



## ■ IMPORTANT SAFETY NOTES

### WARNING

In order to ensure safe and proper use of this device, please read this user manual completely before use

- The associated App for this device is designed for smartphones with Bluetooth version 4.0, Android version 6.0 or higher, and iOS version 11.0 or higher. For seamless experience, please confirm your smartphone meets these requirements prior to installing the App.
- Extreme environmental conditions, including extreme temperature, humidity, moisture, direct sunlight or dusty or salty air, can adversely affect the device's performance. Never store or transport the device under such conditions.
- Only use the device in a stable environment. Do not use the device anywhere there might be electromagnetic interference or high frequency surgical equipment.
- Never allow the device to come in contact with a strong acid or base. This may reduce both the accuracy and the lifetime of the device.
- Keep the device away from open flame or excessive heat. This can damage the internal electrical components.
- Do not use the device while it is under maintenance.
- Never attempt to calibrate the device by yourself. The device comes fully calibrated. Please contact the manufacturer when calibration is required.
- The device's performance could be adversely affected if the ECG cable is damaged or polluted.
- The device's performance could be adversely affected if the device is shaken or dropped. Always handle the device with care.
- In the event that the device becomes damaged or begins to malfunction, contact the manufacturer immediately. Never attempt to disassemble, modify or repair the device by yourself.
- Do not use the device on the on any part of the body that is injured or on any part of the skin that is infected or irritated.
- Stop using the device and contact customer service immediately if you find that the device's performance has changed or if you suspect the device has been compromised.

### CAUTION

- The test must be administered by a trained professional under the guidance of a doctor.
- It is critical that the patient remain relaxed, still, and silent while the measurement is being taken.
- To avoid external disturbances that may adversely affect the test result, the measurement must be taken in a quiet environment.
- Never take a measurement while the device is charging.
- Prior to taking a measurement, make sure the electrodes are in full contact with the patient's skin. The electrodes must remain in contact with the skin for the duration of the test.

### GENERAL CLEANING & MAINTENANCE

- Clean the device by wiping the surface with a soft, dry cloth.
- In the event that the device becomes extremely dirty, water or a neutral agent can be used to wipe the device immediately followed by wiping with a clean, dry cloth. Never submerge the device.
- Degreasing cotton with alcohol may be used to disinfect the device.
- Never attempt to disassemble or repair the device by yourself. Repairs can only be made by an authorized person. In the event of product quality issues, please call customer service for a consultation.
- Calibration is recommended to be conducted every 4 years, although strict tests are performed for each function before delivery. Please contact manufacturer when calibration is needed.

### ■ WARRANTY

The Limited Warranty applies to the ECG Device only and covers any defects in device material, workmanship, or function that occur during normal use or maintenance within the Warranty Period. During the Warranty Period, the manufacturer will repair or replace defective products or parts at no charge. The manufacturer may repair the product using new or refurbished parts. The Warranty Period for the ECG Device purchased from Wellnest Health Monitoring Private Limited is 365 days from the date of the purchase. The Limited Warranty does not cover any accessories included in the package, nor does it cover any problem that is caused by user conditions, malfunctions, or other damage not resulting from defects in the device material or workmanship. To obtain warranty service or any troubleshooting support, first, contact the manufacturer to determine the problem and the most appropriate solution for you. **The manufacturer reserves the right to make amends to the terms and conditions of this warranty as well as to make the final decision in regards to the warranty coverage. For detailed information on warranty, please refer [www.wellnest.tech/warranty](http://www.wellnest.tech/warranty)**

#### Manufacturer Contact Information

Company Name: Wellnest Health Monitoring Private Limited  
 Location: Ahmedabad, India  
 Contact Us: support@wellnest.tech

## ■ UNDERSTANDING THE PRODUCT

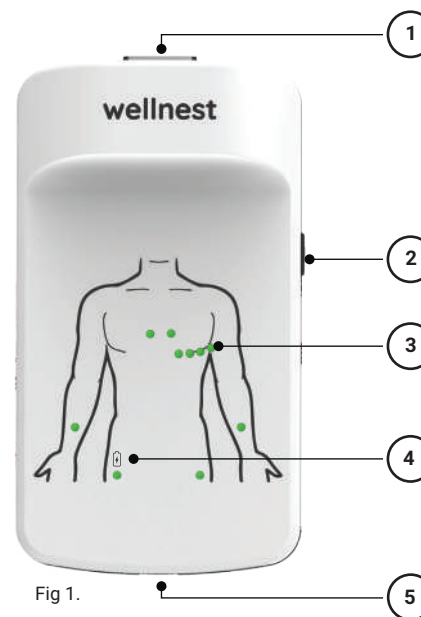


Fig 1.

- 1. ECG Cable Connector:** Connects to standard ECG cables via a DB15 connector
- 2. Power Button:** Used to power the device on/off
- 3. LED Indicators:** Indicates whether corresponding electrodes are properly engaged with the body
- 4. Battery Indicator:** RL LED indicates battery & connection status
- 5. Charging Port:** Connects to USB Type-B charging cable
















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## ■ INSTRUCTIONS FOR USE

- 1. Please charge Wellnest® 12L device for 8 hrs before use.**
- 2. Download the Wellnest® App:** The Wellnest® 12L device communicates with the "Wellnest 12L" Application for all its functions. The App acts as a remote control for the device, controlling the starting and stopping of ECG recordings. Download and install the mobile App from the Apple store or the Google Play store onto your smartphone, or you can scan the QR code provided on the device packaging. Wellnest 12L V2.0 also connects with a PC App.
- 3. Sign-up & Log-in:** Click on "Sign Up" for adding clinic/ organisation; if your organisation is already part of Wellnest ecosystem, continue by entering Unique Org Identifier. Existing users can "Log In" with valid phone number.
- 4. Long Press the Power button to turn on the Wellnest® 12L device:** Press and hold the device power button for 3-4 seconds. All the LEDs on the device should blink once upon start-up. Check RL LED feedback(on page 2) to see device battery status.
- 5. Connect the Wellnest® 12L device to the Wellnest 12L App:** Upon logging in, follow the step-by-step, in-app instructions to connect to Wellnest® 12L via Bluetooth or OTG cable. You will be notified in the App once the connection has been successfully established.
- 6. Connect the Wellnest® chest belt (or cables) to the device at the DB15 port:** Attach the provided ECG cable to the device on the DB15 port (Fig 1). The connector can be affixed with two screws, one on either side of the connector. Please ensure that you have tightened the screws adequately; the device may not take accurate readings if the port is not properly connected. For your safety do not pull the plug without loosening the screws.
- 7. Connect Wellnest® chest belt to the patient directly (or via standard 10 electrode cables):** Confirm that the patient is prepared for the reading by following the instructions in the "Patient Preparation" portion of this manual. Attach all the electrodes from the ECG cable to the patient's body. Refer to the "Electrode Positioning" portion of this manual for correct electrode placement.
- 8. Verify proper engagement of electrodes:** All LED indicators on the device should be green before you begin taking a measurement. Refer to the "LED Feedback" section of this manual for more information.
- 9. Take the ECG measurement:** After ensuring correct placement and positioning of the electrodes, press the start icon on the mobile App to begin the test. You should be able to view the ECG recording immediately upon test completion.

## LED FEEDBACK INDICATIONS

**Important Note:** The LED indicator light for the right leg ("RL") or ground position is the only multicolored indicator light and is therefore used for all other device indications. Unless ECG capturing is in progress, the color of the RL LED indicates battery status and not the connection status of the RL electrode with the patient's body.

LED Feedback		Indication
"RL" LED	All other LED indicators	
 Blue LED Blinking		Device is charging
 Blue LED Stable		Charging is complete
 Cyan LED Blinking		Battery Level: 60-100%, App is not connected
 Cyan LED Stable		Battery Level: 60 - 100%, App is connected
 Yellow LED Blinking		Battery Level: 31 - 60% , App is not connected
 Yellow LED Stable		Battery Level: 31 - 60% , App is connected
 Red LED Blinking		Battery Level: 30 - 0% , App is not connected
 Red LED Stable		Battery Level: 30 - 0% , App is connected
 Green LED 2 Sec On	 Green LED 2 Sec On	Device turning ON/ OFF
	 LED Off	Corresponding electrode are not connected
 Green LED Stable	 Green LED Stable	ECG recording in progress

## CHARGING THE DEVICE

The device uses a USB Type B port for charging. The included charging cable has two ends. Attach the USB-B end to the device and the USB-A end to any standard 5V USB charging adapter.

Please note that the device is designed to charge with 5V DC. Only charge the device using the included charging cable with a 5V USB adapter. Using the wrong cable or voltage output may damage the device. In the event that the charging cable is damaged or lost, contact our support team about obtaining a suitable replacement.

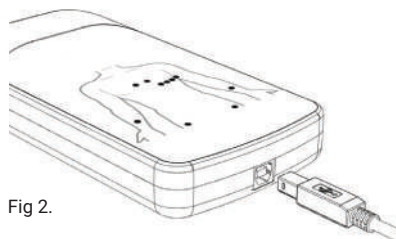


Fig 2.

## PATIENT POSITIONING

A slight ECG artifact is not uncommon. However, you can reduce further interference through the following steps

- Choose a room with minimal activity from other electronics. If possible, switch off non-essential electrical devices and equipment in the vicinity.
- Check for cable loops. Avoid running cables adjacent to metallic objects because they can affect the signal. Inspect all electrical wires or cables for damage and replace as needed.

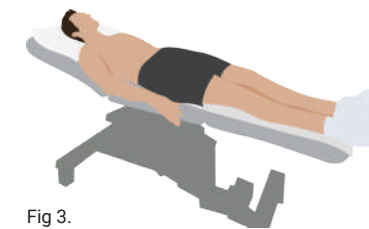


Fig 3.

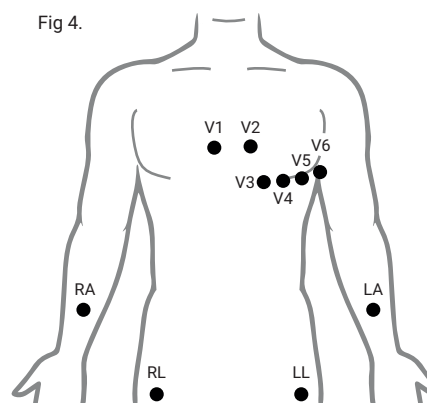
Patient factors, including the patient's respiration, position, smoking habits, recent dietary intake, or obesity, may also contribute to variance in the device's accuracy. It is therefore important that the patient is prepared both physically and psychologically for the procedure.











- Ensure the temperature in the exam room is comfortable. If the room is too cold, the patient may shiver and cause artifact or muscle tremors on the ECG.
- Ask the patient to remove their shirt, shoes and any other personal items with metal components such as smartphones, jewelry and belts.
- Have the patient lie down in supine or Semi-Fowler's position with arms resting flat at their side. For patients that do not fit comfortably on the exam table, ask them to gently cross their arms over their stomach.
- Identify the electrode sites by referring to the "Electrode Positioning" portion of this manual and, if necessary, thoroughly shave all body hair from the sites. Cleanse the skin at the electrode sites with alcohol wipes.
- Ask the patient to lie still and remain quiet until the test is complete.

## STANDARD ELECTRODE POSITIONING

ECG electrode placement is standardized to ensure the recording of an accurate trace. Poor electrode placement can result in inaccurate or misinterpreted results. Please specify on the app if you are taking a Right-sided or a Posterior ECG.

Fig 4.



Electrode	Color	Electrode Placement
RA	 Red	Any point on the right arm between the right shoulder and right elbow
LA	 Yellow	Any point on the left arm between the left shoulder and left elbow
V1	 Red	Fourth intercostal space at the right sternal border
V2	 Yellow	Fourth intercostal space at the left sternal border
V3	 Green	Halfway between leads V2 and V4
V4	 Brown	Fifth intercostal space in the midclavicular line
V5	 Black	Left anterior axillary line on the same horizontal plane as V4
V6	 Purple	Left midaxillary line on the same horizontal plane as V4 and V5
RL	 Green	Any point on the leftleg above the right ankle and below the torso; electrode should not be placed over bones
LL	 Black	Any point on the rightleg above the right ankle and below the torso; electrode should not be placed over bones

## BEST PRACTICES FOR MINIMIZING ECG WAVEFORM NOISE

- Ensure that the belt or the cable is properly attached to the device and that they are properly attached to electrodes (when applicable).
- Ensure that all electrodes are generously sprayed with conductive material, especially the RL electrode.
- Avoid capturing ECGs in an electrically heavy environment or while the device is in charge.
- Ensure that the body of the patient is not touching any electrically charged surface.
- Avoid contact of the patient's body with any metallic items, including belts, coins, jewellery, and mobile phones.
- Ensure that the patient remains still and relaxed for the duration of the ECG capturing process such that major muscle movements do not happen.