



USER MANUAL

SONEL MULTIMETER MOBILE

Mobile application



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Sonel Multimeter Mobile is designed for remote readout of measurement results and for controlling Sonel multimeters via Bluetooth. Please acquaint yourself with this manual in order to avoid problems in operation of the application.

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1 Getting started with the application

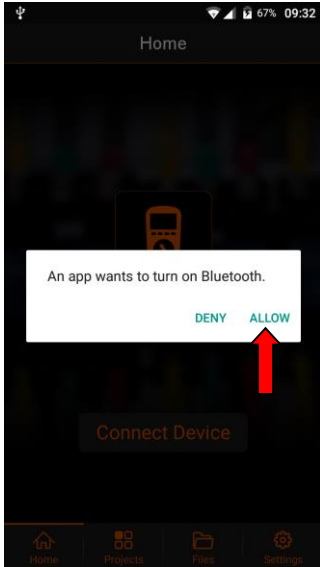
① Turn on Bluetooth communication in the meter.

② Turn on the application.

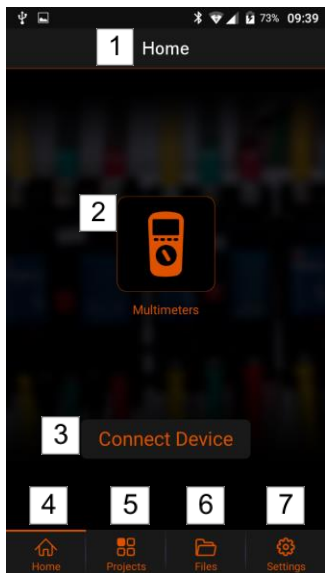


③ For the application to work properly, it must be granted access to:

- location,
- camera,
- internal memory,
- Bluetooth interface.



4



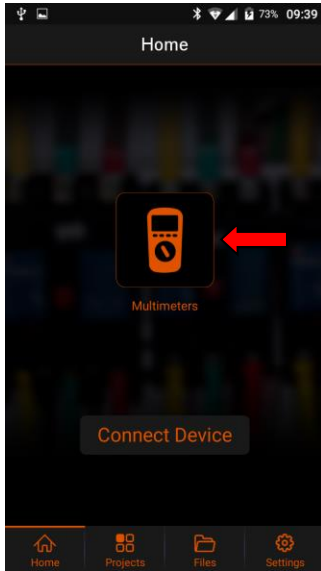
The Home screen of the application will be shown.

- 1 **Name** of the current screen
- 2 Entering **Multimeters** screen
- 3 Quick connection of the meter
- 4 Entering the **Home** screen
- 5 Entering the **Projects** screen
- 6 Entering the **Files** screen (recorded measurements and screenshots)
- 7 Entering the **Settings** screen

Double tapping **back** in the phone shuts down the application.

2 Menu of multimeters

1



Select **Multimeters** icon at the Home screen.

2

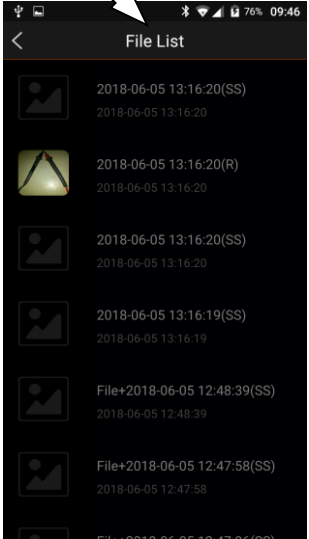
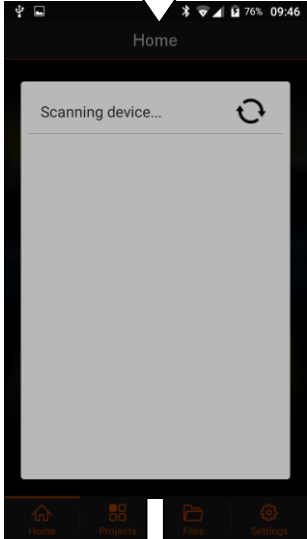


The menu with three options will be shown.

- **Guide** – displays the manual PDF reader (**sec. 7.4**).
- **Measure** – quick start of measurements:
 - ⇒ step 1: connecting the meter,
 - ⇒ step 2: starting the recording of readings. Detailed description of the measurements is in **sec. 3**.
- **History** – displays the recorded data and screenshots. Detailed description of menu is in **sec. 5**.

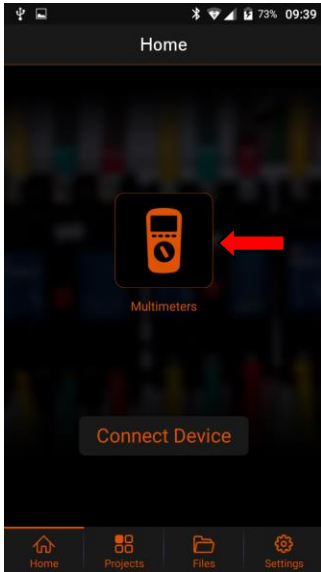


Touching the meter image redirects you to the manufacturer's website (Internet access required).



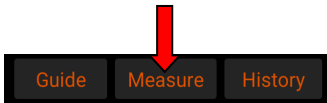
3 Measurements

1



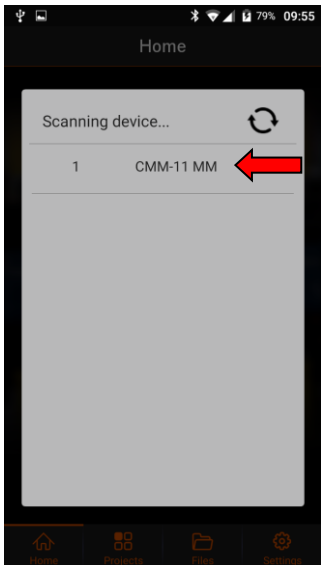
Select **Multimeters** at the Home screen.

2



Select **Measure**

3





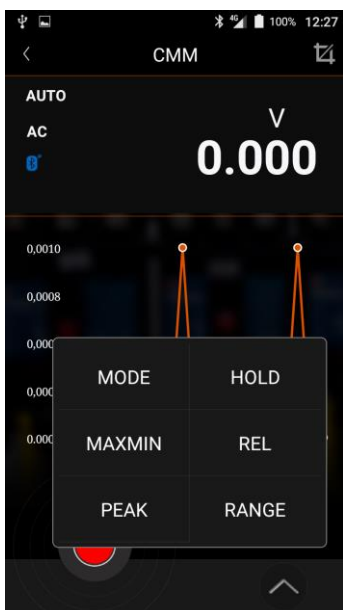
- The application will search for available meters.
- Select the meter for performing the measurements.

4



The recorder screen will be opened. Available options:

- 1 Return to the previous screen
- 2 Screenshot of the application
 - Files are saved in the following location: **Phone > Sonel Multimeter Mobile > CMM > image**
- 3 Current **operating mode** of the meter
- 4 Current **readout** of the meter
- 5 **Waveform** the measured value as a function of time
- 6 Waveform **recording icon**
 -  touching it, stops recording
 -  touching it, resumes recording
- 7 **Remote selection** of measuring sub-function of the meter



Selecting icon 7 activates the sub-function menu (availability varies on the model).

MODE – switching between sub-functions of the meter. Availability of the sub-function depends on the type of the meter and sub-functions available in a given measurement mode.

MAXMIN – For each measurement function, this mode displays three values in the form of True RMS:

- **Minimum** recorded value of the measurement,
- **Average** of all recorded measurements,
- **Maximum** recorded value of the measurement.

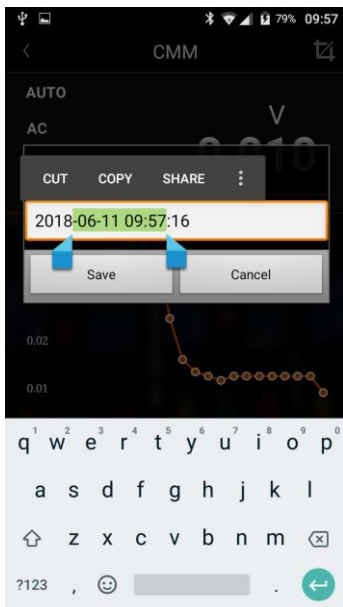
PEAK – displays the peak value of the measured signal, if it lasts **>1 ms** (availability by model).

HOLD – enabling HOLD function ('freezing' the readout on the screen).


REL – readings displayed in relative mode.

RANGE – changing the range.

5

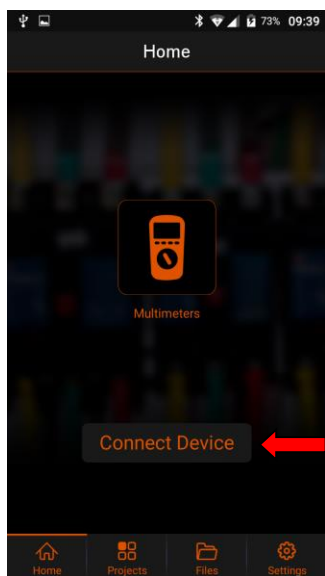


Recorded waveform may be saved. For this purpose:

- select icon  – the recording will stop,
- you will be prompted to save the waveform. Available options:
 - ⇒ **change name** of the waveform:
 - tap the field with name to edit it,
 - use two fingers to select the text for editing,
 - ⇒ **Save** – saving the waveform,
 - ⇒ **Cancel** – cancelling the saving process.

4 Quick connection with the meter

1



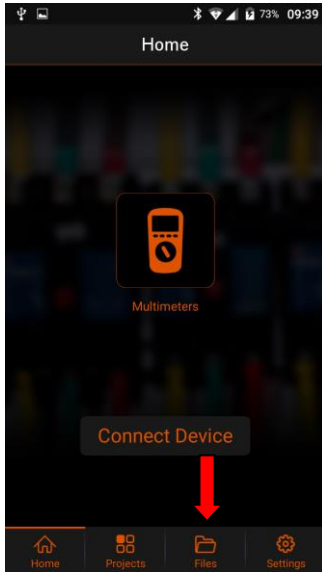
Select **Connect Device** at the Home screen.

2

Follow the guidelines presented in **sec. 3** par. ②③④.

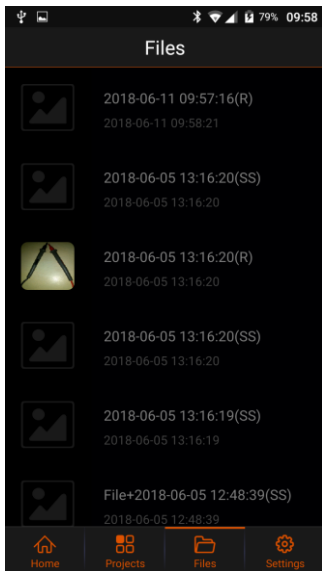
5 Viewing saved measurements

1



Select **Files** at the Home screen.

2



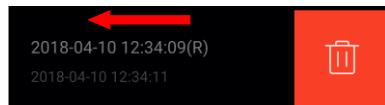
A list of saved waveforms and screenshots will be shown.

Items marked with **SS** include screenshots.

Items marked with **R** include read-outs of the meter as a function of time.

To **delete** a file:

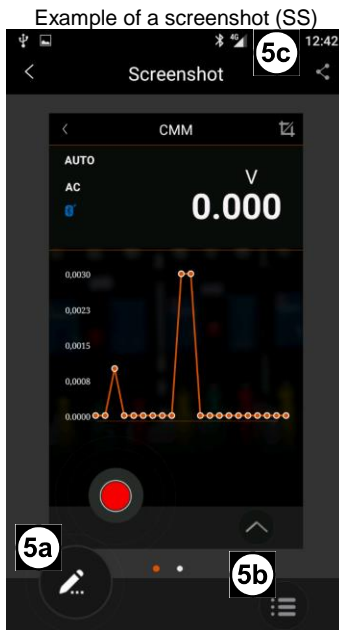
- touch the item for **approx. 2 sec** and move it to the left,
- the recycle bin icon will appear,
- select the recycle bin icon.



3

Touch the selected item to see its details.

4



To **enlarge** a section of the graph:

- touch the area of the graph with two fingers,
- spread the fingers apart.

If during one second, more than one screenshot is taken, all of them will be assigned to one measurement record. To **browse** them, **slide your finger** left or right in the storing area.

To **move** the graph:

- touch the area of the graph,
- slide your finger.

5a

moving to file editing.

5b

viewing the list

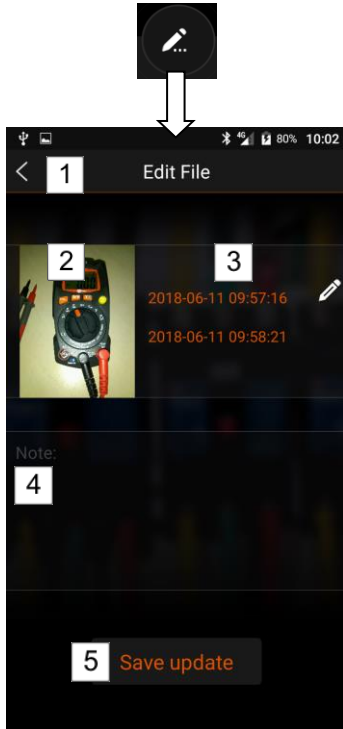
- of measuring points of the waveform read-outs (R)
- or
- screenshots (SS) assigned to the measurement series.

5c

sharing file via e-mail or exporting it to CSV file.

return to the previous screen.

5a



Editing files – available options:

1 Exit the editing menu

- Selecting the icon after introducing changes will show a message asking about saving the changes:
⇒ **Cancel** – rejects changes,
⇒ **Save changes** – saves updates.

2 Editing file image.

- Available options:
Show larger photo – enlarging the photo.
Camera – taking and adding photos.
 - Activates the built-in photo application. After capturing a photo you may:
 - reject the photo,
 - accept the photo,
 - take another photo.
- Files are saved in the following location: **Phone > Sonel Multimeter Mobile > CMM > image**

Album – adding any photo stored on the phone.

Cancel – cancelling the action.

3 Editing the file name

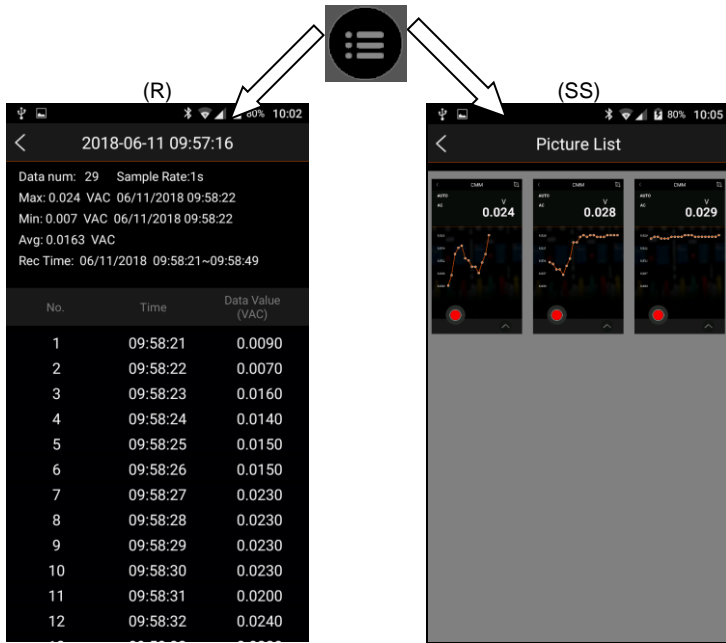
- Exit the edit mode by touching **2** field or **back** button on your phone.

4 Adding additional notes

- Exit the edit mode by touching **2** field or **back** button on your phone.

5 Saving changes

5b



Time – value recording time
Data Value – value of the read-out

5c



Sharing the file – available options:

E-mail – sending the file via e-mail using an application installed on your phone.

Export to CSV – export of the waveform to CSV file (command only available for waveform files).

Cancel – cancels the action.

| 1 | FileName | Max | Min | Avg | Unit | Function | Note |
|----|--|-----|-----|-----|------|----------|------|
| 2 | File+2018-02-07 11:43:58.0.001,0,0000,0,0003,V,AC, | | | | | | |
| 3 | | | | | | | |
| 4 | Sample Value Date Time , , | | | | | | |
| 5 | 1.0.001,02-07-2018,11:43:58, , , | | | | | | |
| 6 | 2.0.001,02-07-2018,11:43:59, , , | | | | | | |
| 7 | 3.0.0.02-07-2018,11:43:59, , , | | | | | | |
| 8 | 4.0.0.02-07-2018,11:43:59, , , | | | | | | |
| 9 | 5.0.0.02-07-2018,11:43:59, , , | | | | | | |
| 10 | 6.0.0.02-07-2018,11:43:59, , , | | | | | | |
| 11 | 7.0.001,02-07-2018,11:44:00, , , | | | | | | |
| 12 | | | | | | | |

CSV files are saved in the following folder on your phone:

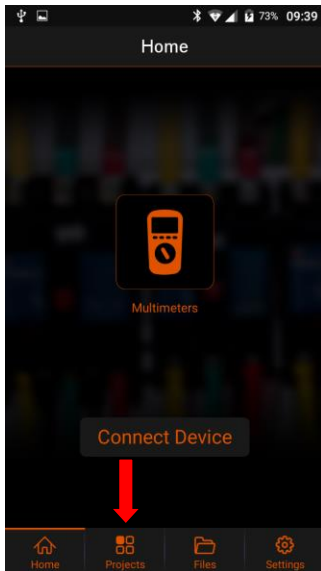
Phone > Sonel Multimeter Mobile > CMM

- The file may be edited with the mobile application compatible with the file or software on your PC.
- To make the file available to the PC, transfer it from the phone to the location seen by the computer – e.g. **Downloads** file in the phone.

6 Projects

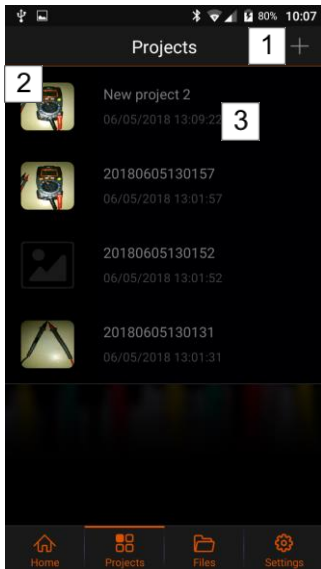
All recorded data may be grouped into projects.

1



Select **Projects** at the Home screen.

2

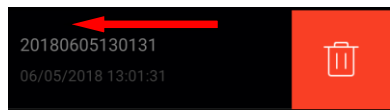


Projects menu – available options:

- 1 Add a new project
- 2 Enlarge project image (avatar)
- 3 View and edit project details

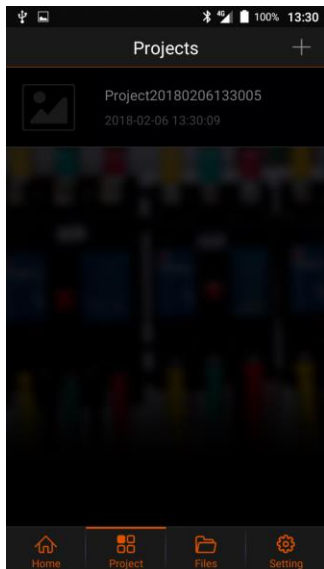
To delete a project:

- touch the item for **approx. 2 sec** and move it to the left,
- the recycle bin icon will appear,
- select the recycle bin icon.



6.1 Adding a new project

1



+ adding new project.

2



1

Adding, viewing or editing image (avatar) of the project. Available options:

Show larger photo – enlarging the photo.

Camera – taking and adding photos.

- Activates the built-in photo application. After capturing a photo you may:

reject the photo,

accept the photo,

take another photo.

Album – adding any photo from the phone.

Cancel – cancelling the action.

2

Changing the name

- Exit the edit mode by touching field 1.

3

Adding comments to "Note" field

- Exit the edit mode by touching field 1.

4

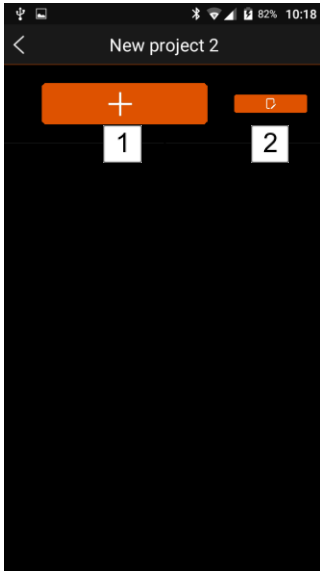
Saving the changes and return to 1

5

Rejecting the changes and return to 1

6.2 Managing an existing project

1




Project management – available options:

- 1 Adding records and application screenshots
- 2 Editing the name and notes of the project
 - Follow the guidelines presented in **sec. 6.1** par. 2

2



To add files, select icon .
Available options:

Choose existing file

- Proceed as described in **sec. 6.2.1**.

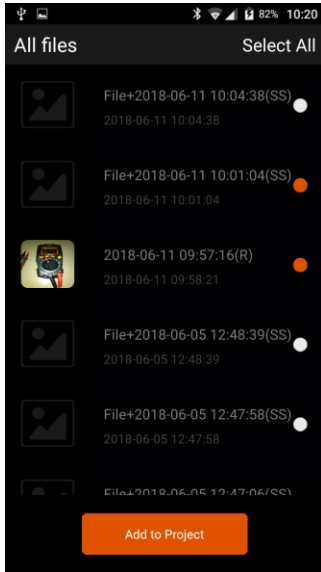
New measurement

- Performing a new measurement and saving its records.
- Proceed as described in **sec. 6.2.2**.

Browsing project files


- Proceed as described in **sec. 5**.

6.2.1 Adding existing files



Select files to be uploaded for the project.
Available options:

 selected file,

 file not selected.

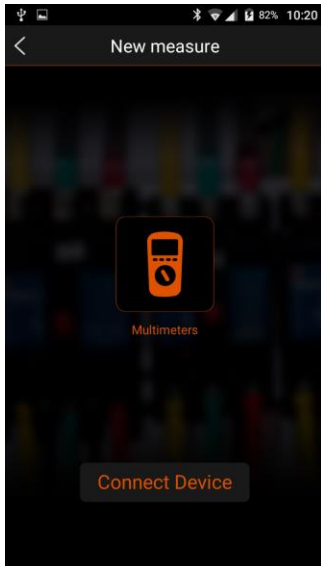
Select all – selecting all files

Add to Project – approving selected files.

The other menu functions are the same as in **sec. 5**.

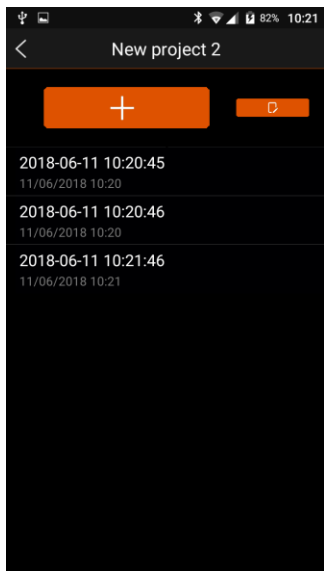
6.2.2 New measurement


1



Perform measurements as described in **sec. 3 Measurements** step ①②③④⑤.

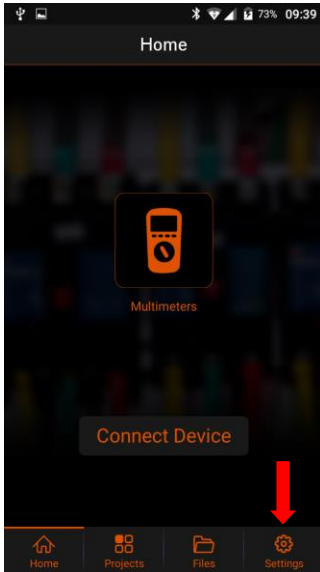
2



Touch icon  to return to the project screen.

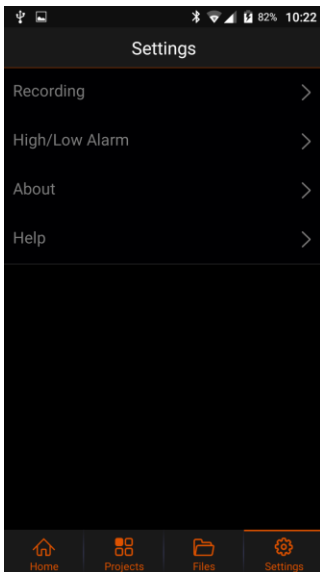
7 Settings

1



Select **Settings** at the Home screen.

2



Available options:

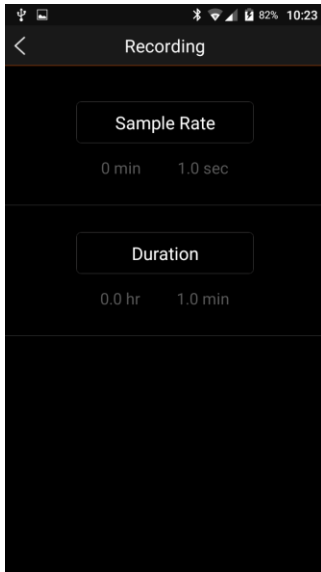
Recording – settings the recording of waveforms.

High/Low Alarm – alerting about exceeding measurement thresholds set by the user.

About – viewing application info.

Help – browsing help menu.

7.1 Recording




This screen allows user to modify the parameters of recording the measured quantity waveforms. Available options:

Sample Rate

- Select desired item.
- Set the interval in minutes and seconds:
 - ⇒ **OK** – confirms the selection,
 - ⇒ **Cancel** rejects the choice.

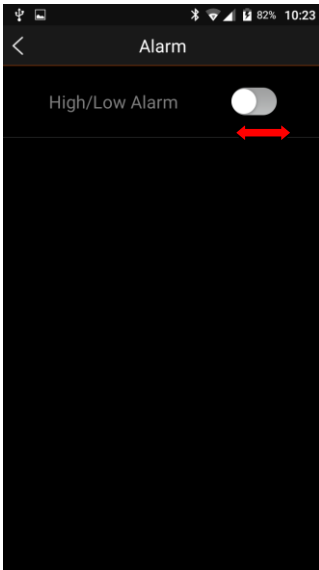
Duration of the recording

- Select desired item.
- Set the maximum recording time:
 - ⇒ **OK** – confirms the selection,
 - ⇒ **Cancel**– rejects the selection.

 return to the previous screen.


7.2 High/Low Alarm (information about exceeding)

1

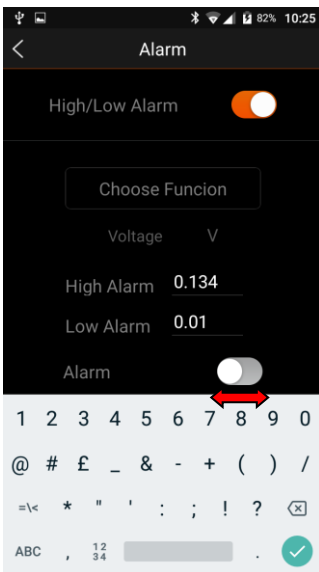


The user may set the **measuring range**. Each readout outside of the range will trigger the alarm.

This function notifies the user of exceeding the alarm thresholds set for the measurements.

To activate this function, touch and slide the switch into **ON**  position.

2



Alarm menu – available options:

Choose function – selection of the measured value and the measuring range.

- Choose the measured value.
- Set the unit:
 - ⇒ **OK** – confirms the selection,
 - ⇒ **Cancel**– rejects the selection.


High Alarm – upper threshold value.

Low Alarm – lower threshold value.

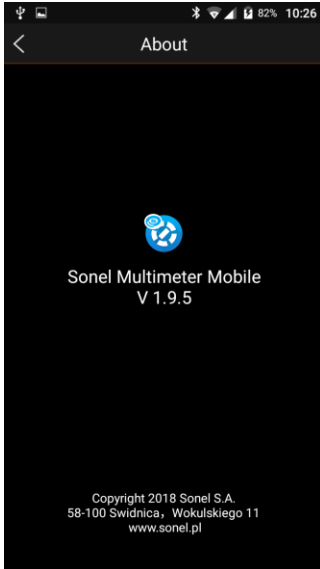
Alarm – informing the user on exceeding preset thresholds.

 inactive alarm.


 active alarm.

 return to the previous screen.

7.3 Information about the program



- Select **About** at **Settings** screen.
- You will see the screen with the name and version number of the application.

 return to the previous screen.

7.4 Help



- Select **Help** at **Settings** screen.
- The PDF viewer of the phone will open the user manual of the application.

8 Manufacturer

The manufacturer of the device and software provides all warranty and after-warranty repairs:

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