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# **App Manual**

BMC Mini App

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#### **1.Software Profile**

#### 1.1 Intended Use

The M1 Mini Auto CPAP system is a CPAP (Continuous Positive Airway Pressure) device designed for the treatment of adult Obstructive Sleep Apnea (OSA) only, either in the hospital or at home.

BMC Mini App is the control software of Mini Serial ventilator. The user can set parameters of the ventilator, control the running state of the ventilator by this software. The ventilator can upload the running data to BMC Mini App where they can be displayed, stored and uploaded to the cloud platform. BMC Mini App can also obtain the remote parameter setting of the cloud platform and realize the on-line firmware upgrade of the ventilator.

#### **1.2 Operating environment**

BMC Mini App includes the Android version and IOS version.

#### 1.2.1 Android version

a) Hardware requirements

CPU: Snapdragon 400 series and above, MT67XX series and above, Kirin 8 series and above and other mainstream chips;

Memory: 1G and above;

Hard disk: 16G and above;

Display: 4.0 inches and above, resolution 1136 \* 640 and above;

Interface: Compatible with BLE4.2, cellular network or WiFi network;

b) Operating system software platform: Android4.3 and above.

# 1.2.2 iOS version

a) Hardware requirements

CPU: A6 and above;

Memory: 1G and above;

Hard disk: 16G and above;

Display: 4.0 inches and above, resolution 1136 \* 640 and above;

Interface: Compatible with BLE4.2, cellular network or WiFi network;

b) Operating system software platform: iOS9.0 and above.

#### **1.3 Icon Profile**

Icon	Description	
C* Sleep	Sleep icon, click it to enter into the sleep therapy interface.	
Report	Report icon, click it to enter the data report interface.	
:== More	More icons, click it to enter into interface of more functions.	

*	Bluetooth icon, click it to enter into the Bluetooth management interface.	
	Message icon, click it to enter into the message management interface.	
Ŷᢤ Settings	Parameter setting icon, click it to enter into parameter setting interface.	
- Accessories	Consumables setting icon, click it to enter into the consumables setting interface.	
🎧 Fitting Test	Wearing test icon, click it to enter into mask wearing test interface.	
Å	Report sharing icon, click it to share the report.	
	Report time selection icon, click to select time period of a report.	

#### 2. Use of Software

#### 2.1 Software Installation

Search BMC Mini App (BMC Mini) in the Software App Store. Click to download and install it.

#### **2.3 Bluetooth Management**

#### 2.3.1 Bluetooth Connection

- Switch on, click the Bluetooth button of the ventilator, and the Bluetooth status light starts flashing, showing the ventilator is in the state of waiting to be connected;
- Open BMC Mini App, click the Bluetooth button to start searching for the device, select the Mini device you searched in the device list (the device name is "device serial number", you can see the device serial number on the device nameplate) to connect;

< Blue	tooth manageme	ent
Connectable device		
M1A19A08005		Unconnected
	Search	
Make sure the blue li	ght is flashing or	n your MP machine

• After the above operation, the Bluetooth connection is successful, and the Bluetooth working status light on the host should be always on.

#### 2.3.2 Bluetooth Maintenance

You can disconnect Bluetooth and re-select other devices to connect.

Sluetooth management	
Connected device	
M1A19A08005	Disconnect
Connectable device	
Search	
make sure the blue light is hashing on y	our we machine

#### 2.4 Sleep Treatment

#### 2.4.1 Device Control

- When connecting with Bluetooth, click the treatment button to display the current working pressure and delay time of the ventilator in real time;
- Unable to access the report page and other pages during treatment.



#### 2.4.2 Parameter Setting

- When the Bluetooth is connected, click the parameter setting button to enter the user parameter setting page; if the Bluetooth is not connected, a pop-up window will appear, click the confirmation button to enter into the Bluetooth management page;
- Click the parameter setting button and the treatment button at the same time, you can enter doctor parameter setting page;
- Unable to modify maintenance parameters in the doctor parameter setting page during treatment;
- If the parameters in the parameter setting page are modified but are not saved, a pop-up window will appear when clicking the return button, click cancel to stay in the parameter setting page, and click to determine the return to sleep page.

		<	Settings	synchro
< Settin	igs	Therapy		
Ramp	Auto >	Mode		AutoCPAP >
Reslex	Off >	Initial P		4.0cmH20 >
Auto On		Min APAP		10.0cmH20 >
Auto Off		Max APAP		15.5cmH20 >
Tubing Type	15mm >	SmartA		
Mask Type	Other >	Sensitivity		Standard >
Moisture Exchanger Typ	e Ordinary >	Leak Alert		
		Comfort		
		Ramp		Auto >
		Reslex		Off >
		Auto On		
Sav	e	• • • • • •		
			Save	
		R	estore default	s

#### 2.4.3 Consumables Setting

- When Bluetooth is connected, click the consumables settings button to enter into the consumables settings page, if Bluetooth is not connected, a pop-up window will appear, click the confirmation button to enter into the Bluetooth management page;
- Click the setting button to select the reminder cycle. If the number of days in the reminder cycle is less than the actual number of days in use, the actual number of days in use will be shown in orange red and otherwise in blue;
- The parameters may be reset by clicking reset days button. Clicking the reset button to makes the number of actual days become 0.

<	Accessories	
Air Filter Reminder cycle 7	7days <b>@Settings</b>	719
Mask Reminder cycle (	Off	719
Tubing Reminder cycle (	Off  Settings	719
Moisture Excl Reminder cycle (	hanger	719
Days since la	st cleaning	
Reminder cycle C	Off	719
	Reset	

# 2.4.4 Wearing Test

- When Bluetooth is connected, click the consumables settings button to enter the consumables setting page, if Bluetooth is not connected, a pop-up window will appear, click the confirmation button to enter the into Bluetooth management page;
- Put on the mask and click the start test button to view the current wearing status;
- Adjust the mask according to the interface prompt.

< Fitting Test	< Fitting Test	< Fitting Test
Waiting for test	Great	Please adjust
Start testing	Stop testing	Stop testing

# 2.4.5 Firmware Upgrade

- When the Bluetooth is connected, it will automatically detect whether firmware upgrade is required and a pop-up window will appear once entering into the sleep page;
- Click the OK button to enter the firmware upgrade page;
- Click the upgrade button to upgrade the firmware and display the upgrade progress bar. The screen will automatically stay on.
- After the upgrade is accomplished, Bluetooth will be disconnected and a pop-up window of re-connection will appear. It will enter into sleep page when clicking confirmation button after successful upgrade.



#### 2.4.6 Viewing Message

- Click the sleep page message icon, and enter into the message interface to view the message list;
- When the message is not read, the red dot is displayed at the front end of the message;
- Click on the message, and enter the message details page to view the message details;
- Slide the message to the left, and the delete button appears. Click the button, this message will be deleted.
- At most, 50 messages can be displayed.

< Messag	es	Kessages details
•System notification Please change the filter	2020-08-03 17:01	System notification
System notification Please change the filter	2020-07-30 17:39	2020-07-30 17:11
	0000 07 00 17:11	Please change the filter
Please change the filter	2020-07-30 17:11	Customer service number: 400-657-8667
		The use of the air filter has exceeded the replacement cycle. Please replace the air filter to ensure the normal performance of the device.

# 2.4.7 Mask Test

- In the option of maintenance parameter in the doctor parameter setting page, click the mask test button to enter into the mask test page;
- Click start test button for a 40-second test;
- If clicking the button again or the return button above during the test, a pop-up window will appear;
- After the test, click the save button and return to the sleep page



#### 2.4.8 Pressure Calibration

- Click pressure calibration button in the maintenance parameter option of the doctor parameter setting to enter into the pressure calibration page
- Click on the start button to start the pressure calibration function, and click boost pressure, reduce pressure to carry out related operations
- Click the stop button to stop pressure calibration

< Pressure calibration
Start Stop
Confirm
Increase Decrease

# 2.5 Report

#### 2.5.1 Report View

- Click the report button in the bottom navigation bar to enter the report page;
- When Bluetooth is connected, this page will automatically check whether there are data to be upgraded; if any, a pop-up window will appear;
- Click the bottom of the right side of week button, a pop-up selection button will appear for date selection.



# 2.5.2 Histogram View

- Click the effects option on the report page to view the histogram page;
- Click time on the top, a pop-up time selection box will appear for selection of customized time.



#### 2.5.3 Report Sharing

Click on the Share icon, and you can choose sharing ways to share the report to other applications.

# **2.6 More Functions**

In the interface of more functions, you can set up and view more information.

More		1
Personal Information		>
Change The Password		>
Set Preferences		
Upload sleep data		)
Pressure Unit	cmH20	>
Help		
BMC Mini App instructions		>
BMC Mini Instructions for use		>
BMC Mini website support		>
Video teaching		
About		
About the App		>
About M1 Mini		>
About BMC		>
Feedback		>
Data erasing		
Log out		
C II	:=	
Sleep Report	more	

#### 2.6.3 Data Uploading

- Users choose the switch on whether to upload sleep data, if it is closed, the treatment data will not be actively uploaded, the cloud will not record the analysis of user's treatment data;
- The upload data switch is enabled by default.



#### 2.6.4 Unit Setting

- When a user selects the pressure units, the selection box will pop up from the bottom;
- According to pressure unit selected by the user, the unit displayed in various pages will be changed.

Personal Inf	ormation	
Change The	Password	
Upload sleep	p data NGC Mark to split at my date to the clu	
Pressure Un	it	
BMC Mini A	pp instructions	
BMC Mini In	structions for use	
BMC Mini w	ebsite support	
Video teach	ing	
About the A	pp	
About M1 M	lini	
About BMC		
Feedback		>
Cancel	Pressure Unit	Confirm
	110.0	
	cmH2O	

# 2.6.5 Data Erasure

- Able to choose to erase control software data or ventilator data;
- When Bluetooth is not connected, the option of erasing the ventilator data is not available;

Personal Information	
Change The Password	
Upload sleep data How the App of EARS to upload my data to the cloud	
Pressure Unit cmH20	
BMC Mini App instructions	
BMC Mini Instructions for use	
BMC Mini website support	
Video teaching	
About the App	
About M1 Mini	
About BMC	
Feedback	>
Data erasing	
Erase all data in the App	
Erase all data in the therapy device 🛛 🔾	
Cancel Confirm to clear	

# 2.6.6 Instructions for Use

# 2.6.6.1 BMC Mini APP Instructions for Use

- Click the BMC Mini APP instructions option to enter the instructions page;
- Able to turn the page to view by sliding.



# 2.6.6.2 BMC Mini Instructions for Use

- Click the BMC Mini instructions option to enter the instructions page;
- Able to turn the page to view by sliding.



# 2.6.7 About

# 2.6.7.1 About APP

- Click on the About APP button and enter the About APP page;
- Click the option on Terms of Use to view the Terms of Use;
- Click on the Privacy Policy to view the Privacy Policy.

< About the App	< Terms of use	Privacy Policy
Version	/1.1.02	
Terms of use Privacy Policy	<section-header><section-header><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></section-header></section-header>	<text><text><text><text><text><text><text><text><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></text></text></text></text></text></text></text></text>

# 2.6.7.2 About device

- Click about the device button and enter the page on about device.
- If Bluetooth is not connected, there is no data;

Used hours 3 Firmware Version 1. Last sync 2020/08/	07
Firmware Version 1. Last sync 2020/08/	01
Last sync 2020/08/	
	03
Model . M1 N	ini
Serial Number M1A19A010	05
Product ID OFF0000MPV1	01
Product PIN 731	96

# 2.6.8 Opinion Feedback

- Click the opinion feedback button to enter the opinion feedback page;
- Click the input box, input questions and comments;

- If the input is less than 10 words, it is not able to be submitted, and click the submit button, a pop-up window will appear;
- If you enter more than 10 words, the submit button becomes blue;
- A pop-up window will appear after submission.



# 2.6.9 Video Teaching

- Choose different face masks, and you can see the corresponding linkage, videos about how to wear;
- View different steps by sliding.



# 3. Options of the Patient Menu and Corresponding Descriptions

# 3.1.1 Treatment setting

Option	Range	Description
Reslex	Off, 1/2/3	This feature enables the device to automatically reduce the treatment pressure when the patient exhales, so as to make the user more comfortable. The higher the numbering is, the more pressure the device reduces. "Off" means this feature is disabled.
Ramp Time	0 - Max Ramp	In order to increase comfort and help the patient fall asleep easily, the pressure can increase gradually, when

		the Ramp feature is enabled. The ramp time during which the initial pressure rises to the prescribed treatment pressure can be adjusted. The numbering increases or decreases by five minutes. The BMC Mini App displays a real-time countdown of the remaining ramp time in minutes
Auto on	On/Off	If this function is turned on,the therapeutic device will automatically start delivering air under preset pressure after the patient puts on a breathing mask and takes several deep breaths. Click to select "on" or "off".
Auto off	On/Off	If this function is turned on,the therapeutic device will automatically stop delivering air and shut down after the patient takes off the breathing mask. Click to select "on" or "off".
Tubing Type	22mm/15mm	There are two tubing types available.Click to select "22mm" or "15mm".
Mask Type	Full Face; Nasal; Pillow; Other	There are three mask types available, namely Full Face (full-face mask), Nasal (nasal mask), and Pillow (nasal pillow mask). But the patient can choose other suitable masks as well. When selecting masks other than the above three types of BMC masks, the patient can identify the masks as other.
Moisture Ex changer Type	None/Normal /Plus	It can be selected according to the moisture exchanger type of mask.
Mask Test	/	Test the leakage of the mask, if it is not provided by our company, it will be defined as "other" mask.

# 3.1.2 Consumables setting

Option	Range	Description
Remind cycle of Air Filter	Off/7 days/14 days/21 days/30 days/60 days/90 days	Set the air filter remind cycle, it will remind the user once the cycle is up.
Remind cycle of Mask	Off/30 days~720 days	Set the mask remind cycle, it will remind th e user once the cycle is up.The setting incre ment is 30 days
Remind cycle of Tubing	Off/30 days~720 days	Set the tubing remind cycle, it will remind t he user once the cycle is up.The setting incr ement is 30 days
Remind cycle of Moisture Exc hanger	Off/7 days/14 days/21 days/28 days	Set the moisture exchanger remind cycle, it will remind the user once the cycle is up.Th e setting increment is 7 days
Remind cycle	Off/180 days/360 days	Set the cleaning and maintenance remind cycle, it will remind th

of cleaning	e user once the cycle is up.
and	
maintenance	