

## Wellue TH12

# Wellue TH12 12-Lead Portable 24-Hour Holter ECG Monitor

Instruction Manual

## 1. IMPORTANT SAFETY INFORMATION

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**Warning:** To avoid signal interference that could alter the recorded data, do not use this product together with a cardiac pacemaker. Consult your physician before using this device if you have any pre-existing medical conditions or concerns.

## 2. PRODUCT OVERVIEW

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The Wellue TH12 is a professional 12-lead portable Holter ECG monitor designed for continuous 24-hour cardiac activity recording. It features advanced AI analysis capabilities and supports data export to PC/Mac for detailed PDF reports. This device is intended for monitoring heart activity to assist in the diagnosis of various cardiac conditions.

# 24-Hour Holter ECG Recording



Figure 2.1: The Wellue TH12 monitor is designed for continuous 24-hour ECG recording, allowing for monitoring during various activities and sleep.

## 3. WHAT'S INCLUDED

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The Wellue TH12 package contains all necessary components for immediate use:

- Wellue TH12 Main Unit
- Electrode Cables (for 12-lead connection)
- Disposable ECG Electrodes (2 packs of 10 electrodes)
- Belt Pouch
- USB Drive with PC/Mac Software
- USB Cable
- SD Card
- Small Screwdriver
- Instruction Manual

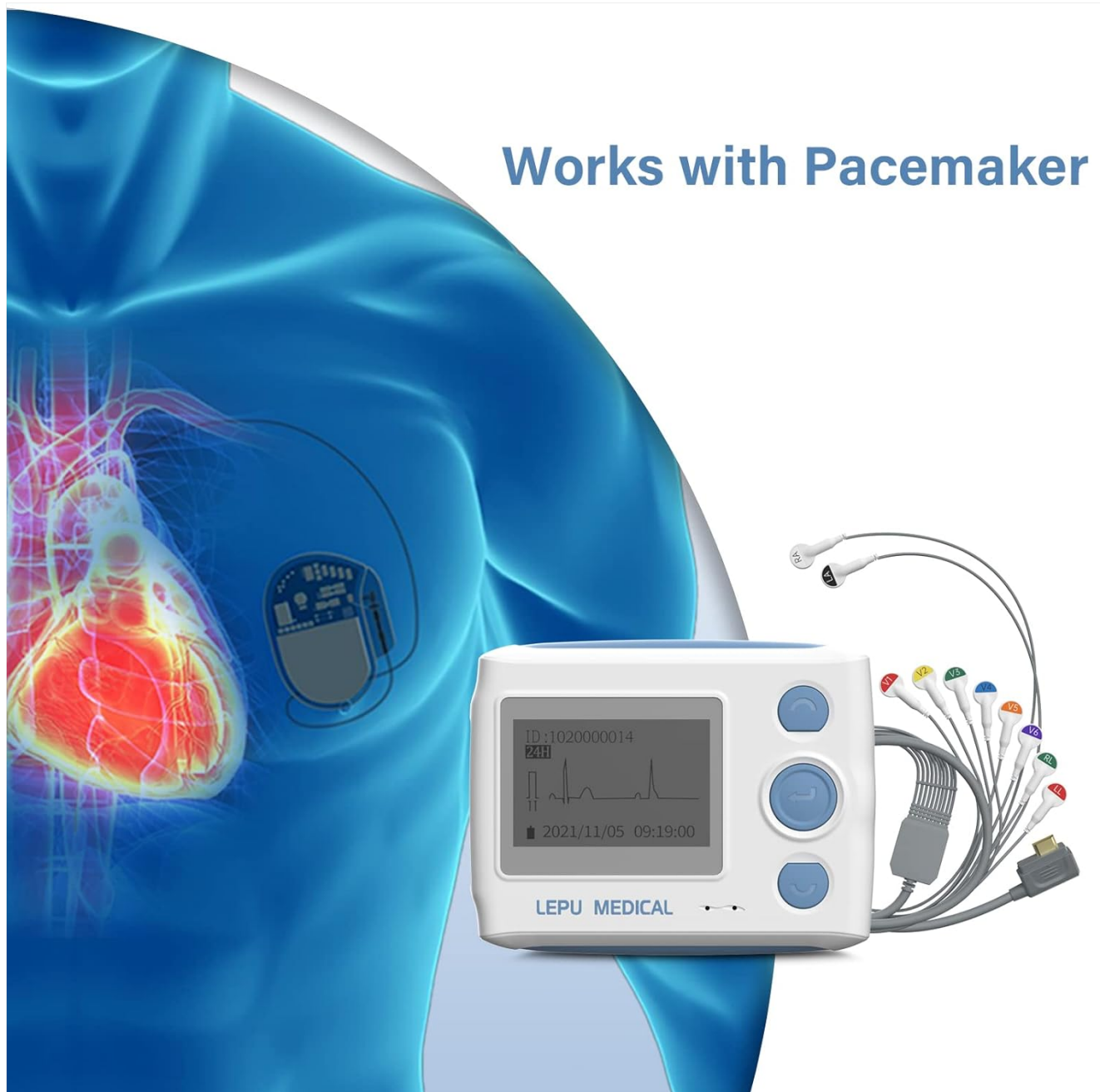


Figure 3.1: All components included in the Wellue TH12 Holter ECG monitor package.

## 4. SETUP

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### 4.1 Initial Charging and Battery Installation

The device uses a single AAA battery. Before first use, ensure a fresh AAA battery is installed. Use the provided small screwdriver to open the battery compartment, insert the battery, and close the compartment securely. A fresh battery is recommended for each 24-hour recording session.



*Figure 4.1: The device's battery compartment requires a AAA battery, accessible with the included screwdriver.*

## **4.2 Software Installation**

Install the Wellue AI-ECG Analysis System software on your PC or Mac using the provided USB drive. This software is essential for viewing ECG waveforms, analyzing data, and generating reports.

## **4.3 Electrode Placement**

Proper skin preparation and electrode placement are critical for accurate readings. Shave any hair from the electrode placement areas and clean the skin with a damp cloth to remove oils, then dry thoroughly. Refer to the diagram below for correct 12-lead electrode positioning.

# 12 Lead ECG Holter Recorder

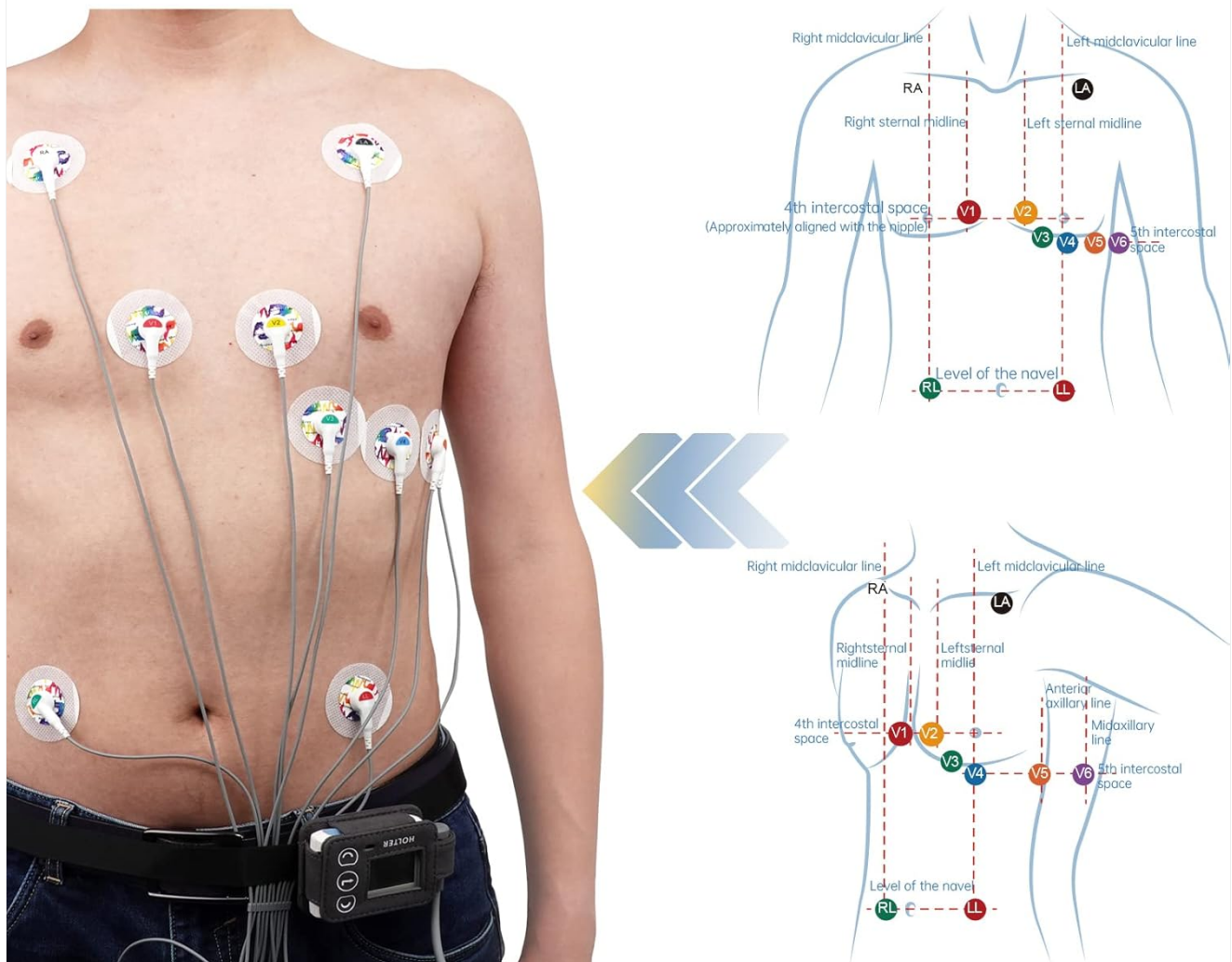


Figure 4.2: Correct placement of 12-lead ECG electrodes (V1-V6, LA, LL, RL, RA) on the chest.

## 4.4 Device Attachment

Connect the electrode cables to the main unit and then attach the electrodes to the prepared skin areas. Secure the main unit in the provided belt pouch for comfortable 24-hour wear.



## Lightweight & Portable



*Figure 4.3: The compact and lightweight design allows for comfortable and discreet 24-hour monitoring.*

## 5. OPERATING INSTRUCTIONS

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### 5.1 Starting a Recording

Once electrodes are correctly placed and the device is powered on, it will automatically begin recording. The device is designed for continuous monitoring for up to 24 hours.

### 5.2 Data Transfer and Analysis

After completing the recording, remove the SD card from the device and insert it into your computer using the provided adapter. Open the Wellue AI-ECG Analysis System software. You can then view the recorded ECG waveforms and initiate the AI analysis to generate a detailed report.

# AI-ECG Analysis System

Identifies up to 17 types of ECG events

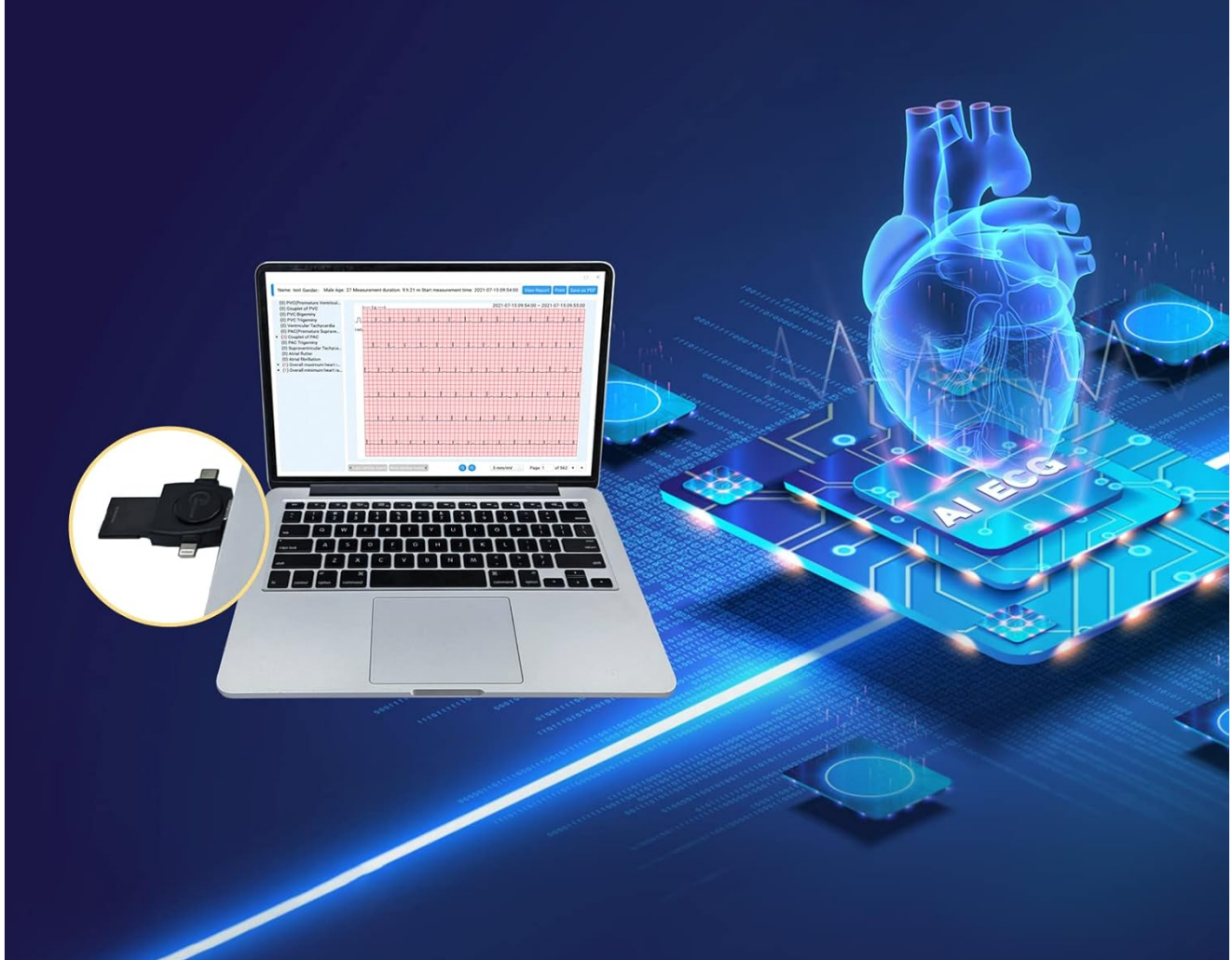


Figure 5.1: The AI-ECG Analysis System processes recorded data to identify cardiac events, providing detailed insights into heart activity.

# What can AI-ECG systems do?

Wellue	
ECG Report	
Basic Information	
Name : Fran	Gender : female
Age : 24	
Recording Time: 2021-11-11 14:01:52	-- 2021-11-11 18:33:52
Total Time: 4h32m	
Report Overview	
Total Number of Heartbeats (beats):	24703
Percentage of Atrial Flutter and Atrial Fibrillation:	0
Maximum Heart Rate:	137 bpm 17:15:50
Minimum Heart Rate:	71 bpm 18:00:46
Average Heart Rate:	91 bpm
Maximum RR Interval Duration (>1.5s):	0.00
Number of Long RR Intervals:	0
Number of Asystole:	0
The Longest Asystole Happened:	
Supraventricular Rhythm	
Total Number of Supraventricular Heart Beats:	0
Number of PAC:	0
Couplet of PAC:	0
Supraventricular Bigeminy (Paroxysmal):	0
Supraventricular Trigeminy (Paroxysmal):	0
Supraventricular Tachycardia:	0
Maximum Duration of Supraventricular Tachycardia(s):	0.00
The Longest Time of Supraventricular Tachycardia Happened:	
Ventricular Rhythm	
Total Number of Ventricular Heart Beats:	0
Number of PVC:	0
Couplet of PVC:	0
Ventricular Bigeminy(Paroxysmal):	0
Ventricular Trigeminy(Paroxysmal):	0
Ventricular Tachycardia:	0
Maximum Duration of Ventricular Tachycardia (s):	0.00
The Longest Time of Ventricular Tachycardia Happened:	
HRV	
SDNN: 63.55 ms	RMSSD: 25.68 ms
SDSD: 17.50 ms	PNN50: 5.60 %
LF: 644.44 ms <sup>2</sup>	HF: 366.74 ms <sup>2</sup>
ASDNN: 46.52	SDANN: 40.25 ms
	TINN: 31.15
	VLF: 1033.54 ms <sup>2</sup>

Identify up to 17 kinds of ECG events as below:

Sinus Rhythm  
Ectopic Rhythm  
Sinus Tachycardia  
Sinus Bradycardia  
PAC(Premature Supraventricular Contraction)  
PVC(Premature Ventricular Contraction)  
Couplet of PAC  
Couplet of PVC  
PAC Bigeminy  
PVC Bigeminy  
PAC Trigeminy  
PVC Trigeminy  
Supraventricular Tachycardia  
Ventricular Tachycardia  
Atrial Flutter  
Atrial Fibrillation  
HRV

Figure 5.2: The AI analysis can identify up to 17 types of ECG events, including different rhythms and contractions, providing a comprehensive overview.

## 5.3 PDF Report Export

The software allows you to download the ECG waveforms and detailed analysis reports as PDF files. These reports can be stored digitally or easily shared with your healthcare provider.



# Working with PC Software, PDF Report Export

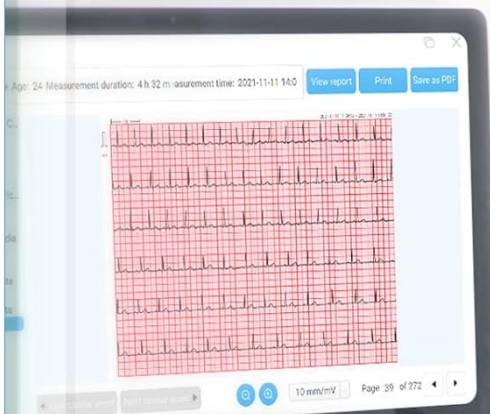
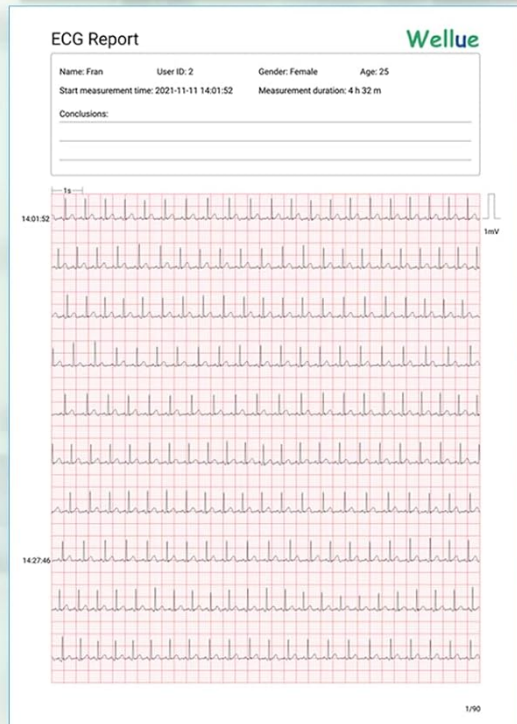
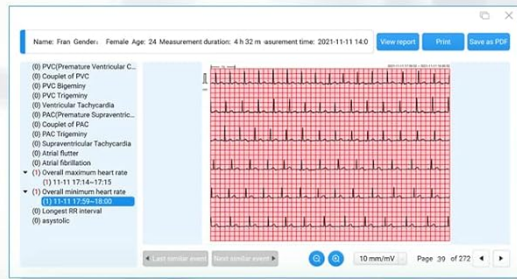


Figure 5.3: Recorded ECG waveforms and AI analysis reports can be exported as PDF files for easy sharing with healthcare providers or for personal records.

## 5.4 Video Tutorial

Video 5.1: This video provides a visual guide on how to set up the Wellue ECG monitor, connect electrodes, perform a recording, and analyze the data using the accompanying software.

## 6. MAINTENANCE

Keep the device clean and dry. Use a soft, dry cloth to wipe the main unit. Do not use abrasive cleaners or immerse the device in water. Store the device and accessories in a cool, dry place away from direct sunlight. Replace the AAA battery after each 24-hour recording session to ensure optimal performance and accurate data collection.

## 7. TROUBLESHOOTING

- **Software Login Issues:** If you experience difficulties logging into the Wellue AI-ECG Analysis System, ensure

your email and password are correct. If the issue persists after verifying credentials and attempting password reset, contact customer support.

- **Inaccurate Readings During Movement:** For the most accurate ECG readings, it is recommended to remain in a resting state during the recording process. Significant movement, such as walking or twisting the torso, can introduce artifacts and reduce the accuracy of the data.
- **Device Not Powering On:** Ensure a fresh AAA battery is correctly installed in the device. The device does not have a separate power button; it activates upon battery insertion and proper connection.

## 8. SPECIFICATIONS

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Specification	Detail
Manufacturer	Wellue
Model Number	TH12
Item Weight	1.01 Kilograms
Package Dimensions	22.7 x 16.3 x 8.6 cm
Battery Type	Alkaline (AAA)
First Available Date	June 27, 2022

## 9. WARRANTY AND SUPPORT

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The Wellue TH12 Holter ECG Monitor comes with a **1-year warranty**. For any technical assistance, troubleshooting, or warranty claims, please contact Wellue customer support.

**Customer Support Email:** [hello@getwellue.com](mailto:hello@getwellue.com)