2.4GHz Wireless Digital Baby Monitor

Manual User
Thank you for selecting this kind of product from us. In order to help you use and maintain the product better, please read the instructions carefully before operating.

### Function Introduction
- Adopt 2.4GHz Frequency transmission. accord with FCC, CE Standard;
- With high resolution 2.4" LCD display screen;
- Have operation text menu display function;
- Support one main and much attach, namely one receiver can connect 4 transmitters;
- Clear night vision function: realize 24 hours monitoring;
- Half-duplex Voice Transmission: Voice clear, volume of sound (0~10) is adjustable;
- Adjustable LCD screen: the brightness of LCD (0~10) is adjustable;
- Vox Alarm function: the volume of baby sound or happened in baby room over the volume which software of baby monitor has been fixed will alarm to monitor (screen automatically turn off, and then turn on with sound) to remind parents to pay more attention to baby;
- Monitor with TV Out function; support TV display;
- Monitor with real-time function, and display real-time information;
- Baby camera with temperature detection function and real-time display in the LCD Monitor;
- Support music player, eg. play sleeping music to help baby go to sleep;
- With pairing code function: make pairing through the pairing code buttons of monitor and camera.

### Camera Key Function Illustration
1. Night vision IR lights
2. Camera Lens
3. Low voltage/ code pair: Work indicator
4. Power/Pair key: when switch on the power or install the battery, short press this button until the power indicator light is on for a long time, and it stands for entering into normal working condition. After switching on, press this button for 3 seconds until the power indicator light flashing, this stands for pairing state. Meanwhile, pressing the Pair key of receiver until the power indicator light flash once, also it proves that pairing code is successful. Loosing the power button to work (The receiver can choose different channels to make pair code)
5. Microphone, pick up voice signal
6. Photoconductive resistance- Turn on / turn off night vision IR lights automatically. The IR lights will not on when the light is strong; the IR lights will on when it is dim.
7. 6V Power input

8. Temperature detector
9. Speaker/ loudspeaker
Box (4 pieces AAA battery)

三: Monitor Key Function Illustration

Monitor Front
1: UP Key  2: Down Key  Move Up and Down in the functional menu, adjust receiver volume in watching interface
3: Power Key
4: 6V Power input
5: Microphone, pick up voice signal
6: Sound Volume Indicator, 4 grades instructions
7: Power LED: Work indicator and pair code indicator
8: LCD Screen
9: Left Key
10: Enter Key, Short press to enter or exit menu, long press to set up real-time time
11: Right Key Left and right can adjust the numerical in functional menu, switch channels in watching interface, Left reduces the Channels and Right increases the Channels
12: AV Output, It is TV Display and without LCD Display when insert TV output (It will take about 2-3 seconds to switch over for insert or pull out)
13: Talk Key, Two-way talk/Play music Key  It can receive the voice from the camera before pressing this button. Meanwhile, it can receive the voice from the Monitor after pressing this button (LCD display T); and the Monitor has voice to realize two-way talk function (LCD Screen without T display) when press Talk key again. Also, long press Talk key to control the play or stop music.
14: Pair: When Power key in ON position, the power indication is on for a long time, and it means that it is in the state of work. If you press this button for 3 seconds until the power indicator flash, it means it is pair code state, meanwhile, you only need to press the power key of the transmitter until it flashes once, it proves the pair code is successful, and it can work after loosing power key.
Monitor Back
5. Speaker 16. Battery Cover 17. Battery Box( 4 pieces AAA Battery)

II: Operation Illustration

4.1 Turn on/Turn off operation
Monitor: Press Power key in ON to switch on directly, meanwhile it is switch off in OFF.
Baby: Short press Pair key of camera to turn on/off camera
Sleeping automatically when no signal, reduce radiation, lower power consume

4.2 Pairing code operation
4.2.1: Monitor with power, meanwhile cameras should be with power
4.2.2: Choosing the camera code which is going to pair by Left and Right Key of the Monitor, such as CH1
4.2.3: Press Power/Pair of Monitor for 3 seconds to make pairing, POWER light will flash, LCD display “# baby Pairing…”
4.2.4: Press the Power/Pair key of camera for 3 seconds, Green light flash and enter into pairing code
4.2.5: After pairing successful, Monitor will show “Paired” information, and connect with cameras automatically.
If no pairing code, it returns to original code and back to original state after 15 seconds.
Repeat Step 4.2.2 ~ 4.2.5 to make pairing code of Camera 2, 3, 4

4.3 Function Operation

Monitor:
4.3.1: Volume adjustment
Press Up and Down key of Monitor to adjust the sound volume;
LCD displays “ ”
Sound Volume 0 ~ 10 is adjustable
4.3.2: LCD Channels adjustment
Switch different Channels by Left/Right Key of the Monitor, and LCD will display the corresponding Channel number, eg, CH1
4.3.3: TV Output Function
After inserting AV Cable, it will switch to TV Display, pull out and switch to LCD Display (it will take about 2-3 seconds to switch over for insert or pull out). The information on TV as below:
- Display the video from the Baby port;
- Display battery power information;
- Display the current time information;
- Display the current baby CH number
4.3.4: Time Setup
Long press Enter Key for 2 seconds to enter into time setup (Clock flash). Press Left/Right Key to adjust the increase or decrease of the number; set up the hour first and short press Enter Key to confirm, then set up the minute, and short press Enter Key to confirm and exit after this. Meanwhile, it only can save time when insert the AAA battery and pull out the External Power Supply.

4.3.5: Menu Operation
Short press Enter Key to enter into Menu operation, LCD display:
Setting
Brightness <50%>
Baby Vol <50%>
Auto Sleep <OFF>
Vox Alarm <OFF>
Temp Alarm <OFF>
4.3.5.1: LCD Brightness
Press Up/Down Key to select the Brightness Menu
Press Left/Right Key to adjust the LCD brightness(0% ~ 100%)
4.3.5.2: Baby Camera voice volume setup
Press Up/Down Key to select Baby Vol Menu
Press Left/Right Key to adjust voice volume (0% ~ 100%)
4.3.5.3: Auto Sleep setup
Press Up/Down Key to select Auto Sleep Menu
Press Left/Right Key to choose Auto Sleep time (OFF 30S 1m 3m 5m 10m 20m 30m), The LCD Screen will not be off if you set in OFF position. After enter into Auto sleep pattern, the green LED of the baby port indicate and the Power LED of the receiver is on all the time.

4.3.5.4: Vox Alarm Setup
Press Up/Down Key to select Vox Alarm Menu
Press Left/Right Key to choose Vox(OFF/ON). If camera doesn't connect monitor, it will display (—). After choose ON for Vox Alarm and off-screen automatically, the LCD monitor will open the Screen automatically if there is any voice from the Baby camera.
4.3.5.5: Temp Alarm Setup
Press Up/Down Key to select Temp Alarm Menu
Press Left/Right Key to choose Temp Alarm(OFF/ON). If camera doesn't connect monitor, it will display (—). After opening Temp Alarm, if the temperature(3-5 meters from the baby) is below 10 degree or above 36 degree, there will be alarm sound.
4.3.6: Connect and switch on automatically function
If camera turn on and know monitor can not be connected, it will auto sleep;
When Monitor turn on and choose the current connecting camera which is in the sleeping mode, and the camera will work automatically, open video transmission and enter into
4.3.7: Two-way Talk Function
Short press Talk Key to enter into Talk mode; LCD Screen display "T" and it means that it is in the talk mode between monitor and camera (Baby can hear sound from Mommy);short press Talk Key again to exit Talk mode; (Mommy can hear the sound from the baby).

4.3.8: Voice Volume Indicator Function
Volume indicates the volume of the baby camera, lights number have something to do with baby volume; Volume louder, more LED lights on.

4.3.9: Music Player Function
Long press Talk Key to enter into Music Player; if there is a "M" below the LCD screen, it means it is playing music and music will be played by circulation. When monitor is off or enter into Auto sleep mode, the music will also stop. And long press Talk Key again to stop music player and there is no "M" display on the LCD.

4.3.10: VOX starting function
When Monitor is in the state of ON, LCD is OFF, it can receive VOX starting from any baby camera. Once it is VOX Monitor, will switch on and LCD display (If there is voice all the time, the LCD is on all the time; And it will be off screen and enter into Auto Sleep mode if there is no voice for about 5-10 seconds). Also the audio and video from the baby camera will prompt the parents to check the Baby.

When Monitor is in the state of OFF, you need to press the Pair Key of the Monitor to open the LCD screen. And when the Monitor enter into Auto Sleep Mode, you just need to press Pair key to open the LCD screen no matter how you set the VOX.

4.4: Baby Camera
4.4.1: LED Indicator Lights (Double colors lights)
4.4.1.1: Red indicator light (Battery state indicator)
Turn on with enough power: Red light is on for a long time and then turn off.
Turn on with low power: Red light flashes, light is on for 0.5 seconds every 5 seconds.

4.4.1.2: Green Indicator Light (Work state indicator)
Turn on and connecting: green indicator light is on for a long time.
Sleeping mode: green indicator light will be on for 0.5 seconds every 5 seconds.
Pairing code: Green indicator light flashes.
Turn off: Green indicator light is off for a long time.

4.4.2: VOX Function
When Vox of monitor is in the state of ON, if the sound of baby port are over the fixed sound volume which set by software, it will start the transmission of video and audio information from baby camera, and Monitor will receive audio and video information from baby port to remind parents to check baby.
VOX Transmission Power is 55dB+/-3dB.

4.4.3: Night Vision Function

- Identify the brightness to turn on or turn off night vision function automatically. It will take about 6 seconds to turn on night vision lights in the dim place. Also, it will take several seconds to turn off night vision.
- Night vision works, LCD will display white and black images.
- Night vision works, the night vision range is 2-3 meters. If without connecting, the night vision will only work for a short while after switching on (In dim circumstance). The night vision will work after connecting. Meanwhile, night vision lights will not work after the Auto Sleep (The night vision will work at once if connecting, after the Auto Sleep at night).

## Parameters

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Rate</td>
<td>15-25 Frame. Signal strong, frame high</td>
</tr>
<tr>
<td>Signal strength indication</td>
<td>6 grade</td>
</tr>
<tr>
<td>Voice Volume</td>
<td>10 grade</td>
</tr>
<tr>
<td>Talkback</td>
<td>Two-way talk, half-duplex</td>
</tr>
<tr>
<td>VOX</td>
<td>Switch on automatically when there is voice</td>
</tr>
<tr>
<td>One monitor with 4 transmitter</td>
<td>One receiver with 4 cameras, switch CH display</td>
</tr>
<tr>
<td>Temp Alarm</td>
<td>Yes</td>
</tr>
<tr>
<td>Realtime clock</td>
<td>Yes, 24 hours system</td>
</tr>
<tr>
<td>Temperature display</td>
<td>Yes</td>
</tr>
<tr>
<td>Music Player</td>
<td>Yes</td>
</tr>
<tr>
<td>LCD Size</td>
<td>2.4 inch 320*240 RGB color LCD</td>
</tr>
<tr>
<td>Transmission safety</td>
<td>Use after pair code</td>
</tr>
</tbody>
</table>
b: Electrical parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Voltage</td>
<td>DC: +6V/500MA; Battery: 4*AAA=1.5V</td>
</tr>
<tr>
<td>Frequency</td>
<td>2.4GHz ISM Band</td>
</tr>
<tr>
<td>Wireless Work Method</td>
<td>FHSS</td>
</tr>
<tr>
<td>Transmission Power</td>
<td>19dBm@CW mode</td>
</tr>
<tr>
<td>Transmission rate</td>
<td>3Mbps</td>
</tr>
<tr>
<td>Operating Range</td>
<td>Open field: 200-300 meter</td>
</tr>
<tr>
<td>Work current (Transmitter and receiver)</td>
<td>TX: 300mA MAX, RX: 300mA MAX</td>
</tr>
<tr>
<td>Work current for Auto sleep</td>
<td>TX: 35mA (once every 0.5s) RX: 20mA (once every 0.5s)</td>
</tr>
<tr>
<td>Audio rate</td>
<td>16K</td>
</tr>
<tr>
<td>Audio range</td>
<td>120Hz~3KHz</td>
</tr>
<tr>
<td>Sleep music function</td>
<td>12 musics looping</td>
</tr>
<tr>
<td>VOX Power</td>
<td>-80dB@MIC input</td>
</tr>
<tr>
<td>Camera resolution</td>
<td>0.3 Mega</td>
</tr>
<tr>
<td>Picture resolution</td>
<td>320*240QVGA</td>
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<tr>
<td>AV OUT function</td>
<td>5-15 frame VGA from AV Output</td>
</tr>
<tr>
<td>Video Rate</td>
<td>15-25FPS</td>
</tr>
<tr>
<td>Total harmonic distortion</td>
<td>&lt;5.0%</td>
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<tr>
<td>SNR</td>
<td>46dB</td>
</tr>
<tr>
<td>Receiving Sensitivity</td>
<td>-96dBm@BER=1e-3</td>
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<tr>
<td>Speaker</td>
<td>0.25W</td>
</tr>
<tr>
<td>Night vision range</td>
<td>2~3 meters</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>20~95%</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C~38°C</td>
</tr>
</tbody>
</table>

六: Note

1. Please do not operate in high temperature, high magnetic and strong light field.
2. Use the designated power adaptor and battery in case any serious damage of this product.
3. Do not put this product in those places which the temperature is extremely low or high.
4. Please turn off the power when you do not use this product. Meanwhile, please take out the battery when you do not use it for a long time.
5. Please avoid water and dust.
6. Please do not use thinner or other chemicals to wipe this product.
7. This product is designed for baby, please try to use it in interior. And it will reduce the display effect under strong light.

七: Problems & Solutions

1. There are screaming voice if the distance between the camera and monitor is near.
   Answer: This phenomenon is caused by the acoustical feedback, the audio signal by microphone is gleaned by receiver’s speaker and then the microphone pick the signal again and transmit them together with camera’s voice, the receiver will have louder voice than before. Therefore, it can cause the formation of self-excited oscillation round and round, and result in the screaming voice. However, you can solve this problem by turn down the speaker volume or insert the headset into the receiver.

2. No response
   Answer: Check whether the power adaptor is connected well, check whether the battery is installed well. Please install the battery in correct direction, and check whether receiver power button is ON position.