

MCKESSON

**Digital
Blood Pressure Monitors
WRIST | ADULT**

For use with MFR # 1990



OWNER'S MANUAL

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SAFETY NOTICE

Thank you for purchasing the McKesson Digital Blood Pressure Monitor. The unit has been constructed using reliable circuitry and durable materials. Used properly, this unit will provide years of satisfactory use.

This device is intended for non-invasive measuring of an adult individuals' systolic, diastolic blood pressure and heart rate using the oscillometric method. The device is not intended for use on infants and children. The device is designed for home or clinical use. All values can be read out in one LCD display. Measurement position is on adult wrist only.

Blood pressure measurements 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.

PRECAUTIONS TO ENSURE SAFE, RELIABLE OPERATION

1. Do not drop the unit. Protect it from sudden jars or shocks.
2. Do not insert foreign objects into any openings.
3. Do not attempt to disassemble the unit.
4. Do not crush the pressure cuff.
5. If the unit has been stored at temperatures below 0°C, leave it in a warm place for about 15 minutes before using it. Otherwise, the cuff may not inflate properly.
6. Do not store the unit in direct sunlight, high humidity or dust.

SAFETY NOTICE


IMPORTANT INSTRUCTIONS BEFORE USE

1. Do not confuse self-monitoring with self-diagnosis. Blood pressure measurements should only be interpreted by a health professional who is familiar with your medical history.
2. Contact your physician if test results indicate abnormal readings.
3. If you are taking medication, consult with your physician to determine the most appropriate time to measure your blood pressure. NEVER change a prescribed medication without first consulting with your physician.
4. Individuals with serious circulation problems may experience discomfort. Consult your physician prior to use.
5. For persons with irregular or unstable circulation resulting from diabetes, liver disease, arteriosclerosis or other medical conditions, there may be variations in blood pressure values measured at the wrist versus at the upper arm. Monitoring the trends in your blood pressure taken at either the arm or the wrist is nevertheless useful and important.
6. People suffering from vascular constriction, liver disorders or diabetes, people with cardiac pacemakers or a weak pulse, and women who are pregnant should consult their physician before measuring their blood pressure themselves. Different values may be obtained due to their condition.

SAFETY NOTICE

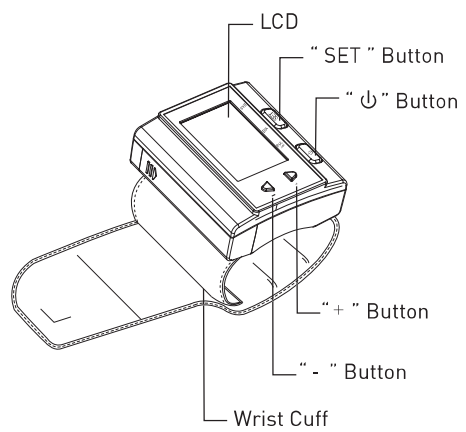
7. People suffering from arrhythmias such as atrial or ventricular premature beats or atrial fibrillation only use this blood pressure monitor in consultation with your doctor. In certain cases oscillometric measurement method can produce incorrect readings.
8. Product is designed for its intended use only. Do not misuse in any way.
9. Product is not intended for infants.
10. Consult with your physician concerning any hazards that may be associated with prolonged over inflation of the bladder.
11. Do not disassemble the unit or arm cuff. Do not attempt to repair.
12. Use only the approved arm cuff for this unit. Use of other arm cuffs may result in incorrect measurement results.
13. The system might produce incorrect readings if stored or used outside the manufacturer's specified temperature and humidity ranges.
14. Do not use cell phones and other devices, which generate strong electrical or electromagnetic fields, near the device, as they may cause incorrect readings and interference or become interference source to the device.
15. Do not mix new and old batteries simultaneously.

SAFETY NOTICE

16. Replace batteries when Low Battery Indicator " " appears on screen. Replace both batteries at the same time.
17. Do not mix battery types. Long-life alkaline batteries are recommended.
18. Remove batteries from device when not in operation for more than 3 months.
19. Do not insert the batteries with their polarities incorrectly aligned.
20. Dispose batteries properly; observe local laws and regulations.

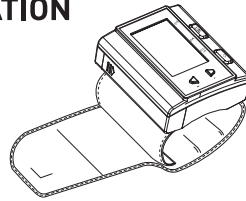
UNIT ILLUSTRATION

MONITOR UNIT



UNIT ILLUSTRATION

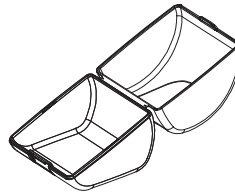
CONTENTS



1. Monitor Unit



2. Owner's Manual



3. Plastic Storage Case

IMPORTANT TESTING GUIDELINES

1. Avoid eating, exercising, and bathing for 30 minutes prior to testing.
2. Sit in a calm environment for at least 5 minutes prior to testing.
3. Do not stand while testing. Sit in a relaxed position while keeping your wrist level with your heart.
4. Avoid speaking or moving body parts while testing.
5. While testing, avoid strong electromagnetic interference such as microwave ovens and cell phones.
6. Wait 3 minutes or longer before re-testing.
7. Try to measure your blood pressure at the same time each day for consistency.
8. Test comparisons should only be made when monitor is used on the same wrist, in the same position, and at the same time of day.
9. This blood pressure monitor is not recommended for people with severe arrhythmia.

QUICK START

1. Install batteries. (See Figure A)

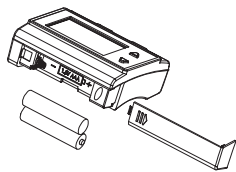


Figure A

2. Remove clothing from the wrist area. (See Figure B)
3. Rest for several minutes prior to testing. Wrap cuff around left wrist. (See Figure C)

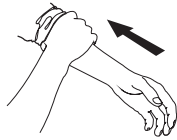


Figure B

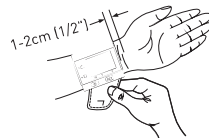


Figure C

QUICK START

4. Sit in a comfortable position and place wrist level with heart.
[See Figure D]
5. Press “⏻” button to start testing. [See Figure E]



Figure D

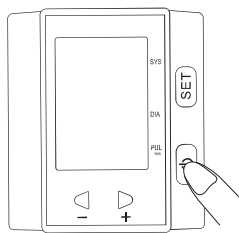


Figure E

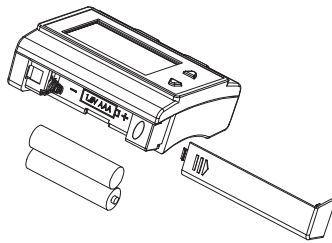
UNIT OPERATION

BATTERY INSTALLATION


Slide battery cover off as indicated by arrow.

Install 2 new AAA alkaline batteries according to polarity.

Close battery cover.



Note:

- 1) Replace batteries when *Low Battery Indicator* "  " appears on screen.
- 2) Batteries should be removed from device when not in operation for an extended period of time.

UNIT OPERATION

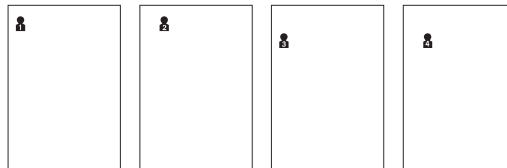
SYSTEM SETTINGS

With power off, press " SET " button to activate System Settings.
The Memory Group icon flashes.

1. Select Memory Group

While in the System Setting mode, you may accumulate test results into 4 different groups. This allows multiple users to save individual test results (up to 30 memories per group.) Press " + " or " - " button to choose a group setting.

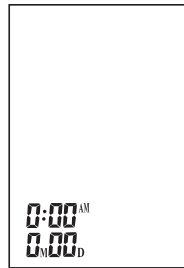
Test results will automatically store in each selected group.



UNIT OPERATION


2. Time /Date Setting

Press "SET" button again to set the Time/Date mode. Set the month first by adjusting the "+" or "-" button. Press "SET" button again to confirm current month. Continue setting the day, hour, and minute in the same fashion. Every time the "SET" button is pressed, it will lock in your selection and continue in succession (month, day, hour, minute.)



UNIT OPERATION

3. Save Settings

While in any setting mode, press “” button to turn the unit off.
All information will be saved.

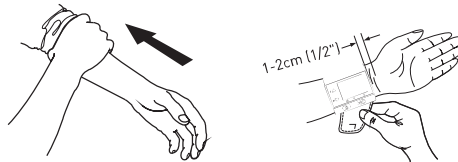
Note: Unit will automatically save all information and shut off if left idle for 3 minutes.

UNIT OPERATION

APPLYING THE WRIST MONITOR

Do not apply over clothing. If wearing a long sleeved shirt, be sure to roll sleeve back to forearm.

Apply the monitor to wrist as illustrated. Tighten the cuff firmly, to prevent the cuff from wiggling.



UNIT OPERATION

Do not stand while testing. Sit in a comfortable position and place wrist level with heart.

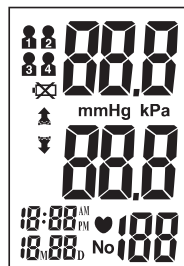


UNIT OPERATION

TESTING

1. Power On

Press and hold "⏻" button until a beep sounds. The LCD screen will appear for one second as unit performs a quick diagnosis. A long tone indicates device is ready for testing.

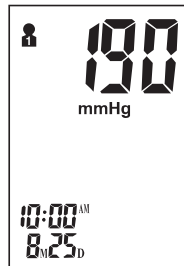


Note: Unit will not function if residual air from previous testing is present in cuff. The LCD will flash "⏻" until pressure is stabilized.

UNIT OPERATION

2. Pressurization

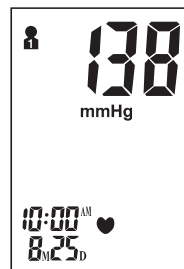
Initial pressure is first pumped to 190mmHg. If the current user's systolic blood pressure is over 190mmHg, the unit will automatically re-inflate to the proper shelf.



UNIT OPERATION

3. Testing

After cuff inflation, air will slowly subside as indicated by the corresponding cuff pressure value. A flashing "♥" will appear simultaneously on screen signaling heart beat detection.



Note: Remain relaxed during testing. Avoid speaking or moving body parts.

UNIT OPERATION

4. Result Display

Three short beeps sound when testing is complete. The screen will display measurements for systolic and diastolic blood pressure.



UNIT OPERATION

5. Deleting /Storing Test Results

To delete the last test result, press the "SET" button after result is displayed. If result is not deleted, it will automatically store by date within the previously configured Memory Group.

Note: Be sure the appropriate Memory Group selection is made prior to testing.

If the number of tests surpasses the allotted 30 memories per group, the most recent tests will appear first, thus eliminating older readings.

POWER OFF

Press "⏻" button in any mode to turn off device.
Unit automatically turns off after 3 minutes of inactivity.

UNIT OPERATION

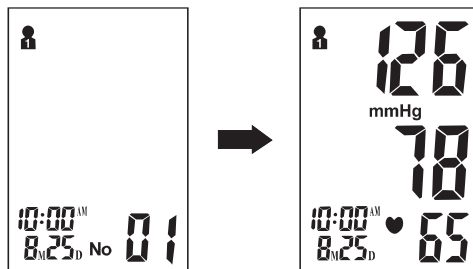


Safety Precaution: If pressure in cuff becomes too extreme while testing, press the "⏻" button to turn power off. The cuff pressure will rapidly dissipate once the unit is off.

MEMORY CHECK

With power off, you may check past test results by using the "+" or "-" buttons. The most recent test result can be viewed by pressing and holding the "+" button. The oldest test result in memory can be viewed by pressing and holding the "-" button. Upon activating test results, you can press the "+" or "-" buttons to scroll through all test results stored in memory. After checking memory, user can turn off the unit or continue to next step.

UNIT OPERATION

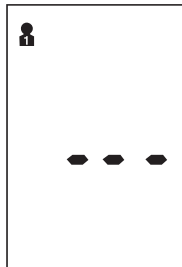


Note: Past test results will only be displayed from the most recently used memory group. To check past test results in other memory groups, you must first select the desired group and then turn monitor off. (See "Select Memory Group" on Page 12.)

UNIT OPERATION

MEMORY DELETION

Memory for a selected group may be deleted while in Memory Check mode. Press and hold the "SET" button for approximately 3 seconds to delete all memory records from the selected group. Press "⏻" button to turn off the unit.

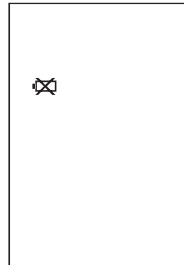


Note: Memory can not be recovered once it has been deleted.

UNIT OPERATION

LOW BATTERY INDICATOR

4. Short warning beeps sound when battery life is depleting and unable to inflate cuff for testing. The "⊗" appears simultaneously for approximately 5 seconds prior to shutting down. Replace batteries at this time. No memory loss will occur throughout this process.



UNIT OPERATION

TROUBLESHOOTING

Problem	Possible Cause	Solution
Blood pressure results are not within typical range	Cuff is too tight or not properly positioned on the wrist	Firmly reposition cuff on wrist making sure no wiggle is present. (See Page 15)
	Inaccurate test results due to body movement or monitor movement	Sit in a relaxed position placing wrist level with heart. Avoid speaking or moving body parts while testing. (See Page 8)
"Err" displayed	Cuff fails to inflate properly	Remove cuff from wrist and wait 3 minutes before re-testing.
	Improper operation	Read user manual carefully and re-test properly.
	Pressurization is over 300mmHg	Read user manual carefully and re-test properly.

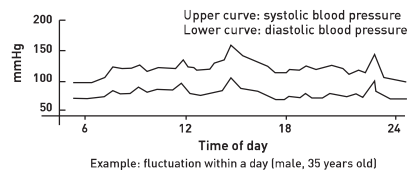
BLOOD PRESSURE INFORMATION

BLOOD PRESSURE

Blood pressure is the force of blood pushing against the walls of arteries. It is typically measured in millimeters of mercury (mmHg). Systolic blood pressure is the maximum force exerted against blood vessel walls each time the heart beats. Diastolic blood pressure is the force exerted on blood vessels when the heart is resting between beats.

An individual's blood pressure frequently changes throughout the course of a day. Excitement and tension can cause blood pressure to rise, while drinking alcohol and bathing can lower blood pressure. Certain hormones like adrenaline (which your body releases under stress) can cause blood vessels to constrict, leading to a rise in blood pressure.

If these measuring numbers become too high, it means the heart is working harder than it should.



BLOOD PRESSURE Q&A

Q: What is the difference between measuring blood pressure at home or at a professional healthcare clinic?

A: Blood pressure readings taken at home are now seen to give a more accurate account as they better reflect your daily life. Readings can be elevated when taken in a clinical or medical environment. This is known as White Coat Hypertension and may be caused by feeling anxious or nervous.

Note: Abnormal test results may be caused by:

- 1. Improper cuff placement**
Make sure cuff is snug — not too tight or too loose.
- 2. Improper body position**
Make sure to keep your body in an upright position.
- 3. Feeling anxious or nervous**
Take 2-3 deep breaths, wait a few minutes and resume testing.

BLOOD PRESSURE Q&A

Q: What causes different readings?

A: Blood pressure varies throughout the course of a day. Many factors including diet, stress, cuff placement, etc. may affect an individual's blood pressure.

Q: Should I apply the cuff to the left or right wrist?
What is the difference?

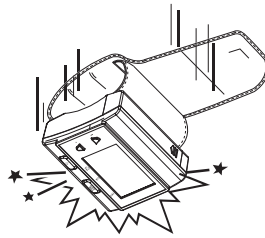
A: Either wrist can be used when testing, however, when comparing results, the same wrist should be used. Testing on your left wrist may provide more accurate results as it is located closer to your heart.

Q: What is the best time of day for testing?

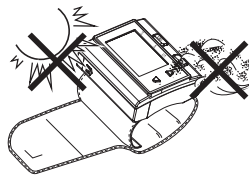
A: Morning time or any time you feel relaxed and stress free.

MAINTENANCE

1. Avoid dropping, slamming, or throwing the unit.

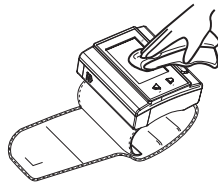


2. Avoid extreme temperatures. Do not use outdoors.

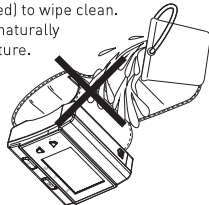


MAINTENANCE

3. When cleaning the unit, use a soft fabric and lightly wipe with mild detergent. Use a damp cloth to remove dirt and excess detergent.

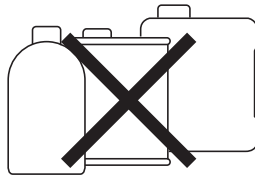


4. Cuff Cleaning: Do not soak cuff in water! Apply a small amount of rubbing alcohol to a soft cloth to clean cuff's surface. Use a damp cloth (water-based) to wipe clean. Allow cuff to dry naturally at room temperature.

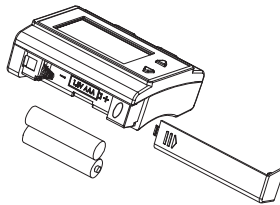


MAINTENANCE

5. Do not use petrol, thinners or similar solvents.

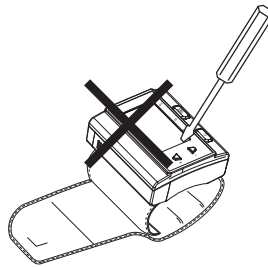


6. Remove batteries when not in operation for an extended period of time.



MAINTENANCE

7. Do not disassemble product.




8. It is recommended the performance should be checked every 2 years.
9. Expected service life: Approximately three years at 30 tests per day.

SPECIFICATIONS

Product Description	Wrist-Type Fully Automatic Digital Blood Pressure Monitor	
Reorder #	1990	
Display	LCD Digital Display Size: 45mm x 30mm	
Measurement Method	Oscillometric Method	
Measurement Range	Pressure	0mmHg-300mmHg
	Pulse	30 to 180 Beats/Minute
Measurement Accuracy	Pressure	±3mmHg or 2%
	Pulse	±5%
Pressurization	Automatic Pressurization	
Memory	120 Memories in Four Groups with Date and Time	
Function	Low Battery Detection	
	Automatic Power-Off	
Power Source	2 Alkaline Batteries Size AAA	
Battery Life	Approximately 2 months at 3 tests per day	

SPECIFICATIONS

Unit Weight	Approx. 117g (4.13 oz.) [Excluding Battery]	
Unit Dimensions	Approx. 76 x 67 x 28.5mm (3" x 2.64" x 1.12") [L x W x H]	
Cuff Circumference	Approx. 75 (W) x 300 (L) mm. Fits wrist circumference 13.5-21.6 cm (5.3"-8.5")	
Operating Environment	Temperature	5°C-40°C (41°F-104°F)
	Humidity	≤85% RH
	Pressure	Atmospheric Pressure
Storage Environment	Temperature	-10°C-55°C (14°F-131°F)
	Humidity	<90% RH
	Pressure	525mmHg-795mmHg (70kPa-106kPa)
Classification	Internal Powered Equipment Type BF 	

Specifications are subject to change without notice.

SPECIFICATIONS

INTERNATIONAL STANDARDS:

AAMI / ANSI SP10: 2002/(R) 2008 & ANSI/AAMI SP10: 2002/A1:
2003 Manual, electronic, or automated sphygmomanometers
European Directive 93/42 EEC for Medical Products Act
EN 60601-1 Medical electrical equipment part 1:
General requirements for safety
EN 60601-1-2 Medical electrical equipment part 1-2:
General requirements for safety- Collateral standard:
Electromagnetic compatibility- Requirements and tests
EN 1060-1 Non-invasive sphygmomanometers -
General requirements
EN 1060-3 Non-invasive sphygmomanometers -
Supplementary requirements for electromechanical blood
pressure measuring systems.
EN 1060-4 Non-invasive sphygmomanometers -
Test procedures to determine the overall system accuracy of
automated non-invasive sphygmomanometers.

SPECIFICATIONS

CORRECT DISPOSAL OF THIS PRODUCT

(Waste Electrical & Electronic Equipment)



This marking shown on the product indicates that it should not be disposed with other household waste at the end of its life. To prevent potential harm to the environment or to human health, please separate this product from other types of wastes and recycle it responsibly. When disposing this type of product, contact the retailer where product was purchased or contact your local government office for details regarding how this item can be disposed in an environmentally safe recycling center. Business users should contact their supplier and check the terms and conditions of the purchasing agreement. This product should not be mixed with other commercial wastes for disposal. This product is free of hazardous materials.

WARRANTY

We warrant this product to be free from manufacturing defects for a period of 2 years from the original date of consumer purchase. We gladly offer a free exchange and repair due to manufacturing defects. Please contact the McKesson Medical-Surgical Inc. Product Support Team at 1-800-777-4908 for details.

McKESSON

Store at 14–131°F (-10–55°C).
Do not store above 90% Relative Humidity.
Avoid storage in direct sunlight/fluorescent lighting.
Not made with natural rubber latex.

Questions? Call 1-800-777-4908

■ Satisfaction Guaranteed

If you are not completely satisfied with any McKesson Brands product, you may return it for a full refund or credit.

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