. Local meter mode:

When the user in an area without signal coverage (GPRS/3G/WiFi), or just want to operate in local mode, users enter **Local meter mode**. In local mode, data measured by the meter transmitted to Meterbox via Bluetooth and stored in the storage medium of the smart mobile. As the limitation of storage and computing analyzing capacity of a phone, Meterbox cloud function can't be achieved. **Local meter mode** can provide meter data measuring, presenting, limited storing, simply analyzing, etc.

b. Cloud meter mode:

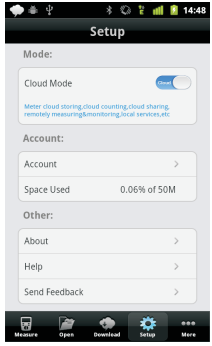
The mode needs to connect Internet. When Meterbox enters into **Cloud meter mode,** remote cloud server will be connected, then a powerful **Meter Cloud System** is created. Cloud icon will be shown in **notification bar** of the smart mobile. Data measured by the meter will be transmitted to the **Meter Cloud Server** in real-time to storage and computing, which can be real-time measured in remote. **Cloud meter mode** can provide meter cloud storing, cloud counting, cloud sharing, remotely measuring & monitoring, local services, etc.

c. Cloud meter local mode:

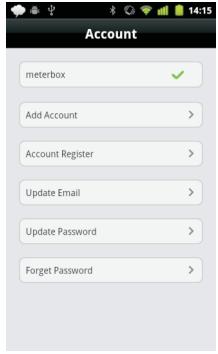
Meterbox enters in **Cloud meter mode**, while the user in an area without signal coverage (GPRS/3G/WiFi), Meterbox enters into **Cloud meter local mode**. Gray Cloud Local icon will be shown in **notification bar** of the smart mobile. When Meterbox reenters signal coverage (GPRS/3G/Wifi) area, Meterbox immediately becomes **Cloud meter mode**.

4.Connect Meter Cloud

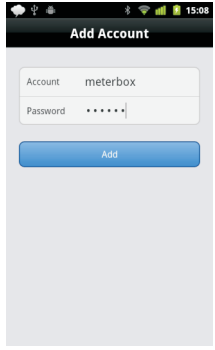
To connect **Meter Cloud server**, users need regist an account for **Meter cloud**, ensure the meterbox into **Cloud mode** and be in an area with valid signal coverage (GPRS/3G/WiFi). When Meterbox is opened, will be connected to **Meter cloud** automatically, Meterbox **Cloud mode** be entered, Cloud icon will be shown in **notification bar** of the smart mobile. To add, regist an account, update email and so on, please enter the Meterbox's **Setup** interface .



Users click **Account** item to show **Account** interface,

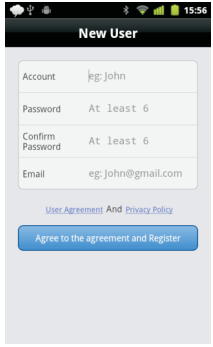


a. Add Account:
Users click **Add Account** to show **Add Account** interface,



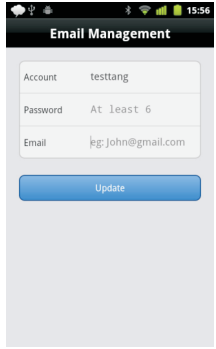
To add one **Meter Cloud** account which you have registered, User inputs account name and password, and click **Add** button.

b. Account Register:
Users click **Account Register** to show **New User** interface,



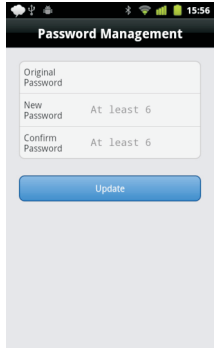
To regist one **Meter Cloud** account, User inputs account name and password, email, and click **Agree to the agreement and Register** button. Please read **User Agreement** and **Privacy Policy** carefully, when user click **Agree to the agreement and Register** button, users are to admit those clauses and obey to relevant laws and rules. If users are disagreed with those terms, please do not use this software system.

c. Update Email:
Users click **Update Email** to show **Email Management** interface,



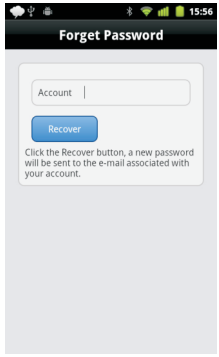
To update the current account's Email, User inputs account name and password, and needs to be updated Email, click **Update** button.

d. Update Password:
Users click **Update Password** to show **Password Management** interface,



To update the current account's password, Users input the current account original password and password that want to be updated, click **Update** button.

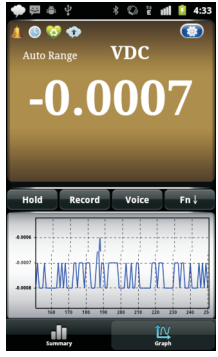
e. Forget Password:
Users click **Forget Password** to show **Forget Password** interface,



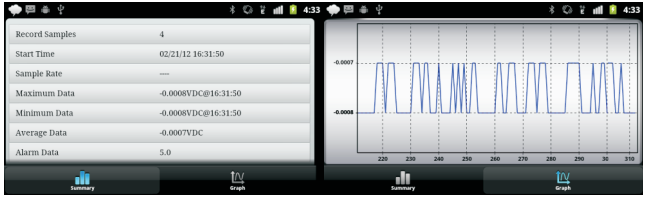
To recover the current account's password which has forgotten, User inputs the account name, click **Recover** button, a new password will be sent to the e-mail associated with your account.

5.Data Recording

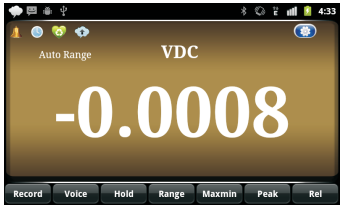
To record data, please make Meterbox connect the meter and enter **Measure Panel**, which displays meter data synchronously.



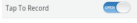
When mobile is in left landscape mode, Meterbox displays **Summary/Graph** in full screen, user can have a good view on the statistical data and real-time curves;



Otherwise, mobile is in right landscape mode, Meterbox displays **Figure** view in full screen, the measured data can be viewed from a relative long distance.



On status bar  , prompt the current Meterbox measuring setting.
Alarm function  **:** Indicates alarm function activated;
Timing record function  **:** Indicates timing record function activated;
Screen sleep function  **:** Indicates screen sleep function activated;
Automatical data upload function  **:** Indicates automatically data upload function activated.

Meterbox records meter data by two recording modes: **Continuous Recording** and **Single Point Recording**, which can be switched through **Meter Setup** interface 

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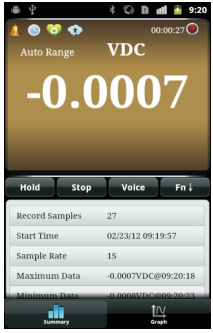
a. Continuous Recording: Choose continuous recording when real-time data monitoring is needed. Users can click button **Record** on function button bar 

, Meterbox start continuous record.



Measure Panel will display red indicator and elapsed time

b. Single Point Recording: Single point recording is used when crucial data is needed. It saves memory and is convenient to check under this mode. Click button **Record** on function button bar 

to start single point recording. Each recording data point must click button **Record** one time. To stop single point recording, Users click 

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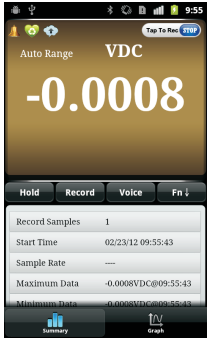


When Recording, users can use function button bar 

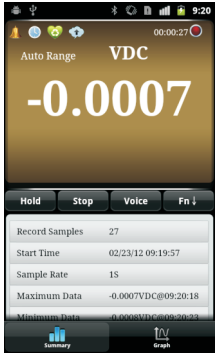
or unfolded 

(by click **Fn↓**) to control meter measuring manner.

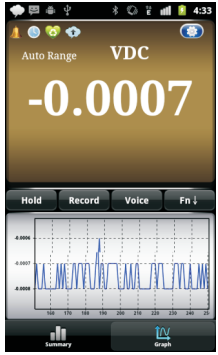
a. Hold/Unhold: Keep the certain measured data on view;
b. Record/Stop: Start/Stop data recording;
c. Voice/No Voice: Toggle the voice report function;
d. Fn↓/ Fn↑: Fold/Unfold function button bar;
e. Range: Remotely control the measurement range of the meter;
f. Maxmin/UnMaxmin: Remotely control the display of maximum, minimum and average value of the measured data;
g. Peak/UnPeak: Remotely control the peak maximum, peak minimum and peak average value of measured data;
h. Rel/UnRel: Remotely control the relative value of measured data.

Recording time, to click 

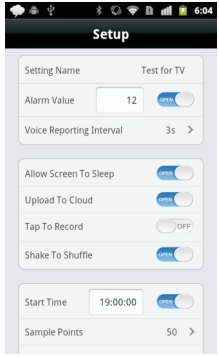
button, the **Summary** view displays recording information: **Record Samples, Start Time, Sample Rate, Maximum Data, Minimum Data, Average Data, Alarm Data**.



Meanwhile, to click  button real-time curve display on the screen accompaniedby the measured. To ensure users to check the trends of the current data points, the vertical axis will be adjusted dynamically. The curve will roll to left side when new data is measured. The horizontal axis displays the numbers of the measured data points.

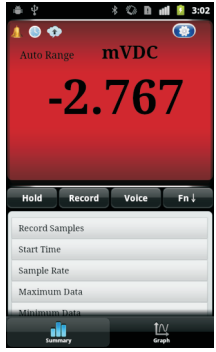


To change the measurement setting,users click  to enter **Meter Setup** interface.



a. Setting Name: A Project Name can be set, it makes users easy to check data;
b. Alarm Value: Click **Toggle** button, the screen displays 

. Click the field to enter the alarm value. When the alarm value is positive value, it will alarms if the measured data is larger than the alarm value or smaller than the negative alarm value. Otherwise, it alarms if the measured data is larger than the alarm value. When alarming, the mobile phone sounds and screen background turn red;



c. Voice Reporting Interval: Setup voice reporting interval;
d. Allow Screen To Sleep: Click **Toggle** button, the screen displays 

, it allows screen to lock by itself and save power. Re-click Toggle button, the screen displays 

, screen will not lock and it consumes power, but it makes it convenient for real-time monitoring;
e. Upload to Cloud: Click **Toggle** button, the screen displays 

. It allows screen to upload data automatically to **Meter Cloud** server. Under **Cloud mode** and successfully login, the data will be measured and uploaded at the same time. This is good for long-distance view and it also consumes network flow. Re-click **Toggle** button, the screen displays 

, data cannot be uploaded automatically to **Meter Cloud** server. Under good network connection, data can be uploaded manually;
f. Tap to Record: Click **Toggle** button, the screen displays 

, **Tap to Record Single Point Recording mode** is chosen. Re-click **Toggle** button, the screen displays 

, **Continuous Recording mode** is chosen;

g. Shake To Shuffle: Click **Toggle** button, the screen displays 

, Shake to shuffle function is activated. Re-click **Toggle** button, the screen displays 

, shuffle function is closed. Shake the mobile phone to switch the background of the screen and choose style. The Meterbox software provides six kinds of crystal background for user to choose from;

h. Start Time: Click **Toggle** button, the screen displays 

, click the field to enter the time option setup interface. Under successful connection between the meter and Meterbox software, **Continuous Regarding mode** will be activated when it is the start time;

i. Sample Points: Set expected maximal point number which users want the measured data. When overrunned, Meterbox will stop recording automatically;

j. Sample Rate: After sampling time interval setup, data will be recorded once automatically in certain periods of time under the **Continuous Recording mode.**

6.Data File

a. To check the mobile local measured meter data file, users can enter Meterbox's **Open** interface 
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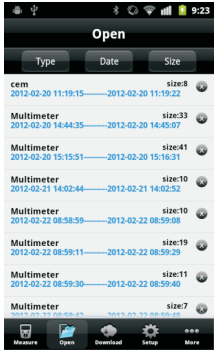
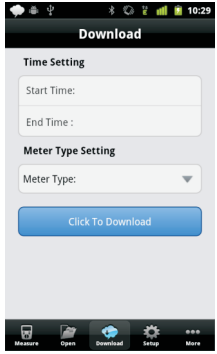


b. To check Meter Cloud data file, users can enter Meterbox's **Download** interface , choose the period of data and meter type which you want to check,

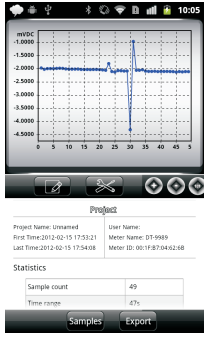


Meterbox will enter into **Data File List** interface,

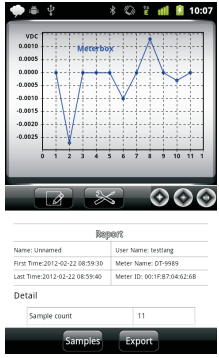
In the interface of **Data File List**, all the buffered measure data from local database or Meter Cloud will be shown. Icon indicates the data have synchronized to the meter cloud server, on the contrary, Icon indicates the un-synchronized data. Long press data file, menu will popup. To sort data file, users can click Type , Date , Size . To delete data file, users can press **Menu** button, and choose **Edit** menu, click to delete data file. To exit delete mode, users re-press **Menu** button.

7.Data Chart

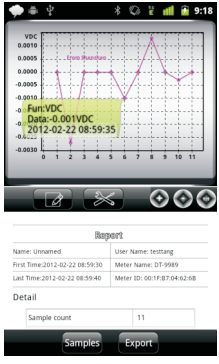
In the interface of **Data File List**, choose one data file item to view meter data curve chart and data report. Users can view by portrait screen or landscape screen;



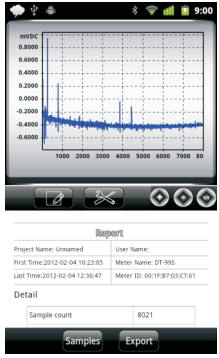
To label the chart, Users click  to add one label, and move the label to where you want to label, click  , the label will display on the chart.



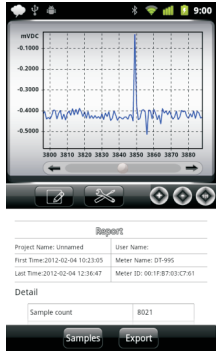
To change the chart style, users can click  to change alarm color, curve color&style, grid&label showing. Users click  to zoom curve. Users click the curve point, can display bubble which will show the detailed information for the destined point.



When showing data points overrun the screen size, the data chart will show all data curve chart.



Users touch screen, Meterbox will select the touched curve points range to show the paged data. Users can drag scroll bar or click **Left/Right** arrow  to select showing data extent.

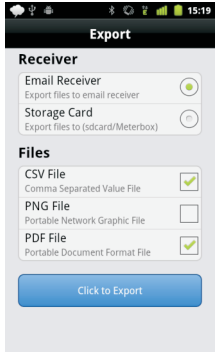


If the current data file is the data for **FFT mode** of **OSC**, Users can switch between **FFT mode** and **Return mode.**

In data **Report** view, users can check the detail mathematical statistics information of the measured data, including **Sample count, Time range, Sample Freq., Min/Max, Mean,** etc.

Users click Samples button, can display the meter data by the detailed list,

To export the data as CSV, PNG, PDF format by Email or Storage Card receiver media, Users can click Export button.



8.Demo Mode

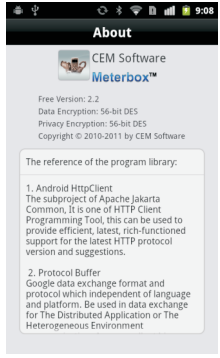
Demo Mode is for more users experiencing and sharing the functions and services of the Meterbox, also convenient for collecting users' ideas and expectations to let them participate in our product design. Demo Mode includes the measured sample data, an account, a password and the measured data for presentation. (The account just for downloading the presentation data from **Cloud Meter** sever).

Account: meterbox

Password: 123456

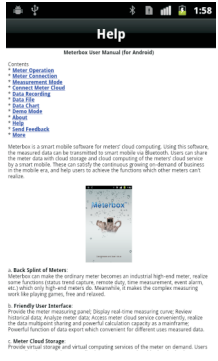
9.About

About interface contains the version information, copyright statement and relevant technical statement of the Meterbox.



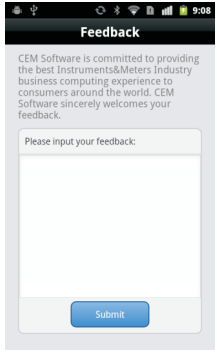
10.Help

Help interface contains this **Meterbox User Manual**, which can guide users to use Meterbox correctly.



11.Send Feedback

User can input the feedback about Meterbox experiencing and suggestions for improvement.



12.More

Current Meter: Currently Meterbox supported meter;
Other Meter Category: General Catalogue for Shenzhen Everbest Machinery Indusry Co., Ltd.(CEM).

Meterbox Software Download Link:
https://market.android.com/details?id=com.cem.meterbox.Mainwindow&feature=search_result#?t=W251bGwsMSwyLDEsImNvbS5jZW0ubWV0ZXJib3gubWFpbndpbmRvdyJd

Users can also enter "android market" home page and search "Meterbox" to download.