

AND

Digital Blood Pressure Monitor

Model UA-767PC

Instruction Manual
Original

ENGLISH

Manuel d'instructions
Traduction

FRANÇAIS

Manual de Instrucciones
Traducción

ESPAÑOL

Manuale di Istruzioni
Traduzione

ITALIANO

Bedienungsanleitung
Übersetzung

DEUTSCH

Gebruiksaanwijzing
Vertaling

Nederland

使用手冊
翻譯

中文

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Dear Customers

Congratulations on purchasing a state-of-the-art A&D blood pressure monitor, one of the most advanced monitors available today. Designed for ease of use and accuracy, this device will facilitate your daily blood pressure regimen.

We recommend that you read through this manual carefully before using the device for the first time.

Preliminary Remarks

- This device conforms to the European Directive 93/42 EEC for Medical Products. This is made evident by the **CE**₀₁₂₃ mark of conformity. (0123: The reference number to the involved notified body)
- The device is designed for use on adults only, not newborns or infants.
- Environment for use: The device is for use in the home healthcare environment.
- This device is designed to measure blood pressure and pulse rate of people for diagnosis.

Precautions

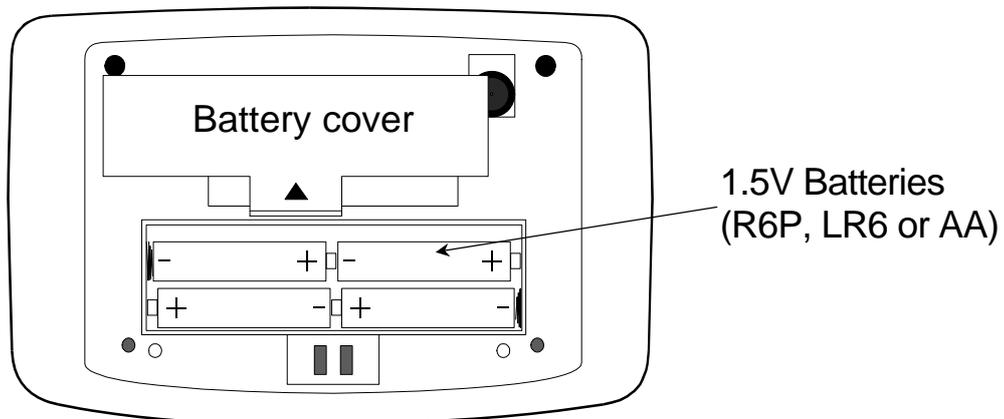
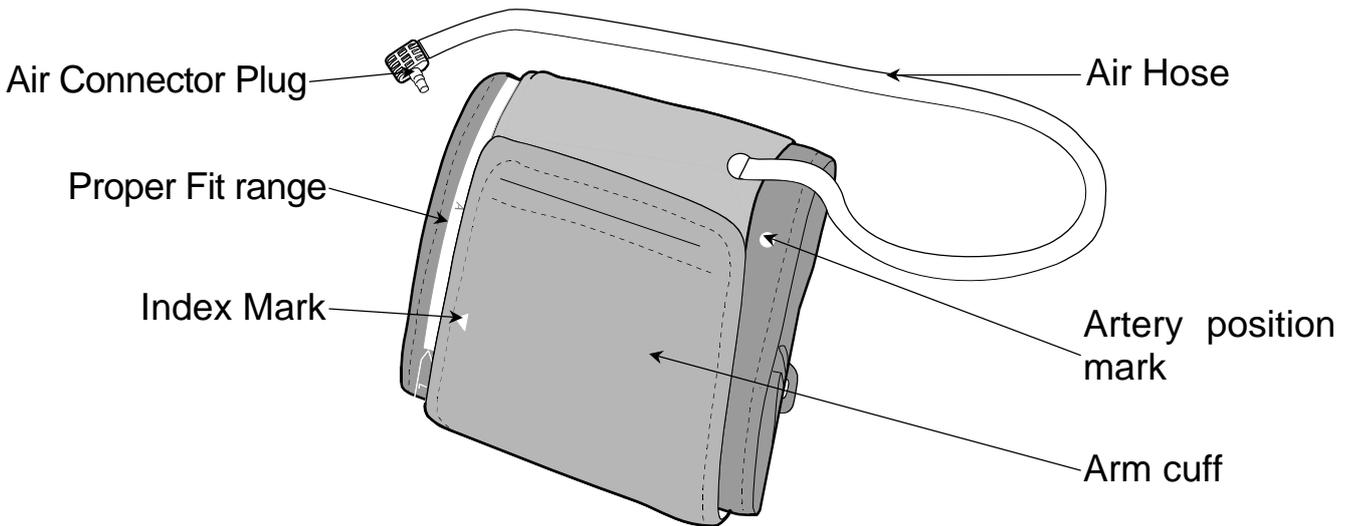
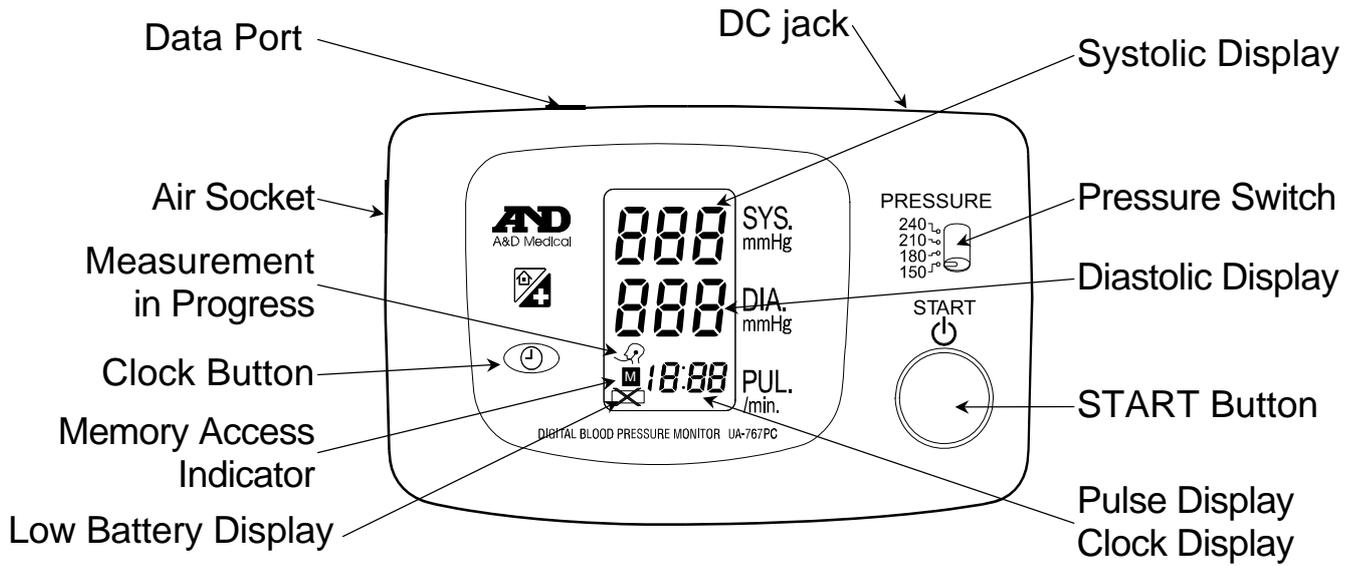
- Precision components are used in the construction of this device. Extremes in temperature, humidity, direct sunlight, shock or dust should be avoided.
- Clean the device and cuff with a dry, soft cloth or a cloth dampened with water and a neutral detergent. Never use alcohol, benzene, thinner or other harsh chemicals to clean the device or cuff.
- Avoid tightly folding the cuff or storing the hose tightly twisted for long periods, as such treatment may shorten the life of the components.
- The device and cuff are not water resistant. Prevent rain, sweat and water from soiling the device and cuff.
- Measurements may be distorted if the device is used close to televisions, microwave ovens, cellular telephones, X-ray or other devices with strong electrical fields.
- Used equipment, parts and batteries are not treated as ordinary household waste, and must be disposed of according to the applicable local regulations.
- When the AC adapter is used, make sure that the AC adapter can be readily removed from the electrical outlet when necessary.
- When reusing the device, confirm that the device is clean.
- Do not modify the device. It may cause accidents or damage to the device.
- To measure blood pressure, the arm must be squeezed by the cuff hard enough to temporarily stop blood flow through the artery. This may cause pain, numbness or a temporary red mark to the arm. This condition will appear especially when measurement is repeated successively. Any pain, numbness, or red marks will disappear with time.

Contraindications

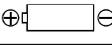
The following are precautions for proper use of the device.

- Do not apply the cuff to an arm with another medical electrical equipment attached. The equipment may not function properly.
- People who have a severe circulatory deficit in the arm must consult a doctor before using the device, to avoid medical problems.
- Do not self-diagnose the measurement results and start treatment by yourself. Always consult your doctor for evaluation of the results and treatment.
- Do not apply the cuff on an arm with an unhealed wound.
- Do not apply the cuff on an arm receiving an intravenous drip or blood transfusion. It may cause injury or accidents.
- Do not use the device where flammable gases such as anesthetic gases are present. It may cause an explosion.
- Do not use the device in highly concentrated oxygen environments, such as a high-pressure oxygen chamber or an oxygen tent. It may cause a fire or explosion.

Parts Identification



Symbols

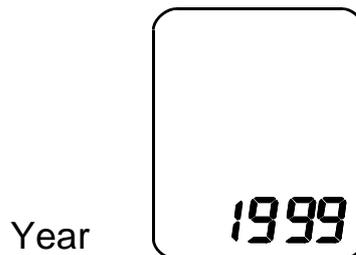
Symbols	Function / Meaning	Treatment
	Turns on or off the device	_____
	Sets the clock / Does not store the current data	_____
	Direction guide to install battery	_____
	Direct current	_____
SN	Serial number	_____
2005 	Date of manufacture	_____
	Type BF: Device, cuff and tubing are designed to provide special protection against electric shocks.	_____
	Appears when measurement is in progress and flashes when the pulse is detected.	Measurement is in progress -- remain as still as possible.
	Previous measurement stored in MEMORY	_____
	Appears when the battery voltage is too low for the device to work properly.	Replace all batteries with new ones.
	Appears if the systolic and diastolic measurements are within 10 mmHg of each other.	Verify that the air hose is properly connected and that the exhaust rate is between 2 and 5 mmHg. Check for air leakage.
	Appears if the pressure value is unstable due to movement during the measurement.	Try the measurement again. Remain very still during the measurement.
	Appears if the pressure value did not increase during pump up.	Verify that the air hose is properly connected and that the exhaust rate is between 2 and 5 mmHg. Check for air leakage.
	System error	Remove the batteries. Install them again properly.
	Appears if pulses are not detected correctly.	Apply the cuff properly and try the measurement again.
	Attention symbol	See instruction for use.
SYS	Systolic blood pressure in mmHg	_____
DIA	Diastolic blood pressure in mmHg	_____
PUL./min	Pulse per minute	_____
	EC directive medical device label	_____
	WEEE label	_____
	Manufacturer	_____
	EU-representative	_____
	Refer to instruction manual/booklet	_____
	Class II device	_____
	Polarity of DC jack	_____

Setting the Clock

The UA-767PC blood pressure monitor is equipped with a date and time function. To set the clock on the device, follow these steps:

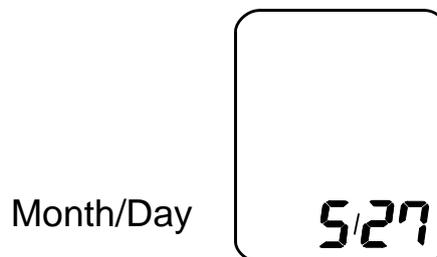
Press the clock button on the front of the device.

The blinking digits reflect the year. If they are not currently set on the correct year, press the START button to advance to the correct year. The clock is set to show years 1999 through 2098. If you pass the correct year, continue advancing the clock until you have run through the cycle of years and are back at the correct year.

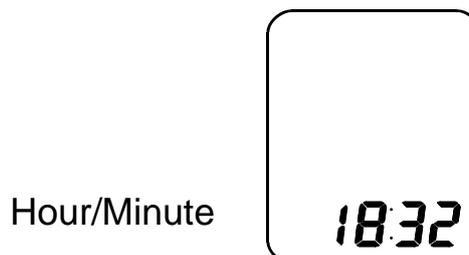


To set the month and day, press the clock button again.

The month numeral(s) will blink. Press the START button to advance the numbers to the correct month. Press the clock button again to advance to the day setting. When the numbers reflecting the day of the month blink, press the START button to advance the numbers to the correct day.



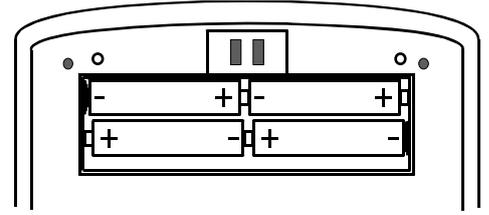
When you press the clock button again, the display will change and the time will be shown in the same format as a digital clock, with the hour numerals blinking. To set the correct hour, press the START button to advance the numbers to the correct hour. To set the minutes, press the clock button again. The minute setting will blink. Press the START button to advance the minutes until you reach the correct setting. Press the clock again. The hour and minute display appears. This is the standby mode.



Preparation for Measurements

1. Installing / Changing the Batteries

Remove the battery cover and insert new batteries into the battery compartment as shown, taking care to observe the proper direction for each battery. Use R6P, LR6, AA or similar type batteries.

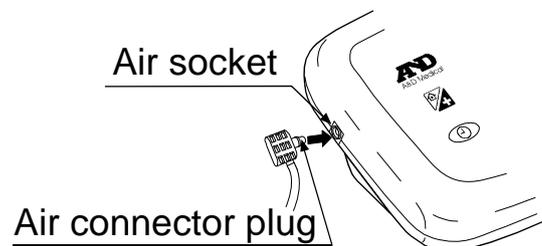


CAUTION

- Insert the batteries as shown in the battery compartment. If installed incorrectly, the device will not work.
- When  (LOW BATTERY mark) blinks on the display, replace all batteries with new ones. Do not mix old and new batteries. It may shorten the battery life, or cause the device to malfunction.
-  (LOW BATTERY mark) does not appear when the batteries are drained.
- The battery life varies with the ambient temperature and may be shorter at low temperatures.
- Remove the batteries if the device is not to be used for a long time. The batteries may leak and cause a malfunction.
- Use the specified batteries only. The batteries provided with the device are for testing the device performance and may have a limited life.

2. Connecting the Air Hose

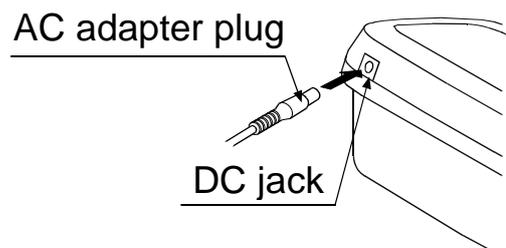
Insert the air connector plug firmly into the air socket.



3. Connecting the AC Adapter

Insert the AC adapter plug into the DC jack. Next, connect the AC adapter to an electrical outlet.

- Use the specified AC adapter. (Refer to page 18.)



Preparation for Measurements

4. Selecting the Correct Cuff Size

Using the correct cuff size is important for an accurate reading. If the cuff is not the proper size, the reading may yield an incorrect blood pressure value.

- The arm size is printed on each cuff.
- The index ▲ and proper fit range, on the cuff, tell you if you are applying the correct cuff. (Refer to "Symbols that are printed on the cuff".)
- If the index ▲ points outside of the range, contact your local dealer to purchase a replacement cuff.
- The arm cuff is a consumable. If it becomes worn, purchase a new one.

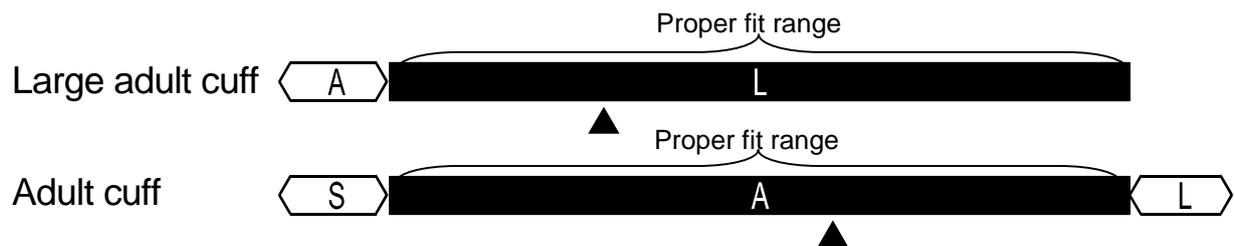
Arm Size	Recommended Cuff Size	Catalog Number
32 cm to 45 cm	Large adult cuff	CUF-D-LA
22 cm to 32 cm	Adult cuff	CUF-D-A

Arm size: The circumference of the biceps.

Note: Model UA-767PC is not designed for using a small adult cuff.

Symbols that are printed on the cuff

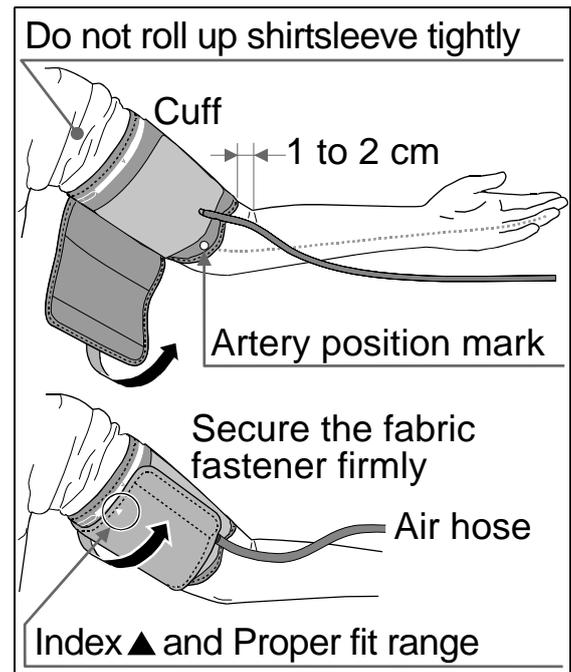
Symbols	Function/Meaning	Recommended Action
●	Artery position mark	Set the ● mark on the artery of the upper arm or in line with the ring finger on the inside of the arm.
▲	Index	_____
REF	Catalog number	_____
A	Proper fit range for the adult cuff. It's printed on the adult cuff.	_____
L	Range to use the large adult cuff. Over range printed on the adult cuff.	Use the large adult cuff instead of the adult cuff.
L	Proper fit range for the large adult cuff. It's printed on the large adult cuff.	_____
S	Under range printed on the adult cuff.	_____
A	Range to use the adult cuff. It's printed on the large adult cuff.	Use the adult cuff instead of the large adult cuff.
LOT	Lot number	_____



Preparation for Measurements

5. Applying the Arm Cuff

1. Wrap the cuff around the upper arm, about 1-2 cm above the inside of the elbow, as shown.
Place the cuff directly against the skin, as clothing may cause a faint pulse, and result in a measurement error.
2. Constriction of the upper arm, caused by tightly rolling up a shirtsleeve, may prevent accurate readings.
3. Confirm that the index ▲ points within the proper fit range.



6. How to Take Proper Measurements

For the most accurate blood pressure measurement:

- Sit comfortably on a chair. Rest your arm on the table. Do not cross your legs. Keep your feet on the floor and straighten your back.
- Relax for about five to ten minutes before measurement.
- Place the center of the cuff at the same level as your heart.
- Remain still and keep quiet during measurement.
- Do not measure immediately after physical exercise or a bath. Rest for twenty or thirty minutes before taking the measurement.
- Try to measure your blood pressure at the same time every day.

7. Measurement

During the measurement, the cuff will become very tight. Do not be alarmed as this is normal.

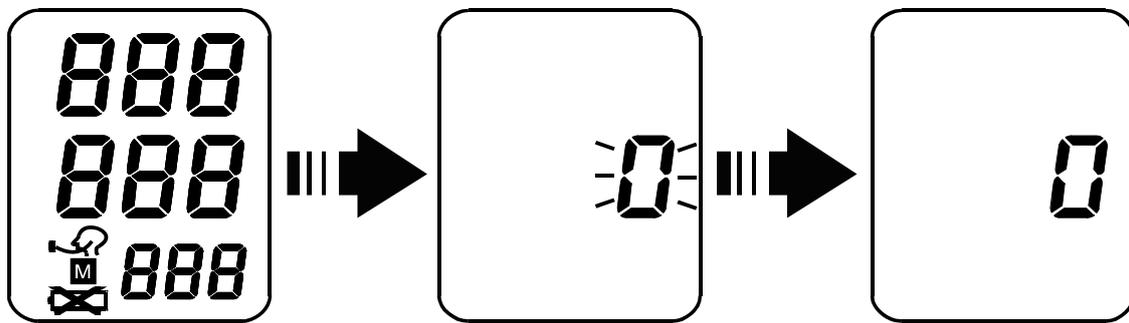
8. After the Measurement

After the measurement, remove the cuff and record your data.

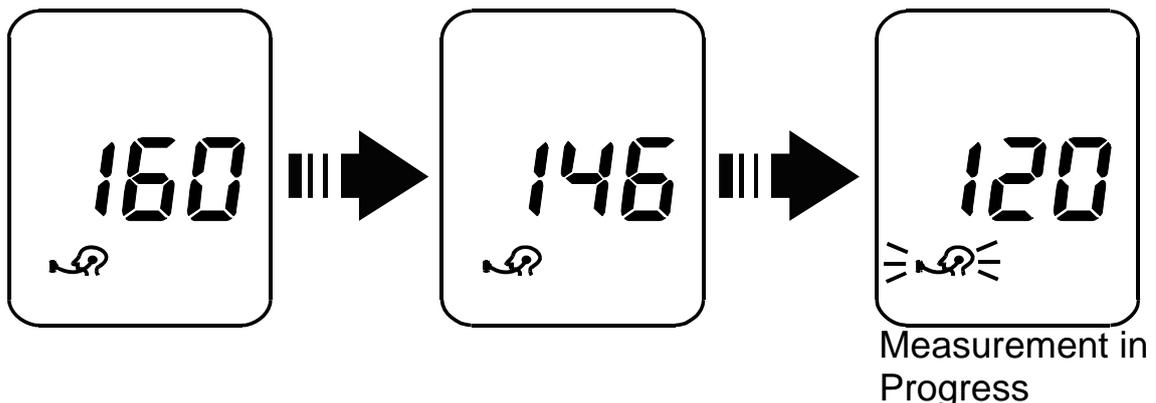
Note: Allow at least three minutes between measurements on the same person.

Measurements

1. Place the cuff on the arm (preferably the left arm).
2. Set the PRESSURE switch to a value that will be 30 to 40 mmHg above the expected systolic value and press the START button.
 - When the START button is pressed, all of the display symbols will appear for about one second.
 - When the "0" is blinking, the device is calibrating its zero point. If there is still some air in the arm cuff, it will be exhausted at this time.

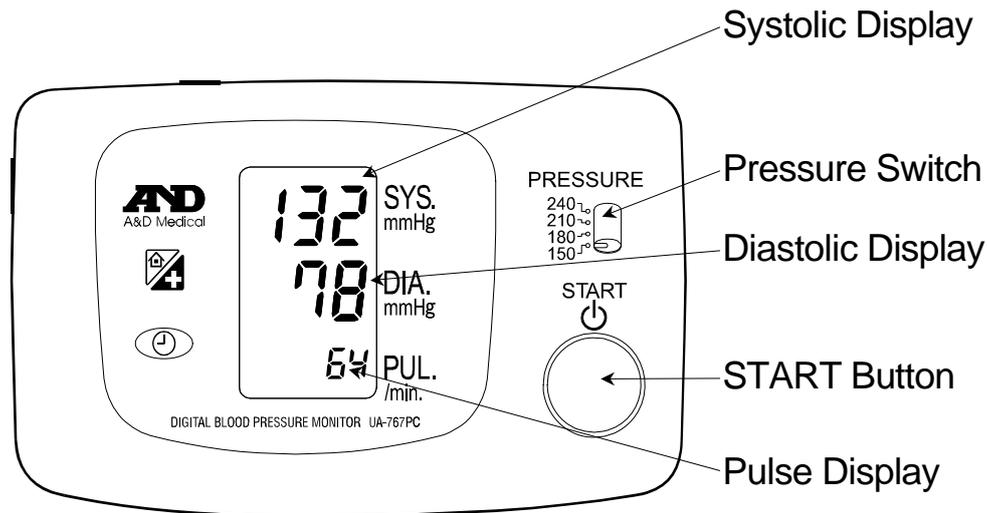


- The micro pump will pressurize the cuff.
Note: The cuff will become very tight. Do not be alarmed, as this is normal.
 - If the START button or clock button is pressed again during pressurization or during the measurement, the pump will stop and the air will be released from the cuff.
3. When pressurization has been completed, the automatic exhaust mechanism will gradually reduce the pressure in the cuff and the Measurement in Progress symbol will appear along with the current pressure reading. This symbol will flash in unison with the pulse of the person being monitored.



Measurements

- ❑ Remain still while the device is in operation.
 - ❑ When a measurement is made with insufficient pressure, the device will pump again to a higher pressure.
4. When measurement has been completed, the buzzer sounds and the air is automatically released from the cuff. The systolic pressure, diastolic pressure readings, and the pulse rate are displayed.



5. Turning the Power OFF

Press the START button to turn the power off. The device will be in standby mode.

6. Subsequent Measurements

If a subsequent measurement is required, turn off the power and turn it on again. When the "0" is displayed, the device is ready for measurement again.

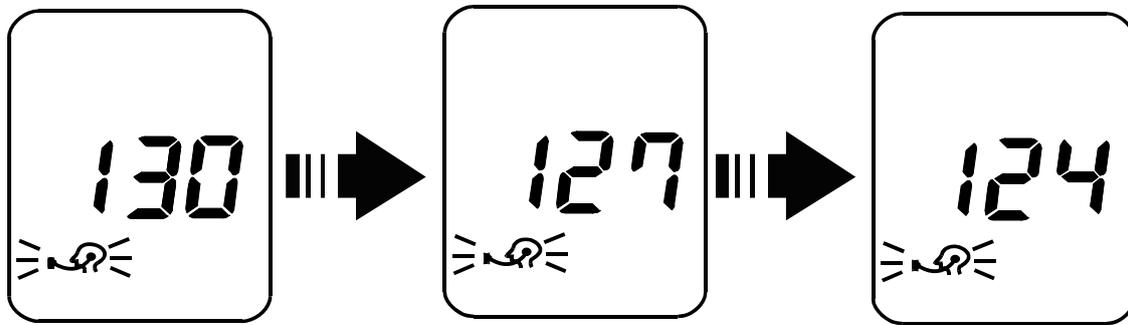
Note: Allow at least three minutes between measurements on the same person.

7. Automatic Power OFF Function

If this device is left on after a measurement, it will turn itself off after about 1 minute. It may be turned off at any time by pressing the START button.

Measurements

- ❑ Accurate measurement cannot be made if the exhaust velocity is outside the range of 2 to 5 mmHg. This can be determined by watching the display each time the "Measurement in Progress" symbol blinks. Note the reading as the "Measurement in Progress" symbol blinks.



Notes for Proper Measurements

- ❑ Sit in a comfortable position where you can place the arm to be used for the measurement on a table or other support that will place the center of the upper arm at about the same level as your heart.
- ❑ Relax for about five to ten minutes before starting the measurement. If you are excited or depressed by emotional stress, the measurement will reflect this stress as a higher (or lower) than normal blood pressure reading, the pulse reading will usually be faster than normal.
- ❑ A normal person's blood pressure varies constantly depending on what you are doing and on what you have eaten. What you drink can have a very strong and rapid affect on your blood pressure.
- ❑ As this device bases its measurements on the heart beat, if you have a very weak or irregular heart beat, the device may have difficulty determining your proper blood pressure.
- ❑ Should the device detect a condition that is abnormal, it will stop the measurement and display an error. See the section on description of display symbols for details.
- ❑ This blood pressure device is intended for use by adults only. Consult with your physician before using this device on a child. A child should not use this device unattended.

Data in Memory

Storing the Data in Memory

This device can automatically store up to 280 sets of measurement data in its memory. If an error message appears, the measurement data will not be stored.

Whether the data will be stored or not after the measurement can be selected as follows:

- When the START button is pressed or the automatic power OFF function works after a measurement, the measurement data will be stored in memory.
- When the clock button is pressed after a measurement, the measurement data will not be stored in memory.

Recalling the Memory Data

1. To access measurements stored in memory, wait until the device is in standby mode.
2. Press and hold the START button until the display shows the most recent measurement.
3. The display will show all of the stored measurements starting with the most recent and then will return to standby mode.
 - To interrupt memory display, press the START button to initiate inflation mode.
 - To put the device in standby mode, press the START button again.

Erasing the Data in Memory

1. To erase measurements stored in memory, wait until the device is in standby mode.
2. Press and hold the clock button until the buzzer sounds and the memory access indicator blinks. All data in memory will be erased.

Transmitting Readings to a Computer

The connected computer is not permitted to be in the patient area.

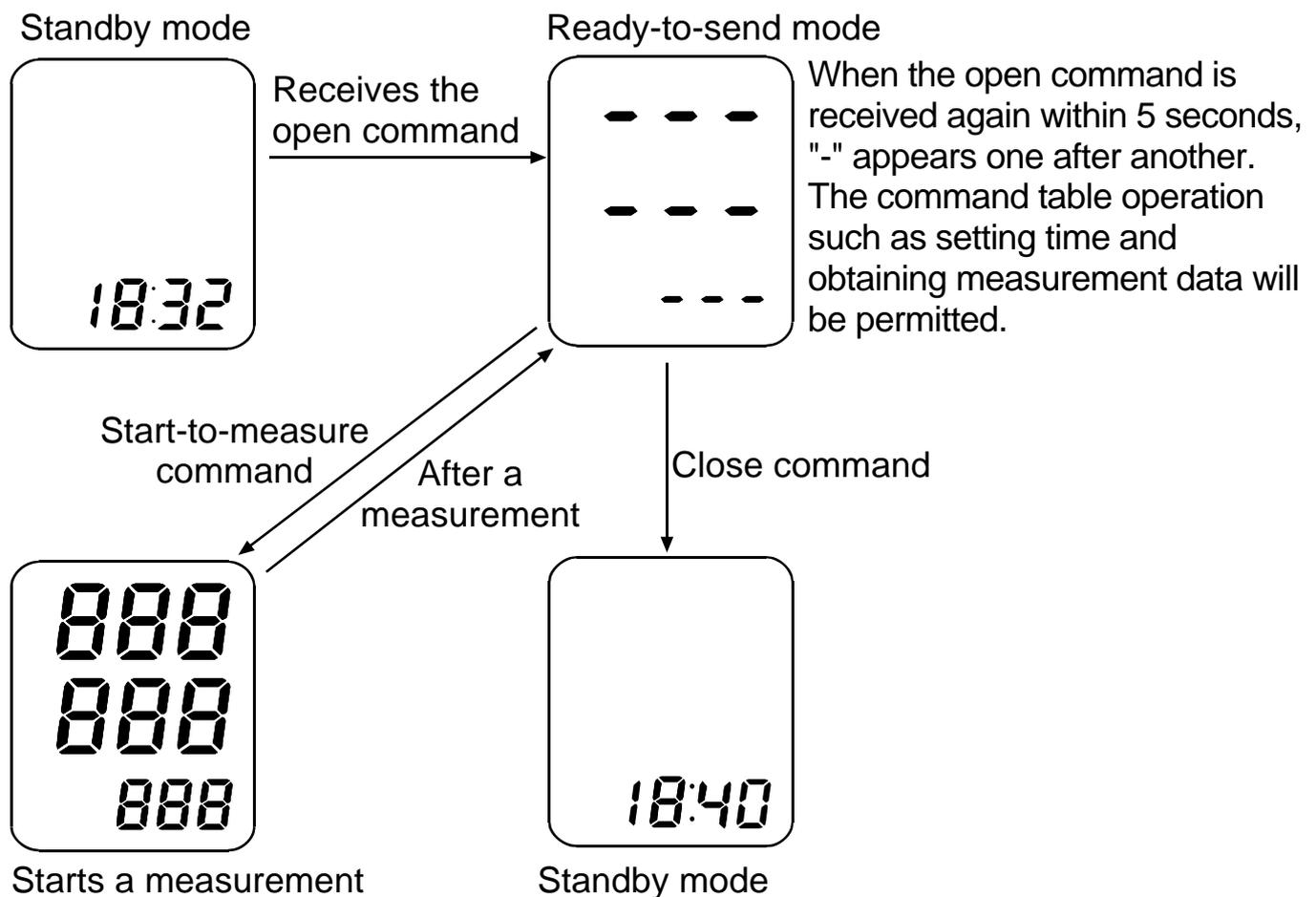
To transmit the readings to a computer, connect the attached communication cable to the data port on the front of the device.

- When the device receives the open command, it will be in the ready-to-send mode.
- When the device receives the open command again within five seconds, “-” appears one after another in succession and permission will be given to perform various functions.

Measurement data of the UA-767PC can be monitored with “Monitor Pro” Data Analysis Software (UA-767P-13) and Printer terminal (TM-2480 series).

For details, refer to the instruction manuals.

Note: UA-767P-13 and TM-2480 are sold separately.



About Blood Pressure

What is Blood Pressure?

Blood pressure is the force exerted by blood against the walls of the arteries. Systolic pressure occurs when the heart contracts. Diastolic pressure occurs when the heart expands. Blood pressure is measured in millimeters of mercury (mmHg). One's natural blood pressure is represented by the fundamental pressure, which is measured first thing in the morning while one is still at rest and before eating.

What is Hypertension and How is it Controlled?

Hypertension, which is abnormally high arterial blood pressure, if left unattended, can cause many health problems including stroke and heart attack. Hypertension can be controlled by altering one's lifestyle, avoiding stress, and with medication under a doctor's supervision.

To prevent hypertension or keep it under control:

- Do not smoke
- Reduce salt and fat intake
- Maintain proper weight
- Exercise regularly
- Have regular physical checkups

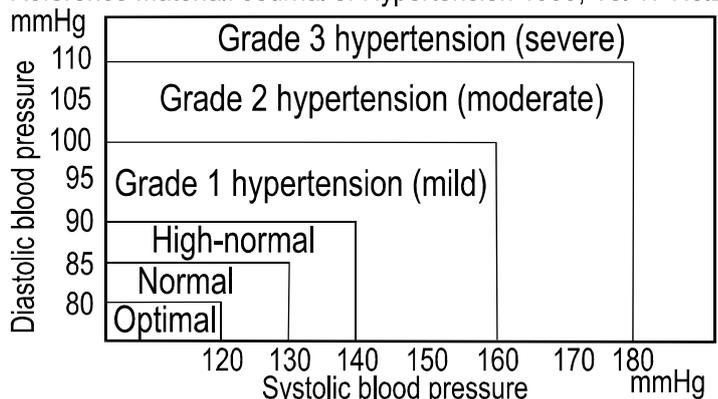
Why Measure Blood Pressure at Home?

Blood pressure measured at a clinic or doctor's office may cause worry or apprehension and can produce an elevated reading, 25 to 30 mmHg higher than that measured at home. Home measurement reduces the effects of outside influences on blood pressure readings, supplements the doctor's readings and provides a more accurate, complete blood pressure history.

WHO Blood Pressure Classification

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

Reference Material: Journal of Hypertension 1999, Vol 17 No.2

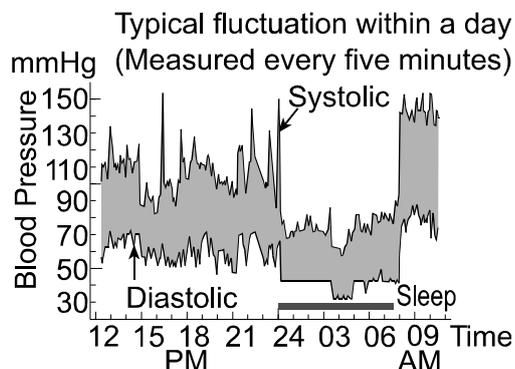


Blood Pressure Variations

An individual's blood pressure varies greatly on a daily and seasonal basis. It may vary by 30 to 50 mmHg due to various conditions during the day. In hypertensive individuals, variations are even more pronounced. Normally, the blood pressure rises while at work or play and falls to its lowest levels during sleep. So, do not be overly concerned by the results of one measurement.

Take measurements at the same time every day using the procedure described in this manual to get to know your normal blood pressure.

Regular readings give a more comprehensive blood pressure history. Be sure to note date and time when recording your blood pressure. Consult your doctor to interpret your blood pressure data.



Troubleshooting

Problem	Possible Reason	Recommended Action
Nothing appears in the display, even when the power is turned on.	Batteries are drained.	Replace all batteries with new ones.
	Battery terminals are not in the correct position.	Reinstall the batteries with negative and positive terminals matching those indicated on the battery compartment.
The cuff does not inflate.	Battery voltage is too low.  (LOW BATTERY mark) blinks. If the batteries are drained completely, the mark does not appear.	Replace all batteries with new ones.
The unit is not operating properly. Readings are too high or too low.	The cuff is not applied properly.	Apply the cuff correctly.
	You moved your arm or body during the measurement.	Make sure you remain very still and quiet during the measurement.
	The cuff position is not correct.	Sit comfortably and still. Raise your hand so that the cuff is at the same level as your heart.
	————	If you have a very weak or irregular heart beat, the device may have difficulty in determining your blood pressure.
Other	The value is different from that measured at a clinic or doctor's office.	See "Why measure blood pressure at home".
	————	Remove the batteries. Replace them properly and try the measurement again.

Note: If the actions described above do not solve the problem, contact the dealer. Do not attempt to open or repair this product, as any attempt to do so will make your warranty invalid.

Maintenance

Do not open the device. It uses delicate electrical components and an intricate air unit that could be damaged. If you cannot fix the problem using the troubleshooting instructions, request service from your dealer or from the A&D service group. The A&D service group will provide technical information, spare parts and units to authorized dealers.

The device was designed and manufactured for a long service life. However it is generally recommended to have the device inspected every 2 years, to ensure proper functioning and accuracy. Please contact either your authorized dealer or A&D for maintenance.

Technical Data

Type	UA-767PC
Measurement method	Oscillometric measurement
Measurement range	Pressure: 20 - 280 mmHg Pulse: 40 - 200 beats / minute
Accuracy	Pressure: ± 3 mmHg Pulse: $\pm 5\%$
Power supply	4 x 1.5V batteries (R6P, LR6 or AA) or AC adapter (TB-233) (Not included)
Number of measurements	Approx. 450 measurements, when AA alkaline batteries are used, with pressure value of 180 mmHg at room temperature of 23°C
Classification	Internally powered ME equipment (Supplied by batteries) / Class II (Supplied by adapter) Continuous operation mode
Clinical test	According to ANSI / AAMI SP-10 1987
EMC	IEC 60601-1-2: 2007
Memory	Last 280 measurements
Operating conditions	+10 °C to +40 °C, 15%RH to 85 %RH, 800 hPa to 1060 hPa
Transport / Storage conditions	-10 °C to +60 °C, 15%RH to 85 %RH
Dimensions	163.7 [W] x 66.7 [H] x 111 [D] mm
Weight	Approx. 320 g without batteries

Applied part	Cuff Type BF 
Useful life	Device: 5 years (when used six times a day) Cuff: 2 years (when used six times a day)
Accessory AC adapter	The adapter is to connect the blood pressure monitor to a power source at home.
TB-233	Please contact your local A&D dealer for purchasing. The AC adapter is required to be inspected or replaced periodically.
TB-233C	Input: 100-240V Output: 6V  500mA  139°C 2A
TB-233BF	Input: 240V Output: 6V  500mA  139°C 2A

Accessories sold separately
Cuff

Catalog Number	Cuff Size	Arm Size
CUF-D-LA	Large adult cuff	32 cm to 45 cm
CUF-D-A	Adult cuff	22 cm to 32 cm

AC adapter

Catalog Number	Plug
TB-233C	Type C
TB-233BF	Type BF

Note: Specifications are subject to change without prior notice.

EMC table information is listed on our website:

http://www.aandd.jp/products/manual/medical/emc_acadapter_en.pdf



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