

User Manual

Multi-ECG

App



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Software and these instructions are written with special diligence focused on users and intend to enable the user to make full use of all technical features of the Multi-ECG App for iOS. They are tested for their state of the art and for correctness.

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All information's included in this documentation an the corresponding software can be changed without any specific announcement for technical progress.

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1. Introduction

With the purchase of the Multi-ECG App for iOS you receive an easy to use and flexible possibility for taking ECG's on the road. Together with our small and easy to use Multi-ECG recorder you are the owner of a compact and trend setting unit. The Multi-ECG App is compatible to all Bluetooth capable iOS devices.

This manual was made with an iPhone 6plus with iOS 8.4.1

2. Putting into Operation

Connection, assembly and installation of the Multi-ECG App for iOS:

Multi-ECG App Installation

There are 2 different possibilities for finding the App in the Apple AppStore:

1. Open the AppStore App and search for the "Multi-ECG" App. Buy and download the App.
2. Pair the Multi-ECG Recorder with your device (see "Pairing the Multi-ECG Recorder with your iOS Device"), and if the Multi-ECG App isn't installed you will be forwarded automatically to it.

Pairing the Multi-ECG Recorder with your iOS Device

To be able to communicate with the CardioScout Multi-ECG Recorder you have to pair the systems once. For Pairing please do the following steps:

- Open the iOS Settings and go to the Bluetooth menu
- start the Multi-ECG Recorder by plugging in the electrode cable
- Click to the Multi-ECG Recorder when appearing
- now you are asked for the pairing pin. Please type 0000 (4xZero) and confirm
- after the connection is established, you will see the Multi-ECG Recorder as connected

This pairing must be done only one time at beginning. After the pairing procedure the Multi-ECG recorder will connect your iOS device automatically after switching it on.

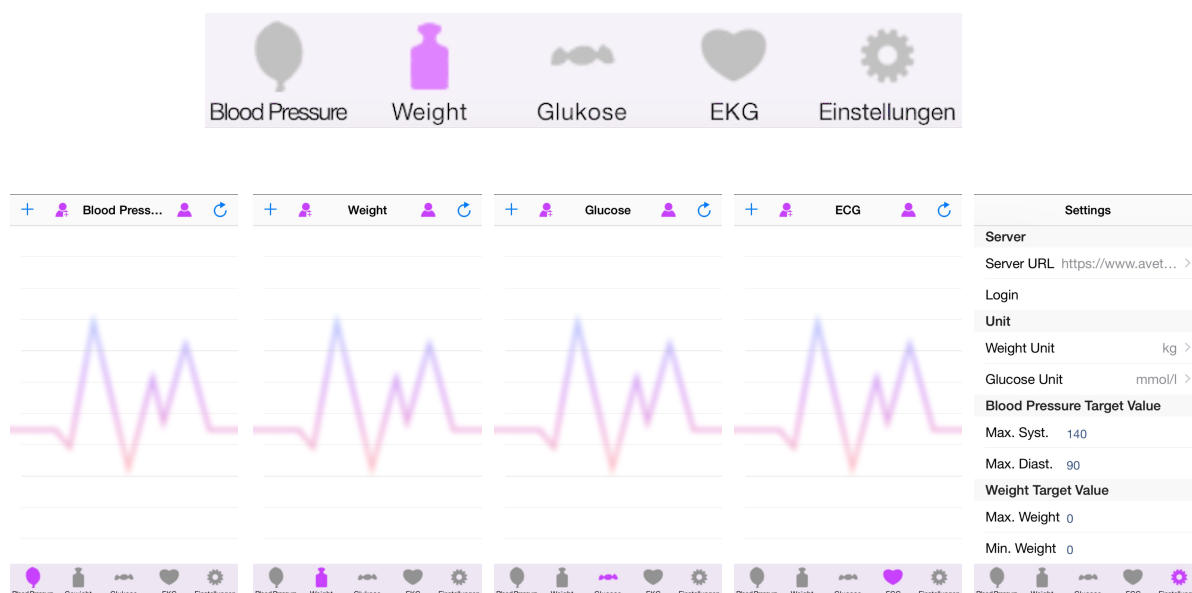
Starting the Multi-ECG App

After pairing you can start the Multi-ECG App by pressing the Multi-ECG Icon on your iOS Device







Multi-ECG App overview

After starting the App you will find 5 different main menus for different vital parameters and Einstellungen (Settings):



On top of each menu you will see the control buttons with the following function:

-  for taking a new ECG or adding a new measurement (BP, Weight, Glucose)
-  to create a new patient (local if offline with the server and on the server if online with the server)
-  to choose an existing patient (only available if connected with the sever)
-  to synchronize data with the server (up and download, only available if connected to the server)

Inside Einstellungen (Settings) you will find the following adjustments:

Server

Server URL: secure connection to our server

Login: Login menu for logging into our server. Please contact SR-Medizinelektronik if you like to use our server for getting a login account.

When logged in, the Login can also be used to choose or create a patient

Unit

Weight unit: for defining the weight unit (kg or lbs)

Glucose unit: for defining the glucose unit (mmol/l or mg/dl)

Blood Pressure Target Value

Max. Syst.: for defining the target value (normally between 120 and 200)

Max. Diast.: for defining the target value (normally between 70 and 120)

Weight Target Value

Max. Weight: for defining the target value

Min. Weight: for defining the target value

Glucose Target Value


Max. Glucose: for defining the target value

Min. Glucose: for defining the target value

ECG Graph

mm/mV: for defining the default amplitude scale (1, 2, 5, 10, 20)

mm/sec: for defining the default time scale (2, 5, 10, 20, 25)

sec: for defining the default recording time (10, 20, 30, 60 seconds or --- for a recording time until Stop  is pressed.
Note: the max. recording time belongs to the iOS device.

Report configuration

Report Logo Path: for defining the path to your Logo printed on the report (URL for local or network path)

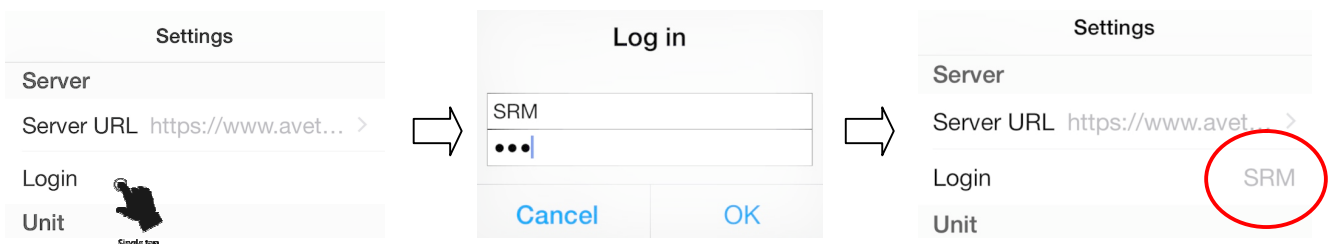
Version: the actual App version

Connecting the Server

If you like to use our server for storing the patient and session data you can use your login account to connect the server. If you need login account data please contact SR-Medizinelektronik.

Please ensure to be connected to the internet via WiFi or 3G when trying to work with the server, otherwise you are not able to communicate with the server.

For logging inn please go to Einstellungen (Settings) and tap to the login line, type inn your login data and click to "OK". After that you will see your login name inside the login line and you are connected with the server.



Creating a new patient on the Server

You can choose a patient or create a new patient by tapping to the login line again



Choose "Create Patient" and type in the patient information

The process involves three steps:

- Step 1:** The 'New Patient' form is open. Fields include First Name, Last Name, Patient ID, Gender (Male), and Birthday (1 Jan 1975). A keyboard is visible at the bottom.
- Step 2:** The form is filled out. First Name: Hans, Last Name: Testman, Patient ID: 12345, Gender: Male, Birthday: 20 Jul 1970.
- Step 3:** The 'Settings' menu is shown. Under the 'Patient' section, the name 'Hans Testman' is listed and circled in red.

After saving the patient data you will see a new line inside the settings menu showing your patient name.

Alternatively to the settings menu you can also use the patient buttons inside the Blood Pressure, Weight, Glucose or ECG Window to choose or create a patient.



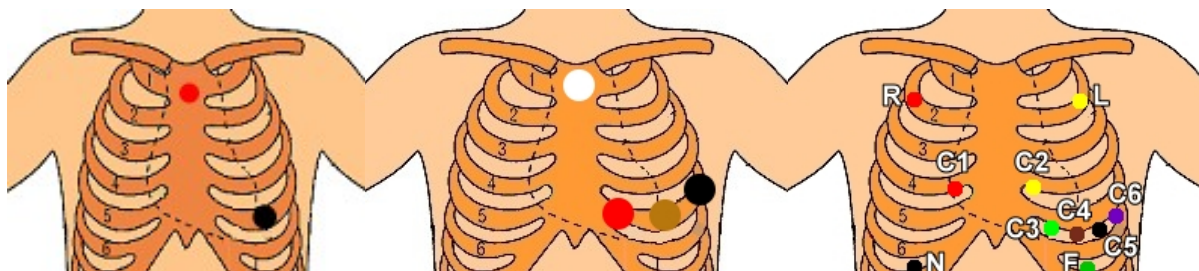
can be used to create a new patient



can be used to choose an existing patient

Taking a new ECG

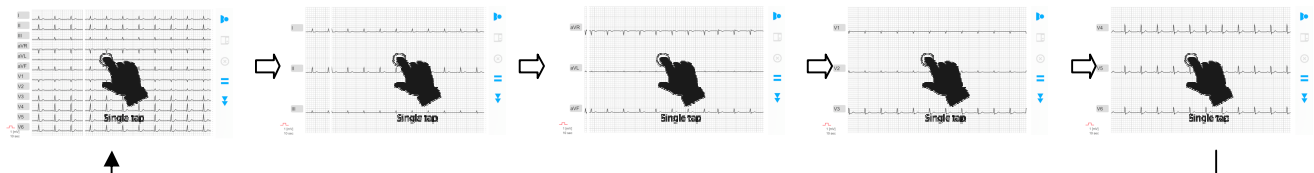
Mount the Multi-ECG Rekorder to your Patient and plugg inn the electrode cable to switch the Recorder on. Use the following electrode placements based to your electrode cable:



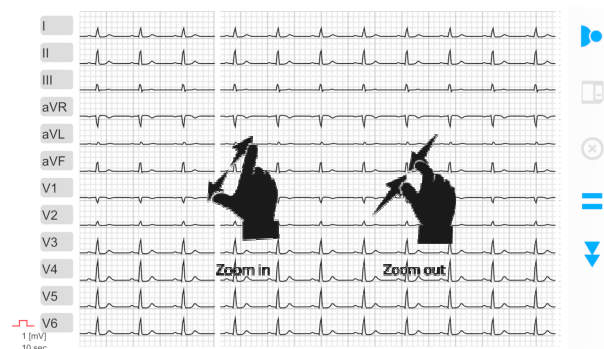
Choose the ECG Window and tap to the **+** button for taking a new ECG, and based on the Recorder configuration the recorder will beep one or two times and start to send the ECG data (if you won't receive data please ensure that the Multi-ECG recorder is connected to your device):



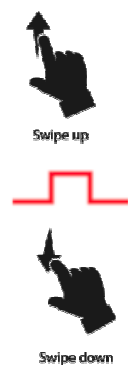
During recording you can change the channel view by tapping one time to the ECG screen. The window changes from 12 channel view to the first 3 channels (I + II + III), and with the next tap you will see the next 3 channels. Continue this to come back to the 12 channel view.



You can also change the amplitude scaling by zooming in or out






or by swiping up and down over the calibration wave





As long as you are recording (based to your settings) you will have the following menu available:



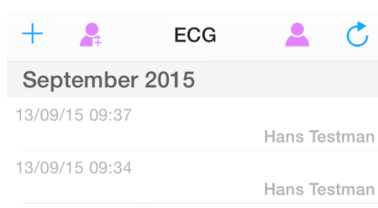
-  use this button to change the patient
-  use this button to stop the recording
-  use this button to exit the online view without stopping the recording (this is for holter setup and the Recorder will continue to save the ECG to the internal memory)

After stopping the menu changed to the following



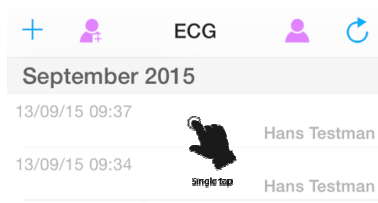
-  use this button to save the ECG
-  use this button to discard the ECG

Normally you will save the ECG and you will find it inside your session list

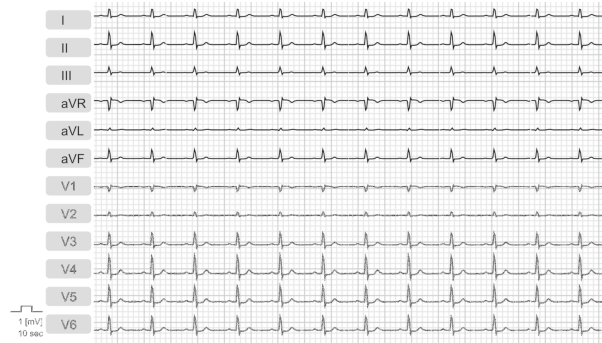


Review your ECG

You can open the ECG again for reviewing and for generating a report. Just tap to the session you like to open

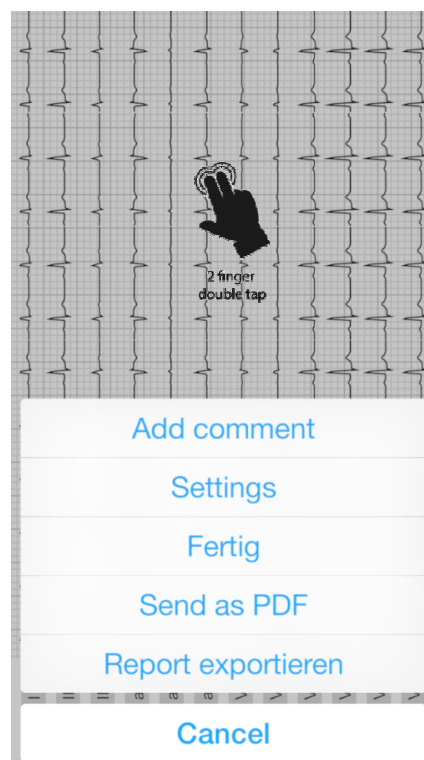


and you will come to the review mode



Inside the review modus you can also change the channel view from 12 to 3 by tapping to the screen. Scroll the ECG by swiping to the left and to the right, and change the amplitude and scale by zooming in and out.

For closing, adding a comment or generating a report please do a double finger double tap to the ECG screen:



Add Comment: will add a comment to the ECG


Setting: to change amplitude and time scale and for choosing the channels

Fertig (Exit): to close the review mode

Send as PDF: to send the generated PDF by E-Mail

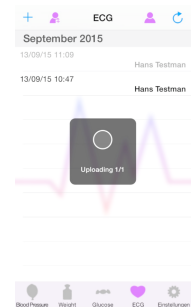
Report exportieren: to create a report with some additional notes and the patient information

Synchronize data with the server

Actually the taken ECG's are stored in your device. To synchronize the data with the server, please go to the session list and press the synchronize button .

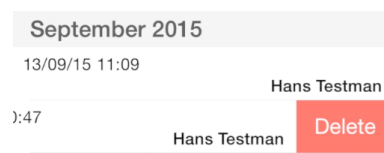
When doing it a small message appears showing that the system is uploading the data to the server.

in the same way you can also download stored ECG data from the server. Just choose an existing patient and press the synchronize button again to download the data from this patient.



Delete ECG data

You can delete ECG data from your device by swiping over the session from right to left, then press the Delete button to delete the session.




If you are working with the server, please note that you will not delete the data from the server. If you like to have the session again just press the synchronize button to download it again.

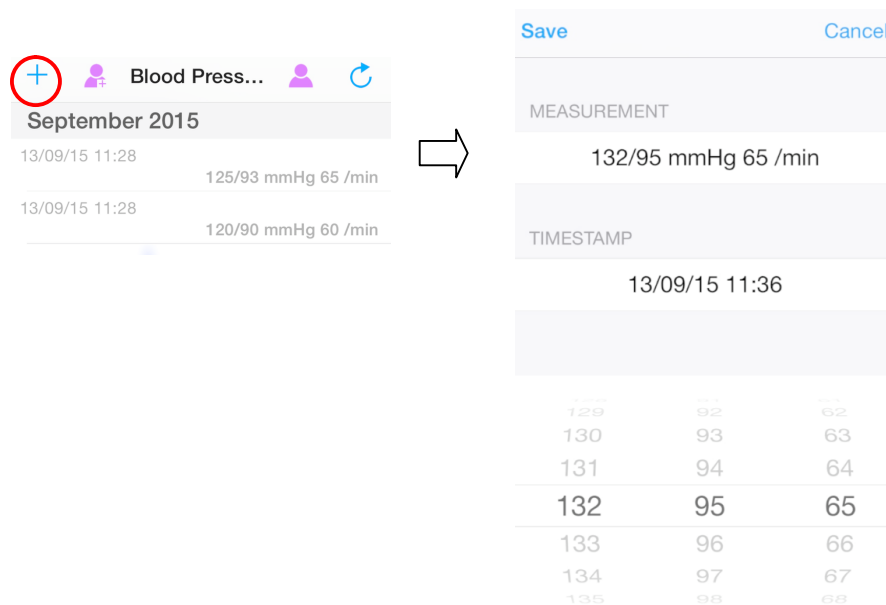
For deleting the data from the server you have to use the web interface.

Taking Blood Pressure, Weight and Glucose measurements

Actually you can manually include Blood Pressure, Weight and Glucose readings to have it inside the generated reports or to generate a trend.

You can include several readings and if you are connected with the server you can also synchronize this data.

For taking a new reading just press the new readings button  to include a new reading, choose the values and save the reading.



MEASUREMENT		
132/95 mmHg 65 /min		
TIMESTAMP		
13/09/15 11:36		
129	92	62
130	93	63
131	94	64
132	95	65
133	96	66
134	97	67
135	98	68

3. Using the Web Interface

When you are synchronizing your data with the server, you can have web access to these data. This allows flexible controlling of your data and also to invite third parties to have a look to this data if analysis support is needed.

You can use our web interface by starting a internet browser on your computer and going to our server www.ayetana.de

Type your login data in and press "Login"

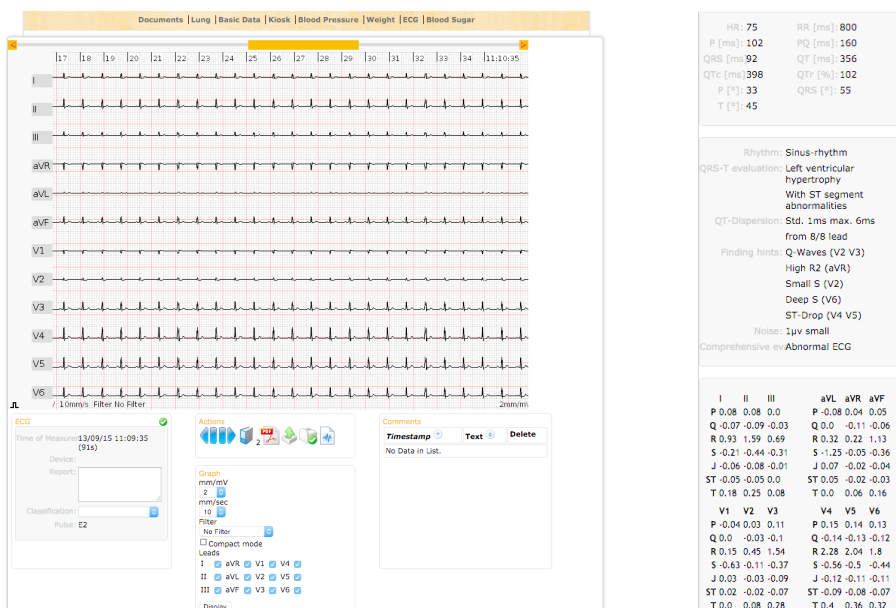
Now you can see your patient list and you can choose one patient by pressing the Select button in front of the patients name

Last Name	First Name	Date of Birth	Last Measurement	Status	Actions
Testman	Hans	20/07/1970 (45)	13/09/15 11:40		

This will give you access to all taken data from this patient, and you can choose the data you like to see

[Documents](#) | [Lung](#) | [Basic Data](#) | [Kiosk](#) | [Blood Pressure](#) | [Weight](#) | [ECG](#) | [Blood Sugar](#)

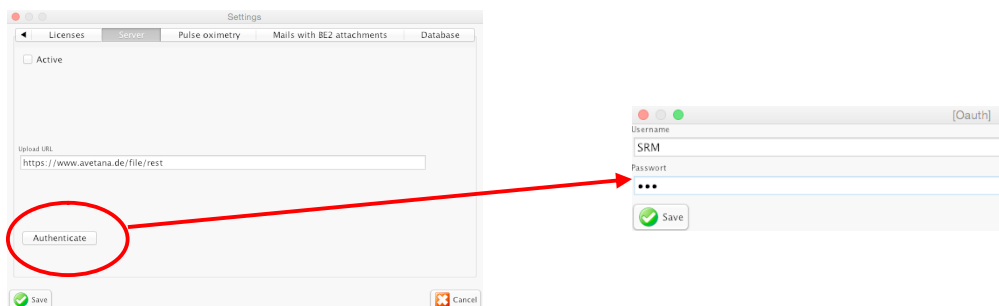
When clicking to ECG you will directly see the last taken ECG, and here you can scroll the data, change the amplitude and time scale, choose the leads you like to see, activating filters and getting the HES based analysis results (optional) and much more.



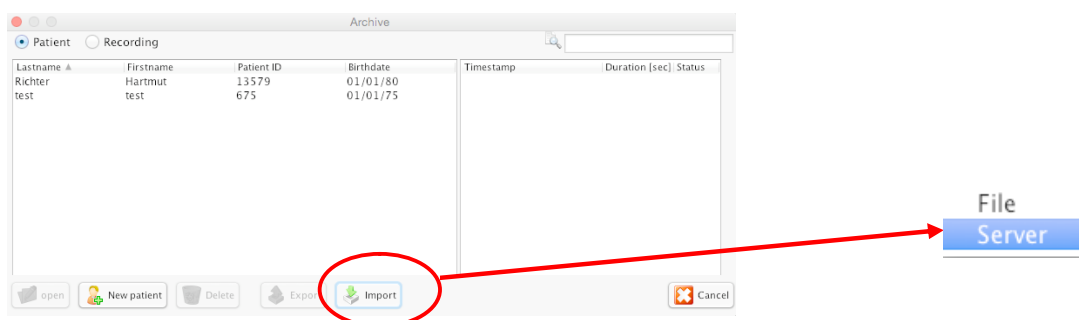
4. Importing into the VMX00 Software

If you have bought our VMX00 Software you can import your mobile taken ECG data. To be able to import the data you have to do an authentication once to get access to the server.

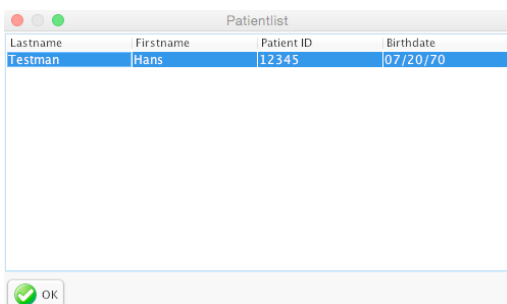
For the authentication please open the VMX00 settings and choose the Server sheet and click to the button "Authenticate". Type in your login data and save it.



Now open the database and choose "Import" and "Server"



You will see the server patient data list and you can choose the patient you like to import. Click OK and open the session you like to view the ECG



5. Customer questionnaire

We like to know your opinion

Please be so kind and use this questionnaire in case of problems, questions or incitation to our hard- and software system.

Your name: _____ Your address: _____

Fon: _____

Product: _____

I have the following	Problem	Question	Incitation
	Request	_____	

Please call me back

Please arrange a date

Please confirm the reception of this message

Customer sign

Please fax to: SR-Medizinelektronik – fax number +49 711 9144651