

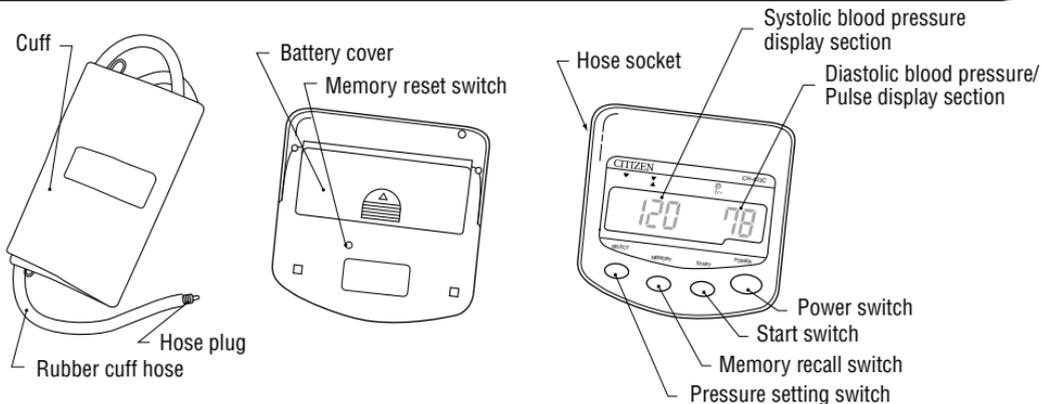
CITIZEN™

INSTRUCTION MANUAL FOR DIGITAL BLOOD PRESSURE MONITOR

English

REF CH-403C

IDENTIFICATION OF PARTS



SPECIFICATIONS

Measuring method:	Oscillometric system
Indication:	Digital display, Height: 19mm
Measuring range:	Pressure; 0 ~ 280mmHg, Pulse; 40 ~ 200 beat/min.
Accuracy:	Pressure; ± 3 mmHg, Pulse; $\pm 5\%$
Inflation:	Automatic inflation by internal pump
Pressurization setting:	4 stage: 130, 160, 200, 250mmHg
Deflation:	Automatic constant speed deflation system
Exhaust:	Quick exhaust by electromagnetic valve
Memory function:	7 data
Power source:	4 "AA" (R6P, LR6) batteries
Battery life:	Approx. 400 times/LR6 Approx. 200 times/R6P (once a day, 160mmHg, room temp. 22°C)
Rated voltage:	6V DC
Working temp. & humidity:	+10°C ~ +40°C, 30% ~ 85%RH
Storage temp. & humidity:	-20°C ~ +60°C, 10% ~ 95%RH
Outside dimensions:	135mm(W) × 130mm(D) × 50.5mm(H)
Weight:	Approx. 360g (Apparatus and batteries)
Electric shock protection:	Type B equipment
Accessories:	Cuff, 4 "AA" (R6P) batteries, Instruction manual

*Specifications may be changed without notice in the event of improvements being made.

CLEANING METHOD OF CUFF

After cleaning the cuff with a neutral detergent, lightly rinse it with water and let it dry in the air. Hard rubbing or washing

in a washing machine will cause air leakage. Also, be careful not to get water into the air hose.

GENERAL REMARKS

General Remarks on blood pressure measurement

- If the cuff is to be deflated quickly, depress "POWER" switch.
- The attached cuff is suited for an arm circumference of 22cm to 32cm.
- When attaching the cuff, rubber cuff hose should be placed on the inside of your arm on top of the arterial.
- Self measurement is no therapy! In no case may you change the dosage of medication prescribed by your physician.
- In operation for blood pressure measurement, you should urinate and should remain relatively still for 10 to 15 minutes prior to measurement.
- Exercise, eating and drinking, smoking, etc., prior to measurement may affect the results.
- The blood pressure varies constantly throughout the day. Measurement should be made regularly at the same time each day.
- Do NOT be impressed by the results of one measurement. Keep a record of blood pressure variations. Many readings tell a story.
- Emotional stress may tend to cause pressure to rise.

For proper measurement of blood pressure

- Take a deep breath five or six times and then relax before measuring blood pressure. If you are tense when taking the measurement, you will not get a valid reading.
- Blood pressure will be elevated when you are in a worrisome or irritated state, suffering from lack of sleep or constipation, or after exercise or a meal.
- Putting on the cuff is one of the most important tasks for ensuring proper measurement of blood pressure. Wind the cuff around the arm and tighten it so that one finger may be inserted between the cuff and arm.
- Do NOT measure blood pressure after bathing or drinking.
- When you feel like relieving yourself, you should do so before measuring blood pressure.
- Measure blood pressure where the room temperature is about 20°C. Do NOT measure blood pressure when it is too cold (below 10°C) or too hot (above 40°C) in the room.
- Do NOT measure blood pressure immediately after drinking coffee or tea or smoking.

- Measure blood pressure with a relaxed and quiet posture. Keep the center of the cuff at the level of your heart, and do NOT move your arm or talk during measurement.
- Do NOT keep on measuring so many times, as your arm will have built up congestion of blood, and you will not get a valid reading.

PRECAUTION FOR USE AND MAINTENANCE

Precautions for use

- If you suffer from heart disease, high blood pressure or other circulatory disease, please consult your doctor first.
- If you feel abnormal pressure of the cuff during use or any other irregularity, reduce the pressure by immediately switching off the power or removing the batteries and consult the sales outlet where purchased.
- If you think the measured value is abnormal or if measuring makes you feel unwell, discontinue use and consult your doctor.
- Measurement of blood pressure may not be possible for someone with a weak pulse or arrhythmia.
- Congestion, swelling, etc. may occur in some people.
- If blood pressure is measured repeatedly, an accurate result will not be achieved. An interval of about 10 minutes should be allowed.
- The memory is erased if the batteries are removed for replacement, etc. and a record should be kept of any necessary data.

Precautions for maintenance

- Do NOT store the blood pressure monitor where it will be exposed to direct sunlight, high temperature (over 60°C), low temperature (below -20°C), high relative humidity (over 95%) or in a dusty place.
- Do NOT expose the blood pressure monitor to under force or vibration, or drop it.
- Remove the battery/batteries when not in use for a long period.
- Do NOT disassemble the apparatus.
- Do NOT bend the cuff or air hose unnecessarily.
- NEVER wipe the blood pressure monitor with thinner or benzene, as they may damage it.
- When the monitor is very dirty, wipe it clean with a cloth moistened with Sterilizing alcohol or a neutral detergent, and then wipe it with a dry cloth. Do NOT use thinner or benzene.

Nature and frequency of maintenance:

This products is designed for use over an extended period of time; however, it is generally recommended that it be inspected every two years to ensure proper function and performance.

Protect the nature environment:

Please help protect natural environment by respecting national and/or local recycling regulations when disposing of the batteries and the products at the end of their useful lives.

Reference European standard:

This products complies with EC instructions 93/42/EEC (Medical Device Directive) and with the following standards: EN 1060-1: 1995 "Noninvasive Sphygmomanometers, Part 1 General Requirements" and EN 1060-3: 1997 "Noninvasive Sphygmo-manometers, Part 3 Supplementary Requirements for Electromechanical Blood-Pressure Measuring Systems".

Manufacturer:

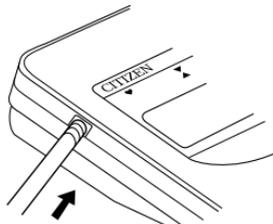
Name: Premier Precision Ltd.
Address: Block E, G-H, 6th floor,
Phase 2, Yip Fat Factory Building,
73-75 Hoi Yuen Road,
Kwun Tong, Kowloon, Hong Kong

European Representative:

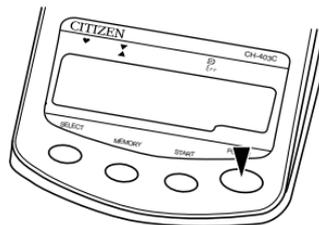
Name: WvW elektronische Geräte Vertrieb GmbH.
Address: Robert-Koch-Straße 20,
D-80538 München,
GERMANY



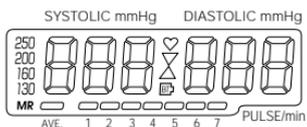
MEASUREMENTS

1. Turn power ON

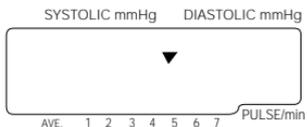
Insert the Hose plug from the cuff into the hose socket at the mainframe until it is tightly connected.



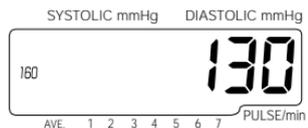
Press the "Power switch" for power ON.



All display marks appear for approx. 1 second and buzzer beeps.

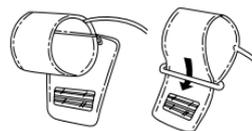


After all display marks are disappeared, deflation mark "▼" appears for approx. 1 second (three short beeps notify you of ready for measurement) then the last pressure setting value appears for approx. 3 seconds. Then the "0" appears at the display.

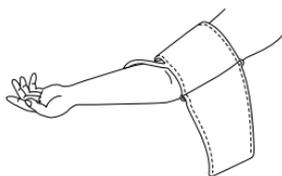


Ready for measurement

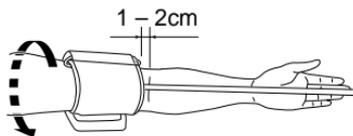
2. Attaching of arm cuff and posture during measurement



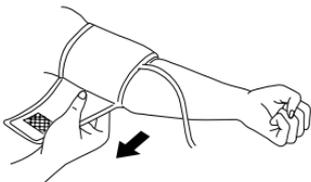
Unfasten and open the cuff as figure.



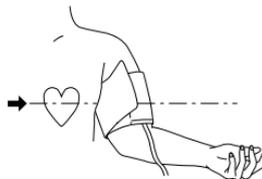
Wind the arm cuff around the left upper arm tightly so that the bottom edge of the cuff is positioned about 1-2 cm (about 1 inch) above the elbow joint.



- When you wind the cuff, please wind the cuff next to the skin as possible. (If measurement is made by rolling the shirts or jacket up over the arm, this will constrict the upper arm and prevent accurate measurement)
Rubber cuff hose should be placed on the inside of your arm as figures.



The cuff should be wound so that one finger can be inserted under the cuff. Note that uneven cuff winding will prevent proper measurements.



Rest the elbow on a table so that the section of the upper arm is at the height of the heart. Relax the lower arm across the table and remain still.

Make measurements in either a seated or reclining posture.

3. Select the value for pressure for measurement

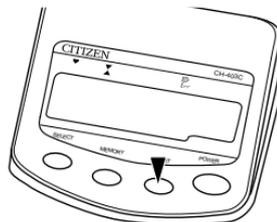


Press the “Pressure Setting Switch” and set the value to a value approximately 20–30mmHg above your normal systolic blood pressure.

There are 4 settings; 130, 160, 200 and 250mmHg.

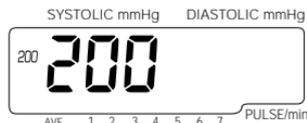
After press on the “Pressure Setting Switch”, the set pressure value will be displayed at the left and the right side of the display.

4. To start the measurement



Press the “Start Switch”.

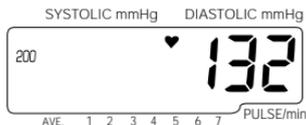
The arm cuff pressurizes when the “Start Switch” is pressed.



When the pressurization is reached to the set value, air inflation is stopped automatically.



When pressurization is completed, the automatic exhaust mechanism will gradually reduce arm cuff pressure, and the mark “♥” appears indicating that measurement is in progress.



When a pulse is detected, the pressure value moves to the right side of the display. At this time the mark “♥” flashes and buzzer sounds.



When the diastolic pressure value is detected, the measurement is completed and buzzer sounds. Systolic pressure is displayed on the left and diastolic pressure on the right side of the display.

2 to 3 seconds after completion of measurements, the mark “▼” appears and air will deflate immediately.

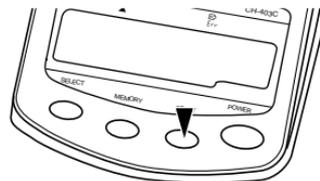


2 or 3 seconds later, pressure value and pulse appear alternately on the display.

5. Turn power off

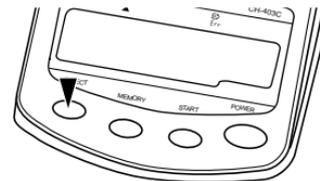
Press the “Power Switch” to turn OFF.

6. Subsequent measurements



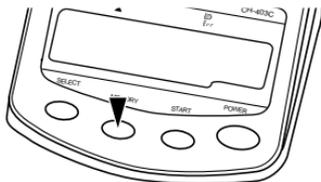
When a measurement need to be made again, just press the “Start Switch” again.

7. Change of the pressure-setting value



When the pressure setting is needed to be changed, press the “Pressure Setting Switch” and select optimum value.

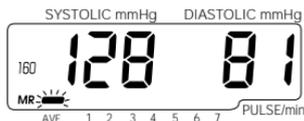
8. Memory recall



This blood pressure monitor has a function which is able to display last measured value.

- Press the “Memory Recall Switch” to recall the last measured blood pressure.

The last measured systolic and diastolic blood pressure are displayed (Value of the pulse is not memorized nor displayed).



- By a first depressing of “Memory Recall Switch”, averaged blood pressure is displayed and “**MR**” mark flashes to notify that the displayed value is averaged value.



- By a second depressing of “Memory Recall Switch”, the value for latest (last measured value) blood pressure is displayed. The “**MR**” mark shifts to right (from “Ave.” to “1”) and notify that the value is the last measured (newest one) value.



- By a third depressing of “Memory Recall Switch”, the value for next later blood pressure is displayed. The “**MR**” mark shifts to right (from “1” to “2”) and notify that the value is the next later one.



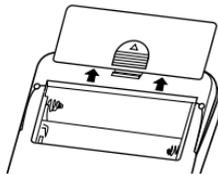
- As per the same above-mentioned method, you may recall 7 last measured values by depressing of “Memory Recall Switch”.

- Memory function works on for approximately 3 seconds or until another switches are pressed. (Even if the last measured value is displayed, you are able to start the measurements by pressing of “Start Switch” or you are able to change the pressure-setting value by pressing of “Pressure Setting Switch” or you are able to turn OFF by depressing of “Power Switch”)
- Memory recall function does not work during automatic inflation and blood pressure measurement are being made.
- New blood pressure value is stored in memory at pressing “Power Switch” for turn OFF or at pressing “Start Switch” for new measurement.

9. Automatic power off function

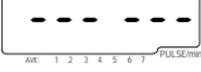
If this unit is left on after measurement, an Automatic Power-OFF Function turns the power OFF after approximately 3 minutes. To continue measurement press the power switch to turn the unit ON.

10. Battery replacement

If the batteries become weak, the “A line drawing of a blood pressure monitor's mainframe. The top cover is shown being lifted upwards, indicated by two upward-pointing arrows. The cover has a circular logo with a triangle inside. Below the cover, the battery compartment is visible, containing two slots for AA batteries. The mainframe has a small display screen on the left side.

Remove the battery cover at mainframe and replace the new four pieces of batteries.
Type “AA” (R6P, LR6) battery or equivalent is suitable for this blood pressure monitor.

DESCRIPTION OF DISPLAY MARKS

DISPLAY MARK	CONDITION/CAUSE	CORRECTIVE ACTION
 <p>SYSTOLIC mmHg DIASTOLIC mmHg ▲ AIR 1 2 3 4 5 6 7 PULSE/min</p>	Measurement is begun, but the pressure was insufficient.	Change the pressurization setting one level by pressing "Pressure Setting Switch" and measure once again. (Automatic re-measuring will be done only 1 time.)
 <p>SYSTOLIC mmHg DIASTOLIC mmHg 130 Err AIR 1 2 3 4 5 6 7 PULSE/min</p>	Appears when the blood pressure could not be measured accurately. (Some noise was detected or moved arm during measuring.)	Repeat measurement again.
 <p>SYSTOLIC mmHg DIASTOLIC mmHg 130 PUL Err AIR 1 2 3 4 5 6 7 PULSE/min</p>	Appears when the pulse could not accurately be measured.	First exhaust air from the cuff, reapply the cuff properly and remeasure.
 <p>SYSTOLIC mmHg DIASTOLIC mmHg ⊖ AIR 1 2 3 4 5 6 7 PULSE/min</p>	Appears when the batteries become weak.	Replace the batteries.
 <p>SYSTOLIC mmHg DIASTOLIC mmHg MR AIR 1 2 3 4 5 6 7 PULSE/min</p>	Appears when no memory is stored at pressing of "Memory Recall Switch"	Take a measurement. Blood pressure will store automatically.
 <p>SYSTOLIC mmHg DIASTOLIC mmHg - - - - AIR 1 2 3 4 5 6 7 PULSE/min</p>	Units has a trouble.	Ask purchased shop.

●CITIZEN is a registered trademark of Citizen Watch Co., Japan.

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Consumer Electronics Division

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