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Your Baby Watcher is one of the most modern ultrasound sets with which you can hear the heartbeat of your unborn child. The idea for Baby Watcher was developed as a result of many years of gynecological practice with expectant mothers.

The originator of the idea is Prim. Dr. Stefan Engelbrecht, a gynecologist from Croatia, who after thirteen years of practice in Austria, and after discussions with pregnant women, doctors, and gynecologists, came up with a small and practical instrument that every pregnant woman can use by herself, as well as with her family, to communicate with her baby even throughout pregnancy.

The main aim of Baby Watcher is to promote the relationship between mother and child even in the earliest stages of pregnancy, turning the months until the birth into a unique experience. Baby Watcher offers an expectant mother the possibility of being in contact with her baby as early as 14 weeks after the beginning of pregnancy.

In this manner from day to day your mutual relationship deepens and its harmony is carried over into your future

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BONDING FOR THE ENTIRE FAMILY

The Baby Watcher creates the basis for an incredible experience not only for you as the mother-to-be, but for the entire family as well. The father-to-be can "listen to" his unborn son/daughter and siblings can be prepared for the new addition to the family in good time. By listening to the heartbeats regularly an early bond is formed which prevents periods of jealousy after the birth. And it is also a special experience for grandparents and other relatives and friends to hear the future focus of the family even before he/she is born.

HOW TO MAKE THE IDEAL "CONNECTION" TO YOUR TINY TREASURE

The optimal position to listen to your baby's heartbeat changes every day due to the movement of your baby. The following steps show you the best way to listen:

- Gently coat your belly with CE-tested ultrasound gel sold in your local pharmacy.
- Place the sensor module around your navel and try to find the ideal listening position by circling it outwards

SAFELY THROUGH PREGNANCY

The Baby Watcher not only lets a mother-to-be enjoy her pregnancy in a new way. Possible complications can be recognized more quickly by listening to the heartbeat on a regular basis and, as a result, the doctor can be contacted in good time. What's important is the regularity of the heart rate which should be between 120 and 160 beats per minute. The heart rate may increase when the baby moves in the uterus; however, it will quickly return to a normal frequency again.

Heart rates may also be slower and only between 100 and 110 beats per minute. When this occurs, the mother-to-be should lie on her side. In this position the heart rate should return to normal very quickly. If a heart rate under 100 beats per minute or over 190 beats per minute is recorded, a gynecological exam is recommended. In the final weeks of pregnancy the movements of your baby may become less frequent due to his/her size. However, with the Baby Watcher you can be in constant contact with your baby. Day after day.

HOW FETAL DOPPLERS WORK

Fetal doppler technology is based on the Doppler shift principle. This theory was first discovered by Christian Doppler an Austrian physicist in 1842. Doppler discovered that sound waves from a moving source would be compressed or expanded, or that the frequency would change.

Dopplers work on the principle of listening to reflections of small, high frequency sound waves (ultrasound). These ultrasound waves are generated by microscopic vibrations of pizeoelectric crystals. When the waves are reflected from moving objects, such as a foetal heart the frequency changes slightly. It is this change that is analysed by the electronics of the doppler and converted into a sound that you can hear or a digital display of the heart rate.

DOPPLER SAFETY

Ultrasound has been used as a diagnostic tool in pregnancy for well over twenty five years. It has long been considered to be one of the safest tools available for obtaining information about the unborn baby. It has been estimated that there are at least five million in use every single day.

Global studies and tests conducted by government agencies, research institutes and manufacturers have not shown any adverse side effects of diagnostic ultrasound. In 2002 the British Medical Ultrasound Society (BMUS) issued a statement confirming that there has never been any evidence of harm resulting from the use of ultrasound in pregnancy.

TECHNICAL DATA

SENSOR MODULE

Principle:
Ultrasound, Doppler effect

Acoustic working frequency:
(2.00 ± 0.05) MHz continuous

Doppler frequency:
(290 ± 37) kHz

Overall sensitivity at a distance of
50 mm: (139.0 ± 7.5) dB
75 mm: (136.1 ± 5.2) dB
100 mm: (129.9 ± 10.3) dB
200 mm: (122.4 ± 18.8) dB

Target speed:
(10.7 ± 1.3) m/s

Spatial and temporal peak acoustic pressure:
(17.0 ± 7.1) kPa

Output:
(8.8 ± 4.9) mW

Effective area:
(108 ± 36) mm2

HAND MODULE

Determination of heart rate:
FHR, autocorrelation software

Measuring accuracy of the heart rate:
± (2% +1 Digit) from display value

Display:
Display of signal intensity, heart rate and battery change

Buttons:
On/Off, volume

Off switch:
Automatic/by pressing both buttons

Pulse display range:
40 - 248 beats/minute

Audio range:
250 Hz - 800 Hz

POWER SUPPLY

Battery:
9 V alkaline block battery (Type MN 1604 or 6LR61)

Estimated service life of battery:
10 hours

HOUSING

Material:
ABS/polystyrene

Dimensions of sensor module:
R 35 x 110 mm

Dimensions of hand module:
135 x 80 mm

Weight, complete:
250 g

OPERATING / STORAGE / TRANSPORT CONDITIONS

Working temperature:
+10°C to +40°C

Relative humidity:
30% to 75%

Storage/Transport temperature:
-10°C to +70°C

CLASSIFICATION

Class:
IIA in accordance with Directive 93/42/EEC, Appendix 9, Regulation 10, Equipment with internal power supply

Degree of protection:
Type B

Standards:
EN 60601-1, EN 60601-1-2, EN 61266

Test standards for recurrent testing:
ÖVE-MG751 Part 1/1990

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