

# FORE-CARE™

## FULLY AUTOMATIC DIGITAL BLOOD PRESSURE MONITOR



♥ SE-4400

## USER MANUAL



READ BEFORE USE

CE0123

■ **Manufacturer**  
**Genexel Medical Instrument, Inc.**

#196, Anyang 7-Dong, Manan-Gu,  
430-017 Anyang-City, Kyunggi-Do, Korea  
Tel. 82-2-575-1141  
Fax. 82-2-575-1668

■ **EC Representative**

KSM Healthcare Ltd.  
32 Mallusk Enterprise Park  
Newtownabbey BT36 4GN  
United Kingdom  
Tel +44 (0) 2890 848454  
Made in Korea www.genexel.com

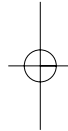


GENEXEL MEDICAL

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## 1. Caution

This device is designed to make automatically rapid exhaust if cuff pressure is 320 mmHg or more. If the cuff doesn't make automatically rapid exhaust when cuff pressure is 320 mmHg or more, please detach the cuff from the arm.

POWER SOURCES :  
SIZE AA BATTERIES(4) BF TYPE  
INSTRUMENT



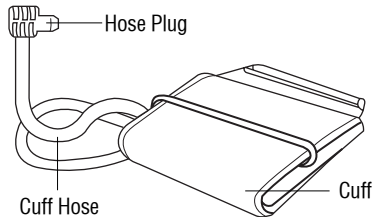
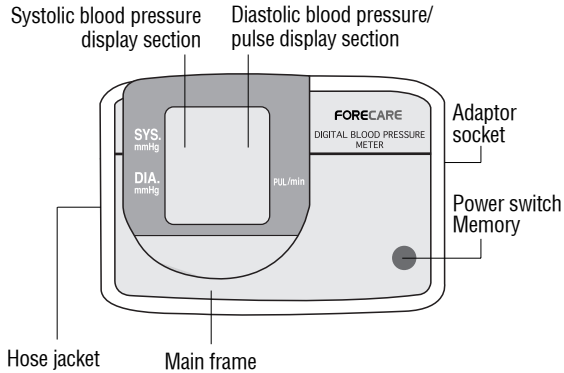
## 2. Important Information before Blood Pressure Measurement.

1. To ensure accurate measuring result, carefully read these use instructions.
2. This product is intended for household use only. Keep product and batteries away from children.
3. People suffering from cardiac arrhythmia, vascular constriction, arteriosclerosis in extremities, diabetes or users of cardiac pacemakers should consult their doctor before measuring their blood pressure themselves, since deviations in blood pressure values may occur in such cases.
4. If you are under medical treatment or taking any medication, please consult your doctor first.

5. The use of this blood pressure monitor is not intended as a substitute for consultation with your doctor.
6. Hold the monitor at heart level when measuring.
7. Wait approximately 5 minutes before repeating a measurement.
8. Always take readings at the same time of the day, ideally in the morning under same conditions,
9. Do not measure within 30 minutes after smoking, coffee or tea consumption.
10. Take off wrist watch and jewelry before fitting the monitor on the measuring arm.
11. While taking a measurement, sit down, relax, keep still, especially the hand of the measuring arm, do not move or speak.
12. It is recommended that the performance should be checked every two years after maintenance and repair according to the requirements in 7.1.1 of EN 1060 - 1:1995 and 7.4.1 of EN 1060 - 3:1997

Blood pressure measurement determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the American National Standard for Electronic or Automated Sphygmomanometer.

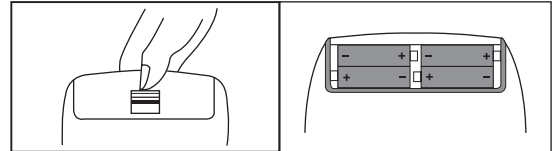
### 3. Parts Identification



### 4. Preparation for Measurements

#### 4.1 Battery installation

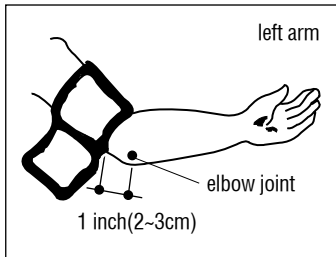
Remove the battery cover and insert batteries into the battery compartment as shown, taking extreme care that the polarities + and - are observed.



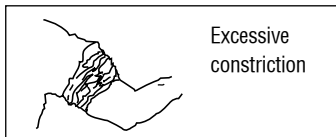
Only discard empty batteries. They should not be disposed of in the household waste, but at appropriate collection sites or at your retailer.

#### 4.2 Attaching the Arm Cuff

Wind the arm cuff around the left upper arm tightly so that the bottom edge of the cuff is positioned one inch above the elbow joint.



- Don't roll up a shirt or a jacket. It may cause constriction of the upper arm and proper measurement results will not be obtained.






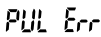


If your BMI (Body mass index) is over 30, "*FORE-CARE large size cuff*" must be used for accurate result. *FORE-CARE large size cuff* is sold separately.

### 4.3 Measuring Posture

Remain in a Seated or reclining posture. Do not move your arm while measuring.

## 5. Description of Display Symbols

Display symbol	Condition/Cause	Corrective action
 Measurement in progress	Appears in the measurement condition and flashes when pulse is detected.	Measurement in progress-remain quiet.
 Exhaust	Flashes when power is applied and there is air remaining in the cuff.	Automatic exhaust is performed.
 Insufficient pressure	Measurement has begun but the pressure was insufficient.	Automatic pressurization is performed. Pressure cuff is at the same height as the heart.
 Replace batteries	Appears when the battery voltage is excessively low.	Replace both batteries with new ones.
 Measurement error	Appears when the accurate blood pressure could not be obtained.	Reapply the cuff properly and remeasure.
 Pulse error	Appears when the accurate pulse rate could not be obtained.	

## 6. How to Measure

### 6.1 Attach the arm cuff to the left arm.

### 6.2 Turn Power On

- When Power is turned ON, all display symbols appear for approximately 1 second.
- When the “0” is displayed the unit is ready for measurement. If the “↓” symbol appears, release air in the arm cuff.

### 6.3 Auto Pressurization

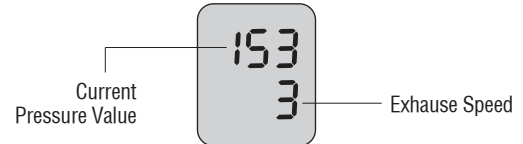
- In 1 second, the wrist cuff pressurizes after the “0” displayed on the display window.
- The inflation level is set-up automatically according to personal Blood Pressure.
- When the Power Switch is subsequently pressed during pressurization, the unit is Power off.

### 6.4 When pressurization is completed, the “♥” symbol will appear indicating that measurement is in progress.

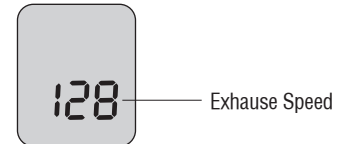
\* Constant-Speed deflation

- The Pressure reducing function starts by opening the solenoid valve for a short time. After the pressure is reduced and pulse pressure is detected, pressure reduction is synchronized with the patient’s pulse cycle and deflation is done.

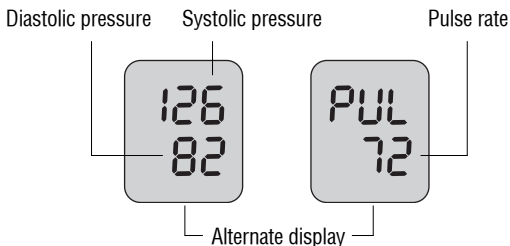
- ① Pressure value appears on the left, and exhaust speed on the right side of the display.



- ② When a pulse is detected, the pressure value moves to the right side of the display. At this time the “♥” symbol flashes at the same rate as pulse rate.



- ③ When the measurement is completed. Systolic pressure is displayed on the upper and diastolic pressure on the lower of the display. 2-3 seconds later, pressure value and pulse appear alternately on the display.



- If insufficient pressure is obtained, automatic re-pressurization is performed.

### 6.5 Turn power OFF

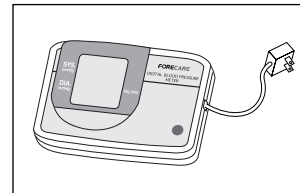
Press the power switch to turn Power off.

### 6.6 Automatic Power OFF Function

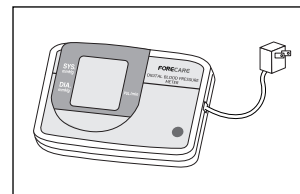
If this unit is left on after measurement, an automatic Power-OFF function turns the Power off after approximately 1 min. To continue measurement press the power switch turning the unit on.

## 7. Use of optional AC adaptor(sold separately)

1. Insert the AC adaptor cord into the jack at the right side of the UNIT.

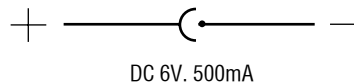


2. Next insert the AC adaptor into a 110/220V AC outlet 50-60 cycle .



3. When AC adaptor is removed, disconnect from AC outlet first, then from the unit jack. To avoid possible damage to the unit, use only the constant voltage AC adaptor(DC 6V, 500mA) as other units may vary in output voltage and polarities.

AC adaptor output



NOTE : The unit is designed not to draw power from the batteries when the AC adaptor is in use.

## 8. More about Blood Pressure Measurements

### 8.1 What is Blood Pressure ?

Blood Pressure is a measurement of the force of blood flowing against the walls of the arteries. Arterial blood pressure is constantly changing during the course of the cardiac cycle. The highest pressure in the cycle is called the **SYSTOLIC BLOOD PRESSURE**; the lowest is the **DIASTOLIC BLOOD PRESSURE**. Both pressure readings, the **SYSTOLIC** and **DIASTOLIC**, are necessary to enable a physician to evaluate the status of a patient's blood pressure. Many factors such as physical activity, anxiety, or the time of day, can influence your blood pressure. Blood pressure is typically low in the morning and increases from afternoon to evening. It is lower in the summer and higher in the winter.

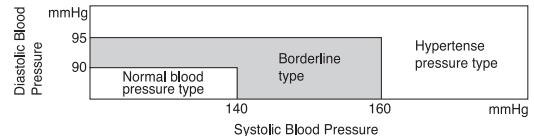
### 8.2 Why is it a Good Thing to Measure Blood Pressure at Home?

Having one's blood pressure measured by a doctor in a hospital or a clinic, and group health checks, tend to stimulate nervousness in the subject and may even create high blood pressure. Also blood pressure varies in accordance with a variety of conditions, and so judgement is not possible on the basis of a single measurement.

The blood pressure measured first thing in the morning after getting up, before taking any food, and with the subject still, is known as the fundamental blood pressure. In practice it is rather difficult to record the fundamental blood pressure, but to come as near as possible to measuring the blood pressure in an environment that is close to this, is why it is useful to take the measurement at home.

### 8.3 WHO Blood Pressure Classifications

Standards for assessment of high or low blood pressure, without regard to age, have been established by the World Health Organization (WHO), as shown in the chart.

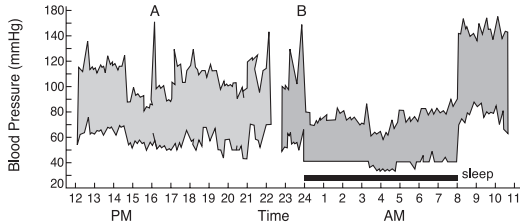


Reference Material : Investigation into Adult Diseases Report by the Ministry of Health and Social Security, 1971

### 8.4 Variations in Blood Pressure

Individual blood pressures vary greatly both on a daily and a seasonal basis. These variations are even more pronounced in hypertensive patients. Normally the blood pressure rises while at work and is at its lowest during the sleeping period.

The graph below illustrates the variations in blood pressure over a whole day with measurement taken every five minutes.



Shown is data for measurements taken every 5 minutes. The thick line represents sleep. The rise in blood pressure at 4 PM(A in the graph) and 12 PM(B in the graph) correspond to an attack of pain and sexual intercourse. (Beven, Honour & Stott: Clin. Sci. 36 : 329, 1969)

## 9. Care And Maintenance

1. Avoid storing the unit where it will be exposed to direct sunlight, dust or high humidity.
2. Do not Wash the main unit or pressure cuff.
3. Do not disassembling the unit.
4. Do not drop the unit. Protect it from sudden jars or shocks.
5. Do not clean the unit with volatile liquids.
6. The unit and pressure cuff may be wiped clean with a soft, dry cloth.

## 10. Limited 3 Years Warranty

Your SE-4400 Full Auto Fuzzy Blood Pressure Monitor is warranted to be free from manufacturing defects for a period of two years under normal use. This warranty extends only to the original retail purchaser. Should repair be needed within the warranty period, ship the unit prepaid to **Genexel Medical Instrument, Inc. #196, Anyang7-Dong, Manan-Gu, 430-017 Anyang-City, Kyunggi-Do, KOREA.**

**ATTN :** Service Dept. Be sure to include the model number of your unit and your phone number on any correspondences. We will either repair or replace(at our option) free of charge any parts necessary to correct defects in the materials or workmanship. The above Warranty is Complete and exclusive. The warrantor expressly disclaims liability for incidental, special, or consequential damages of any nature some states do not allow the exclusion or limitation of incidental or consequential damages, so the above warranty may not apply to you.

Any implied warranties arising by the operation of law shall be limited in duration to the term of this warranty. (Some states do not allow limitations on how long an implied warranty lasts, So the above limitation may not apply to you) This warranty gives you specific legal rights and you may have other rights which vary from state to state. As a condition to operation of your warranty, the enclosed registration card

must be completed and sent to us within one month from the date of purchase.

**FOR CUSTOMER SERVICE CALL 82-2-575-1141 (EXT : 201)**

## 11. FCC Information

### Warnings

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

### Note

Potential For Radio/ Television Interference(for U.S.A. only)  
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Potential For Radio/Television Interference (for Canada only)  
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Canadian Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le ministre des communications.

## 12. Specifications

Name and model number	Full Auto Fuzzy Blood Pressure Monitor 4400
Display system	Digital display system / LCD 6 digits
Measuring method	Oscillometric Method
Power source	Size "AA" 1.5V x 4 Batteries
Measuring range	20-300mmHg (Pressure)

Accuracy	40~200 Pulses / minute (Pulse) ±3 mmHg (Pressure) ±5 % (Pulse)
Pressurization	Automatic pressurization using a micro pump.
Rapid air release	Solenoid valve
Deflation	Solenoid valve, Constant air release
Memory	Built-in Memory enabling display of the 8 previous measured value and current measurements
Automatic Power Off	To be automatically cut off after 1 minute of non use to save energy.
Automatic repressurization	To be automatically repressurized when the cuff pressure is insufficient
Fuzzy Logic system	The optimum inflation level function and constant-speed deflation function.
Battery life	Approx. 4 months with 3 min. usage per day
Operating environment	+10°C~+40°C, less than 85% RH
Storage environment	-10°C~+60°C, less than 95% RH
Dimensions	122(W) x 84(D) x 41(H)/mm
Weight	Approx. 350g (including 4 batteries)
Adaptor	Input: AC 100~240V, 50~60Hz, 150mA Output: DC 6V 500mA

Subject to change without notice.

This device conforms to the following standards :

DIN EN 60601-1 : 3/96 <Medical electrical equipment> -  
Part 1 : General requirements for safety

DIN EN 1060-1 : 12/95, AMD 1 09/02 <Non-invasive  
sphygmomanometers> -  
Part 1 : General requirements

DIN EN 1060-3 : 9/97 <Non-invasive sphygmomanometers> -  
Part 1 : General requirements

DIN EN 1060-3 : 9/97 < Non-invasive sphygmomanometers> -  
Part 3 : Supplementary requirements for electro - mechanical  
blood pressure measuring systems

**MEDICAL ELECTRICAL EQUIPMENT** needs special precautions regarding EMC. For detailed description of EMC requirements please contact the Genexel Medical Instrument, Inc.

Potable and mobile RF communications equipment can affect  
**MEDICAL ELECTRICAL EQUIPMENT.**



At the end of the product's useful life, please disposal of it at appropriate collection points provided in your country.