

# Welch Allyn Connex® ProBP 3400

## Frequently Asked Questions

### **How does Sure BP™ work?**

SureBP is an advanced blood pressure measurement technology that obtains a blood pressure reading during the inflation cycle as opposed to standard technology, which measures a blood pressure on deflation. The result is more comfort for the patient and faster readings for the clinician. Much of this improvement is attributed to the fact that high cuff inflation pressures are no longer necessary and the overall cycle measurement time is shortened.

### **Why does the ProBP3400 use blood pressure cuffs with two tubes?**

The ProBP 3400 uses blood pressure cuffs with two tubes because the SureBP technology takes the blood pressure measurement on inflation. During inflation, SureBP is performing two actions at the same time. It is inflating the blood pressure cuff as well as measuring cardiovascular information from that cuff. These two tasks require separate tubes to attain maximum effectiveness and achieve the greatest possible accuracy.

### **Is the SureBP measurement accurate? Is it as accurate as blood pressure measurements that are taken on deflation?**

Clinical testing has proven that the SureBP is very accurate. The device actually exceeds the minimum requirements as outlined in the ANSI/AAMI SP10:2002 Standard for manual, electronic, or automated sphygmomanometers.

### **Does the SureBP have a pressure preset?**

No. Since the SureBP takes a measurement on inflation, no pressure presets are required.

### **How often should the blood pressure calibration be checked?**

Welch Allyn recommends that the blood pressure calibration be checked on an annual basis and on an “as needed” basis. For example, if the ProBP3400 were accidentally dropped, it would be advisable to check the calibration.

### **Can ProBP 3400 measure blood pressure using timed intervals?**

No. ProBP 3400 is intended as a spot-check device and therefore cannot measure blood pressure using timed intervals.

### **What's the smallest cuff that can be used with the ProBP 3400 to measurement blood pressure?**

To ensure pediatric blood pressure accuracy and safety, the Small Child Reusable One-Piece Cuff (REUSE-8) and Small Child Soft Disposable One-Piece Cuff (SOFT-8) are the smallest cuffs approved for use with young children three years of age and older. The child's arm must fit within the range markings on the cuff.

### **What is the youngest patient that ProBP3400 can be used on to measure a blood pressure?**

The youngest patient that the ProBP 3400 can be used on is 3 years old.

**Can a Y-shaped connector be used to attach a single-tube blood pressure cuff to the ProBP 3400 blood pressure tubing?**

No. A Y-shaped connector should NEVER be used to attach the two-tube blood pressure cable to a single-tube cuff. If a Y-connector is used, the cuff pressure and blood pressure signal will be distorted, thus compromising the accuracy of the SureBP readings.

**Is the SureBP motion tolerant while taking a blood pressure?**

The SureBP is as motion tolerant as any other Welch Allyn blood pressure device. For best results, the cuffed arm should be kept still during the measurement cycle.

**How does excess noise affect the SureBP?**

Excessive ambient noise affects people's blood pressure, not the device itself.

**Why does the ProBP 3400 re-inflate while taking a blood pressure?**

The ProBP 3400 may re-inflate if it is not successful in obtaining a SureBP reading on inflation. The device will switch to the traditional method of step deflation and possibly re-inflate for the following reasons:

1. Patient motion
2. Arrhythmia
3. Cuff leak
4. If the ProBP 3400 is taking a reading on deflation and patient is hypertensive.

**Can the ProBP 3400 obtain an accurate blood pressure reading on a patient with an arrhythmia?**

The ProBP 3400 can obtain an accurate blood pressure on many patients with arrhythmias. If the patient has a moderate to severe arrhythmia, however, ProBP 3400 may be unable to obtain a reading and will most likely post an error message on the display "Unable to determine NIBP."

**How does the blood pressure on the ProBP 3400 react if it can't feel a pulse on the patient at all?**

SureBP will pump to 160 mmHg if it cannot detect pulses. If the ProBP 3400 cannot detect a blood pressure on inflation or deflation, the device will display an error message "Unable to determine NIBP".

**Can a blood pressure measurement be taken on the forearm or leg?**

It is possible to take a blood pressure measurement on the forearm or leg; however, the ProBP 3400 was validated using the upper arm. If you choose to take a blood pressure on a site other than on the upper arm, blood pressure reading may be different based on the extremity used and the patient's anatomy, physiology, and the presence of cardiovascular disease.

## Can a blood pressure cuff that is not manufactured by Welch Allyn be used with the ProBP 3400?

It is not recommended to use any cuffs other than the Welch Allyn cuff. The use of a different cuff may affect the accuracy of the reading or the ability of the device to obtain a reading.

## What's a normal blood pressure for pediatric patients, and adults?

Please note that these values represent approximations and averages. Readings may vary based on the individual patient.

AGE	ARTERIAL PRESSURE (mmHg)
Newborn (3000 g [6.6 lb])	Systolic: 50-52 Diastolic: 25-30
4 years	85/60
6 years	95/62
10 years	100/65
12 years	108/67
16 years	118/75
Middle Adult	120/80
Older Adult	140-160/90

## What is the Settings Menu?

The Settings Menu is used to configure several device operating parameters such as date, time, unit of measure, pressure presets, etc. Cycle count can also be viewed under Settings. Any settings that are changed become the default power-up settings.

## Connectivity

### What can the device connect to over the USB or Bluetooth wireless technology?

Currently the ProBP can be connected to a PC running a target application that has implemented our device connectivity SDK. Current EMR partners that connect to Spot LXi will also connect to ProBP. When connecting with Bluetooth wireless technology the PC running the target application must have 2.0 Bluetooth wireless technology.

### *How is the Bluetooth radio enabled?*

The radio must be enabled in the Settings menu, then paired to the PC running the appropriate EMR software. A ProBP can only be paired with one PC at a time. .

### What do I enter when asked for my PIN?

Enter 1234.

### What is the maximum distance from PC that a reading can be successfully sent?

Each facility will differ depending on individual systems, the actual building structure, and location of Bluetooth wireless technology enabled devices. If you are not making a connection try moving the devices closer to each other. .

### What should I do if I lose Bluetooth connection?

1. Exit the target application.
2. Power down the ProBP 3400
3. Restart the ProBP 3400
4. Relaunch the target application.

## Saving Readings/Memory

### **How do you save readings between patients?**

The ProBP 3400 will automatically save each reading..

### **How many readings can be saved in memory?**

ProBP 3400 can save up to 50 patient readings in memory.

### **How is a patient's reading reviewed?**

To review a patient's reading:

1. Press the **left arrow** to highlight **Review** in the lower Navigation area.
2. Press the **select** button to enter the review screen to see previous readings displayed. The last reading will always be the first one in the list.
3. To scroll to other readings, press the **up and down arrows**.

### **What happens when the memory reaches 50 patient readings?**

It depends on how the end-user configures the device in the Data Management section under the Advanced Settings menu.

When Auto Overwrite (factory default) is selected, reading number 1 is deleted when a 51<sup>st</sup> reading is taken, always keeping the number of stored readings to 50.

Ask Overwrite forces the device to notify the user that there are already 50 readings in memory and to ask if reading number 1 (oldest) should be deleted to make room for this 51<sup>st</sup> reading or if the current reading should be deleted and not stored in memory.

### **When the device powers down, does it lose its memory?**

No. If a patient's reading has been stored into memory, it will not be erased when the device is powered down.

### **Can readings be erased from the device's memory?**


Yes.

## Battery

### **How long does it take to charge the ProBP battery?**

The ProBP battery should be charged for 6 hours.

### **How do I know the battery is fully charged?**

When the ProBP is charging, the charging LED  will be amber. When the device is charged the LED will turn green. There is a battery level with charge segments on the display. When charged all four segments will be shaded.

### **How long will the battery hold a charge?**

The fully charged battery should last for 100 BP cycles. This assumes a blood pressure taken in step deflation mode with an adult cuff (size 11) on a normal patient (BP 120/80 mmHg, Pulse Rate 80 bpm).

**Does the battery have a memory?**

No. The battery is lithium ion and does not have a memory effect.

**Can the device be used while it is plugged in?**

Yes, and it will not affect the life of the battery

**When the ProBP 3400 battery is totally discharged, what happens to the readings that are saved in memory?**

The readings are stored in the flash memory and therefore they are retained.

**What happens to saved readings when you remove and disconnect the ProBP 3400 battery?**

The readings are stored in the flash memory and therefore they are retained.

**Stand and Wall Mount**

**Is the ProBP 3400 stand the same as the Spot LXi, CVSM stand?**

No. The ProBP 3400 uses the small platform stand that is shorter and has a smaller basket. The small platform stand is the only stand that has been tested with ProBP 3400.

**Is there any way to lock the ProBP 3400 onto the mobile stand? Wall mount?**

Yes. The mobile stand and wall mount come with a screw that requires the use of a Philips head screwdriver to attach the device to the stand.

**Are the wall mounts for ProBP 3400 and the 767 Wall Aneroid the same?**

The wall mount for the ProBP 3400 is the same as the new light grey 767 Wall Aneroids that started shipping June, 2010. For wall aneroids installed earlier than this date the customer should order a new wall mount for the ProBP. In these cases the drill pattern for the wall is the same as the original 767 basket.

**Miscellaneous**

**Does a separate transformer need to be used in different countries?**

No, but different line cords are required for different countries.

**Is the power cord medical grade?**

Yes.

**What are the shipping weights and dimensions of the various ProBP configurations?**

<b>Config.</b>	<b>Dimensions (in.)</b>	<b>Weight (lbs.)</b>
<b>Unit Only</b>	8.5 x 4.5 x 5.5	1.3
<b>Handheld</b>	19.25 x 9 x 5	3.35
<b>Wall</b>	19.25 x 9 x 5	4.3
<b>Mobile</b>	22.75 x 22.75 x 12	25.3

**How long does it take to go into Standby Mode?**

The standby mode conserves battery power. The display goes black, then enters standby mode two minutes after a reading or last button pressed. Press any button to bring the ProBP 3400 out of Standby Mode.

If disconnected from an external power source, the ProBP 3400 automatically powers off when not used for 30 minutes. When the device is connected to external power, the device will automatically power off after three hours of non-use.

**Is the length of time before the device goes into Standby Mode configurable?**

No. Lengthening the amount of time before the device goes into standby reduces the life of the battery, thus the decision was made to not make it changeable by the end-user.

**What buttons can be pressed to bring the device out of the Standby Mode?**

Pressing any button will bring the ProBP 3400 out of Standby Mode.

**How long does it take before the device automatically powers off?**

ProBP 3400 will automatically power off when not used for a total of 30 minutes when not plugged in to AC Power. If plugged in to AC power, the ProBP 3400 will power off when not used after 3 hours.

**Will the readings be lost if the device automatically powers off after 30 minutes or 3 hours?**

ProBP 3400 automatically saves a reading in memory before automatically powering off.

**Is the contrast of the display adjustable?**

No.

**Can I upgrade the ProBP 3400 after I buy it?**

Yes. The device can be upgraded in the field using the Welch Allyn Service Software. Current features that can be added after the initial purchase include enabling Bluetooth functionality and enabling SureBP technology.

**Does ProBP 3400 have intervals and alarms?**

No. For this functionality please refer to the CVSM device.

**Is there a way to clear the Error/Event Logs?**

No

**Can the event log be printed?**

Yes, using the Welch Allyn Service Software.

**Is the ProBP 3400 device MRI compatible?**

No.

**Where can I find the serial number of the ProBP 3400?**

The serial number is found on the label on the bottom of the housing. The serial number is also available when the device is plugged in to a PC running the Welch Allyn Service Software. In the Service Software the serial number shows up in the Device Info section.

You do not need to remove the device from the mobile stand to see the label on the bottom; simply look at the bottom of the device.

**What is the length of the custom USB power/connectivity cable we sell?**

The cable is 2.4 meters (8 feet) long. We also have a cable 0.45 meters (16 inches) long that is meant to be used to power the device on the mobile stand.

What are the warranties for the ProBP 3400?

Item	Warranty
ProBP 3400 device	1 year
ProBP 3400 battery	1 year