BMC

iCode^{TM} Software

USER MANUAL

Table of Contents

1. Overview

iCode software is a computer program that helps you to **decode** the string of coded information from RESmart Auto CPAP or other BMC sleep apnea therapy devices gas specific, and generate **RESmart iCode Report** for homecare provider.

The report provides a series of therapy statistics of the RESmart Auto CPAP or other therapy devices for positive pressure therapy patient, including **Average P95(hPa), AHI,…**

2. iCode Availability

iCode feature is currently available from RESmart Auto CPAP of BMC Medical Co.,Ltd. . It released on 2009-9-21 beginning with the firmware **version 1.47 which has upgraded continuously.**

For more firmware version information and the firmware update, including enhanced iCode features, please contact your service provider.

3. iCode and String of Code Frames

There are six strings of codes available in Auto CPAP or other BMC sleep apnea therapy devices.

iCode 1: provides data for the last 1 day of usage

iCode 7: provides a summary of the last 7 days of usage

iCode 30: provides a summary of the last 30 days of usage

iCode 90: provides a summary of the last 90 days of usage

iCode 182: provides a summary of the last half a year of usage

iCode 365: provides a summary of the last 365 days of usage

4. Generating Reports with the iCode Software

4.1. How to get the String of Code from device.

First of all, please refer to the user manual to learn how to enable the iCode function. iCode feature of the device should be enabled, or it will not be awarded although it can also record the daily use information.

Before using the iCode Software, you must firstly contact the patients and ask them to retrieve the Six iCode Strings of Code and Device Serial Number from their Auto CPAPs or BMC sleep apnea therapy devices.

Generally call the patients and ask them to power on their devices, and then press and hold the Ramp button until the setup menu appears (about 5 seconds) when system is standby. Next, press +/- User Buttons to access the "iCode" setting. Setting "**Enable**" in iCode menu.

The "iCode" consists of six separate codes displayed in the patient menu. These codes include "Last 1 Day", "Last 7 Days", "Last 30 Days", "Last 90 Days", "Last 182 Days" and "Last 365 Days".

4.2. How to get the final report through iCode Software.

The patients need to copy **Six Strings of Code** and **Device Serial Number** which can be got from the label under the device, and send them to their clinic doctor or service provider by email, fax or cellphone message. Once the desired Code(s) and Device Serial Number have been collected, they can be decoded using this iCode software and generate a BMC RESmart iCode Report.

Some of the iCode report information in the iCode Software is optional –You can delete some worthless information and that you don't want to display for patient on the final report. A terse report is easier for clinic doctor and patient to estimate cure effect.

When you have completed all of the information in the desired fields, including Device Serial Number and iCode Number, iCode software will generate the report automatically. After that, you will be able to save the report as a *.PDF document on your hard drive and distribute it by email or fax. You can also print the final page of the report for your patient.

Note: 1. Once the report is generated, the information can only be saved locally as a *.PDF.

※ To learn how to generate the *.PDF document in iCode software, please see page 7.

2. You **MUST** retrieve the **Device Serial Number** together with **String of Code** for

your clinic doctor or local service provider. Only a serial number is included, can the iCode software validate the collected codes to generate the final report.

5. Sample iCode Software

If you would like to take the iCode string of code to test iCode software, please feel free to use the following sample codes:

iCode software basic information

Device information

| Device Serial Number	:	11031371
iCode 1-day	:	672Y0E-2X2X-0E0F
iCode 7 -day	:	6039DN-3K3N-0M1H
iCode 30-day	:	784HEN-3K3M-0V2D
iCode 90-day	:	8F7UEV-3K3M-0W2H
iCode 182-day	:	A7CPEV-3K3M-0W2J
iCode 365-day	:	61JEEV-3K3M-0W2J

(Sample)

BMC RESmart iCode Report

Device Information

Serial Number: 11031371
Patient ID: 008
Patient Name: Peter
Date of Birth: 1962-3-10
Sex: Male
Address: 1234 Johnson st, AB, UN
Phone: (604) 778 1827
Notes:
Therapy From: 2011-5-10
iCode Collected: 2011-5-10

Usage Report

	Last 365 days	Last 182 Days	Last 90 Days	Last 30 Days	Last 7 Days	Last 1 Day
Day Count	365	182	90	30	7	1
Days of Therapy (> 4h)	131	131	66	21	4	0
Days of Therapy %	35%	71%	73%	70%	57%	0%
Avg. Daily Compliance(h:m)	07:42	07:42	07:42	07:36	07:04	00:00
Average P95(hPa)	11.5	11.5	11.5	11.5	12.0	0.0
Mean Pressure(hPa)	10.5	10.5	10.5	10.5	10.5	0.0
AHI	1.5	1.5	1.5	1.4	0.7	0.0
SNI	6.8	6.8	6.7	6.3	3.5	0.1
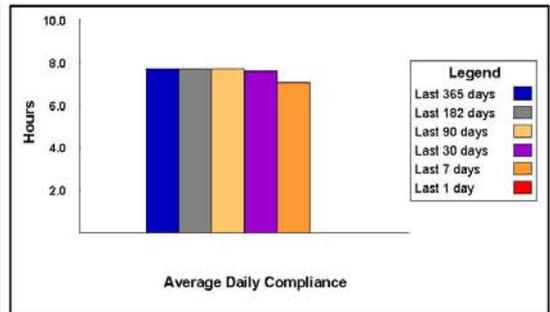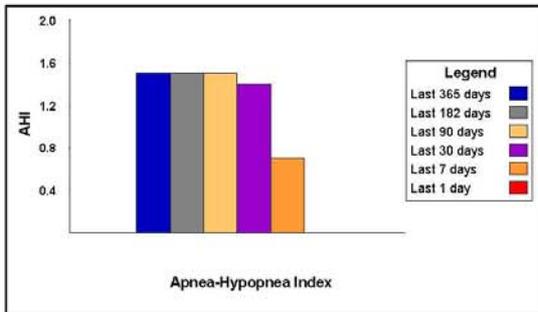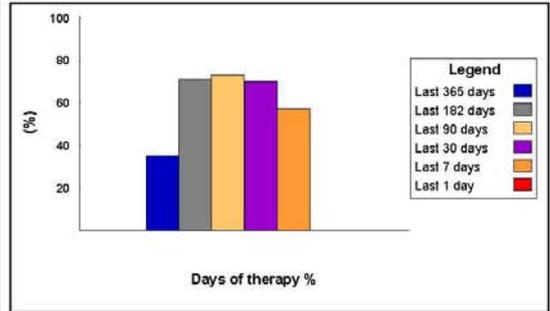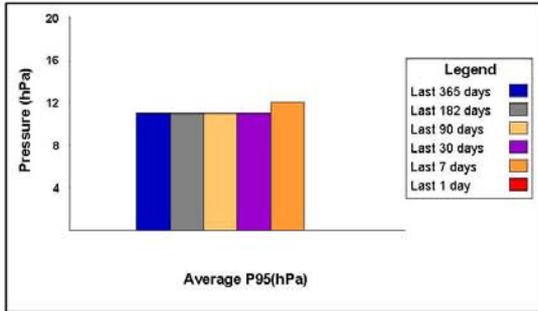
6. iCode Report Definitions

This is a list of report topics generated when you use iCode to track therapy effectiveness.

Day Count:
Shows the count of days for each timeframe. In most cases, however, the day count is equal to the days in the code's timeframe(s).

Days of Therapy:
Shows the number of days in the timeframe where the total usage each day is at least 4 hours.

Days of Therapy %:
Shows the percentage of days in the timeframe where the total usage each day is at least 4 hours.

Avg. Daily Compliance (H:M):
Average time in patient to use the device of sleep therapy.

Average P95(hPa):
Auto pressure at or below the pressure 95-percent of that it is in use.

Mean Pressure(hPa):
The mean pressure level, in hPa, delivered within the selected range.

AHI:
Apnea/Hypopnea Index (AHI), represents the average number of the apnea and hypopnea per hour for the timeframe.

SNI:
Snore Index (SNI), represents the mean snore count per hour.

7. Setup of the Software

7.1. Computer Requirements

The followings are the minimum computer requirements in order to configure the system and to transfer and print the iCode report.

- CPU≥PⅢ 1.0G,

- Memory≥256M (Above 1G if using Windows XP, Windows Vista, Windows 7)

- Display resolution ≥1024×768

- Hard disk ≥40G (At least 200 MB of free hard disk space required for iCode applications)

- Administrator privileges for installation of iCode software(if using Windows XP/Windows Vista/Windows 7)

- CD-ROM/DVD-ROM drive

- Mouse and keyboard

A **Notebook** also requires CD-ROM/DVD-ROM drive

7.2. iCode Software Installation

iCode software is available on a CD-ROM. Your computer should be running Windows XP, Windows Vista or Windows 7. If none of these operating systems is used, you must install or upgrade your system to one of them before installing **iCode.**
- Ensure that you meet the minimum system requirements listed above.
- Ensure that you have Administrator privileges and write permission..
- Ensure that all other applications are closed. Disable Anti-virus programs operating on your system.
- Insert the installation Disc into your CD/DVD-ROM drive of your computer.
- Run the "**RESmartENG.exe**", and the software Setup Wizard will start automatically. Follow on-screen instructions until the installation is completed.
- If prompted to allow the application to pass through the firewall, select **ALLOW**.
- While logging in as a Administrator, launch the application from the desktop

  icon .

8. Uninstalling iCode Software

Uninstalling removes all files that were installed using the iCode CD. Files created after iCode is installed, such as database and exported data, are not removed. You can manually delete these files after uninstalling the software.

1. From the Windows Start menu, select 'All Programs'.
2. Select 'RESmart ', then choose '**Unload RESmart iCode'**.
3. When the uninstalling is completed, restart your computer to ensure that any file that may have been used by your operating system is properly Eliminated.

9. Navigating

Three menus are available on the main iCode software page: **iCode**, **View** and **Help**.

iCode menu contains five available options: 'New Device', 'Print…', 'Print Preview', 'Print setup…', and 'Exit'.

New Device: Create a new patient file. You can also click on the toolbar.

**Print:** Print current iCode summary data report to printer.

Print preview: Preview the current summary data report prior to sending it to the printer. You can set a *.PDF document to save your hard disk. In some condition, your computer must be installed the Adobe Acrobat Professional (V.6.0 or above).

You can transform the report to the *.PDF document by a choice printer named as **Adobe PDF**. Click confirm button to save it as a *.PDF document in your hard disk.

Print setup: Provide adjustment of setting such as paper size, paper source, page orientation, choice of printer for both summaries.

Exit: End the iCode software session.

View menu contains two available options: 'Toolbars' and 'Status Bar'.
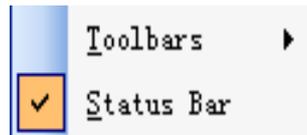
More information on the **Toolbars** tables contains 'Standard', 'Customize', 'Devices' and 'iCodeRecords',.

Help menu contains RESmart iCode Version and manufacturer information.

9.1. Creating a Patient Record

1. Select 'iCode' in the menu; then click the [New Device] button.

2. Complete new device information and click **OK**.

NOTE: You must enter a **Device Serial Number** which the patient is using. Additional information can be added to the record at any time.

3. Click 'New iCode'. Complete iCode information and click **OK**

4. iCode Records show average data for pressure and date.

5. In the BMC RESmart iCode Report, the usage report shows the Average P95(hPa), days of therapy %, AHI and Avg. Daily Compliance, etc.

9.2 New iCode, Edit or Delete

- To ADD a **New iCode** note: move the mouse on the Device service number of the Device menu. Click the right button, chose 'New iCode' option, enter the note in the text box and type new device service number and iCode string of code, then click **OK.** a new patient information is added.
- To **Edit** a note: move the mouse on the Devices menu, click the right button, chose 'Edit' option, edit the note in the text box and click **OK.**
- To **DELETE** a note: move the mouse on the Devices menu, click the right button, chose 'Delete' option and then click **YES** when prompted 'Are you sure to delete device'.


,
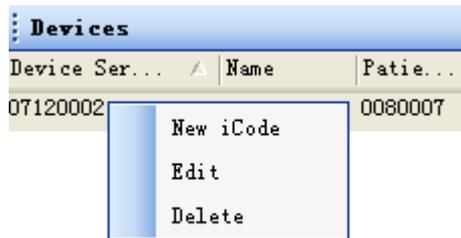
9.3. Print the Report

When the report will be printing, the BMC RESmart iCode Report page should be activated to display. Select the print preview in iCode menu, and then the preview of the report will be shown on the screen.

Similarly, selecting button in the toolbar, or **Printing** from File menu will show up the window for preview options.

The print work will be done after selecting the intended reports and pressing the

button. Click **Print setup** in the iCode menu to change the printer settings.
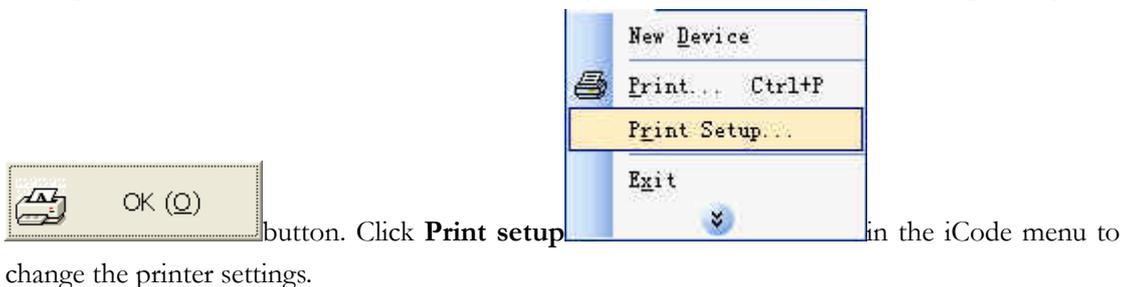
9.4. Exit Program

 To go back to Windows desktop, just click File in the menu and click iCode menu

Exit or ✕ at the top right corner.

10. Technical Support

For technical support and any equipment, please connect with BMC MEDICAL CO., LTD
technology service.