

# **AudioMate**

## **Wireless Digital Media System**

**HCR-102: Wireless Audio Receiver**

**&**

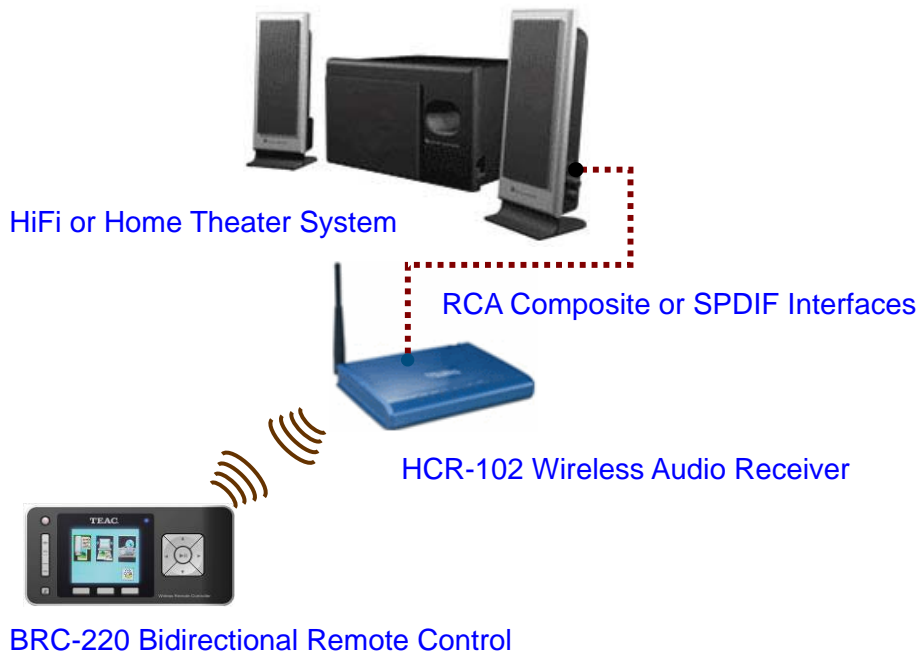
**BRC-220: Bidirectional Remote Control**

**VERSION 0.1**

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# 1. Introduction

BRC-220, a Bidirectional Remote Control is designed to work with HCR-102 audio receiver to provide long range interactive remote control function. In cooperating with standard based Bluetooth class 1 technology, BRC-220 can support more than 100M operating distance at clean open area (depending on environment configuration). The BRC-220 uses SPP profile to communicate with HCR-102 over Bluetooth.



## 2. Getting to Know the Media System

### 2.1. Checking Package Content

1. BRC-220



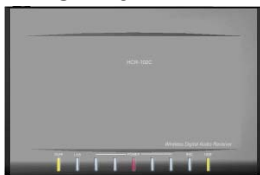
3. BRC Charging Stand



5. 5V/2A HCR Power Adapter



2. HCR-102



4. 5V/1A BRC Power Adapter (mini USB connector)



6. CD



7. QIG

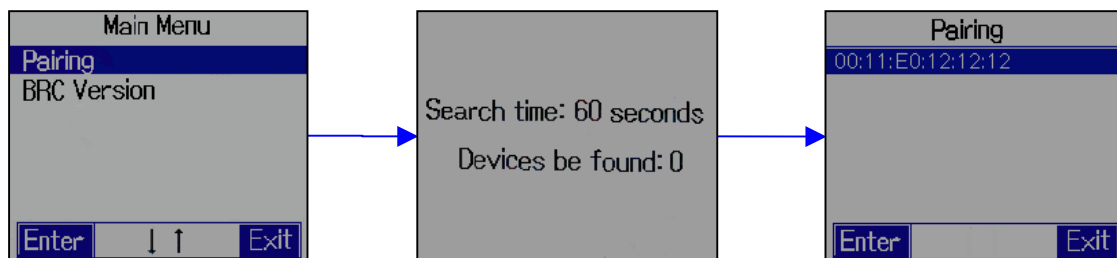
## 2.2. Getting Started

### Connecting the BRC and HCR for First Use

- 1 Connect the power adapter to HCR and power on HCR
- 2 Connect the power adapter (with miniUSB connector) to charge BRC and power on BRC. (You should charge your new BRC when you remove it from the package)

### Pairing the BRC and HCR for First Use

- 3 Pairing Main Menu will pop up on the screen after you turn on BRC. Select **Pairing** and press **Enter**, BRC will spend 60 seconds to search HCR nearby and list MAC addresses found. Select the MAC Address you want to pair with and Press **Enter**.

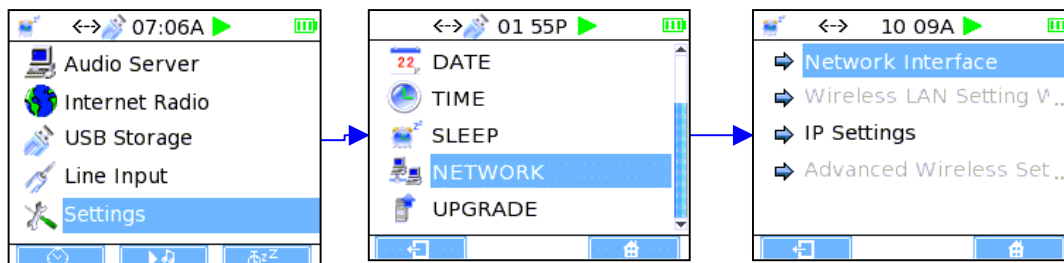


- 4 After Pairing process finish successfully, **Main Screen** will show up.



### Configuring Internet Connection

- 5 Go to **Settings**→**NETWORK**, choose the Network Interface you want to enable



- 5.1 **Network Interface:** LAN or WLAN. (If you choose LAN, 5.2 & 5.4 will be grey out)
- 5.2 **Wireless LAN Setting Wizard:** Scan surrounding access points and guide users to complete wireless settings
- 5.3 **IP Settings:** choose Auto / DHCP or Manual / Static IP

5.4 **Advanced Wireless Settings**

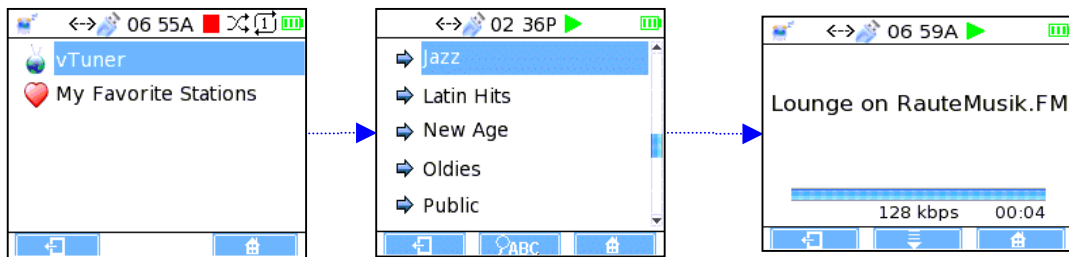
**Date / Time Settings**

- 6 Go to **Settings**→**NTP / DATE / TIME** to adjust date and time
  - 6.1 NTP: Network time synchronization and time zone selection.
  - 6.2 DATE: Current date setting when NTP is off
  - 6.3 TIME: Current time setting when NTP is off

**LISTENING TO INTERNET RADIO STATION / MUSIC**

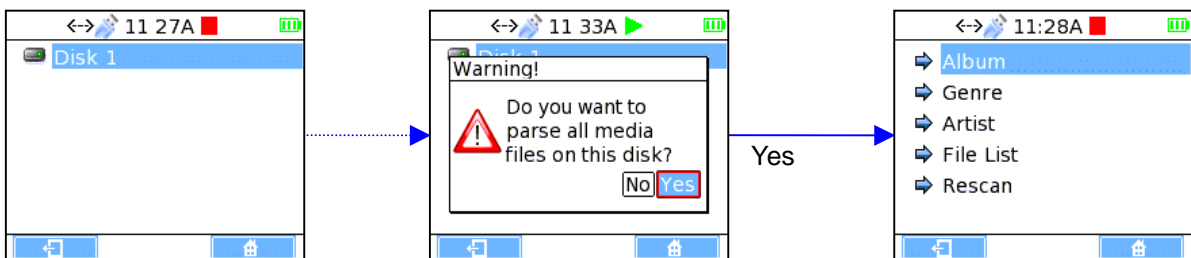
**Internet Radio Station**

Go to **Internet Radio**→**vTuner** and select stations you want to play. Click **Central Key** to start / stop play.



**Music on USB Storage**

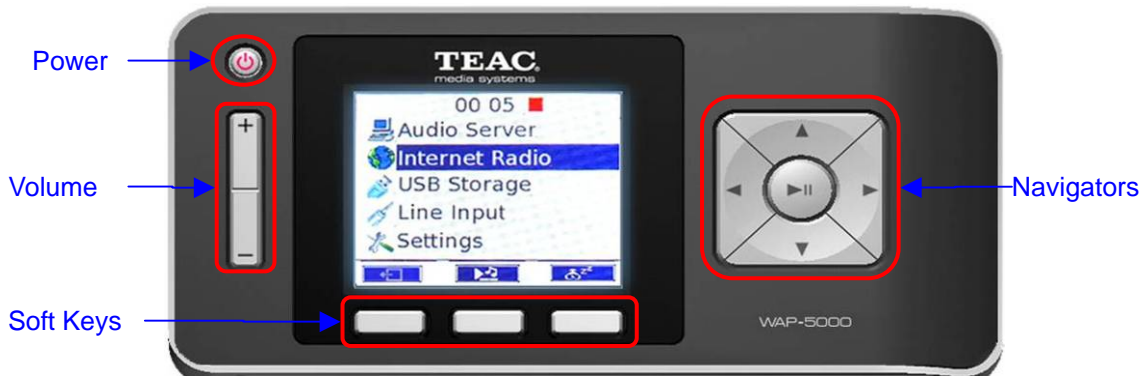
Go to **USB Storage**→**Disk** and select tracks playback. Click **Central Key** to start / pause / stop play.



The first time when you try to play USB Music, a warning message will show up to ask you to parse all media files. If you choose **Yes**, System will start Scanning→Parsing→Categorizing for all Media files on the USB Disk based on Album, Genre and Artist Category.

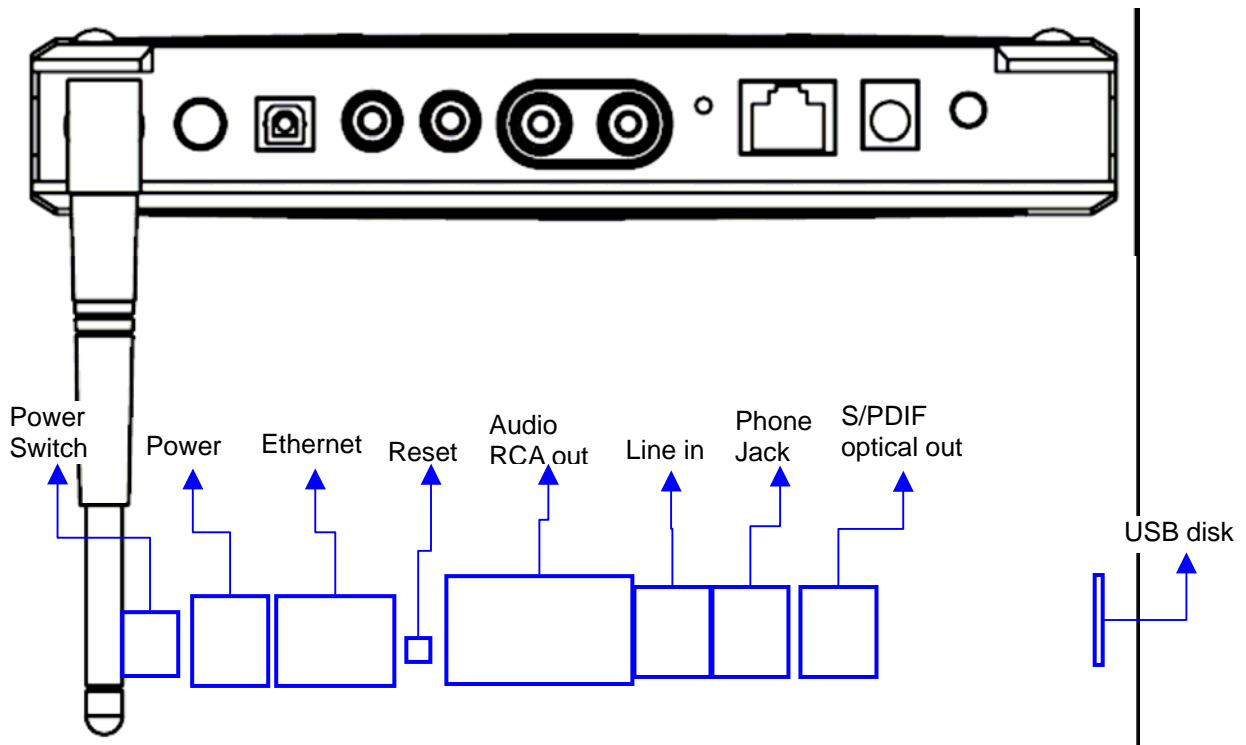
**2.3. Identifying Components**

**BRC-220**

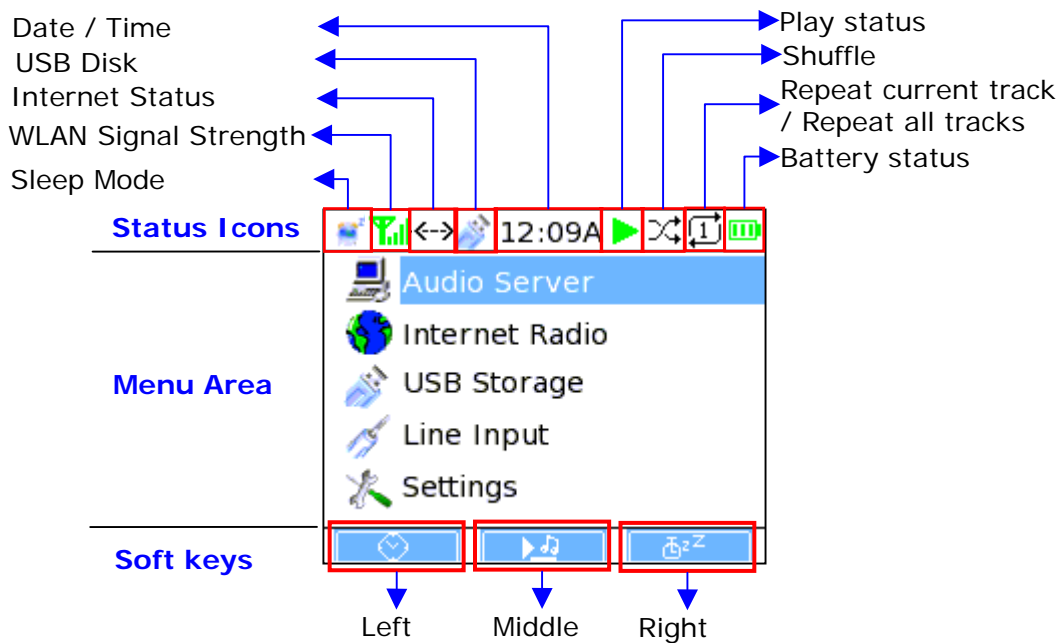


Keys		Description
<b>Power</b>		1. short pressing (1s): resume BRC if BRC is under standby mode 2. short pressing (1s): toggle mute state if BRC is powered on 3. Long pressing (3s): turn off BRC, SMR will go into stand-by mode
<b>Volume + / -</b>		Volume up / down (allow repeat key)
<b>Soft Keys</b>		Defined by each screen.
<b>Navigators</b>	<b>UP Arrow Key</b>	Scrolling up (allow repeat key)
	<b>DOWN Arrow Key</b>	Scrolling down (allow repeat key)
	<b>LEFT Arrow Key</b>	1. Go to last page 2. Rewind (USB disk) (allow repeat key)
	<b>RIGHT Arrow Key</b>	1. Go to next page 2. Forward (USB disk) (allow repeat key) 3. OK/Accept/Enter 4. Play
	<b>Central Key</b>	1. Play 2. Pause/Resume (short push: 1sec) 3. Stop (long push 2 sec) 4. OK/Accept/Enter

**HCR-102**



### 2.3.1. LCD Screen Layout



### 2.3.2. Status Icon Indication:

	Icon (20x20)	Description
Sleep Status		Indicate Sleep Function is activated. When only 10 seconds left before system go to sleep, this icon will change to a count

		down clock to tell user after 10 seconds some action will happen
WLAN Signal Strength		Indicate WLAN signal strength is "Poor", <b>RED</b> color
		Indicate WLAN signal strength is "Low", <b>RED</b> color
		Indicate WLAN signal strength is "Fair", <b>ORANGE</b> color
		Indicate WLAN signal strength is "Good", <b>GREEN</b> color
		Indicate WLAN signal strength is "Excellent", <b>GREEN</b> color
Internet status		Indicate Internet connection is established
		Indicate Internet connection fail, <b>RED</b> color
USB disk		Indicate USB disk is plug in
Date Time	Time	hh:mm tt (12 format), / HH:mm (24 format)
Play Status / Mute		Play, <b>GREEN</b> color
		Pause, <b>ORANGE</b> color
		Stop, <b>RED</b> color
		Indicate SMR is set to Mute.
Shuffle		Shuffle
Repeat		Repeat single (current) track
		Repeat all tracks
Battery Status		Indicate the battery is "Empty", <b>RED</b> color flashing
		Indicate the battery is "Low", <b>RED</b> color
		Indicate the battery is "Medium", <b>ORANGE</b> color
		Indicate the battery is "Full", <b>GREEN</b> color
	Flashing	Indicate the battery is "Charging" (flashing) Flash in <b>RED</b> (low), <b>ORANGE</b> (medium) and <b>GREEN</b> (high) until flashing stops when it is fully charged








### 2.3.3. Menu Indication:

Icon (24x24pixel)	Menu Items	Icon (24x24pixel)	Menu Items
	Audio Server		Songs
	Internet Radio		Playlist
	USB Storage		Screen
	Line-In		NTP
	Settings		DATE
	Media Server		TIME
	vTuner		SLEEP
	My Favoritae Stations		NETWORK



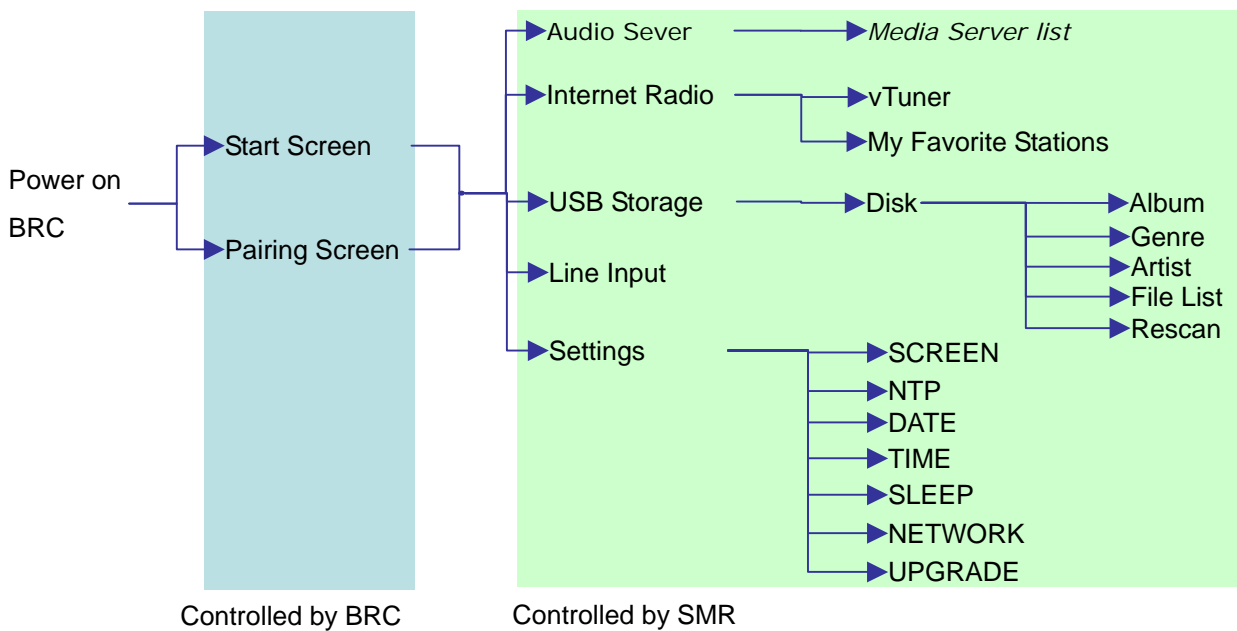


**2.3.4. Soft keys Indication:**

Icon	Name	Description
	Back	Back to previous layer of the current screen located
	Mode	More menu
	Main	Go to "Main Menu" screen
	Search	Search
	Playing	Go to "Now Playing" screen
	Clock	Clock
	Sleep	Set Sleep Interval

Note: button will only appear when this function is available.

**2.3.5. Menu Tree of LCD display**



# Appendix

## Product Spec

### HCR-102

Audio Output / Input	
Analog RCA outputs	TBC
Headphone output	Green (mini phone, 3.5mm) Volume control is provided
Digital S/PDIF output	Digital Optical Output, Optical connector: (TBC) Sample rates: (TBC) Volume control is provided
Line-in connections	Blue connector for external audio source, such as CD player
Audio Format	
Audio Formats	<ul style="list-style-type: none"> <li>- Uncompressed formats (WAV) (TBC, depends on customers)</li> <li>- Compressed formats (MP3, AAC, AAC+, WMA) (TBC, depends on customers)</li> </ul>
Internet Radio	<ul style="list-style-type: none"> <li>- Quick selection from hundreds of Internet Radio streams offered by vTuner</li> <li>- Internet Radio favorites can be saved in a playlist for easy access.</li> <li>- Displays song title information during playback</li> <li>- Support for MP3, and WMA formatted Internet Radio streams</li> </ul>
Bluetooth Radio Specifications	
RF Standard	Class 1 Bluetooth v2.0 Backward compatible with Bluetooth v1.1 & v1.2
RF Frequency	2.4~2.4835 GHz, ISM band
RF Output Power(Peak Power)	WLAN:11b: 20.60 dBm ; 11g: 21.23 dBm bluetooth: 14.16 dBm
WLAN Radio Specifications	
WLAN Standard	IEEE 802.11b/g standard
Security	Supports both WPA Personal, WPA2-AES and 64/128-bit WEP encryption
Antenna	3.985dBi external fix dipole antenna x 1
Physical Specifications	

<b>LED Indicator</b>	<b>WLAN</b>	WLAN link and activity if there is connection, full light wlan led. If there is wlan traffic, light wlan led but with quick flashing for traffic indication.
	<b>LAN</b>	LAN link and activity if there is connection, full light wlan led. If there is wlan traffic,
	<b>Power1,2 4,5</b>	BLUE when on, off when standby
	<b>Power3</b>	BLUE when on, RED when standby
	<b>USB Disk</b>	RED when BRC is connected, Off when BRC is not connected,
	<b>BRC</b>	RED when USB disk is attached, off if not attached
<b>External Port Interface</b>	<b>Power switch</b>	Turn on /off SMR
	<b>Power Jack</b>	For Power adapter
	<b>LAN</b>	For Ethernet connector
	<b>Reset button</b>	Rest to factory default
	<b>Line-out (L)</b>	Analog Audio out – Left
	<b>Line-out (R)</b>	Analog Audio out – Right
	<b>Line-in</b>	Audio Input from other sources
	<b>Phone Jack</b>	Headphone output
	<b>S/SPDIF output</b>	Digital Optical Output
	<b>USB port</b>	USB disk
<b>Power Supply</b>		Switch AC/DC Power Adapter. Input: 100-240VAC/60Hz, Output: 5V/2.5A.
<b>Dimension</b>		121.98mm(W) x 29.4mm (H)x 180.00mm(L) (TBD)
<b>Weight</b>		TBD
<b>ENVIRONMENTAL SPECIFICATIONS</b>		
<b>Temperature</b>	Operating	0°C to 40°C (32°F to 104°F)
	Storage	-20°C to 60°C (-4°F to 140°F)
<b>Humidity</b>	Operating	10% to 85% Non-Condensing
	Storage	5% to 90% Non-Condensing

## BRC-220

<b>Bluetooth Radio Specifications</b>		
<b>RF Standard</b>	Class 1 Bluetooth v2.0 Backward compatible with Bluetooth v1.1 & v1.2	
<b>RF Frequency</b>	2.4~2.4835 GHz, ISM band	
<b>RF Output Power(Peak Power)</b>	13.31dBm (TBD)	
<b>Physical Specifications</b>		
<b>Display</b>	<b>Type</b>	TFT LCD with 26K colors

	<b>Size</b>	2.0 inches
	<b>Resolution</b>	176 (H)x 220(W) pixel
	<b>Active Area</b>	31.68 x 39.6 mm
	<b>Pixel Pitch</b>	0.18 x 0.18 mm
<b>LED</b>		OFF – when BRC-220 is powered OFF Blinking when BRC-220 enters standby mode
<b>External Port Interface</b>		MiniUSB
<b>Dimension</b>		125 (L)x60(W)x16(H) mm
<b>Weight</b>		125g (TBC after drop test)
<b>Power Supply</b>		Charge via mini USB port
<b>Battery</b>		3.7V 850 mAh Lithium rechargeable battery pack (built-in)
<b>ENVIRONMENTAL SPECIFICATIONS</b>		
<b>Temperature</b>	<b>Operating</b>	0°C to 40°C (32°F to 104°F)
	<b>Storage</b>	-20°C to 60°C (-4°F to 140°F)
<b>Humidity</b>	<b>Operating</b>	10% to 85% Non-Condensing
	<b>Storage</b>	5% to 90% Non-Condensing

## Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### **IMPORTANT NOTE:**

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. [This equipment HCR102 wireless audio receiver should be installed and operated with minimum distance 20cm between the radiator & your body.](#)