

Model: WS-380

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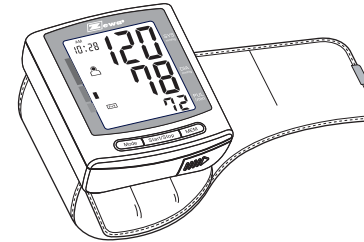
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# Instruction Manual

## Automatic Blood Pressure Monitor Model #: WS-380



- Please keep this instruction manual safe for future use.

## Introduction

You have purchased a quality Zewa Blood Pressure Monitor. The material and components of this product have specially been designed for your device. The use of this device will be described in detail within the following pages.

## Important Warning/Medical Disclaimer

Before using your blood pressure monitor, you should read and understand all instructions and follow all warnings. Information in this manual is provided for informational purposes and this manual and product are not meant to be a substitution for the advice provided by your own physician or other medical professional. You should not use the information contained herein or this product for diagnosing or treating a health problem or disease, or prescribing any medication, if you have or suspect that you have a medical problem, promptly contact your healthcare provider.

For specific information about your own blood pressure, including what measurement is considered normal for you, **CONSULT YOUR PHYSICIAN.**

## Commonly Asked Questions About Blood Pressure



**SYSTOLIC PRESSURE.**  
When the heart contracts it sends blood out into the body. This pressure is referred to as systolic pressure.



**DIASTOLIC PRESSURE.**  
The pressure that is created, as the heart pulls blood back through is called diastolic pressure.



Blood pressure is recorded as systolic over diastolic, as shown here.

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## Commonly Asked Questions About Blood Pressure

### JNC7 Classification Table - for adults within the U. S.

BP Classification	Systolic (mmHg)	Diastolic (mmHg)	Classification bar
Stage 2 Hypertension	≥160	or ≥100	→
Stage 1 Hypertension	140-159	or 90-99	→
Prehypertension	120-139	or 80-89	→
Normal	<120	and <80	→

SOURCE: The Seventh Report of the Joint National Committee on Prevention, Evaluation and Treatment of High Blood Pressure for Adults, National Heart, Lung and Blood Institute - May 2003.

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## Commonly Asked Questions About Blood Pressure

### Why Does My Blood Pressure Fluctuate?

Since blood pressure changes with every beat of the heart it is in constant fluctuation throughout any given day. In addition to these natural changes there are other factors that may affect blood pressure such as:

- Temperature (too hot or cold)
- Humidity
- Restlessness
- Lack of sleep
- Constipation
- Stress
- Fear
- Anger
- Anxiety
- Food and beverage consumption
- Individual physical conditions

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## Commonly Asked Questions About Blood Pressure

In addition to these factors you should talk with your physician to see what may be affecting you.

### How Do I Know I have High Blood Pressure?

It's nearly impossible to know if your blood pressure is elevated without having it checked. People have the common misconception that one can "feel" their blood pressure rise. It is because of this mystery that hypertension has been named "the silent killer".

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### Commonly Asked Questions About Blood Pressure

Don't let it sneak up on you! Start monitoring your blood pressure every day with your new Zewa blood pressure monitor.

#### ***Why Is Important To Control My Blood Pressure?***

Left uncontrolled, hypertension may place an incredible amount of stress on your heart and arteries, both of which become forced to work harder to keep blood flowing in a healthy manner throughout the body. Over time, this stress may result in health problems including over enlargement of the heart, loss of elasticity of the arteries, heart disease, stroke and even death. Making some simple lifestyle changes now may help you stay healthy in the future.

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### Measurement Method

Zewa blood pressure monitors measure blood pressure and pulse by using what's called an *oscillometric* method, meaning they measure the fluctuations in pressure. This is done by first wrapping a fitted cuff around the upper arm (or wrist, depending on the model). The monitor then automatically fills the cuff with air creating pressure around the arteries inside of the arm (or wrist). Mounted inside of the cuff is a special gauge that is capable of sensing the small *oscillations* (fluctuations) in pressure. These fluctuations are produced as a result of the pressure the cuff has placed around the arm and are, in a basic sense, the arteries contracting (getting larger and smaller) with each heart beat. The monitor then measures how high and how quickly these contractions occur and converts that information into a digital value.

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### Intended Use Of a Blood Pressure Monitor

Zewa blood pressure monitors offer convenient home use. They are noninvasive, meaning no part of the monitor enters your body. It is used to measure systolic, diastolic and pulse measurements. Zewa monitors are recommended for use by people over the age of 18.

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### Special Features

#### ***PI2 SYSTEM™***

Zewa's exclusive PI2 System™ (Personalized Inflation System) measures while inflating. Personalized inflation results in a faster, more comfortable and more accurate reading.

#### ***Irregular Heartbeat Detection (IHB)***

An irregular heartbeat may cause or indicate cardiovascular disease. Zewa blood pressure monitors feature advanced technology to alert the user if an irregular heartbeat is detected by displaying the IHB symbol on the display. **This is only a caution indication and not a diagnosis.** Please consult your physician if the IHB symbol is continuously displayed.

**Note:** Talking or moving while taking a measurement can give a false IHB indication.

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## Special Features

### Low Noise System

The low-noise, rolling motor pump allows this monitor to offer quiet inflation.

### Memory Feature

Zewa's special memory feature allows the monitor to store up to 2 x 60 measurements. It also calculates the overall average, AM average and PM average for a quick and easy comparison.

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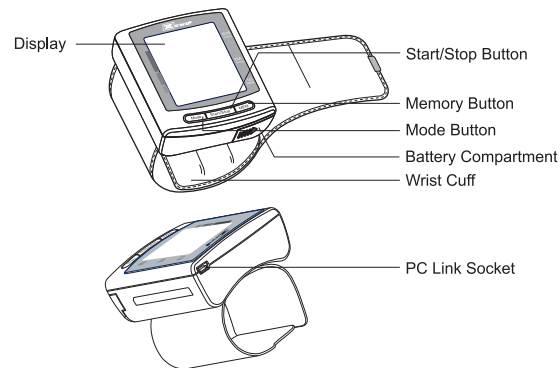
## Accuracy

Zewa monitors have been clinically tested against a scientific device called a sphygmomanometer, considered the standard in blood pressure measurement. All Zewa monitors have performed equivalent to measurements taken with this scientific device and are within the accuracy limits prescribed by the American National Standard for Electronic and Automated Sphygmomanometers.

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## Part Identification

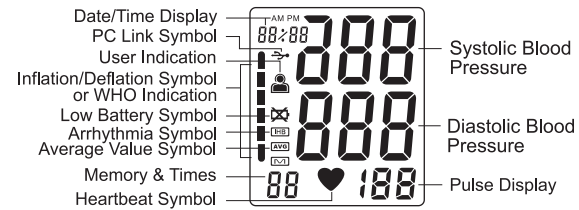
### Body & Cuff



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## Part Identification

### Display



### Power

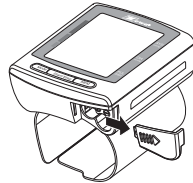
- 2 AAA Alkaline Batteries



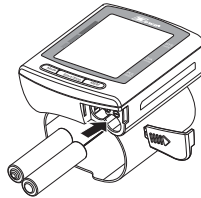
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## Battery Installation / Replacement

- 1 Remove the battery cover from the battery compartment.



- 2 Insert two "AAA" (1.5V Alkaline) type batteries with polarity as indicated. Do not use rechargeable batteries.

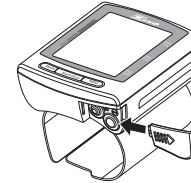


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## Battery Installation / Replacement

- 3 Replace the battery cover.

⚠ The battery cover is closed tight when you hear a clicking sound.



You need to replace the batteries when:

1. Low battery symbol appears on display
2. The Start/Stop button is pushed and nothing appears on display

- ⚠
1. Batteries are hazardous waste. Do not dispose them together with the household garbage.
  2. Please remove the batteries when stored for a longer period of time. Leaving the batteries in the compartment for a long time may cause leakage, which may lead to damage of the unit.

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## Setting Year-Date-Time

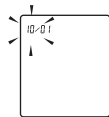
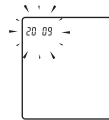
1. After inserting the batteries for the first time, or after changing the batteries, follow these steps:

Insert the batteries and the year flashes on the display, use the MEM button to increase the year. Press the MODE button and continue with step 2.

- 1.1 To change the year-date-time without changing the batteries follow these steps:

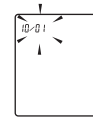
Press the MODE button for 3 seconds until the year flashes, use the MEM button to increase the year. Press the MODE button and continue with step 2. Note: The year goes up to 2030 and then will start again from the beginning.

2. The month flashes, use the MEM button to increase the month. Press the MODE button and continue with step 3.

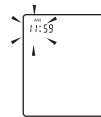


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## Setting Year-Date-Time

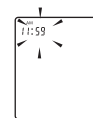


3. The day flashes, use the MEM button to increase the day. Press the MODE button and continue with step 4.



4. The hour flashes, use the MEM button to increase the hour. Press the MODE button and continue with step 5.

Note: The time is in a 12-hour format (AM/PM will change automatically)



5. The minute flashes, use the MEM button to increase the minute. Press the MODE button and a 0 is displayed indicating the programming has been saved. Press the START/STOP button to turn the device off.

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### Important Reminders

Follow your doctor's advice on how and when to take your blood pressure. Otherwise, here are some important hints:

#### ***Before taking a measurement***

- ✓ Sit quietly for about 10 minutes. This will allow your body to return to its normal, resting state.
- ✓ Take your blood pressure in a comfortable environment - not too cold, not too hot as temperature may affect your measurement.
- ✓ Make sure you haven't just consumed any beverages containing caffeine such as coffee, non-herbal tea or cola. Also don't smoke just before taking a measurement. It's advisable to wait 30-45 minutes before taking a measurement.

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### Important Reminders

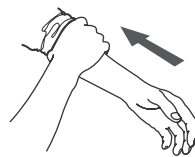
#### ***While taking a measurement***

- ✓ Sit still and quietly while measuring. Talking or moving may elevate measurements.
- ✓ For consistency, it is recommended to measure your blood pressure using the same arm and at about the same time each day. If possible, we suggest using your left arm. You can set your alarm to remind you to take your blood pressure.
- ✓ When taking multiple measurements right after each other, make sure you wait at least 3 minutes in between. Waiting allows your blood vessels to return to their normal state.
- ✓ Sit your legs uncrossed and your feet flat on the floor. Do not touch the cuff or monitor at any time during the measurement. Relax.

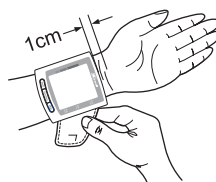
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### Proper use of the Wrist Cuff

- 1 Remove all clothes from your arm allowing the cuff to fit directly on the skin.



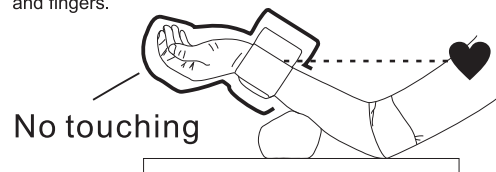
- 2 Wrap the cuff tightly around your wrist by using the Velcro strip.



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### Correct Measuring Posture

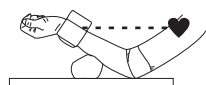
- 1 Place your elbow on a table so that the cuff is at the same level as your heart. Note: Your heart is located slightly below your armpit a bit to the left of the middle of your chest.
- 2 If the cuff is not at the same level as your heart or if you can not keep your arm completely still throughout the reading, use the storage box or a folded towel to support your arm to elevate your wrist. Do not allow the support object to come in contact with the wrist cuff.
- 3 Turn the palm upwards.
- 4 Sit upright in a chair and take 10 deep breaths. Relax your arm and fingers.



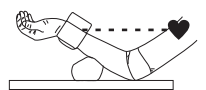
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### Correct Measuring Posture

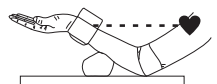
Relax your fingers .....



Not good



Good

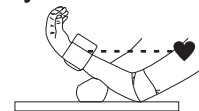


Not good

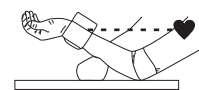
22

### Correct Measuring Posture

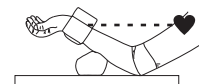
Relax your wrist .....



Not good



Good



Not good

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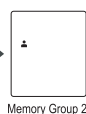
### Taking a Measurement

#### 1 Selecting a Memory Group.

Before taking a measurement select your memory group by pushing the **Mode** button. Press the START/STOP button to save your selection



Memory Group 1



Memory Group 2

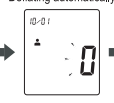
#### 2 Press the START/STOP button.

All display symbols appear on the screen. The cuff starts to inflate automatically.



All symbols display

Deflating automatically



Start to inflate

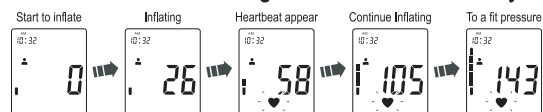


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### Taking a Measurement

#### 3 Inflation and measurement.

The unit will automatically start inflation and the measurement. This device features Zewa's PI2 System which measures while inflating. **Note: In an emergency press the START/STOP button and the device starts releasing the air in the cuff immediately.**



#### 4 Finalizing the measurement

After the monitor completes the measurement, it will automatically display your systolic, diastolic measurement and pulse rate.

#### 5 Memory

The monitor will automatically store your readings.

#### 6 Turn off the unit

The monitor will turn off automatically after 2 minutes. To turn it off manually push the START/STOP button.

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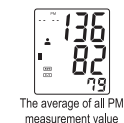
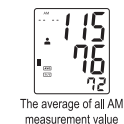
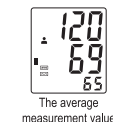
### Memory Recall

- This blood pressure monitor can store readings for 2 users (2 x 60 readings). Once the memory is full (60 readings in Group 1 or 2) it will automatically delete the oldest reading and replace it with the newest one.
- This monitor features Zewa's exclusive 3 x Average function. It automatically calculates the Average of all readings in each group as well as all AM Averages and PM Averages. When recalling the memory the averages are displayed in the following order:

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### Memory Recall

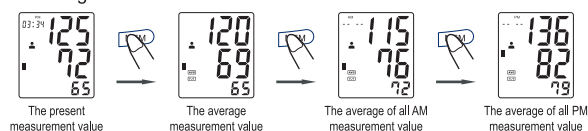
1. The first reading displayed is the overall average, indicated by the "AVG" symbol on the display.
2. The second reading displayed is the average of all AM readings, indicated by the "AVG" symbol and --AM--.
3. The third reading displayed is the average of all PM readings, indicated by the "AVG" symbol and --PM--.



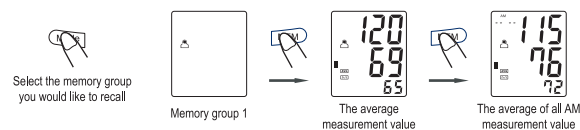
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### Memory Recall

- How to recall the memory after taking a measurement (when the device was not turned off). At this point you can only recall the memory in the respective memory group you selected before taking a measurement:

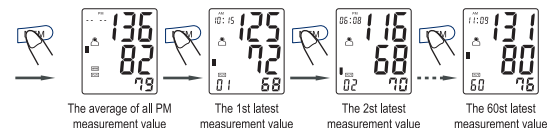


- How to recall the memory when the monitor was turned off:



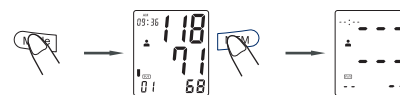
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### Memory Recall



### Clearing Values from Memory

Press the **Mode** to select your memory group. Press the **MEM** Button for a couple of seconds until the numbers disappear from the display. To delete all readings, repeat these steps for the other memory group.



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## PC Link

This blood pressure monitor is PC Link ready. It features a USB connection, which allows data to be transferred from the monitor to a PC.

Once transferred Zewa's Software will automatically analyze blood pressure readings and create charts that can be printed or E-Mailed to a physician.

PC Software and USB transfer cable are available as an accessory. For more information please call Zewa Customer Service at 1-888-993-3592.

Some pharmacies will offer a free service to download this information for you, please contact your local pharmacist if this service is available in your area.

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## PC Link



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## Error Indication

■ The Following error symbol appear in the display during measurement.

Symbol	Cause	Correction
	Inflation is not made appropriately while the motor works.	Check the cuff it is firmly connected to monitor.
		Check if the cuff is tight around your arm, re-tighten cuff if necessary.
		Check if the cuff is positioned correctly above your elbow, re-position if necessary. The measurement should be performed calmly.
	When the batteries are too weak.	Replace all of the batteries with new ones.

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## Error Indication

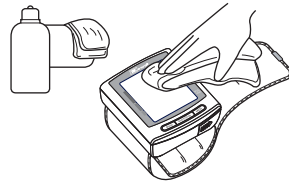
Symbol	Cause	Correction
	Nothing appears on display after pushing the START button.	Replace ALL batteries. Check that the batteries are installed correctly (polarity).
	Measurement values appear too high or too low.	Measure your arm size and make sure your circumference is within the range indicated on the cuff. Check the placement of the cuff.

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## Cleaning & Maintenance

### Care .....

- Keep the unit in the storage case when not in use.
- Clean the unit with a soft dry cloth. Do not use any abrasive or volatile cleaners.
- Never immerse the unit or any components in water.



※ Use the unit consistent with the instructions provided in this manual.  
Use only authorized parts and accessories.

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## Cleaning & Maintenance

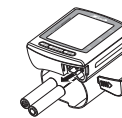
### Maintenance .....

- Do not clean the body and cuff with naphtha, thinner or gasoline etc.
- Do not wet the cuff or attempt to clean the cuff with water.



- Store the unit in a clean and dry location. Do not subject the unit to extreme hot or cold temperature, humidity and direct sunlight.

- Remove the batteries if the unit will not be used for 3 months or longer. Always replace all of the batteries with new ones at the same time.



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## Specifications

Model No.		WS-380
Display		LCD Digital Display
Measuring Principle		Oscillometric Method
Measurement Localization		Wrist
Cuff		Soft Wrist Cuff
Measurement Range	Pressure	0 to 299 mmHg (0 ~ 39.9 kPa)
	Pulse	40 to 180 Pulses/min
Accuracy	Pressure	± 3 mmHg (0.4 kPa)
	Pulse	± 5% of reading
LCD Indication	Pressure	3 Digits Display of mmHg or kPa
	Pulse	3 Digits Display
	Symbol	Memory/IHB/Heartbeat/Low Battery, etc.

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## Specifications

Inflation		Automatic by Internal Pump
Rapid Air Release		Automatic by Air Valve
Memory Function		120 (2×60) Readings
Power Source		D.C.3V, 2 AAA Alkaline Batteries
Automatic Power-Off		In 2 Minutes
Gross Weight		Approx. 130g (Batteries not included)
Operating Environment	Temperature	10 ~ 40 °C (50 ~ 104 °F)
	Humidity	15 ~ 90%RH (Noncondensing)
Storage Environment	Barometric Pressure	105 ~ 80 kPa
	Temperature	-20 ~ 60 °C (-4 ~ 140 °F)
	Humidity	10 ~ 95%RH (Noncondensing)

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