evriMED500

MEDICATION MONITORING

AND

REMEMBER SYSTEM

AN INTRODUCTION

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1.0 ABOUT WISEPILL TECHNOLOGIES

Wisepill Technologies is an electronic manufacturer and software company, foundered in 2008 to address the serious problem of non-adherence to medication. Wisepill provides tools and solutions for clinical trials, medical research, disease management and every day medication management.

![The evriMED500 Electronic Module](image-url)
2.0 ABOUT THE evriMED500 SYSTEM

The evriMED500 is a desktop medication monitoring and reminder system.

Every time a pill dispenser is opened, the evriMED500 stores the date and time of the opening.

Adherence data and reports can be viewed on the Wisepill Cloud Server and on the mobile friendly browser application.
3.0 ABOUT THE evriMED500 DISPENSER

The evriMED500 dispenser consist of two hardware components, namely the electronic module and the medication container. This modular design allows the electronic module to be reused and the container to be replaced if needed. The electronic module slots into the container so that the indicator LEDs are visible through the front of the container (see figure below). A USB port can be accessed by opening the container.
a) USB Data Port

The electronic module has a USB port for downloading data and for configuration of the unit.

b) Indicator Lights/LEDs

The primary function of the three lights or LEDs are as follows:

- **Green** – Daily Alarm
- **Yellow** – Time to Refill Medicine Dispenser
- **Red** – Low battery warning

The LEDs can be enabled/disabled remotely via the server software or via the evriMED PC Application.

**The Green LED**

- The green LED
  - will flash once when the container is opened and again once when the container is closed.
  - will quickly flash three times when the container is opened and closed quickly
  - will flash in sequence during the (daily) Medication Alarm.
  - will be on solid, while connected via USB to the computer.

**The Yellow LED**

- When it is time to refill medication, the yellow light
  - will flash with the Green LED at the time of the medication alarm. If the Medicine Alarm is not enabled, only the yellow LED will flash
  - will be on solid when the container is opened.

**The Red LED**

- When the battery is low, the red LED
  - will flash with the Green LED at the time of the Medication alarm.
  - will be on solid when the container is opened.

**c) Buzzer**

- The buzzer is activated during the ALARM sequences. The dispenser emits a soft tone when the container is opened or closed.
- The alarm and lid buzzer sounds can be enabled/disabled via the PC evriMED application.
4.0 KEY TERMS AND FEATURES

a) Medication intake event

A medication intake event is an electronic record that is created when a patient opens the device to take his or her medication. It consists of a date-and-time stamp.

b) Heartbeat

A heartbeat is automatically recorded daily by the device and is an indicator that the device was functioning during that period.

c) The alarms

The alarm period is 30 minutes in length and consists of three alarm cycles. The alarm cycles are 10 minutes each and made up of two parts. These alarms apply regardless of the type of reminder selected.

- The first five minutes of the alarm cycle is the active alarm. During the active alarm, the buzzer will sound, and the green LED will flash in the following sequence: short, short, long. The yellow LED will flash if the “Refill Alarm” is configured and the date is less than or equal to the current date.
- The second five minutes of the alarm cycle is the passive alarm. During the passive alarm, the buzzer will not sound, and the green LED will not flash. The yellow LED will continue to flash if the “Refill Alarm” is configured and the date less than or equal to today.
- Opening the container will cancel the active alarm
  - If it is opened within four hours before the scheduled alarm or
  - If it is opened during the alarm period.
- Opening and closing the container quickly (i.e., a “quick open”) will “mute” the alarm. A quick open is configured as less than or equal to 2 seconds. A quick open event will stop the current active alarm, but not the alarm period. The alarm will again be active during the next alarm cycle. A quick open is assumed to not indicate a medication dosing event.

d) Battery Capacity

The evriMED500 makes use of two AA batteries which should last for more than 12 months.

e) Storage Capacity

The evriMED500 can store more than 12000 records/events.
5.0 INSTALLING THE BATTERIES

Step 1. Open the battery bay door and check the battery polarity indicators embossed on the plastic.

Step 2. Insert the batteries according to the polarity indicators.
a) The evriMED PC Application

The evriMED dispenser must be configured by the evriMED PC Application. The application is available for download from the Wisepill website.

The evriMED application allows a direct connection to the evriMED device via a USB cable.
Click the “Setup Pillbox” button on the lower left of the main window.

**Daily Alarm Setup**

An audible/visual alarm on the dispenser can be enabled and disabled (Enable Medication Alarm)
Note: By default, the Medication Alarm is not enabled.

Alarms can be enabled or disabled for each day of the week (“Repeat Alarm on these days”).

- **Medication Alarm** (Which provides reminders for each medication dose)
  - Daily reminder for the user to take his/her medication
  - Format: HH:mm & “Enable Medication Alarm” check box
  - Sample: 09:00 & “Enable Alarm”
Refill Alarm

- Future dated reminder for the user to refill their medication
- Format: yy/mm/dd HH:mm:ss & “Enable Refill” check box
- Sample: 17/12/31 09:00:00 & “Enable Refill” check box

Lid Setup

- The lid open/close buzzer tone can be enabled or disabled
- The lid open/close LED flash can be enabled or disabled

Time Setup

- Select the correct Time Zone from the dropdown list.
- Tick the “Assign Time Zone and Set to PC Time” checkbox and then click on the apply button to synchronize with the local computer date and time.

Uploading Events to the Wisepill Cloud Server

- The evriMED500 events can be uploaded to the Wisepill Server. Select the dispenser in the left-hand window and then Right click to see “options”. Choose “Upload to Cloud” to update the device events to the Wisepill Cloud Server.
- Please contact Wisepill to create dispenser accounts on the Wisepill Cloud Server.
7.0 CARING FOR The evriMED500

- The evriMED Dispenser is a pill box with a built-in electronic alarm clock and data logger. As with any pill dispenser, it should be kept as dry as possible.

- You can clean your evriMED Dispenser using a damp cloth.

8.0 Warnings

a) Battery Warnings

Two AA batteries are used in this device. If these guidelines are not followed, batteries may experience a shortened life span or may present a risk of damage to the device, fire, chemical burn, electrolyte leak, and/or injury.

- Do not immerse or expose the device to water or other liquids
- Do not disassemble, modify, remanufacture, puncture or damage the device or batteries
- Do not remove or attempt to remove the non-user-replaceable battery
- Do not expose the device or batteries to fire, explosion, or any other hazard
- Store the box and device in a place within the following temperature range: 0 °C to 35 °C
- Keep box and device away from high-humidity areas
- Keep out of reach of children

b) Magnet Warning

The device housing contains a magnet. Under certain circumstances, magnets may cause interference with some internal medical devices, including pacemakers and insulin pumps. Devices that contain magnets should be kept away from such medical devices.
## 9.0 SPECIFICATION FOR THE evriMED500

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Storage</td>
<td>12000 records</td>
</tr>
<tr>
<td>Battery Life (Alkaline)</td>
<td>12+ months</td>
</tr>
<tr>
<td>Power requirements</td>
<td>Two AA batteries</td>
</tr>
<tr>
<td>Weight: Module + Standard Battery and</td>
<td>280g</td>
</tr>
<tr>
<td>Standard Container</td>
<td></td>
</tr>
<tr>
<td>Dimension: Standard Container</td>
<td>166.9 mm x 129 mm x 71.4 mm</td>
</tr>
<tr>
<td>Dimension: Module</td>
<td>119.8 mm x 60.6 mm x 19.5 mm</td>
</tr>
<tr>
<td>Material</td>
<td>Polypropylene Copolymer</td>
</tr>
<tr>
<td>Temperature range</td>
<td>The Operating range is 0 to +50°C</td>
</tr>
<tr>
<td></td>
<td>The storage temperature is 0 to +70°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>20% to 65% non-condensing</td>
</tr>
<tr>
<td>Shock Resistance</td>
<td>Withstands a one-meter drop onto a solid surface</td>
</tr>
<tr>
<td>Protection from Liquids and Dust</td>
<td>Dust and splash resistant</td>
</tr>
<tr>
<td>Vibration</td>
<td>10 ~ 55Hz and amplitude 0.35mm</td>
</tr>
<tr>
<td>Safety</td>
<td>IEC 60950-1:2013</td>
</tr>
</tbody>
</table>
## 10.0 TROUBLESHOOTING AND LED FEEDBACK

The following LED flash codes provide additional information on the status of the device.

<table>
<thead>
<tr>
<th>No</th>
<th>Green</th>
<th>Yellow</th>
<th>Red</th>
<th>STATE</th>
<th>Status</th>
<th>TIME</th>
<th>ALARMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Flashing (sync)</td>
<td>Flashing (sync)</td>
<td>Flashing (sync)</td>
<td>Factory</td>
<td>No time set</td>
<td>NO</td>
<td>Unknown</td>
</tr>
<tr>
<td>1</td>
<td>Flashing (alarm)</td>
<td>Flashing (alarm)</td>
<td>OFF</td>
<td>No Alarms</td>
<td>Alarm Not Set</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>SLEEP</td>
<td>Self Test completed, sleeping</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>3</td>
<td>ON</td>
<td>OFF</td>
<td>Unknown</td>
<td>USB</td>
<td>Connected to power via USB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Unknown</td>
<td>Unknown</td>
<td>ON</td>
<td>Batt</td>
<td>Batteries Low, replace.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>