

# Eko CORE User Guide

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# Eko CORE

## Setting up my Eko CORE

### Eko Core User Manual

Last updated: 2019-08-21T17:18:49.000Z | [Online Version](#)

Click [HERE](#) to see our User Manual .

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## Assembling the Eko Core Attachment

Last updated: 2019-07-22T21:29:18.000Z | [Online Version](#)

Follow this simple 3 step process to attach the Eko Core to your analog stethoscope. The process should take less than 1 minute to complete.

### Step 1: Detach the Chest Piece

Remove chest piece of the analog stethoscope manually. Grip the chest piece with one hand and the tubing in the other, pull them apart. This may require some force. If you cannot remove the head from the stethoscope, put the tubing in hot water for a few seconds. See Figures 1 and 2 below.

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### Step 2: Install Eko Core hardware

Insert the small end of the Eko Core hardware into the tubing of the stethoscope. The jack on the hardware fits into the hollow opening of the tube. NOTE: ensure the small end of the Eko Core fits onto the tubing for the earpieces. See figure 3. below.

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Test to ensure successful installation. The inner part of the tubing should be sealed so that the sounds can be transferred.

### **Step 3: Reattach Tubing and Chestpiece**

Attach the piece of additional tubing onto the end of the Eko Core hardware as shown below. Then attach the chest piece into the connector tubing as it was on the analog stethoscope. Ensure that the large end of the Eko Core is towards the head of the stethoscope.

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## **Choose a tubing adapter (Narrow, Slim, or Straight Fit)**

Last updated: 2019-08-13T16:39:30.000Z | [Online Version](#)

### **Choose a tubing adapter (Narrow Slim, or Straight Fit)**



To get the best sound, we recommend you test all Eko-supplied tubing adapters and select the one that provides the tightest fit with your analog stethoscope.

### **Step 1: Detach the Chest Piece**

Remove the chest piece of the analog stethoscope manually. Grip the chest piece with one hand and the tubing in the other, pull them apart. This may require some force.

See Figures 1 and 2 below.

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### **Step 2: Install Tubing Adapter & Eko Core**

Insert the small end of the Eko Core (the end of the Eko Core with the smallest diameter) into the open tubing of the analog stethoscope. Next, place the slim fit adapter onto the stem of the stethoscope chest piece (as shown in Fig. 3). Now, place the stethoscope chest piece with the attached adapter onto the open stem of the Eko Core (as show in Fig. 5).

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### **Step 3: Reattach Tubing and Chestpiece**

Attach the piece of additional tubing onto the end of the Eko Core hardware as shown below. Then attach the chest piece into the connector tubing as it was on the analog stethoscope. Ensure that the large end of the Eko Core is towards the head of the stethoscope.

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# Compatible analog stethoscopes

Last updated: 2019-07-27T23:08:27.000Z | [Online Version](#)

The Eko CORE has been tested with for 3M Littmann Cardiology II/III/IV, WelchAllyn Harvey Elite, Medline and ADC analog stethoscopes. Not compatible with sprague stethoscopes or other digital stethoscopes.

Please find a selection of just some of the compatible stethoscopes below:



Littmann Cardiology III



Littmann Master Cardiology



Littmann Classic II Pediatric



Littmann Classic II Infant



Littmann Classic II S.E.



Littmann Select



Welch Allyn Harvey Elite



Harvey DLX Double-Head



Harvey DLX Triple-Head

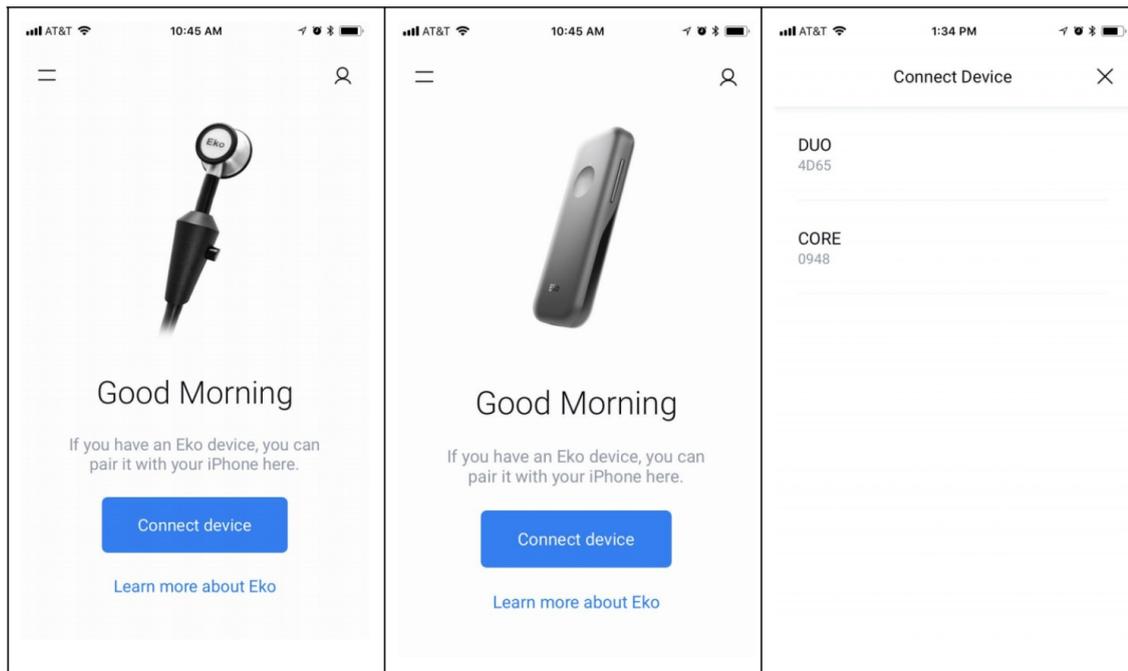
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# Connecting the Eko Core

Last updated: 2019-08-11T09:22:33.000Z | [Online Version](#)

To connect your CORE to the Eko app:

1. Open the Eko mobile app and login
  1. Create your account if you have not done so already
2. Turn on your CORE by toggling the on/off switch to the On position
3. On the app, click "Connect Device"
4. Select the CORE device on the screen and your device will be paired



# Powering on and off the Eko CORE

Last updated: 2019-08-18T17:48:20.000Z | [Online Version](#)

## How do I power on and off the Core?

Last Updated: Apr 18, 2016 03:00PM PDT

### Power On:

Slide the circular slider button on the side of the Core through the device such that the word "ON" is visible. The LED light on the Core will turn on and show flashing blue. When the Core is ON, sounds are amplified and the device may be paired with the Mobile Application.

### Power Off:

Slide the circular slider button on the side of the Core through the device such that the word "OFF" is visible. When the Core is turned OFF, sounds will be heard as through the analog stethoscope. No LED light will show on the device.

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# Charging the Eko CORE

Last updated: 2019-08-12T18:39:15.000Z | [Online Version](#)

## How do I charge the Eko Core?

Last Updated: Aug 10, 2016 12:31AM PDT

The battery in the Core may need to be charged immediately out of the box.

Plug the micro USB charger (included) into the charging port on the device. The LED light on the Core will begin to flash yellow, signifying that it is charging. The LED will change to solid yellow when the device is fully charged.

NOTE: Core will not be useable for auscultation while it is plugged in and charging.

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# Cleaning the Eko CORE

Last updated: 2019-08-12T18:41:34.000Z | [Online Version](#)

## How do I clean the Eko Core?

Last Updated: Sep 01, 2015 09:51PM PDT

The stethoscope and Eko Core should be cleaned between each patient use. All cleaning instructions pertaining to the original stethoscope apply.

Under normal conditions it is unnecessary to remove the Core from the stethoscope tubing for cleaning. All external parts of the hardware can be cleaned with 70% isopropyl alcohol wipes. NOTE: DO NOT immerse the device in any liquid or subject it to any high-pressure/autoclave sterilization processes.

If it becomes necessary to remove the Core, pull the stethoscope tubing off of the metal stem on both ends of the device. Wipe all parts of the stethoscope clean with 70% isopropyl alcohol wipes including the Core's surface, stethoscope tubing, tubing connector, and chest piece. Reassemble the stethoscope by reinserting the metal stems into the stethoscope tubing as before.

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## What is included in the Eko Core and Eko Core Bundle packages?

Last updated: 2019-04-22T20:52:08.000Z | [Online Version](#)

### What is included in the Eko Core and Eko Core Bundle packages?

Last Updated: Sep 01, 2015 09:42PM PDT

#### Eko Core:

The Eko Core package includes (1) Core, (3) stethoscope tubing adapters, (1) micro USB cable, and (1) USB charger.

For full functionality, the Eko Core requires an analog stethoscope and smart mobile device with wireless Internet capabilities (not included).



**Eko Core Bundle:**

The Eko Core Bundle includes (1) Eko Core, (1) Convertible Cardiology Stethoscope, (1) micro USB cable, and (1) USB charger. The Eko Core device is pre-attached to the analog stethoscope so the device is ready to use.



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## Using my Eko CORE

### Eko CORE Indications for Use

Last updated: 2019-08-04T12:48:23.000Z | [Online Version](#)

The Eko CORE System is intended to be used as a part of a physical assessment of a patient by healthcare professionals for diagnostic decision support in clinical settings. Eko CORE is intended for use on pediatric and adult patients. It can electronically amplify, filter and transfer sounds to the accompanying mobile application for storage and sharing. It can be used to record heart sounds and cardiac murmurs, bruits, respiratory sounds and abdominal sounds during physical examination in normal patients or those with suspected diseases of the cardiac, vascular, pulmonary or abdominal organ systems.

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# Introducing Eko Core

Last updated: 2019-04-22T20:59:36.000Z | [Online Version](#)

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## Hearing Loss Support for CORE

Last updated: 2019-08-04T12:47:43.000Z | [Online Version](#)

We want to make sure that you get the most out of Eko. If you are using either the CORE (Digital Stethoscope or Attachment) or the DUO with your hearing aids, here are some tips to get the most out of the sound amplification.

If you have hearing impairment but **do not use an assistive device** like hearing aids:

1. The Eko CORE amplifies up to 40x and can work with traditional stethoscopes. The CORE has a broad spectrum filter, if your hearing loss affects certain frequency ranges you will want to experiment with the different diaphragms available for your stethoscope (adult, pediatric, bell, etc.) to best compensate for your hearing loss.
2. The Eko DUO amplifies up to 60x and functions as a 100% digital stethoscope. The DUO has selectable audio filters to give users better control over the frequency range that they want to auscultate. The DUO comes with screw-in ear tubing that is similar to traditional stethoscope ear tubing, but users can also plug-in headphones that have a 3.5mm output. Users may want to experiment with headphones to determine what provides the best audio to overcome their hearing impairment.

If you have **non-Bluetooth hearing aids**, you can do one of two things:

1. If you are able, remove your hearing aids and use either the stethoscope (CORE) or the EARPIECE (DUO) to listen live. If you do not need to remove your hearing aids in this instance, of course keep them in.
2. If the first option does not work for you, you can use over-the-ear headphones plugged into the Eko app to listen live through the app.

If you have **Bluetooth hearing aids**, you can do one of three things:

1. If you are able, remove your hearing aids and use either the stethoscope (CORE) or the EARPIECE (DUO) to listen live. If you do not need to remove your hearing aids in this instance, of course keep them in.
2. If the first option does not work for you, you can use over-the-ear headphones plugged into the Eko app to listen live through the app.
3. To use the BT-pairing functionality, you can:
  1. Pair your Eko device with the app
  2. Create a recording
  3. Unpair or turn Off your Eko device
  4. Pair your BT hearing aids to your phone
  5. Listen to the recording in playback mode from the Eko app

For customers with **Cochlear implants**:

1. Eko recommends that users work with their audiologists to determine which Eko product is best. Our team is more than happy to schedule time with your care team to elaborate on how our products work to help you make the best decision. Email [contact@ekohealth.com](mailto:contact@ekohealth.com) to coordinate with our subject matter experts.
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# Ensure the best audio quality with the Eko Core

Last updated: 2019-04-22T20:59:36.000Z | [Online Version](#)

We want to help our customers achieve the highest quality auscultation when using our products, please follow the steps below to better ensure superior audio quality.

When using the Eko Core:

- If possible, perform auscultation in a quiet environment. While the Eko CORE includes firmware to reduce and mitigate ambient noise, it cannot eliminate all ambient noise and will amplify any ambient noise gathered by the diaphragm in use.
- Use the bell to best listen to low frequency sounds like heart sounds. Use the diaphragm to best listen to high frequency sounds like lung sounds.
- Hold the diaphragm firmly against the surface you will be auscultating from. Pressing too tightly against the surface can muffle sounds.
- If applicable, auscultate while your patient is placed in different positions (supine, standing, sitting).
- For details refer to the Eko Core User Manual LBL 002

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## How do I enable bluetooth pairing between my Eko Core and Eko Mobile Application?

Last updated: 2019-04-22T20:59:36.000Z | [Online Version](#)

### How do I enable bluetooth pairing between my Eko Core and Eko Mobile Application?

Sign into your Eko App and navigate to the Settings Panel by hitting the icon in the upper left hand corner of the screen. Then select "Bluetooth." If your Eko Core is turned ON and in proximity to your iPhone, it will appear with a name like "Eko Core 3.0." Tap on the device name to pair. If the Bluetooth connection is successful the LED light on the Core will turn from flashing blue to green. You should now also see a waveform on the center screen of the app. The mobile device is now ready to record sounds from the Eko Core.

Once you have completed this process once, your device will pair automatically when you open the Mobile App.

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# How do I adjust the Eko Core volume level?

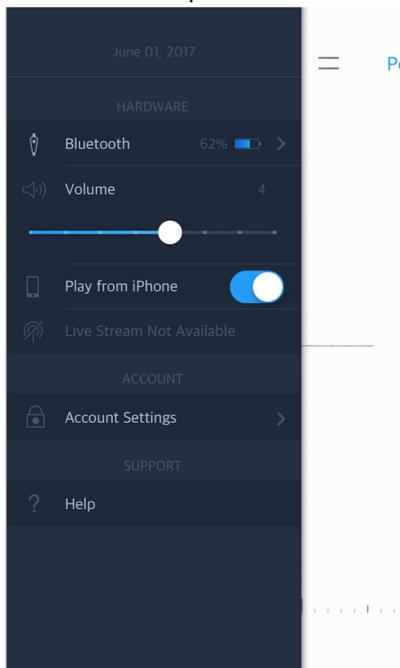
Last updated: 2019-07-14T07:53:43.000Z | [Online Version](#)

## How do I adjust the Eko Core volume level?

Last Updated: Sep 01, 2015 09:50PM PDT

The Eko Core's sound level can be amplified in 7 increments up to 40% amplification of an analog stethoscope. Change the volume level by clicking the plus (+) and minus (-) volume buttons on the side of the Core.

The volume can also be adjusted within the Eko app. Navigate to the Settings panel, the Volume control can be altered to increase the volume heard through the Eko Core itself. Will only adjust the volume when the Eko Core is paired with the Eko app.



# What are the Eko Core modes and corresponding LED states?

Last updated: 2019-04-22T20:59:36.000Z | [Online Version](#)

## What are the Eko Core modes and corresponding LED states?

Last Updated: Apr 18, 2016 03:01PM PDT

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## Manufacturing & Regulatory Information

### Eko Core Manufacturer & Regulatory Information

Last updated: 2017-09-01T22:54:07.000Z | [Online Version](#)

**1. Manufactured by:**

Eko Devices, Inc.

2600 10th Street, Suite #260

Berkeley, CA 94710 USA

**2.**



**Notified Body:**

VTT Expert Services Ltd.

Kemistintie 3, Otaniemi, 02150 Espoo, Finland

(Notified Body No. 0537).

**3. EC Authorized Representative:**

Emergo Europe

Prinsessegracht 20

2514 AP The Hague

The Netherlands

**4. Australian Sponsor:**

Emergo Australia

Level 20

Tower II, Darling Park

201 Sussex Street

Sydney, NSW 2000 Australia

Contact Eko's Support team with questions for further information:

[support@ekodevices.com](mailto:support@ekodevices.com) / 1-844-356-3384

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