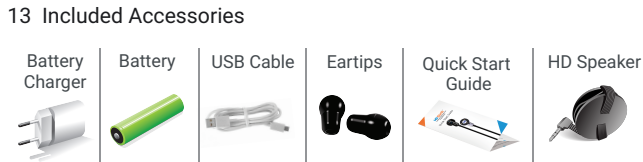## ⚠ CAUTION

IT IS RECOMMENDED NOT TO USE DEVICE FOR AUSCULTATION, WHEN BATTERY IS BEING CHARGED.
ATTEMPTING TO USE DEVICE WHILE CHARGING MAY NOT BE SAFE. USE ONLY HD SUPPLIED / AUTHORIZED BATTERY CHARGERS

WHEN NOT IN USE, IT IS RECOMMENDED TO TURN OFF DEVICE TO AVOID OVERHEATING

11 Turning Device Off

Momentary press power button to switch OFF device.

Auto Power OFF

The device will get automatically switched OFF, if no key is operated for 15 minutes. To switch on the device, press the power button.

12 Charging Battery

1 You may operate the device uninterrupted as long as battery icon shows at least one bar. Once the icon has no bar and starts blinking, charge device (Use Li-Ion 18650 rechargeable battery only).

2 Prior to charging, switch OFF the device. Insert charger unit into USB slot in the device and plug in charger to AC wall point (Use Li-Ion 18650 rechargeable battery only).

13 Included Accessories

Battery Charger	Battery	USB Cable	Eartips	Quick Start Guide	HD Speaker

Note: Use of Accessories NOT authorised by HD Medical Inc.
may damage unit and may result in wrong diagnosis.

Battery insertion procedure

Open lid of battery compartment and insert batteries as shown below to ensure proper polarity. Charge the device after inserting the battery for 3 to 4 hours in off condition.

Close battery compartment lid.

⚠ CAUTION

Inserting the Battery in the wrong polarity and trying to turn ON the device may damage the device. Confirm the polarity before inserting the Battery.

Symbols	Functions
	Power Button to Turn device ON/OFF
	REC Button to record heart sounds
	Mode Selection Button - To change between Bell, Diaphragm & Lung modes
	Right/Up Button to increase volume level.
	Left/Down Button to decrease volume.
	Home Button to go to Home Screen

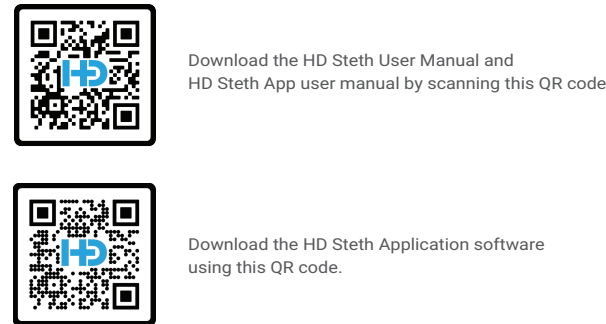| SL. No	Problem	Possible Reason	Solution
1	Device does not turn ON when Power button is pressed	Battery could be completely drained	Charge the Battery
2	Device battery does not get charged	It is possible that the battery could be faulty	Replace with new/ functional batteries
3	Unable to see anything on the OLED display	In case the device is subjected to large mechanical shock, it is possible that the OLED may be damaged internally though it may not be visible	Contact HDM Representative
4	Unexpected device behaviour	Failure of Processor	Contact HDM Representative

Cleaning instructions:

HD Steth™ may be used on a number of patients each day. Cleaning the chest piece and body of the device is imperative since failure to do so may cause infections or allergies to be transferred to susceptible patients.

Ideally the chest piece diaphragm should be cleaned after each use while the body of the HD Steth should be cleaned at the end of each day

Use a soft clean cloth or alcohol wipe to clean

Do not immerse HD Steth™ in water or any other form of liquid sterilization for cleaning.

⚠ CAUTION

1 DEVICE SHOULD NOT BE USED ON OPEN WOUNDS.
2 DEVICE SHOULD BE USED WITH PERSONAL PROTECTIVE EQUIPMENT SUCH AS GLOVES.

Download the HD Steth User Manual and
HD Steth App user manual by scanning this QR code

Download the HD Steth Application software
using this QR code.

FDA CERTIFIED 510 (k) # K201299

Please contact for further details

HD Medical Group

3561 Homestead Rd. #146 Santa Clara, CA 95051
✉ info@HDMedicalGroup.com ⬤ www.HDMedicalGroup.com
▮ +1.408.338.6244

0602-50014-000 Rev 00 Date of release 19:03:2019

HD Steth™

Intelligent Stethoscope with Integrated ECG

Quick Start Guide

Thank you for choosing the futuristic HD Steth™ manufactured by HD Medical Inc. USA

Intended Use

● To be used by trained clinicians and students of medical sciences.

● To be used for audio and visual output of heart sounds and visual output of ECG waveforms in HD Steth™ mobile App.

HD Steth App

● Not intended for home use.

● Not intended for continuous use.

● Not intended for use except as indicated.

Device Image – HD Steth™

1 Ear Tips
2 Binaural
3 Chest piece
4 Device Keypad
5 Micro USB Connector
6 Tubing
7 Battery Compartment

Device Keypad and Description of Controls

1 Record Button
2 Home Button
3 Left/Down Button
4 Power ON/OFF Button
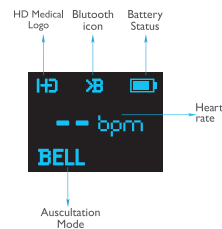5 Mode Selection Button
6 Right/Up Button

---

1 Device Power

Momentarily press power button to switch the device ON. Display will show HD Medical logo followed by the HD Steth™ logo.

2 Default display

Functional screen will be displayed after initialization. It shows following icons

HD Medical Logo | Bluetooth icon | Battery Status

Heart Rate

Auscultation Mode

3 Battery Indication

The battery icon on the right top corner of screen indicates battery charge level in device. The battery indication shows the level of charge present in the inserted battery. Ensure battery charger displays at least one bar so that the device can be operated

4 Volume Settings

Volume can be decreased by using Left/Down or can be increased by using the Right/Up button.
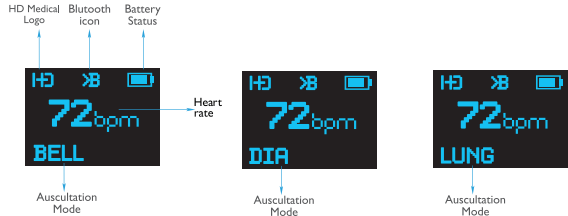
Default Volume Level in 3

5 Bluetooth Settings

Bluetooth is enabled by default.

6 Auscultating with the Device

1 Instruct patient to assume necessary posture for auscultation - sitting/supine/side-supine.

2 Place device on the patient's chest at required location to hear heart sound.

3 Select appropriate mode: Bell, Diaphragm or Lung by pressing "Mode selection" button.

HD Medical Logo | Bluetooth Icon | Battery Status

Heart Rate

Auscultation Mode — BELL
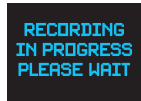Auscultation Mode — DIA
Auscultation Mode — LUNG

4 Place device on the patient such that chest piece is in contact with patient's chest at one of the four auscultation positions.

5 Heart sounds will be heard through earpiece.

7 Heart Rate Display

Heart Rate will be displayed once ECG electrodes make perfect contact with the skin and when heart sounds are stable.

8 Recording waveforms

RECORDING IN PROGRESS PLEASE WAIT

Once heart sounds are stabilized, press "REC" button. Display will show as "RECORDING IN PROGRESS PLEASE WAIT" while recording on the device is in progress.

9 Transferring recorded waveforms to Smart Phone*/Tab

1 Download 'HD Steth' App from Google Play Store

2 Open HD Steth™ mobile app in smart phone*/tab and connect HD Steth™ device.

3 Heart sounds and ECG waveforms will be displayed in the connected smart phone*/tab. Waveforms displayed corresponds to auscultation mode selected.

4 For Heart Rate place device directly on any auscultation point for more than 10 secs. Heart Rate will be displayed on OLED screen.

5 Ensure display of ECG, Heart sound (PCG) and color coded murmur content of PCG signal, if any, are in sync on Smart phone/Tab screen.

*App for Smart Phone is under development and will be available shortly in Google Play Store.

10 Replaying Recorded Audio using HD Speaker

● Connect the HD Speaker using the 3.5mm jack to the Audio port on the Smartphone/Tablet

● Place the HD Steth Chestpiece over the HD Speaker to hear the audio

● Make sure the HD Steth ECG Electrodes align with the three holes on the HD speaker for precise fit

● Select Open from the Main Screen of the App - Select the Patient file to be replayed and Press 'Replay'