

NONINVASIVE BLOOD PRESSURE AMPLIFIER

The **NIBP100A** is a noninvasive blood pressure monitor which uses a pressure sensor placed on the wrist over the radial artery. This device uses a "sweep technique" which applies a varying force on the radial artery. The counter-pressure in the artery produces a signal which is digitized and used to calculate blood pressure parameters. Just a few easy calibration steps, and the NIBP100A and AcqKnowledge® work together to provide automated, continuous, noninvasive blood pressure measurements. This application note details how to calibrate the NIBP100A with AcqKnowledge® software.



The analog output signal provides one output pulse per measurement cycle. The measurement cycle is updated every 10-15 beats of the heart.

Equipment

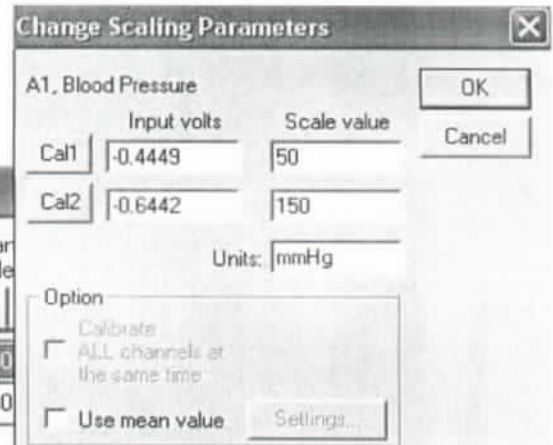
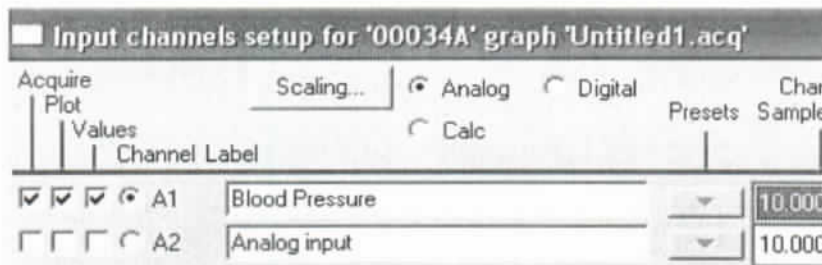
- NIBP100A Non Invasive Blood Pressure System
- MP100/150 Data Acquisition System
- HLT100C High-level Transducer Interface
- INISO isolated input adapter
- CBL105 3.5 mm to 6.33 mm (1/4") phone plug

Hardware Setup

- Connect the HLT100100C to the UIM100 module of the MP unit
- Connect the INISO to the HLT100C
- Connect the CBL105 between the Analog I/O on the rear of the NIBP100A unit and the INISO
- Connect the sensor to the back of the NIBP100A at the port marked "Patient Cable" and hang sensor properly on cradle
- Turn NIBP100A on via the switch on the back of unit
- Press Test when prompted. This sensor test occurs each time the unit is powered on.

Software Setup

- Under the **MP** menu select **Setup Channels** and enable one analog channel, make sure to correlate this with the channel you connected to on the HLT100C module.
- Click the **Scaling...** button to open the following dialog box.



- On the NIBP100A, push the "setup" button twice. The monitor screen title should be SENSOR HEIGHT:



- Within software click **Cal 1**
- In **Scale Value** box next to **Cal 1** input a value of 50
- On the NIBP100A, push the "setup" button twice. The monitor screen title should be SET CLOCK:



- Click **Cal 2**
- In **Scale Value** box next to Cal 2 input a value of 150
- Change units to mmHg
- Click **OK**
- Close **Setup Channels** dialog box

Place sensor on wrist according to instructions on top of NIBP100A system and you are ready to record.

NOTE: In normal conditions, the sensor should be at heart level; if the study requires that the arm is placed elsewhere, adjust the sensor height on the NIBP100 to compensate for the difference by doing the following:

- Press the "setup" button on the NIBP100A twice. The monitor screen title should be SENSOR HEIGHT.
- Press the button on the NIBP100A corresponding to ON.
- Adjust the sensor height by using the buttons on the NIBP100A corresponding to SENSOR↓ or SENSOR↑

