



Baby Watch Ver. 2.0 User Guide

Cyber Kangoo / Cyber Max



1. Introduction

Welcome to Baby Watch. And with this greeting, we are also welcoming you to the future. Baby Watch is the first software package designed to watch babies by way of an artificial vision-based system. By means of a camera connected to a computer, Baby Watch can process the images received, reach conclusions by itself and report on what your baby is doing. Baby Watch can distinguish at all times whether your baby is asleep or awake. Moreover, an alarm will sound if no movement at all is detected.

With Baby Watch, we aim to help in the fight against the domestic accidents suffered by our little ones. All the same, it is important to remember that nobody can take better care of your child than you yourself.

Please read the following software installation and set up instructions carefully.

We thank you for the trust you have vested in us.

Baby Watch is a registered software product sold by Visoft Technologies.

2. Installation

2.1 Technical requirements

In order for Baby Watch to work properly, remember that your computer must be equipped with the following hardware:

- A computer with at least 128 MB RAM and a minimum CPU speed of 1.6 GHz (preferably a laptop)
- A sound controller connected to the computer in order to emit the corresponding messages on the baby's activity (most computers are already equipped with these controllers)
- A Cyber Kangoo monitoring system
- Speakers connected to the computer

2.2 Software installation

- 1) In order for Baby Watch to capture the images provided by Cyber Kangoo, the USB digitiser that comes with the Cyber Kangoo system must be used. Before beginning, hook up the USB digitiser to the USB port on your computer and install the corresponding driver, which you will find on the CD provided by the manufacturer. Follow the instructions carefully.
- 2) Execute the Setup.exe file which you have either downloaded from the Baby Watch website or located on the enclosed CD, and follow the directions. During the installation process, you will be asked for a product series number. If you wish to install a 15-day trial version, use the series number 0000. If you have already purchased Baby Watch and have obtained a valid series number, enter the number that has been sent to you.
- 3) Despite the fact that at this point you can execute Baby Watch, if you have downloaded Baby Watch from the internet, remember that we highly recommend you install Microsoft DirectX 8.0 or higher for efficiency reasons. You may download this program from the section titled "Software requirements" on the Baby Watch website.

2.3 Camera installation and placement

The camera must be placed at approximately 40-50 centimetres from the baby and preferably pointing towards the upper part of the baby's body (head and chest). The image you see in the Baby Watch viewing window should be similar to those of Figures 1 and 2. The closer the camera is to the baby, the more accurately it will detect movement. Therefore, we do not recommend placing the camera at a greater distance than that indicated above.



(Fig. 1)



(Fig. 2)

Connect the USB digitiser to the USB port on your computer. Next, connect the BNC cable of the composite video output located in the rear of the Cyber Kangoo screen to the analogue video input of the USB digitiser on your computer.

Be sure that the image is correctly received. You may use the AMCap (direct desktop access) application to verify that the computer can receive the images sent to it by the Cyber Kangoo system.

3. The Application

3.1 The main window

You will see a number of different controls in the main application window.



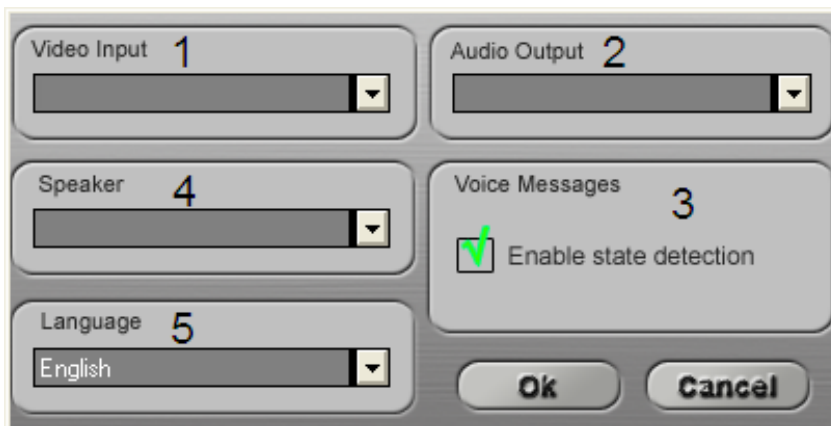
- 1) Camera viewing window.** Displays in real time everything that the camera is capturing.
- 2) Event information window.** This window offers the user information on some of the things that have occurred during the execution of the application.
- 3) Movement graphic.** This window offers information on the amount of movement detected by the camera.
- 4) Baby activity LEDs.** Visually report on what the baby is currently doing or whether or not movement is detected.
Sleeping: The baby is asleep.
Awake: The baby is awake.
No Movement: No movement is detected. It is recommendable to check on the baby, or the lighting conditions are too low to properly detect movement.
- 5) Buttons.** Control buttons to switch on, off and access the set up window (see the section below for further information).

- 6) **Lighting conditions indicator:** *Consider that Baby Watch this optimized to work with the camera in nocturnal mode where the conditions of Light are very low or null. Only if it does not operate in this mode, this indicator helped you to know if the conditions of light are sufficient or not. In case that the camera works in diurnal way and this indicator it marks that the conditions of light are not sufficient is recommended or to put to work the camera in nocturnal way or to increase the light conditions.*
- 7) **Merlin & Genie:** They will keep you informed on your baby's activity.
- 8) **Picture Button.**
- 9) **“Show Movement” button.** By pressing this button, you can see your baby's movement as red dots on the screen. If your baby is sleeping and the camera is positioned correctly, you will even be able to see it breathe!
- 10) With these buttons, you can adjust the sensitivity of the motion detector. The lowest value is -10 and the highest sensitivity is 10. If the camera is more than 40 centimeters away from your baby, you will likely have to increase its sensitivity. Use the see red dot option to adjust the detector correctly.

Once the camera has been positioned, if you wish to initiate Baby Watch, click on the START button. If you wish to stop the application, click on STOP. If you wish to access the set up window, click on CONFIG.

3.2 Set up window

The first time that you execute Baby Watch, you will be asked to set up your hardware. If you have all of the required hardware, the set up window shown below will appear on your screen. You may also access this window by clicking on the CONFIG button of the main window.



The set up window is made up of four very different sections:

- 1) Video Input: Select the USB digitiser that you have previously installed. It should appear on this list. If this device does not appear, please install it, carefully following the manufacturer's instructions.
- 2) Audio Output: Select the audio output through which the sound signals will be given. This list should include the sound card available on your computer.
- 3) If you activate the option "Enable State Detection", BabyWatch will operate in movement interpretation mode. In other words, it will detect and will let you know if your baby is awake or sleeping, and it will sound an alarm if no movement is detected. You should keep in mind that interference could affect the reliability of the interpretation. Only activate this option if the image in your receiver is clear and free of interference.
- 4) Speaker Voice: Here you may select the speaker who will update you on your child's activity.

3.3 Once the application has been switched on.

Once you have switched on the application, if Baby Watch gives you a message saying that no installed video device can be found (**“Cannot find any video capture device. Application cannot start”**), this means that the USB digitiser has not been correctly installed. Please install the USB digitiser, and carefully follow the manufacturer’s instructions.

Once you have switched on the application, if Baby Watch gives you a message saying that no installed audio device can be found (**“Cannot find any audio output device. Application cannot start”**), this means that your computer does not have a sound card. Please install one or verify that the one that you have has been installed properly.

Once Baby Watch has started correctly, it is absolutely essential to verify that the image is free of interferences. Interferences arise when the Cyber Kangoo camera is placed too far away from the receiver. In the case that there are interferences, bring the two systems as close together as possible, until there is good reception. Remember that Baby Watch does not work properly if there are interferences in the quality of the image.

Baby Watch this optimized to work with the camera in nocturnal mode where the conditions of Light are very low or null

9. Recommendations for usage

It is extremely important to read the environmental conditions for the use of Baby Watch, in order for it to work properly.

- BabyWatch works better with the camera configured in night mode and under dark conditions.

- Look at the lighting conditions indicator. If it is close to or lower than the “normal” setting, put the camera in night mode.

- Baby Watch operates by analysing movement. Do not use Baby Watch in places where the lighting is unstable or where varying sources of external light (such as shadows or reflections that constantly change, like televisions, moving curtains, etc.) can change the initial lighting. Any instability in the lighting may ultimately confuse the system.

- When the lighting is dim, it is preferable that the baby be wearing light-coloured clothing. Baby Watch will be more precise if the child is wearing clothing with stripes or printed patterns. If at all possible, it is preferable that the baby not be undressed when sleeping.

- Secure the camera so that it is completely still, at approximately 40-50 centimetres from the baby while Baby Watch is on.

- Place the camera out of the baby’s reach, as it can be a hazard for the child.

- Place the computer /warning speakers so that you will always be able to hear them.

Frequently asked questions

- a. False no movement detection alarm:** If the “no movement” detection alarm sounds, it is above all important to remain calm. An alarm of this type does not necessarily mean that there is something wrong with the baby. “No movement” detection alarms can sound when the lighting is very dim. In such case, increase the amount of light in the room, or bring the camera in closer to the baby. A false alarm can also sound when the baby leaves the field of vision of the camera, in other words when the child has moved too much from the position in which you left him/her. In both of these cases, we recommend checking on the baby. Remember that a baby that moves too much can get into a bad position, trapped beneath the sheets or may even be trying to jump out of the crib.
- b. False awake detection alarm:** It may occur that in some cases you find the child sleeping, whereas the system thinks that he/she is awake. This can happen when the lighting in the room is unstable or when there are moving objects within the field of vision. It is also possible that the child has moved in his/her sleep over a substantial period of time and that the system has become confused.
- c. False asleep detection alarm:** Though somewhat rare, this false alarm may sound in conditions in which the signal sent by the camera arrives with too much interference (you will see that the image on the Baby Watch screen is not clear and that numerous small dots appear and disappear). This occurs when the camera is too far away from the Cyber Kangoo receiver. The only solution to this problem is to bring the two components closer together.
- d. The lighting indicator is lower than normal:** If Cyber Kangoo is operating in diurnal mode increases the conditions of light. For these cases it is recommended to configure the camera of the Cyber Kangoo in nocturnal way. It is absolutely normal that the indicator of conditions of light this below normal if the camera of Cyber kangoo this working in nocturnal mode (infrared).

APPENDIX A

BASIC RESUSCITATION PROCEDURES

Step 1

Call to the baby and stimulate him/her to see if he/she is conscious. If HE/SHE DOES NOT RESPOND ask someone to immediately call the local Emergency Care Centre.

Step 2



Lay the baby down so that he/she is face up. Remember the resuscitation A, B C:

- A: Airway. The opening of the airway.
- B: Breathing. Mouth-to-mouth ventilation.
- C: Circulation. External chest compressions.

To open the airway, position the baby's head in a neutral position (it is not necessary to tilt his/her head back), hold his/her chin, open his/her mouth and remove any foreign objects, if such is the case. Do not put your fingers down his/throat.

Follow the M.E.S. steps below:

- M: MIRO (LOOK) at the expansion of the chest.
- E: ESCUCHO (LISTEN) for respiratory sounds.
- S: SIENTO (FEEL) his/her breathing with my cheek.

Step 3

If the child is not breathing, immediately begin mouth-to-mouth ventilation.

You do not need to close the baby's nose, but rather to cover his/her mouth and nose with yours, softly blowing small amounts of air three times consecutively.

Foreign objects:



Difficulty in the intake of air may be caused by a foreign object that is obstructing the airway: [choking](#). In such case, rest the baby over your forearm, supporting him/her by the jaw with your hand, and strike the baby several times on the back until the foreign object is expelled.



Turn the child over; remove the foreign object from his/her mouth and resume mouth-to-mouth ventilation. For newborns, give between 30 and 40 breaths per minute. For infants, 20 breaths per minute.

Step 4

Check for a pulse.



On a baby, the pulse is taken via the brachial artery, on the inside of the upper arm, about halfway between the elbow and the shoulder.

Step 5

If you do not feel a pulse for 5 seconds, begin chest compressions.

With two fingers compress in the middle part of the sternum (breastbone), pushing down 2 cm.

For newborns, do between 120 and 140 compressions per minute. Do 100 compressions per minute for infants.

Do 5 compressions per mouth-to-mouth breath.

**CHECK**

1. Prevention measures are essential.
2. In case of emergency, **REMAIN CALM AND ACT**. Check for the child's consciousness. If he/she does not respond, seek help.
 - A) Position the child face up with the head in a neutral position. Check for breathing. If the child is not breathing, begin mouth-to-mouth ventilation.
 - B) Take the child's pulse. If there is no pulse, begin chest compressions, alternating them with mouth-to-mouth ventilation. If the child is unconscious, yet has a pulse and is breathing, keep him/her comfortable and continue to monitor him/her until medical help arrives or until you get to a hospital.
 - C) If the child is not breathing but has a pulse, give him/her rescue breathing and monitor his/her pulse.