

9. Changing Analysis Window Size

1. Window sizes are only meaningful when the BPA-400 is operating in Window Mode. They are *inactive* during Beat Mode.
2. The Analysis Window Size determines the **lowest heart rate** that can be detected by the BPA-400.
 - * Small windows require a higher heart rate and changes in the waveform are averaged over a shorter interval.
 - * Large windows can detect the lower heart rates, but changes in the waveform are averaged over a longer interval.
3. The table below shows the minimum heart rate in beats per minute that is detected for each of the available Analysis Window sizes. In each case the maximum is 999 bpm.

Analysis Window Size	Minimum Heart Rate
0.5 seconds	240 bpm
1.0 seconds	120 bpm
2.0 seconds	60 bpm
5.0 seconds	24 bpm
10.0 seconds	12 bpm

4. The factory default setting for the Analysis Window is 5.0 seconds. This window accommodates heart rates between 24 bpm and 999 bpm. Should you wish to change the Analysis Window, follow the procedure below.
5. From the Main Menu (*below*), press Button 4 beside the InTr display.

run
bAL
CAL
InTr

6. The Window Size Menu now appears, with the current Analysis Window value (5.0 in the example) displayed in Window 4:

<u>Window</u>	<u>Button Function</u>
rET	<i>Go to Main Menu.</i>
PrT	<i>Go to Printer Menu.</i>
InTr or bEAT	<i>Toggle Analysis Window/Beat Mode.</i>
[5.0]	<i>Change Analysis Window Size.</i>

7. The mode can be toggled now (or at any time during the experiment) by pressing Button 3 (**ANALYSIS**). Before you can change the Analysis Window size, you must ensure that the BPA is in **Window Mode**, indicated by the label InTr in Window 3.
8. To change the Analysis Window size, press and release Button 4. The values will cycle through the available window sizes: 0.5, 1.0, 2.0, 5.0, and 10.0 seconds.
9. When the value in Window 4 reaches the desired Analysis Window size, press the **MODE** Button to return to the Main Menu. (You can also press Button 2 to enter the Printer Menu.)
10. If a printer is used, the printed heading always displays the window size *regardless of* the current Analysis Mode.

11. To ascertain the current **Analysis Mode** during operation, refer to Light 3:

Light 3 Status	Analysis Mode	Column 4 Label	Column 4 Value
ON	Beat Mode	INTERVAL	msec between heart beats
OFF	Window Mode	H.R.	HR in bpm

12. When **Window Mode** is in effect, and a window size of 0.5, 1 or 2 seconds has been selected, then averaging intervals of 0.5, 1 and 2 respectively become available as choices in the Print Speed Menu.

NOTE: *The 5-second print interval is NOT available if the 2-second or 10-second analysis window size has been selected. The 5-second print interval will not appear as a choice in the Print Speed menus.*