



ANTECH  
IMAGING  
SERVICES

# **AIS-ECG System User Manual**



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# Introduction

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Thank you for selecting the AIS®-ECG System. This system is a 6 & 12-channel, wireless, clinical diagnostic ECG system.

Your AIS®-ECG System software is compatible with iOS.



## IMPORTANT!

- The AIS®-ECG device is designed for telemedicine use solely with AIS.
- You are able to view the ECG and send it to AIS for review.
- You are not able to download, save, or print the ECG from the App.
- You can, however, view, print, and download the ECG from AIS after being sent for consultation.



**WARNING: AIS®-ECG System is for veterinary use only. Not for human use.**

## AIS®-ECG System Components

- 1 x AIS®-ECG unit
- 1 x 6-Lead electrode cable
- 1 x USB charger cable
- 1 x Set of 5 alligator clips
- 1 x Protective case



## Care and Handling of your AIS®-ECG System

- Please use only original accessories from AIS.
- The system is shock-proof and water resistant/splash-proof when the electrode cable is properly attached to the recorder.



- Do not immerse the recorder or cables in water/fluids to avoid damaging the system.
- Use only the USB cable that came with your recorder. Using a different charging unit or cable may damage your system.

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# Getting Started with your AIS®-ECG System

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## Charging the battery



**NOTE:** The battery cannot be removed. Do not attempt to open the recorder.

- Always make sure that the unit is fully charged before starting a recording.
- If the battery is depleted the unit will emit a ticking sound.
- Connect the USB charger cable to the recorder and the USB connector to a power outlet.
- Charging for one (1) to two (2) minutes on a standard power outlet will allow a few ECGs to be recorded.
- Begin a full charge as soon as possible. 2-2.5 hrs for 80% charge and green battery light will come on.

The AIS®-ECG unit has four different light indicators displaying the status of the system.



- BT** = Bluetooth is connected.  
**USB** = The unit is connected to a computer via USB.  
**CHG** = The unit is charging.  
**FULL** = The battery is at least 80% charged.

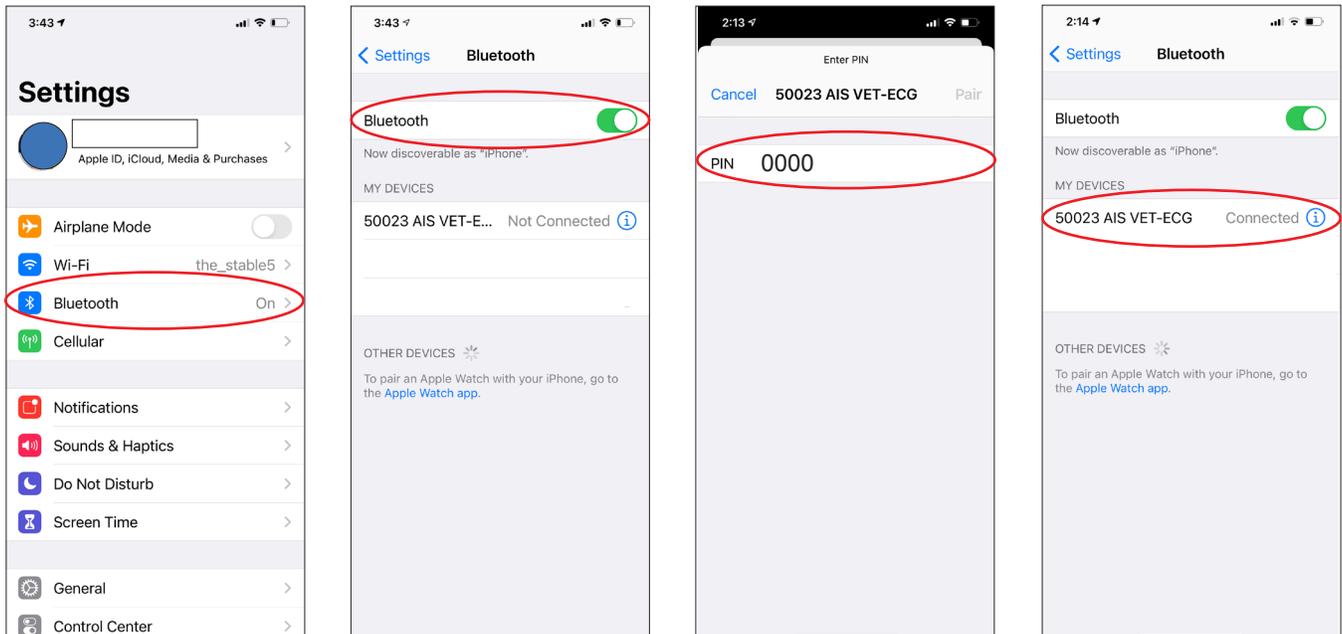
## Install the AIS®-ECG App on your iOS device

1. Login to the Apple App store using the email address registered to your account.
2. Search for “AIS ECG App.”
3. Click “GET” to install the app.
4. Click “OPEN” to open the app.



# Connect the unit to Bluetooth on your iOS device

1. Go to iPhone Settings and select “Bluetooth.”
2. Make sure Bluetooth is on.
3. Attach the 4 electrode cables to activate the unit.
4. Select AIS®-ECG from the device menu and connect. If prompted, enter 0000 pairing code.



## Login to your account

1. Use the login information that was included in the ECG Shipping Confirmation email. Contact support if you need assistance retrieving these details.
2. The following fields are required to login:
  - Username
  - Password
  - Organization ID
  - Device AE
3. Click “Login.”

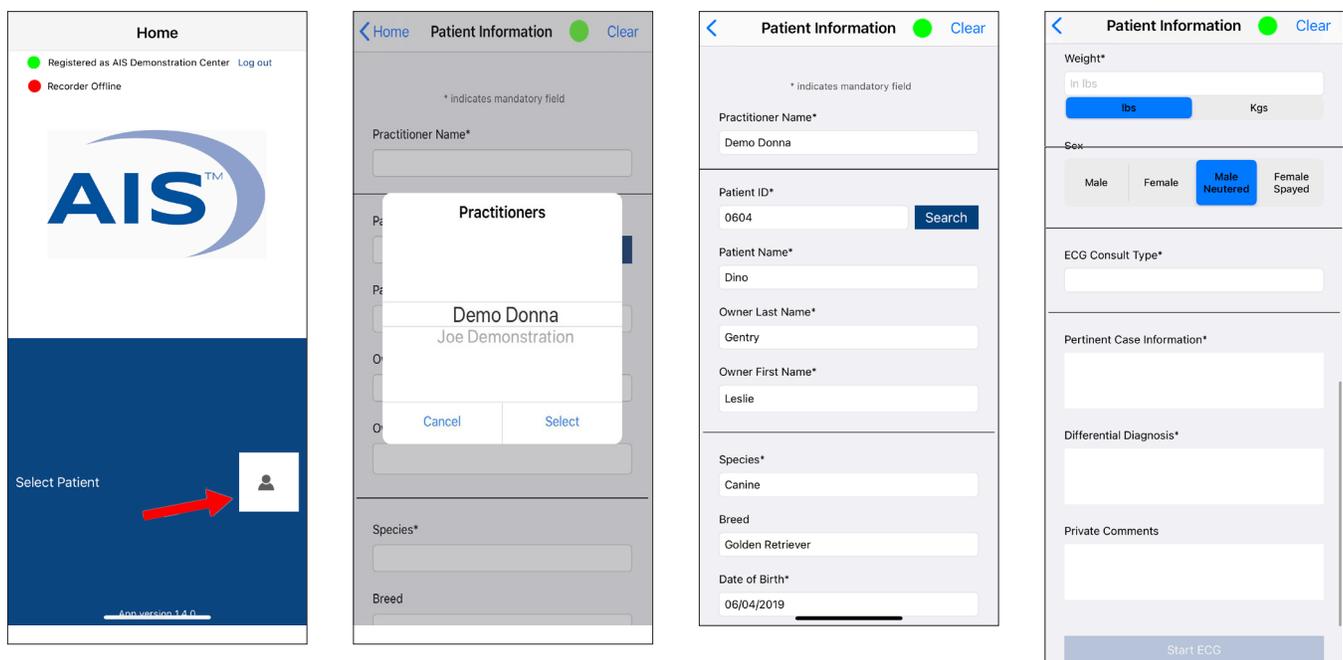


Visit the following link for a How-to video demonstrating the next steps.

<https://antechimagingservices.com/antechweb/documents/AIS-ECG-BT.mp4>

## Select patient

1. Click the box to the right of “Select Patient.”
  2. Select the Practitioner name.
  3. Enter the Patient ID and click “Search.”
  4. The patient information will automatically fill in if the recorder was used for this same patient, but you must enter the patient weight each time.
  5. Select the ECG consult type.
  6. “Pertinent Case Information” and “Differential Diagnosis” are required fields.
  7. “Private Comments” are optional. Fill in this field if you want to convey something to the specialist that will not show up in the report.
- If the patient is already registered in the system, select the patient name under “Available Patients.”
  - If the patient is not already registered, enter the patient information in your account on [www.antechimagingservices.com](http://www.antechimagingservices.com). Then return to Step 1 and start again.
  - **Please note that patient information cannot be edited in the AIS®-ECG App. Editing must be done in your account on the AIS website.**



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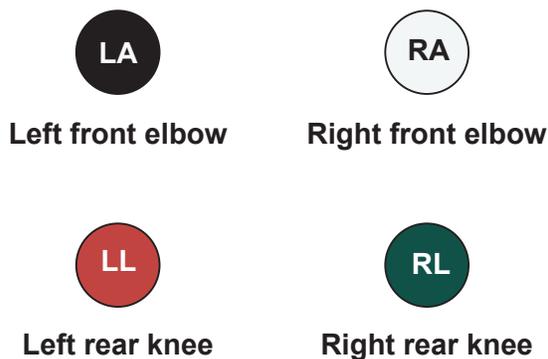
# Preparing the patient and unit for recording

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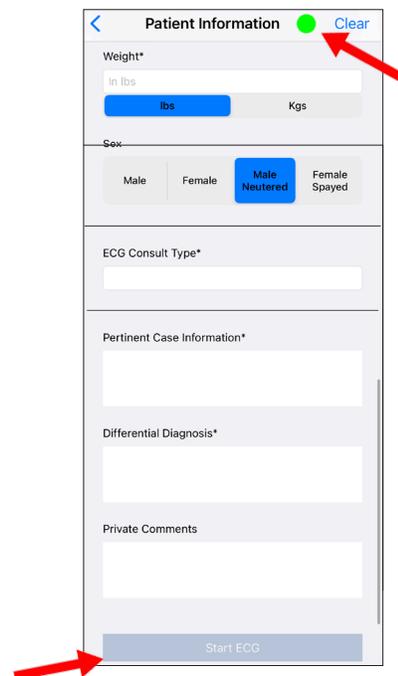
**IMPORTANT!** Make sure the app is ready to record before placing the electrode cables on the animal. Having the app ready decreases the time the animal is restrained and associated stress.

## Cable placement and starting a recording

1. Place the animal in right lateral recumbency. Make sure the animal is calm and does not move during the recording.
2. Make sure the patient and ECG unit are not touching a metal surface. Metal interferes with the ECG reading.
3. To prevent base line wavering, roll-up a towel or use a pillow to separate the front paws of the patient while in lateral recumbency.
4. Attach the 4 electrode cables to the limbs using low-force alligator clips (included with the unit.)
5. Make sure the combined USB connector of the electrode cables are attached to the unit. The port is at the bottom of the unit.
6. Apply 70% rubbing alcohol to the skin under each clip to ensure a good connection. For pets with long hair, clipping some fur may be necessary to ensure a good connection.



7. The unit will emit a BEEP sound and a green dot will appear at the top of the app screen when it is connected properly.
8. Click “Start ECG” to begin the recording.

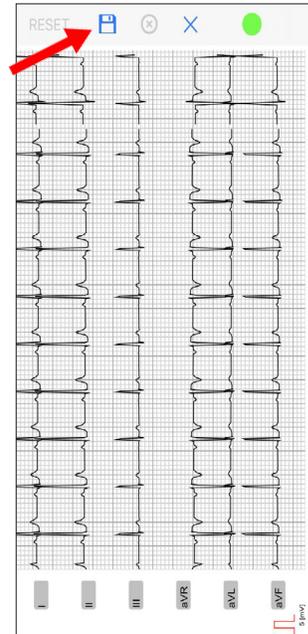


# Save and submit the consult request

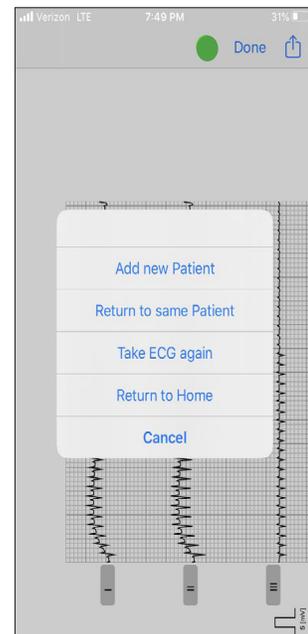
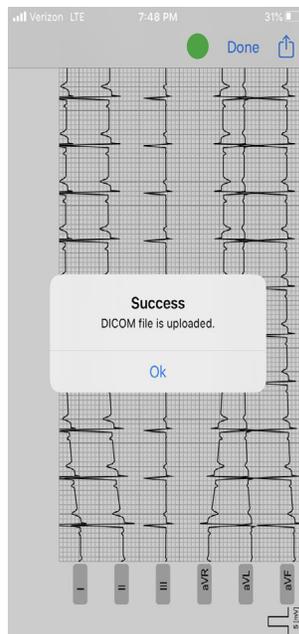
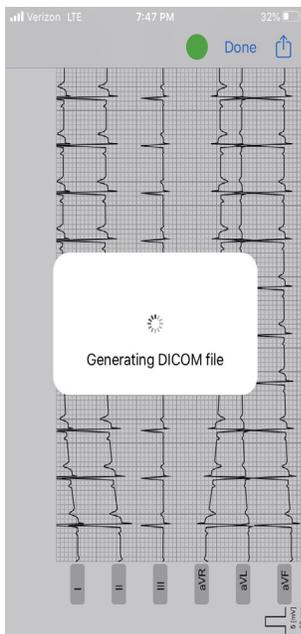
1. The ECG will calibrate and stabilize the tracings. The recording continues for at least 10 seconds or until the SAVE button becomes available.
2. Click the Save icon at top of the screen to end the recording. Longer recordings are possible, but AIS recommends recording no more than 30 seconds.

Minimum = 10 seconds

Maximum = 30 seconds (recommended)



3. A pop-up bubble will appear with the notice “Generating DICOM file.”
4. Once the file is uploaded, the notice says “Success. DICOM file is uploaded.”
5. WAIT UNTIL CONFIRMATION BEFORE CLOSING THE APP!
6. After the consult is submitted successfully, a pop-up bubble will appear with further options.
7. Disconnect the 4 electrode cables when finished so the battery charge does not go down.



## Adjust amplitude and lead view

- Use your finger to swipe up/down to enlarge/shrink the trace amplitude or swipe over the red calibration marker.
- A single tap with your finger will toggle between Einthoven, Goldberger, and 6-lead views.

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## Examples of acceptable vs. non-acceptable ECGs

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### Example of an acceptable ECG:



- The ECG to the left shows a flat baseline with clear ECG complexes where waveforms can be clearly visualized and measured.
- Please note, that in order for measurements of ECG waveforms to be accurate, the patient should be placed in right lateral recumbency.
- If it is not possible to place the patient in right lateral recumbency, it is recommended to indicate that as a note for the interpreting doctor in the patient history submission.

### Examples of an unacceptable ECG:



The above ECGs show too much undulation of the baseline and baseline artifact to be clearly diagnostic. Undulation of the baseline is typically seen with movement, shivering or panting. Please try to make sure the ECG clips are clearly placed on the patient (fur may need to be clipped on patients

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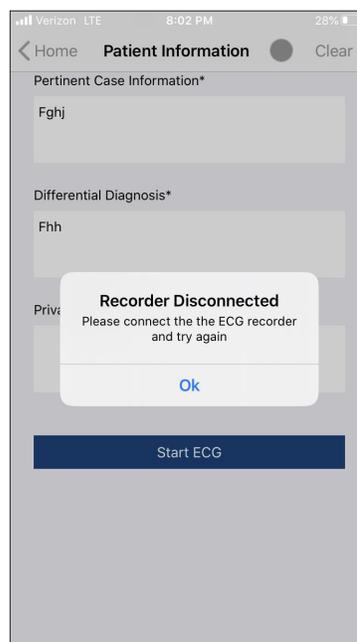
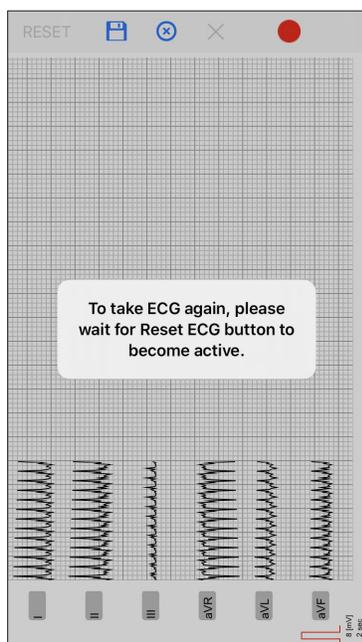
# Troubleshooting Recording Issues

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<b>Recording issue</b>	
<b>Recorded resting ECG has a wandering baseline</b>	<ul style="list-style-type: none"><li>• Wandering baseline can often come from the front paws crossing/touching and hence shorten out the signal flow that otherwise would go through the cables. Holding both front legs with a bare hand can also cause the baseline to wander.</li><li>• This is a common problem frequently observed in small patients. It will be visible in any system using lead cables.</li><li>• The easy fix for base line wavering is to roll-up a towel or use a pillow or something else to separate the front paws of the patient while in lateral recumbency.</li></ul>
<b>Recorded resting ECG has intermittent artifacts</b>	<ul style="list-style-type: none"><li>• If the ECG recording shows short bursts of artifacts but looks otherwise high- quality then please check if the lead cable is worn out and wobbling.</li><li>• If the transmitter/recorder unit moves around (e.g. dangling from the animal or being twisted) while recording, this can cause artifacts.</li><li>• It is very important to use 70% rubbing alcohol when connecting the alligator clips to the patient; poor contact can cause a variety of artifacts.</li></ul>

# Troubleshooting App Issues

App issue	Solution
Error message: "To take ECG again, please wait for Reset ECG button to become active."	The app needs a few seconds to upload to the server.
Error message: "Recorder Disconnected. Please connect the ECG recorder and try again."	Sometimes the data file takes longer to upload. Click OK and wait 10 seconds. The transmitter will automatically connect.
Cannot edit patient information	The AIS®-ECG App does not allow patient information editing for medical record purposes. To make a change to a patient's info, login to your AIS account at <a href="http://www.AntechImagingServices.com">www.AntechImagingServices.com</a> .



If any other alert appears, or if the system crashes, it is very important for us to receive **detailed information describing what you were intending to do in the moment of the error**. For example, "pressed save" or "clicked on menu to take ECG again." Also take a screenshot or picture of the alert message. This is the only way we can correct bugs and improve the software. Please send this information to [Support@AntechImagingServices.com](mailto:Support@AntechImagingServices.com).

## Getting Help

For additional help with your AIS®-ECG unit or the AIS app, contact:

**Technical support**

**1-877-727-6800**

[Support@AntechImagingServices.com](mailto:Support@AntechImagingServices.com)

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## AIS®-ECG System Specifications

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<b>Category</b>	<b>Specifications</b>
Supported operating systems	iOS
Special features when the electrode cable is properly attached to the unit	Shock-proof Water resistant Splash-proof
Physical dimensions (unit only)	Length: 6 cm (2.36 inches) Width: 3.4 cm (1.34 inches) Depth: 1.4 cm (0.55 inches) Weight: 42.52g (1.50 oz)
Cables dimensions	Length: 60.96 cm (24 inches)
FCC Regulatory Compliance ID (USA Only)	PVH0925

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## Warranty

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Antech Imaging Services hereby warrants that if any Dextronix, Inc. Heart Monitoring product fails to perform within normal tolerances due to a defect in materials or workmanship, Antech Imaging Services will provide, at no charge, a replacement of Dextronix, Inc. product within 2 years from date of purchase. Excluded from this warranty is any type of cables that can wear out from tear or otherwise. This limited warranty does also not include loss, gross negligence, user error, and/or damage inflicted by animals.