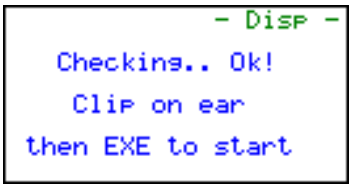
Using the GETPULSE program for heart rate monitoring and data collection

Connect the EA-100 to a CFX9850G or later calculator, turn both on and start the program GETPULSE.

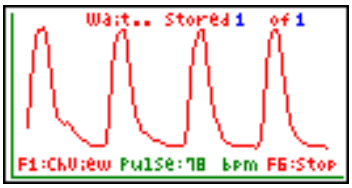


The program carries out a few checks and then displays the ready to start screen.

Make sure the Vernier Heart Rate Monitor (HRM-DIN) is connected to CH1 using the DIN adaptor (CBL-DIN).

With the ear clip in place press EXE and the EA-100 will immediately begin sampling.

The whole sampling, data transfer to calculator and pulse calculation cycle takes approx. 15 seconds.



If the ear clip is nicely positioned, a plot similar to that shown will be seen. If not, experiment with small changes to its position until a regular waveform is seen.

A long hold on F1 (until the screen changes) switches the view to a plot of all pulse values logged so far (history). Sampling will continue.

A maximum of 255 values can be stored, which will take at least 1 hour.

The vertical axis is fixed from 0 to 200 beats per minute but the horizontal axis re-scales each time, with each tick mark representing approximately one minute.

Another long hold on F1 switches back to the pulse waveform view, and so on.

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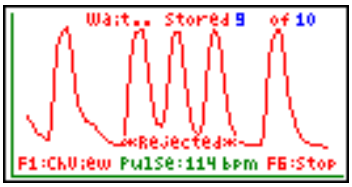

The program does its best to detect rogue pulse samples, and when it does they are rejected – neither stored nor plotted in history view.

The screen shows a rejected sample and indicates that of 10 samples taken so far, 9 have been stored.

Low EA-100 batteries can cause sampling errors, and the program will indicate when this may be the case.

A long press on F6 will stop sampling and end the program.

Switch to STAT mode to see:
List 1 – Last sample times
List 2 – Last sample data
List 3 – Elapsed time (minutes) of recorded pulse values.
List 4 – Recorded pulse rates

GETPULSE is freely available from the ACES website at
http://www.school.casio.com.au

GETPULSE was written by Charlie Watson.
Email comments or suggestions to him via his website at
http://carmen.murdoch.edu.au/~cwatson/casio.html