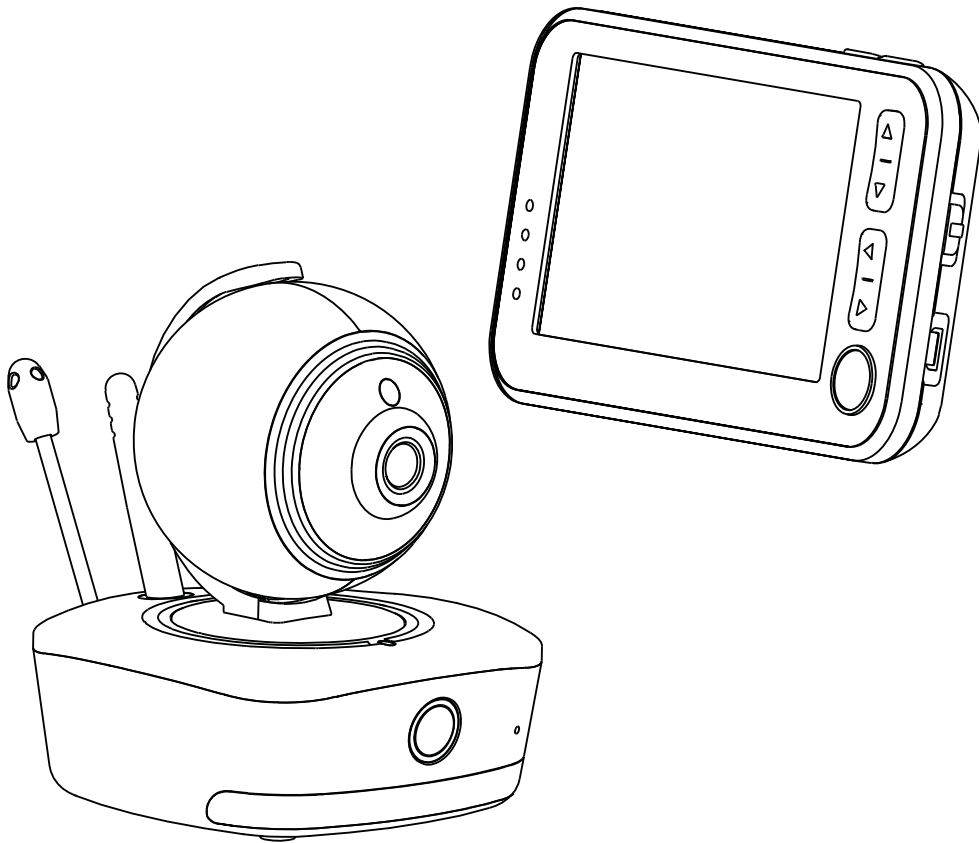


# VBC-69 Manual



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Thank you for purchasing our VBC-69 digital video baby monitor. Your unit has been manufactured and checked under the strictest possible quality control to ensure that each monitor leaves the factory in perfect condition. In the unlikely event you find any defects or have any problem, please contact our dealer or service center.

Please read this manual carefully to obtain maximum performance and extended service life from the unit.

#### **Features of VBC-69**

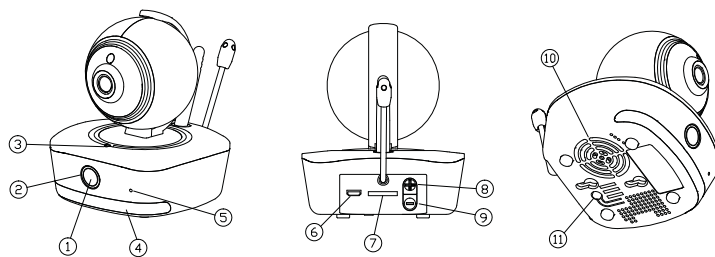
- 4.3" High definition colour screen
- 2.4GHz interference free digital communication
- Night vision with IR LED
- Lens with 60° field of view
- Horizontal 330° Vertical 110° lens movement by motorized mount
- Baby's room temperature indication with Hi/Lo alarm
- Night light and lullaby function
- Talk back function
- Automatic tracking of baby movement
- 300m operating range between camera and parent unit
- Automatically reduce radiation to minimum level under standby mode
- Expandable up to four cameras
- Optional movement sensor mat to monitor baby's breathing

#### **WARNING**

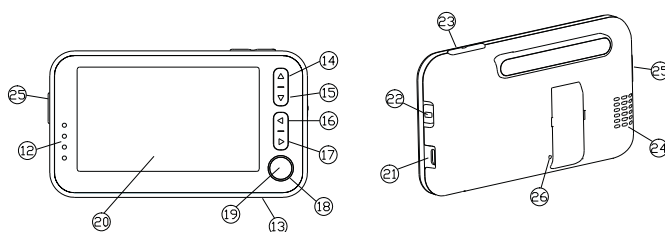
The VBC-69 should not be regarded as a medical device. Premature babies or those considered to be at risk should be under the supervision of your doctor or health personnel.

Direct supervision of your baby at a regular interval by a responsible adult is strongly recommended in addition to using this baby monitor.

## Control layout and Icons



Camera

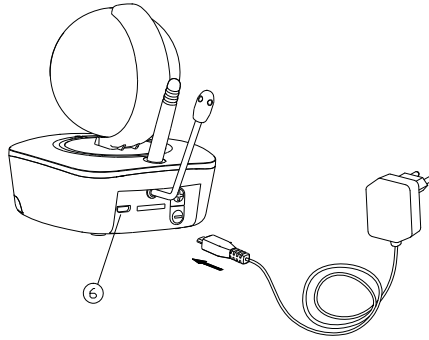


Parent Unit (PU)

- |                                     |  |
|-------------------------------------|--|
| ① Power ON/OFF button               | ⑩ Speaker  |
| ② Power ON indicator                | ⑪ Pairing button   |
| ③ Transmit indicator                | ⑫ LED level meter  |
| ④ Night light                       | ⑬ Microphone   |
| ⑤ Microphone                        | ⑭ Camera tilt up button<br>(up button in menu mode)      |
| ⑥ USB socket                        | ⑮ Camera tilt down button<br>(down button in menu mode)  |
| ⑦ SD card slot                      | ⑯ Camera pan left button<br>(left button in menu mode)   |
| ⑧ Night light intensity up button   | ⑰ Camera pan right button<br>(right button in menu mode) |
| ⑨ Night light intensity down button | ⑱ Power ON/Charging indicator                            |
|                                     | ⑲ Talk back button<br>(OK button in menu mode)           |
|                                     | ⑳ TFT colour screen                                      |
|                                     | ㉑ USB socket   |
|                                     | ㉒ Power ON/OFF/Vibration switch                          |
|                                     | ㉓ Volume up/down button                                  |
|                                     | ㉔ Speaker  |
|                                     | ㉕ Menu button  |
|                                     | ㉖ Pairing button   |

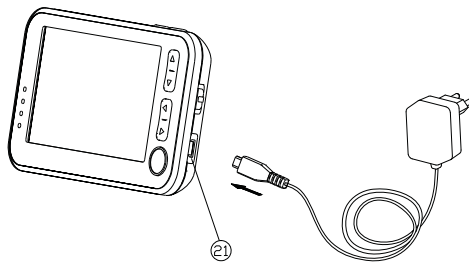
## POWER SUPPLY

### (A) Camera



Insert the output plug of supplied 5V 1A AC adapter to USB port ⑥ .

### (B) Parent Unit (PU)



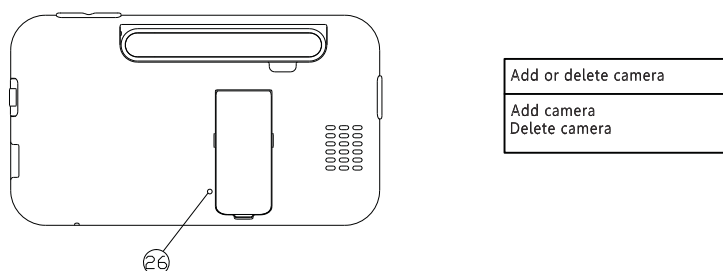
A Li polymer battery is already incorporated in the unit. To charge up the battery, connect the output plug of supplied 5V 1A AC adapter to USB port ②① . With the unit being switched off, the power indicator ①⑧ will light up red. Once the battery is fully charged up (normally it takes around 4 hours), the power indicator ①⑧ will go off or turn steady green (if unit is switched on). Now the unit is ready for operation. Either you can disconnect the AC adapter or keep connecting will cause no damage to the battery. In the latter case, when the battery is being consumed and voltage falls to a certain level, the AC adapter will automatically start charging up the battery again.

## Pairing the camera to parent unit

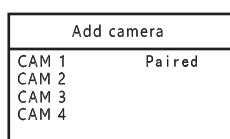
This process is to match the PU with camera so that they can communicate with each other while no other devices (even baby monitor of identical model) can interfere with you or receive your signal.

**The PU and camera are already paired when they are shipped out from factory.** However, it is necessary to perform pairing again when an extra camera is added to work with PU.

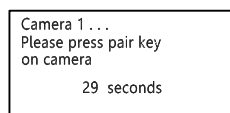
1. Switch on PU using the power on/off switch (22) and camera by long press power button (1).
2. Turn on PU screen (20) by short press any one button (14, 15, 16, 17, 18, 23 or 25).
3. Using a pointed object, short press the pairing button (26) of PU and the screen will show :



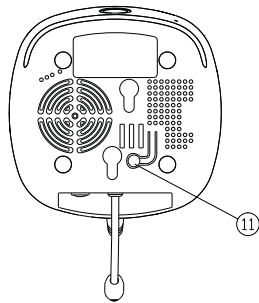
4. Use ▲▼ (14)(15) button to select "Add camera" (in case you need to delete a camera already paired, select "Delete camera"), then press OK button (19).



5. Use ▲▼ (14)(15) button to select a number assigned to the camera being paired (or the camera to be deleted), then press OK button (19).



6. Now short press pairing button ⑪ at bottom of camera, wait for around 5 sec and two beep sound will be heard which indicate pairing become successful and the screen ⑳ will show the image as captured by camera lens (if not successful, short press pairing button ⑪ again or repeat step 4-6 when the time elapsed exceed 30 sec) :



Add camera	
CAM 1	Pair ok
CAM 2	
CAM 3	
CAM 4	

7. Repeat above steps for other cameras. Note if you pair a new camera but selecting a number that is already paired, the new camera will override the originally paired camera.







## OPERATION

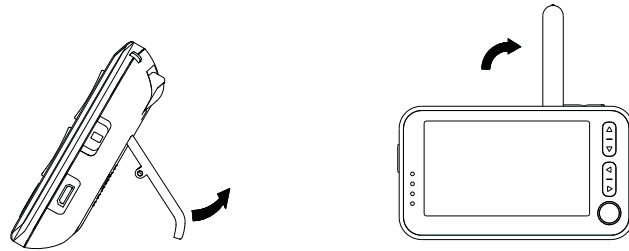
### Camera






1. Place the camera onto a stable table top or installed on wall but out of reach of baby (preferably 1m away).
2. Switch on camera by long press of power button (1), the power indicator (3) will light up green.
3. Adjust the microphone sensitivity (set on PU side) such that the camera will be triggered to transmit baby's voice whenever the microphone (5) picks up a sound at your desirable loudness level. Once the camera starts to transmit, the transmit indicator (3) will light up blue. When the baby becomes silent and microphone (5) does not pick up any sound, the camera will stop transmitting and go into standby mode. At the same time, transmit indicator (3) will go off. Under such mode, the radiation is reduced to minimum level.
4. The night light (4) can be set to OFF, ON or VOX (on when detecting sound) using the PU. The light intensity can be adjusted using + - buttons (8)(9).
5. This camera is incorporated with lullaby function which can be remotely turned on or off using PU. There are 6 different factory preset song/sound, parents can also download their preferred music (in MP3 format) to a SD card and insert into the slot (7) for more song selection. The volume of music heard in speaker (10) can be adjusted by PU.
6. When there is sufficient light intensity, the screen (20) will show a colourful image. Once the environment getting dark, the IR LED in camera will automatically turn on to illuminate the surroundings and the screen (20) will show a black white image.
7. Using the buttons ▲▼◀▶ (14) (15) (16) (17) on PU, parents can be pan (330°) or tilt (110°) the camera lens to capture the different view of baby.
8. When baby grows up to become a toddler, parents can activate the motion tracking function in PU and the camera lens will automatically track the movement of toddler .

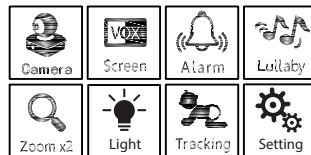



## Parent unit

1. Switch on PU by setting the power ON/OFF/vibration switch to either I or {{ position. (In {{ position, the unit will start to vibrate once there is sound from baby. Such vibration is to alert the parents in case they are not watching the screen). At the same time, the power on indicator (18) show steady green. If this indicator starts flashing green, the Li batteries have run down and need to be recharged using the supplied 5V AC adapter.
2. The image captured by the camera lens should be shown on screen (20) while the sound picked up by microphone (5) should be heard from speaker (24). In case the screen (20) shows the text “ No signal or Out of Range “, it means the units are not properly paired (refer to PAIRING SECTION).
3. Adjust the volume of speaker (24) to obtain a comfortable listening level using the  volume up/down button (23), a corresponding bar graph will be shown on screen (20). In case the parents prefer to keep the environment quiet, just press the volume down button  until the icon  shows up and the speaker (24) become muted. To resume the speaker sound output, press the volume up button  again.
4. Use  (14, 15, 16, 17) button to control the pan/tilt of camera lens. Note only one button should be pressed each time.
5. The parent can talk back to baby anytime they prefer by using the talk back function :
  - a. Press and hold the talk back button (19),  will show up on screen (20).
  - b. Speak towards the microphone (13).
  - c. Your voice will be heard from speaker (10) in camera .
  - d. Adjust the volume of speaker using the Setting menu.
  - e. Release the talk back button (19) to listen to baby.
6. For easy viewing, the PU can be placed on table top by pulling out the lever support at the back. Besides, to achieve a better reception and longer communication range, rotate the antenna to a vertical position.



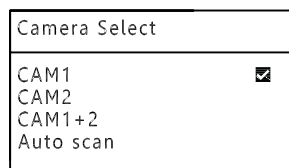
7. Short press menu  button (25) to call up the main menu on screen (20), use the     button (14, 15, 16) and (17) to select the functions to be set, then short press OK button (19) to confirm.





After performing the setting, short press menu  button (25) to return to upper menu or exit from menu mode.



This function is to select the camera to be viewed. If PU is paired to more than one camera, parent can select to view two cameras on screen at the same time or view each camera sequentially under auto scan mode.



Use   button (14) (15) to select the camera no. to be viewed. Short press OK button (19) to confirm.

Under split screen mode ( CAM 1+2 or CAM 3+4), only the sound from either one camera can be heard (as indicated by a flashing CAM No.), short press OK button (19) can switch to listen to the other camera.

Under auto scan mode, the screen (20) will show the image of each camera in turn for a period of 8 sec. After 32 sec, if no camera detects any sound, the screen (20) will be off (subjected to screen always on mode is not selected) until any one of the camera detects a sound, PU will stay to view that camera until the sound goes off.

The viewing of camera has following priority :

CAM 1 > CAM 2 > CAM 3 > CAM 4

This means while PU is viewing CAM 3, if CAM 1 detects a sound, PU will immediately switch to view CAM 1 until the sound is off, then it will switch back to view CAM 3.

To enable parent not to miss the activity of other camera, when PU is viewing a camera and another camera of lower priority detects a sound, its camera no. will be shown flashing on screen (20). If parents prefer to view this camera, by short press OK button (19), PU can toggle to view between these two cameras



This function is to select between VOX on or screen on mode

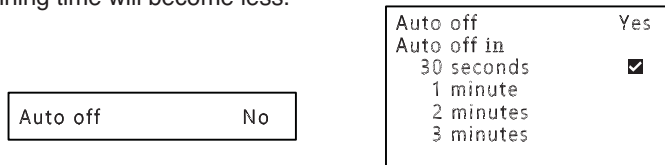


Use ▲▼◀▶ button (14)(15)(16)(17) to select, then short press OK button (19) to confirm.

Under VOX on mode, the screen (20) will be turned on automatically whenever the camera detects baby cry and shut down automatically after a delay of 5 - 25 sec (as selected by parents) once the baby stop making sound. This way the PU will consume less battery power and the radiation from camera is reduced to a minimum level.

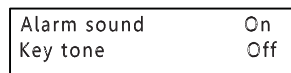


Under screen on mode, the screen (20) will always stay on or auto shut off after a period of time (30 sec/1 minute/2 minutes/3 minutes) as selected by parents. Please note the battery running time will become less.



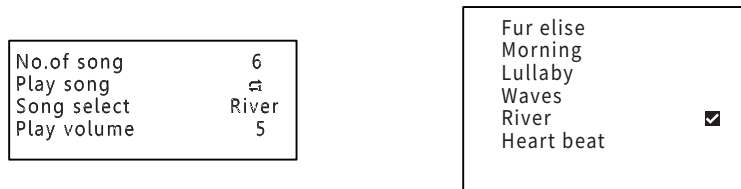
This function is to switch the alarm sound and key tone ON or OFF

Use ▲▼◀▶ button (14)(15)(16)(17) to select, then short press OK button (19) to confirm.



This function is to select the lullaby/nature sound to be played in camera and its volume

Use ▲▼◀▶ button (14)(15)(16)(17) to select, then short press OK button (19) to confirm.



The lullaby will be played sequentially (when 🔄 is selected) or repeat itself (when 🔄 is selected). Note the lullaby/nature sound will be played for 20 min and stop automatically if no baby sound is detected. In case baby starts crying, the music will be played for another 20 min.



This function is to select between screen magnification x 1 or x 2

Use OK button (19) to select. If x 2 is selected, Q<sub>x2</sub> will show up on screen.



This function is to set the night light in camera to ON, OFF or VOX mode

Use ▲▼ button (14)(15) to select, then short press OK button (19) to confirm.



Under VOX mode, the night light will be on once the camera detects baby's cry and go off when the environment become silent.



This function is to switch the auto motion tracking in camera ON or OFF.

Use ▲▼ button (14)(15) to select, then short press OK button (19) to confirm.



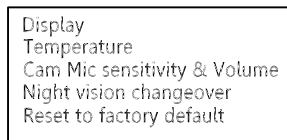
When set to ON, the camera lens need to face directly towards the toddler location. Once toddler starts to move, the camera lens will automatically follow the same direction.

**Note in case there are several moving objects within the view as captured by camera lens, this tracking function may not operate accurately.**



This function is to set the various parameters

Use ▲▼◀▶ button (14)(15)(16)(17) to select, short press OK button (19) to confirm.



## Display

Brightness	2
Flip	0°

### Brightness

Select from one of the 5 levels of screen brightness.

(N.B. It is not possible to adjust the brightness when there is no image displayed on screen).

### Flip

Select normal or 180° inverted image depending on how the camera is installed.

(N.B. It is not possible to adjust the flip when there is no image displayed on screen).

### Temperature

Unit	°C
Alarm	Off
High limit	35°C
Low limit	5°C

Once the temperature alarm is set to ON, PU will provide an alert (both visual and audio) in case the camera detects baby's room temperature become higher or lower than the preset limits.

The selectable range for high limit is +15° to + 48° C and low limit is - 9° to + 25°C.

In case you have made a illogical entry (e.g. you have selected 20°C as high limit and 22°C as low limit), the unit will not accept your entry and will automatically correct it to a setting 2° higher or lower, depending you have set the high or low limit first.

Please note the setting of temperature limits are same for all cameras

### Cam Mic sensitivity and Volume

Mic sensitivity

Mic sensitivity	1
Talk back volume	3

Select from one of the 5 levels of sensitivity, higher value means the camera microphone ⑤ is more sensitive to sound.

Talk back volume

This control the speaker ⑩ volume when parents talk back to baby, it is independent from the music volume which is adjusted within the menu of lullaby function.

### Night vision changeover

Brighter +2	
+1	
0	<input checked="" type="checkbox"/>
-1	
Dimmer -2	

The screen image will change to black white colour when the camera environment becomes dark. This setting controls at what light intensity the changeover to black white image will occur. Brighter means the changeover will take place at more bright environment.

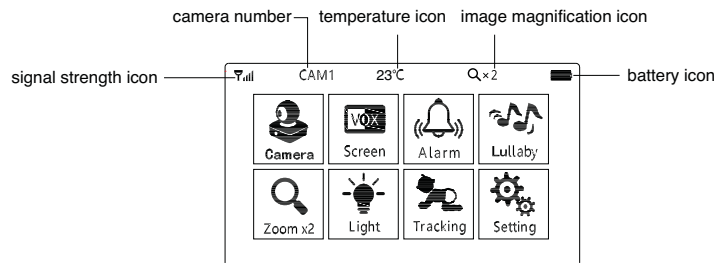
### Reset to factory default

Reset to factory default . . .
--------------------------------

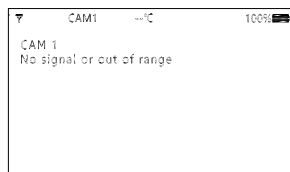
Once selected, all the settings will return to factory default value but keep the pairing of PU to all cameras

7. Whenever baby is making sound and camera becomes activated, the visual level meter ⑫ will light up. The louder the baby's voice, the more segments will light up. This feature is useful in case the parents prefer to turn down the speaker ⑳ volume to keep the environment quiet while still able to monitor the activity of baby.

8. There are 5 icons displayed at the top of screen :



Within the operating range when **signal strength icon** shows full 4 bars, a colourful and smooth image can be seen on screen (20). However, as the distance between the camera and PU increases, the signal strength icon show less no. of bar and the image become less smooth. Further increase in distance will cause the image to become still and until a point where the screen (20) will show the text “ No signal or Out of Range”. Such text will be shown on the screen (20) at regular intervals. At the same time, the visual level meter (12) starts flashing and an audible alarm will be heard to alert the parents.

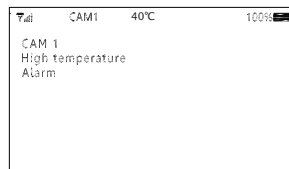
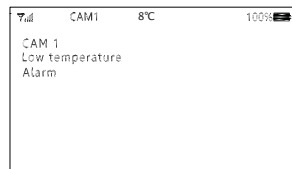


Whenever the parent unit falls back within the operating range, the audible alarm will stop and the visual level meter (12) stops flashing.

The **camera number** shows PU is viewing which camera

The **temperature icon** indicates the current temperature of baby’s room.

In case the temperature falls outside the preset high and low limits, an audible alarm will be heard and the screen (20) will show :

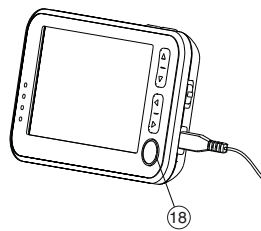


The **image magnification icon** Qx2 will show up when x 2 is being selected.



The **battery icon** shows the status of PU battery, once the battery level falls below 20%, this icon will start flashing and an audible alarm will be heard, urging the parents to charge up the battery.

During charging process, the segments within battery icon will flash in turn and the power on indicator (18) will remain red until the battery is fully charged up, then it will turn green.



9. Under VOX mode or screen on mode, when the camera is under standby and screen (20) is dark, parents are still able to see the image of baby while he is asleep (i.e. when the baby is not making any sound). Short press any one of button (14),(15),(16),(17),(18) ,(23) and (25) can activate the camera and the screen (20) will show the baby image for 10 sec.

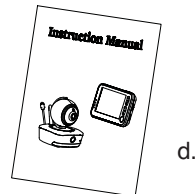
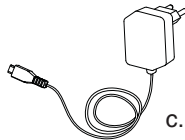
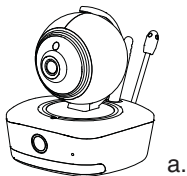
10. When PU is sounding an audible alarm, it can be muted by short press anyone of button (14),(15),(16),(17),(18) ,(23) and (25) but the text on screen (20) will keep showing until the condition is rectified

## PRECAUTIONS

- Disconnect the AC adapter from the wall outlet when the monitor is not to be operated.
- The VBC-69 is best performed within a temperature range of 0°C to +50°C.
- Do not open the cabinet, no serviceable parts inside.
- The VBC-69 should not be exposed to dripping, splashing and that no objects filled with liquids, such as vases shall be placed on it.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.
- The MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable
- Only use the AC adapter as list in the user manual.

## STANDARD ACCESSORIES INCLUDED IN PACKAGING

- a. Baby unit
- b. Parent unit
- c. 5V AC adapters x 2
- d. User manual



## TROUBLE SHOOTING GUIDE

<b>Problem</b>	<b>Possible Causes</b>	<b>Solution</b>
No audio or video signal is transmitted	<ul style="list-style-type: none"> <li>- Camera mic sensitivity is too low</li> <li>- AC adapter improperly connected in camera</li> </ul>	<ul style="list-style-type: none"> <li>- Adjust mic sensitivity higher using setting menu in PU .</li> <li>- Check connection</li> </ul>
Always transmission	<ul style="list-style-type: none"> <li>- Mic sensitivity is too high</li> <li>- Screen On mode is activated without auto off</li> </ul>	<ul style="list-style-type: none"> <li>- Adjust mic sensitivity lower</li> <li>- Set to auto off or VOX on</li> </ul>
Out-of-range alarm always on	<ul style="list-style-type: none"> <li>- Camera is switched off or No power supply</li> <li>- Distance between camera and PU exceed operating range</li> <li>- Pairing is lost or not performed properly</li> </ul>	<ul style="list-style-type: none"> <li>- Switch on camera or check AC adaptor</li> <li>- Move camera and PU closer to each other</li> <li>- Perform pairing again.</li> </ul>
Image on screen not smooth or become still or become black white	<ul style="list-style-type: none"> <li>- Reaches the operating range limit</li> <li>- Light intensity too low in baby's room, camera operates under night vision mode using infrared LED as source of illumination.</li> <li>- Interference from other electronic devices such as WiFi router</li> </ul>	<ul style="list-style-type: none"> <li>- Move parent unit closer to camera</li> <li>- Increase light intensity of baby's room or adjust night vision changeover in setting menu of PU</li> <li>- Move the source of interference away from baby monitor</li> </ul>
Frequently showing low battery in PU	<ul style="list-style-type: none"> <li>- Battery has run down.</li> <li>- Screen on mode is activated without auto off</li> <li>- Rechargeable battery is damaged.</li> </ul>	<ul style="list-style-type: none"> <li>- Recharge battery using AC adaptor.</li> <li>- Set to auto off or VOX on mode</li> <li>- Replace with new battery.</li> </ul>
Speaker has no sound in PU	<ul style="list-style-type: none"> <li>- Speaker is muted.</li> </ul>	<ul style="list-style-type: none"> <li>- Press volume up button to resume output from speaker.</li> </ul>
Too short communication range	<ul style="list-style-type: none"> <li>- Too many partitions between camera and PU</li> </ul>	<ul style="list-style-type: none"> <li>- Re-locate camera and PU</li> </ul>
No audio under split screen mode	<ul style="list-style-type: none"> <li>- PU is listening to other camera</li> </ul>	<ul style="list-style-type: none"> <li>- Press OK button to switch listening to your preferred camera</li> </ul>

## **SPECIFICATION**

- Power supply : Tx 5V DC 1A external supply  
Rx 3.7V 1400mAh Li polymer battery
- Communication protocol : Digital FHSS technique with GFSK modulation
- Operating frequency : 2410.000MHz ~ 2473.000MHz (total 19 Channels)
- Operating distance : 300 m in open space
- Tx and Rx need pairing with identical code to prevent interference
- Operating temperature : -10°C to +50°C

### **Camera**

- VOX sensitivity( @ 0.6m ) : level 1 50-55db /level 2 55-60db/ level 3 60-65db /level 4 65-70db/level 5 70-75db
- Night vision changeover : level +2 5 Lux/ level +1 4 Lux/level 0 2 Lux/level -1 1 Lux/level -2 0.5 Lux
- Operating current (IR Off) : 420m A
- Operating current (IR On) : 640m A

### **Parent unit**

- Audio power output (Max) : 500mW
- Audio frequency response : 400Hz – 3KHz
- Standby current : 70m A
- Operating current : 340m A
- Charging current : 300m A
- Battery standby time : 20.0 hours

**FCC Warning**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the 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,

Note: 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 or more 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 Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator &you body.