


Verification Procedure for the PeriScan Systems

The calibration box supplied with the PeriScan PIM II and PIM 3 is a tool to verify that the instrument is consistent and gives reliable measurement data. It is recommended to perform the verification procedure described below once a week, and that the values are saved in a file.

The lid of the calibration box needs to be replaced every second year. Use replacement lid LI 711 for PIM II and LI 721 for PIM3.

For verification of the PeriScan PIM II HR-F, please refer to the Extended User Manual for PeriScan PIM II.

The Verification Procedure

1. Switch on the PeriScan PIM 3 System at least 5 minutes before the measurement (or 1 hour before for PeriScan PIM II).
2. Remove the CalBox lid and shake it for a few seconds to avoid sedimentation.
3. Leave the lid off for half a minute to avoid bubbles, then put it back on the CalBox.
4. Rotate the scanner head 180 degrees and fit the CalBox on top, see Figure 1.
5. Start the software LDPIwin, open the measurement dialog  and make the following settings:

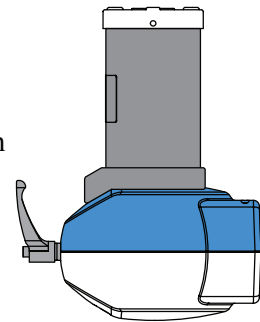



Figure 1 CalBox on scanner head.

PeriScan PIM 3	PeriScan PIM II
Single mode	Single mode
High resolution	For NR System, set to medium resolution For HR-NF System, set to low resolution
96x96	64x64

Table 1 Verification settings for PIM 3 and PIM II

6. Start a new recording.
7. When the scanning is finished, two areas will be visible, one highly perfused area, and another with zero perfusion. Adjust the intensity threshold value so that both areas become clearly separated from the background, see Figure 2.
8. Draw one region of interest (ROI) for each area using the rectangle marker tool. 

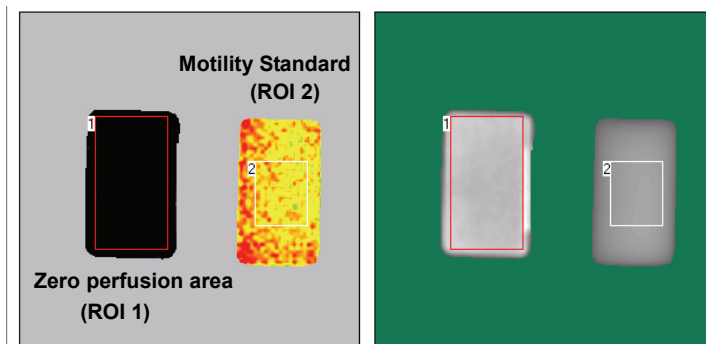


Figure 2 Regions of Interest

The zero perfusion ROI should cover as much of the area as possible.

The Motility Standard ROI should cover only the mid section of the area, as shown in Figure 2.

9. Compare the mean perfusion of your ROI 1 and 2 to the values in Table 2. Values within the range mean that the system is working properly. If the values are out of range, please contact Perimed.

Calibration Values	Region	Mean Perfusion
PeriScan PIM 3	ROI 1 (zero perfusion area)	-5 — 10 PU
	ROI 2 (Motility Standard)	150 ± 15 PU
PeriScan PIM II	ROI 1 (zero perfusion area)	0 - 0.5 V
	ROI 2 (Motility Standard)	1.1 - 1.7 V

Table 2 Permitted calibration values