COLOR-CHANGING Blood Pressure Wrist Monitor

Model: TV7608

- · Large LCD display
- 2 persons, 90 readings for each person
- 3 backlight colors
- IHB indicator
- WHO indicator



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Introduction

Thank you for purchasing the COLOR-CHANGING Blood Pressure Wrist Monitor. Please read the manual carefully before you use the unit and keep the manual safe for future use.

The unit is compact and easy to use. It adopts the oscillometric principle which measures your blood pressure and pulse rate simply and quickly. The device uses its advanced "Intellisense" for comfortable controlled inflation without the need of pressure presetting or re-inflation. The application of this unit is for adults only.

The device includes 90 memory readings each for 2 different users. Each measurement result will be displayed on the screen and will automatically be stored. This device features advanced color coded back light hypertension and indicator for added convenience.

Introduction

Operate the unit as intended. Don't use for any other purpose.

Intended for adult use only. Do not use on children, or pregnant women, including pre-eclamptic patients.

The blood pressure monitor backlight features an easy to see 3 color code which corresponds to the blood pressure reading being displayed.

Color codes are as follows:

Green: Normal

Yellow: Prehypertension

Red: Hypertension

Medical Disclaimer

This device and manual are not meant to be a substitute for advice provided by doctors or other medical professionals. If you have or suspect you have a medical problem, promptly consult your physician.

To assure the correct use of this product, basic safety measures should always be followed, including the warnings and cautions listed in the instruction manual:

Symbol descriptions

The following symbols may appear in this manual, on the label, on the device, or on its accessories. Some of the symbols represent standard compliances associated with the device and its use.

MARNING: This alert identifies hazards that may cause serious personal injury or death.

⚠ CAUTION: This alert identifies hazards that may cause minor personal injury, product damage, or property damage.



Type B applied part



Manufacturer

SN

Specifies serial number



Authorized Representative in the European Community



CE Mark: Conforms to essential requirements of the Medical Device Directive 93/42/EEC.



DISPOSAL: Do not dispose this product as unsorted municipal waste. Check your local regulations for information on proper disposal of this product.





Operating instructions



Follow instructions for use



CAUTION: Consult accompanying documents



Contact your physician for specific information about your blood pressure. Self-diagnosis and treatment which uses measured results may be dangerous. Follow the instructions of your physician or licensed healthcare provider.

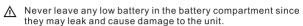
▲ Store unit in a cool, dry place, away from the reach of children.

⚠ Do not modify equipment without authorization from the manufacturer

If equipment is modified, appropriate inspection and testing must be performed by manufacturer authorized technician to ensure continued safe use of equipment.

To ensure child safety, keep small parts such as packaging bag, battery and battery cover, which may pose a choking hazard, away from small children.

⚠ Do not use cleaning products, alcohol, or petroleum based solvents to clean the unit. Do not strike or drop the unit. Doing so may cause permanent damage to unit.



No not modify cuff. Use cuff only as directed.

Remove low batteries immediately as they may leak and cause permanent damage to unit.

Remove batteries if unit is not in use for a period of three months or more.

A Replace batteries with a new set if a low battery symbol appears on display.

Do not mix old and new batteries.

⚠ Do not use rechargeable batteries.

Do not use a mobile phone or other devices that emit electromagnetic fields near the unit as it may result in operational failure.

Avoid using unit in high radiation areas as it may result in operation failure.

Do not use the unit where flammable gases (such as anesthetic gas, oxygen or hydrogen) or flammable liquids (such as alcohol) are present.



▲ WARNING:

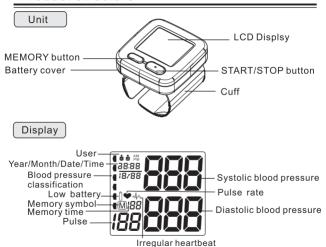
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

Classification

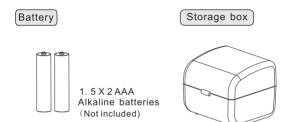
- 1. Internally powered equipment;
- 2. Type B applied part;
- 3. Protection against ingress of water: IPX0;
- 4. Not category AP / APG equipment;
- 5. Mode of operation: Continuous operation;

⚠The user must check that the equipment functions safely and see that it is in proper working condition before operating.

Product Structure



Additional Components



Battery Installation

Battery Installation and Replacement

- 1. Slide the battery cover off as shown on image.
- 2. Insert two 1. 5V "AAA" batteries in the battery compartment.



3. Pull the battery cover toward the main unit and close it.

Battery cover will make a "clicking" sound when properly closed.



Battery Installation

Low Battery and Replacement

When unit is powered on and the low battery symbol is displayed, you must replace exhausted batteries. Otherwise, the unit will not function and turn off.

- Use 2 "AAA" 1.5V alkaline batteries of the same brand.
- Do not use expired batteries.
- Remove batteries from unit that is not in use for a long period of time.

M WARNING:

Dispose of batteries in accordance with all federal, state and local laws. To avoid fire and explosion hazards, do not burn or incinerate batteries.

Setting Mode

Adjusting Settings

1.User Setting

First, make sure the device is turned off. Then, press and hold the MEM button and the screen will display of an end of the START/STOP button to switch between users and then press the MEM button to confirm the selection. Screen will default to Year Setting mode.



2.Year setting

Screen will display and flash 20XX; Press the START/STOP button to advance the display to the desired year. Set year from 2016 to 2099 and press the MEM button once desired year is displayed to confirm Year Setting. (If you pass the desired year, keep the START/STOP button pressed until you pass 2099. The year will restart from 2016.) Screen will then default to Month/Date Setting

Year setting See 16

Setting Mode

3. Month and Date Setting

Screen will display xxMxxD and xx:xx, and month will flash prompting your selection. Press the START/STOP button to advance the month. Repeat until desired month is displayed. Press the MEM button to confirm Month selection. The Date will then flash prompting a Date selection. Press the START/STOP button to advance the Date. Repeat until desired date is displayed. Press the MEM button to confirm date selection. Screen will then default to Time Setting mode.



Month setting



Date setting

Setting Mode

4. Time Setting

Screen will display xxMxxD and xx:xx, and hour will flash prompting your selection. Press the START/STOP button to advance the hour.
Repeat until desired hour from 0 to 23 is displayed. Press the MEM button to confirm Hour

selection. Minutes will then flash prompting minute's selection. Follow the same procedure to set desired Minutes. Set-up is now complete.

8:08

hour setting

8:08

minute setting

■ Before Each Measurement

Avoid eating, drinking alcohol, smoking, exercising and bathing for 30 minutes before taking a measurement.

Stress raises blood pressure. Avoid taking measurements during stressful times. Relax as much as possible and avoid talking during measurement procedure.

Remove watch and other jewelry from the wrist used.

Always measure on the same wrist (normally left).

Take measurements regularly at the same time of every day, as blood pressure changes throughout the day.

Common Causes of Faulty Readings/Measurements

Measure under the same circumstances to allow for consistent measurement. Take measurements in a quite location.

Make sure you are in a comfortable, relaxed position and do not activate any of the muscles in the measurement arm during measurement.

Make sure your wrist is in the proper position ensuring it isn't lower or higher than the heart.

Note:

- · A loose or crooked cuff can cause a false reading.
- Blood accumulates in the wrist with repeated measurements which can lead to a false reading. Consecutive blood pressure measurements should be repeated after 1 minute pause or after the arm has been held up in order to allow the accumulated blood to flow.

Fitting the Cuff

1.Roll up sleeve. Make sure your sleeve is not rolled up too tightly on your arm. This may constrict the flow of blood in your arm.



2. Wrap the cuff directly against your skin. Hold the bottom part of the cuff and wrap it around the wrist so it fits comfortably and securely around your wrist as shown.



3. Sit upright in a chair making sure the monitor is at the same level as your heart.





4. Press the START/STOP button. The monitor will measure your blood pressure automatically. Make sure to keep still during the measurement process. If possible, fit cuff on left wrist. Cuff may be fitted on right wrist, but make sure all measurements are made using the same wrist.



Measuring Procedure

1. Press the START/STOP. All symbols appear on the display and 0 will flash for 2 seconds. The pump begins to inflate the cuff and blood pressure reading process begins.



2.After suitable pressure has been reached, the pump stops and the pressure gradually falls. The cuff pressure is displayed. In case that the inflation is not sufficient, the device automatically re-inflates to a higher pressure.



3. When the device detects a pulse, the heart symbol ♥ on the display starts to flash.



4. When the measurement has been completed, the systolic, diastolic and pulse rate will appear on the display screen and the color background will indicate the readings as mentioned on page 4. For your convenience, we use the three corresponding colors below to represent your results.

Green: Normal Yellow: Prehypertension Red: Hypertension

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The blood pressure classification was made by the WHO/ISH as the guide to show the state of your blood pressure. For more details, please refer to page 24.

5. The measurement readings remain on the display until you switch off the device. If no button is pressed for a period of 3 minutes, the device switches off automatically in order to conserve power.

Noted: The symbol 4 4 will be displayed along with the reading if the irregular heartbeat is detected during the measurement.

■Discontinuing a Measurement

If it is necessary to interrupt a blood pressure measurement for any reason(e.g.,the patient feels unwell)the START/STOP button can be pressed at any time. The device immediately decrease the cuff pressure automatically.

Memory-Recall of Measurements

This blood pressure monitor automatically stores 2 sets of 90 readings. The oldest record will be replaced by the latest measurement value when more than 90 sets for each user is reached.

Read Memory Record

First, press the MEM button to see the average blood pressure measurements. Keep pressing the MEM button to see the most

recent measurements. Refer to the bottom left to see how recent the measurements are. M1 stands for the oldest measurement while M90 stands for the most recent.



Clear Memory

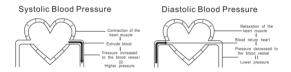
To permanently **REMOVE ALL** stored memory. Press and hold the MEM button, with power in the OFF position, to enter into setting mode. Press the MEM button 6 times until CL appears, then press the START/STOP button. CL will flash 3 times before clearing all memory. Press the MEM button again to show M and "no" on the display confirming memory reset.



About Blood Pressure

About Blood Pressure

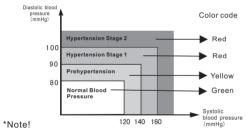
Blood pressure is the pressure exerted on the arteries. The systolic blood pressure value represents the blood pressure produced by contraction of the heart muscle. The diastolic blood pressure value represents the blood pressure produced by relaxation of the heart muscle.



About Blood Pressure

Classification of Blood Pressure

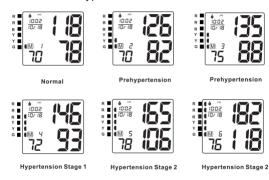
After each measurement is completed, refer to the LCD display. The display will show your blood pressure automatically using the four segments by 3 backlight colors respectively. The classifications below are determined by the WHO (World Health Organization) Blood Pressure Indicator.



When a person's systolic and diastolic pressure numbers fall into different categories, the higher pressure will be used to determine the color code.

About Blood Pressure

■ Blood Pressure Type



Exceptional Situations

Error Indicators

The following symbols will appear on the display when measurements are abnormal.

Symbol	Cause	Correction
F- 1	Weak signal or sudden	Wrap the cuff properly
'	pressure change	Repeat measurement with adjusted cuff
External strong		Move away from mobile phones and other devices which emit electromagnetic fields or high radiant devices and repeat measurement
disturbance	Use proper arm position, keep still, and do not talk while taking measurement. Repeat measurement	
E-3	Error during cuff	Wrap the cuff properly.
inflation process		Repeat measurement
E-5	Abnormal blood pressure	Relax for 30 minutes and repeat measurement. Contact your doctor after 3 consecutive abnormal measurements
	Low battery	Replace all batteries with new batteries of the same type and brand

Exceptional Situations

■ Troubleshooting

No nower	Low battery power	Replace batteries	
No power	Incorrect battery placement	Ensure proper position of battery polarities	
Err on display	Excessive movement while taking measurement	Make sure wrist is in proper position and keep body calm	
	Excessive noise while taking measurement	Do not talk and take measure -ment in a quite location	
Cuff doesn't inflate	Loose cuff wrap	Wrap the cuff securely	
Measurement values appear too high or too low Possible incorrect use of unit		Blood pressure measurements generally vary and are affected by factors such as stress, time of day, and how the cuff is positioned. Review Proper Use of Unit section	

Please contact the distributor if you are unable to solve the problem. DO NOT disassemble the unit.

Care and Maintenance

Care of Main Unit and Cuff

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



 The manufacturer will not be held responsible for any quality problem resulting from the lack of care and maintenance of product as described on this manual.

Care and Maintenance

- Make sure the monitor is powered off and remove batteries before cleaning. A mixture of distilled water and 10 percent bleach may be used.
- Using a spray bottle and moisten a soft cloth towel with the bleach or detergent mixture until it is fully saturated. Squeeze any excess moisture from the cloth to avoid dripping and potential oversaturation of the cuff.
- Wipe all surfaces of the blood pressure monitor cuff thoroughly, making sure to clean the inside and outside of the cuff. Be cautious not to get any moisture on the main unit.
- Using a dry cloth, gently wipe away any excess moisture that may remain on the blood pressure cuff. Lay the cuff flat in an unrolled position and allow the cuff to air dry.



Care and Maintenance

Do not clean the body and cuff Do not wet the cuff or attempt with naphtha, thinner or gasoline to clean the cuff with water. etc. Store the unit in a clean and dry Remove batteries if the unit will location. Do not subject the unit not be used for a 3 month period to extreme hot or cold or longer. temperature, humidity and direct sunlight.

Specifications

Description	COLOR-CHANGING Blood Pressure Wrist Monitor		
Model No.	TV 7608		
Display	LCD digital disp	lay	
Measuring principle	Oscillometric method		
Measuring localization	Wrist		
Measurement	Pressure	0~299 mmHg	
range	Pulse	40~199 pulses/min	
Pressure		±3mmHg	
Accuracy	Pulse	\pm 5% of reading	
	Pressure	3 digits display of mmHg	
LCD indication	Pulse	3 digits display	
maication	Symbol	Memory/Heartbeat/Low battery	

Specifications

Memory function	2x90 sets memory of measurement values		
Power source	2pcs AAA alkaline battery DC. 3V		
Automatic power off	3 minutes		
Main unit weight	Approx. 96 g (batteries not included)		
Main unit size	L69.5mm x W66.5mm x H60.5mm		
Battery life	Approximately 6 months when used once a day		
Accessories	Instruction manual , storage box		
Operating	Temperature	5~40℃	
environment	Humidity	15%~85%RH	
Storage environment	Temperature −20°C ~55°C , Humidity :10% ~85% Avoid dropping, sun burn or rain during transportation.		

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The "blood pressure monitor" is intended for use in the electromagnetic environment specified below. The customer or the user of the "blood pressure monitor" should ensure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.

Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0.5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 sec	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the "blood pressure monitor" requires continued operation during power mains interruptions, it is recommended that the "blood pressure monitor" be powered from an uninterruptible power supply or a battery.	
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.	
NOTE UT is the a.c. mains voltage prior to application of the test level.				

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the "blood pressure monitor", including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
			Recommended separation distance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHZ	3 V	d=1.2 √P d=1.2 √P 80MHz to 800MHz d=2.3 √P 800MHz to 2.5 Ghz
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2,5 Ghz	3 V/m	where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey.* should be less than the compliance level in each frequency range.* Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the "blood pressure monitor" is used exceeds the applicable RF compliance level above, the blood pressure monitor should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the "blood pressure monitor".
- b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than [V1] V/m.

Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The "blood pressure monitor" is intended for use in the electromagnetic environment specified below. The customer or the user of the "blood pressure monitor" should ensure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The "blood pressure monitor" uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The "blood pressure monitor" is suitable
Harmonic emissions IEC 61000-3-2	Not Applicable	for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not Applicable	supply network that supplies buildings used for domestic purposes.

Recommended Separation Distances Between Portable and Mobile RF Communications Equipment and the Blood Pressure Monitor

The "blood pressure monitor" is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the blood pressure monitor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the "blood pressure monitor" as recommended below, according to the maximum output power of the communications equipment.

	separation distance according to frequency of transmitter			
Rated maximum output power of	150 kHz to 80 MHZ	80 MHz to 800 MHZ	800 MHz to 2,5 Ghz	
transmitter W	$d = \left[\frac{3.5}{V_1}\right] \sqrt{P}$	$d = \left[\frac{3,5}{E_1}\right]\sqrt{P}$	$d = \left[\frac{7}{E_1}\right]\sqrt{P}$	
0,01	0.12	0.12	0.23	
0,1	0.38	0.38	0.73	
1	1.2	1.2	2.3	
10	3.8	3.8	7.3	
100	12	12	23	

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

Warranty Information

Limited Warranty

The unit is warranted to be free of manufacturing defects in the workmanship and materials for a period of one year from the date listed on the purchase record, and when used in accordance with the instructions provided with the unit. This warranty covers parts and labor only under normal operation. Please note warranty does not cover damage caused by, including but not limited to: misuse or abuse; accident; the attachment of any unauthorized accessory; alteration to the product; improper installation; unauthorized repair or modification; improper use of electrical/power supply; dropped product; failure to follow required maintenance and safe-keeping; transportation damage or use in a professional environment. To obtain defect warranty service, consumer must: (a.) contact (310)222-8682 extension 147 and request an RA#: (b.) Provide proof of purchase within the warranty period in the form of a bill of sale or receipted invoice. (c.) Ship the unit freight prepaid, in either its original packaging or packaging affording an equal degree of protection. (d.) Include \$10 check or money order made payable to Jobar International, Inc. for return shipping and handling charges. Note: If we receive your item back and it does not meet our return policy terms, we will not service the item and will return it to you.

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Warranty Information

Limited Warranty

This warranty gives you specific, legal rights, and you may also have rights which vary from state to state.

Manufactured for

JOBAR INTERNATIONAL, INC. CARSON, CA 90745, USA.

COLOR-CHANGING Blood Pressure Wrist Monitor

