

MODEL 6005

Manual Home Blood Pressure Kit INSTRUCTIONS



ADC[®]
AMERICAN DIAGNOSTIC CORPORATION

A Special Thank You...

Thank you for choosing an ADC® 6005 Manual Home Blood Pressure Kit. We're proud of the care and quality that goes into the manufacture of each and every item that bears our name. Only the finest materials are used to assure you of a timeless instrument designed for optimum performance.

You'll quickly appreciate the results, for you now own one of the finest homecare blood pressure instruments that money can buy.

With proper care and maintenance, your ADC® 6005 Manual Home Blood Pressure Kit is sure to provide you with many years of dependable service. Please read the following instructions and general information which will prove helpful in allowing you to enjoy your ADC® product.

Advantages of ADC®

In hospitals and physician's offices throughout the world, where accuracy and dependability are critical, ADC® professional diagnostic products are the instruments of choice.

Now you too can enjoy the benefits of ADC® engineering and quality in the home. This feature rich instrument was designed to simplify the measurement of blood pressure and pulse rate at home and deliver consistent, dependable results.

Your ADC® 6005 Manual Home Blood Pressure Kit is a blood pressure measuring device for use on the upper arm. It enables very fast and reliable measurement of the systolic and diastolic blood pressure as well as the pulse by way of the auscultation method. This device offers clinically proven accuracy and has been designed to be user friendly.

Read this booklet thoroughly before attempting to use your new ADC® 6005 Manual Home Blood Pressure Kit.

Thank you for your patronage. It is indeed our pleasure to serve you.

Sincerely,
American Diagnostic Corp.

ADC® 6005 Manual Home Blood Pressure Kit

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Introduction and Intended Use

Your ADC® 6005 blood pressure kit is a manual blood pressure measuring device for use by adults on the upper arm at home or in your doctor's/nurse's office. It enables very fast and reliable measurement of systolic and diastolic blood pressure as well as pulse through the auscultation method. This device offers clinically proven accuracy and has been designed to be user friendly.

Before using, please read this instruction manual carefully and then keep it in a safe place. Please contact your doctor for further questions on the subject of blood pressure and its measurement.

Remember...

- Only a health care professional is qualified to interpret blood pressure measurements. This device is NOT intended to replace regular medical checkups.
- It is recommended that your physician review your procedure for using this device.
- Blood pressure readings obtained by this device should be verified before prescribing or making adjustments to any medications used to control hypertension. Under no circumstances should YOU alter the dosages of any drugs prescribed by your doctor.
- This monitor is intended for use by adults only. Consult with a physician before using this instrument on a child.
- In cases of irregular heartbeat (Arrhythmia), measurements made with this instrument should only be evaluated after consultation with your doctor.
- Familiarize yourself with the section titled "About Blood Pressure". It contains important information on the dynamics of blood pressure readings and will help you to obtain the best results.

NOTE! Do not attempt to service or repair this device yourself. Should a malfunction occur, refer to page 20 of this booklet for service information.

General Warnings and Precautions

A warning statement in this manual identifies a condition or practice which, if not corrected or discontinued immediately could lead to patient injury, illness, or death.

WARNING: Federal law restricts this device to sale by or on the order of a physician or licensed healthcare practitioner.

WARNING: If luer lock connectors are used in the construction of tubing, there is a possibility that they might be inadvertently connected to intravascular fluid systems, allowing air to be pumped into a blood vessel. Immediately consult a physician if this occurs.

WARNING: Do not allow a blood pressure cuff to remain on patient for more than 10 minutes when inflated above 10 mmHg. This may cause patient distress, disturb blood circulation, and contribute to the injury of peripheral nerves.

WARNING: Safety and effectiveness with neonate cuff sizes 1 through 5 is not established.

WARNING: This system may fail to yield specified measurement accuracy if operated or stored in temperature or humidity conditions outside the limits stated in the specifications section of this manual.

WARNING: This Product May Contain A Chemical Known To The State of California To Cause Cancer, Birth Defects, Or Other Reproductive Harm.

CAUTION: Unless otherwise indicated these products contain natural rubber latex, which may cause allergic reactions.

CAUTION: To avoid any possibility of accidental strangulation, keep this unit away from children and do not drape tubing around your neck.

CAUTION: The standard material used for the bladder and tubing is latex-free.

ATTENTION: Self-measurement means control, not diagnosis or treatment. Unusual values must always be discussed with your doctor. Under no circumstances should you alter the dosages of any drugs prescribed by your doctor.

ATTENTION: The pulse display is not suitable for checking the frequency of heart pacemakers!

ATTENTION: In cases of irregular heartbeat, measurements made with this instrument should only be evaluated after consultation with your doctor.

Note: To obtain the greatest accuracy from your blood pressure instrument, it is recommended that the instrument be used within a temperature range of 50°F (10°C) to 104°F (40°C), with a relative humidity range of 15-90% (non-condensing).

2. About Blood Pressure

A. What is Blood Pressure?

Simply put, arterial blood pressure is the force of blood exerted against the walls of the arteries. There are two components to blood pressure - systolic and diastolic pressure. Systolic, the higher pressure, occurs during contraction of the heart. Diastolic, the lower pressure, occurs when the heart is at "rest."

Blood pressure is traditionally measured in millimeters of mercury (mmHg). It is recorded as systolic/diastolic. For example, a systolic of 120 and diastolic of 80 would be recorded 120/80.

Blood pressure is a dynamic vital sign - one that changes constantly and throughout the day. A person's "resting" blood pressure is the pressure that exists first thing in the morning while a person is still at rest and before consumption of food or drink.

B. What is a Normal Blood Pressure?

A systolic pressure of less than 120mmHg and a diastolic pressure of under 80mmHg are recognized as normal by the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, 2003. However, individual blood pressure will vary.

Note: Blood pressure does increase with age, so you must check with your doctor to find out what is "normal" for you!

C. What Influences Blood Pressure?

Blood pressure is influenced by many factors including age, weight, physical conditioning, past illness, time of day, altitude, activity, and climate, to name just a few. In general, blood pressure is lower in the morning and increases throughout the day. It is lower in warm weather, and higher in cold weather.

Physical activity can have a significant short term impact on blood pressure. Work, exercise, smoking, eating, drinking - even talking, laughing, or crying will all affect a person's blood pressure.

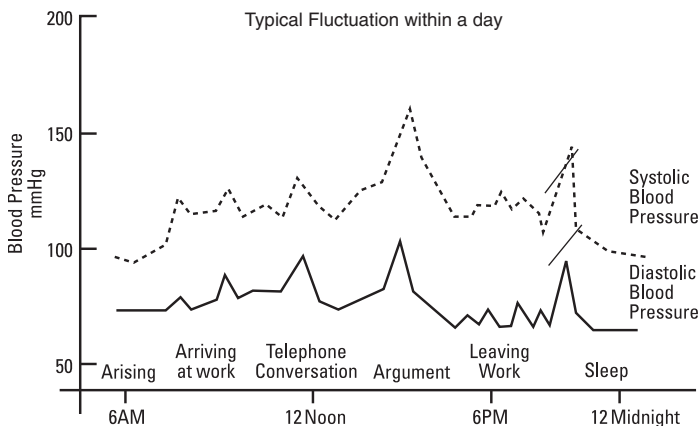
Your diet, including beverages containing caffeine or alcohol may all affect blood pressure. Emotional stress can have a dramatic impact on your blood pressure.

Even repeated blood pressure measurements taken without adequate rest between readings will alter your blood pressure as the vessels in your arm engorge with blood.

Many of these influences are only temporary or short term, though chronic (long term) exposure to some factors may result in permanently elevated blood pressure levels.

D. Does Blood Pressure Vary?

Constantly. An individual's blood pressure varies greatly on a daily and seasonal basis. It changes throughout one's lifetime. It is not uncommon for systolic pressure to vary by 40mmHg or more throughout the course of a single day! While generally not as volatile, diastolic pressure can still vary significantly. In hypertensive individuals, variations are even more pronounced. Normally, blood pressure is at its lowest during sleep and rises in the morning and throughout the day. The chart below illustrates the fluctuations that could occur in a typical day.



E. What is Hypertension?

Hypertension (high blood pressure) is elevated systolic or diastolic levels. In 90 to 95 percent of the diagnosed cases, the specific causes are unknown, although the condition is often linked with family history, and lifestyle. This is referred to as essential hypertension. In the remaining cases, high blood pressure is a symptom of an underlying, often treatable condition, which if corrected, may normalize blood pressure. This less common type is known as secondary hypertension.

Hypertension, if left untreated, may contribute to kidney disease, heart attack, stroke, or other debilitating illnesses.

The following standards for assessment of high blood pressure (without regard to age) have been established by the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, 2003.

Range Classifications	Systolic Blood Pressure	Diastolic Blood Pressure	Precaution Measures
Normal	<120	<80	Monitor regularly
Prehypertension	120 - 139	80 - 99	Contact your physician
H Y P E R T E N S I O N			
Stage 1 <i>(Moderate)</i>	140 - 159	90 - 99	Contact your physician Immediately
Stage 2 <i>(Severe)</i>	160+	100+	Contact your physician URGENTLY

(JNC-7 report: Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure / 2003)

**Remember only a physician is qualified to interpret the readings obtained from your blood pressure kit.
No attempt should ever be made at self-diagnosis or treatment.**

F. Can Hypertension be Controlled?

Although essential hypertension cannot be cured, it can usually be controlled by altering lifestyle (including diet), adopting a program of exercise, stress management and, where necessary, with medication under a doctor's supervision.

To help reduce the risk of hypertension, or keep it under control, the American Heart Association (AHA) recommends the following:

- **Don't smoke**
- **Maintain proper weight**
- **Have regular physical checkups**
- **Reduce salt and fat intake**
- **Exercise regularly**

G. Why Measure Blood Pressure at Home?

Clinical studies have shown improved detection and treatment of hypertension when regular home blood pressure monitoring is done in consultation with a physician.

Blood pressure measured in a doctor's office or hospital setting may cause anxiety and lead to an elevated reading - a condition referred to as "white coat hypertension."

Home measurements generally reduce the "outside" influences on blood pressure readings, and can provide a more comprehensive and meaningful blood pressure history.

Important Note: While it is important to keep an accurate record of your blood pressure measurements, don't be overly concerned by the results of any one measurement. Individual results may be influenced by spiking of your pressure due to diet, anxiety, or mis-measurement resulting from excessive arm movement, or misapplication of the cuff. Many readings taken at the same time each day give a more comprehensive blood pressure history. Always be sure to note the date and time when recording blood pressure measurements.



For best results, and with time permitting, 3 successive measurements may be taken daily. Make sure to allow at least 5 to 10 minute intervals between measurements. Discard any reading that appears suspect and record the average of the remaining readings.

H. How is Blood Pressure Measured?

Health care professionals traditionally use a device known as a sphygmomanometer along with a stethoscope -essentially a professional version of the very same instrument you have purchased. The sphygmomanometer is a system consisting of an inflatable bladder contained within a cuff, inflation bulb with air control valve, and pressure measuring manometer (gauge). The gauge may be mechanical or mercurial.

The cuff is wrapped around the limb and inflated to constrict blood flow to the artery. As pressure is released from the cuff through the deflation valve, blood flow returns to the artery producing pulse beats known as Korotkoff sounds, which are detected with the stethoscope. **Systolic pressure** is recorded at the onset of these sounds. **Diastolic pressure** is generally recorded when the sounds disappear (when blood flow to the artery returns to normal).

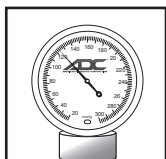
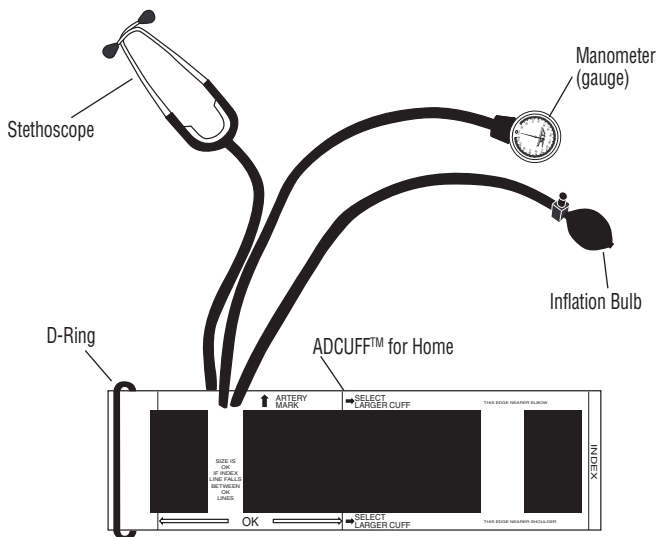
I. How should I record my blood pressure?

Record by setting up a simple chart in a spiral bound notebook as shown below:

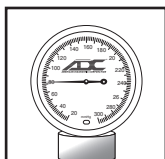
Date	Time	Reading
4/24	7:50AM	128/83
4/25	8:00AM	135/77
4/26	7:45AM	130/75
4/27	2:00PM	153/89

If you like you can add a column for comments about your condition at the time of measurement, or a listing of any factors that may have influenced your readings (such as "had a cold", or "just returned from vacation").

3. Components of your Blood Pressure Kit (Model #6005)



Systolic Reading



Diastolic Reading

4. First Time Set-Up

After unpacking the instrument, you must assemble prior to use.

A. Assembling Your Blood Pressure Kit.

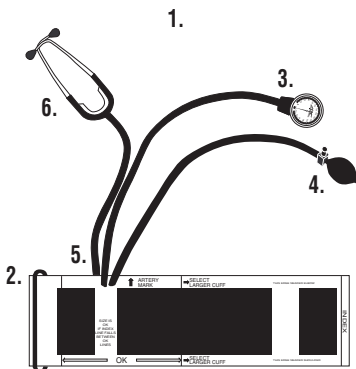
- 1 Lay out the parts as pictured in the accompanying diagram, below right.
- 2 The cuff should already be threaded through the metal D-Ring. If the cuff is NOT threaded, insert the free end through the D-Ring so that the printing and hook and loop adhesive are on the outside surface, with the chestpiece on the inside surface.
- 3 Attach the gauge to either one of the tubes.
- 4 Attach the bulb and valve assembly to the remaining free tube.

Note: When using a cuff other than the one supplied with the instrument, the deflation rate of the automatic valve may require adjustment. (refer to page 18)

5. Attach the single end of Y tubing to the chestpiece.
6. Attach the double end of the Y tubing to the stethoscope binaural (ear tubes).

Note: You do not need to disassemble instrument for storage. Wrap cuff around components and store in the zippered carrying case provided.

Your ADC® Home Blood Pressure Kit is now ready for use!

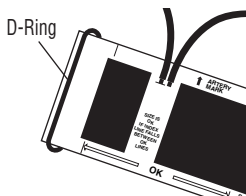


5. How to Measure Your Blood Pressure

A. About the Cuff

Your ADC® Home Blood Pressure Kit is equipped with the ADCUFF™ blood pressure cuff. It is similar to the cuff used in physician's offices and hospitals but has been specially modified for home use. It is designed to work on arms with a circumference of 10 inches to 13.5 inches. Use of a correctly sized cuff, along with proper positioning of the cuff, are essential to accurate measurements. The ADCUFF™ with its proprietary Size Guide™ marking system simplifies correct cuff application and helps prevent "miscuffing."

Your ADCUFF™ for Home use features a **D-Ring** which allows unassisted placement on the arm. The **Artery Mark** facilitates correct cuff positioning. Index and "OK" lines help determine if the cuff is the correct size for the arm.



For best results it is important to observe correct measuring posture and to apply the cuff properly.

Note: These are two of the factors that most often lead to measurement errors or unreliable results.

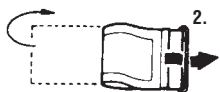
B. To Apply the ADCUFF™ to Your Arm:

Measurement is suggested on left arm.

If measuring on right arm, reverse procedures as necessary.

- 1 Remove constricting clothing from measurement arm. Never attempt to measure blood pressure over shirt sleeve. If rolling up sleeve, make sure it doesn't bind or constrict circulation.

- 2 Slip arm through cuff (the free end of the cuff must be threaded through the D-Ring with hook and loop adhesive and printed markings visible on the outside surface).



- 3 Make sure to position the cuff correctly on the upper arm with the edges marked nearer to elbow and shoulder in the correct orientation. The bottom edge of the cuff (edge nearest the elbow) should be about 1 inch above the inside elbow crease. Pull on the free end of the cuff to tighten.



- 4 Position so that the **Artery Mark** is directly over the **Brachial artery**. The **Brachial artery** runs along the inside of the arm near the elbow crease. Although it cannot be seen, the **Brachial artery** can be detected by feeling for a pulse using the fingers of the opposite hand.



- 5 Secure cuff by attaching the hook and loop adhesive. The cuff should be **snug**, but not tight. One finger should be able to slide easily between cuff and arm. Check to be sure the cuff is the correct size for your arm. When properly snug, the white Index line should fall between the "OK" lines printed on the cuff. If the **Index line** does not fall between the "OK" lines you will need to order a larger or smaller cuff. Refer to page 19 of this booklet for information on ordering other cuff sizes.



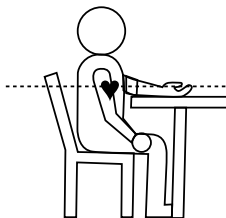
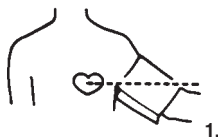
C. Correct Measuring Posture

Correct measuring posture is essential to accurate measurement of your blood pressure.

- 1 Sit comfortably in a chair with the measurement arm resting flat on a surface so that the center of your arm is at about the same height as your heart.

Note: If the arm is above heart level you may obtain lower than "normal" readings. Conversely, if it is below heart level, you may obtain elevated readings.

- 2 Sit upright with feet resting on the floor surface. Do not lean forward or backward during measurement.
- 3 Relax for five to ten minutes before measurement to stabilize your pressure.

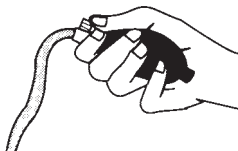


D. Operating the Instrument (Measuring Your Blood Pressure)

- 1 With the unit properly assembled, the ADCUFFTM properly applied to the left arm, and the correct measuring posture observed, place the stethoscope binaurals in your ears.

Note: Make sure eartips are securely fastened to eartubes.

- 2 Secure gauge to the lid of a book or hold in your left hand. If holding, do NOT grip tightly as any muscular stress may influence readings. Make sure you have an unobstructed view of the dial.
- 3 Start to inflate the cuff by squeezing the rubber bulb quickly until cuff pressure reaches 30mmHg to 40mmHg above your expected systolic pressure by looking at the gauge while inflating. For example, if your expected systolic pressure is 160mmHg, inflate to about 200mmHg.



Note: Do not inflate unit above 280mmHg. You may damage the instrument, experience discomfort, or even cause injury. If you are unsure of the correct inflation pressure, consult your physician for guidance.

- 4 Automatic Deflation: Your unit is equipped with an automatic deflation valve. It will release air gradually at the factory preset rate of 2-5mmHg per second.
- 5 Listen carefully for your pulse beat (Korotkoff sounds) while you observe the dial on the gauge.
- 6 Systolic Pressure Determined: When you first detect the pulse sounds note the reading on the gauge. This is your systolic pressure. Each graduation mark represents 2mmHg.

Note: If you wish to stop the measurement process at any time depress the exhaust button on the automatic air release valve to exhaust all air in the cuff and abort the measurement. Allow 5 to 10 minutes before repeating measurements.

- 7 Diastolic Pressure Determined: As the cuff continues to deflate the pulse sounds will first increase in volume, then change in quality, and eventually disappear. When you can no longer hear any sounds note the reading on the gauge. This is your diastolic pressure.
- 8 Release Remaining Air: Press the exhaust button on the automatic air release valve to exhaust any air remaining in cuff.



- 9 Record Readings: If you wish to record the readings, make sure to note date and time.
- 10 Remove cuff, wrap it around components, and store in the carrying case provided.



Note: If you wish to measure your blood pressure again, wait at least 5 to 10 minutes.

6. Helpful Hints

For best results, follow the tips outlined below:

- Do measure your pressure the same time each day.
- Do rest 5 to 10 minutes before measuring your blood pressure.
- Do not eat, drink, smoke, or engage in any strenuous activity immediately before measurement.
- Do allow 5 to 10 minutes rest BETWEEN subsequent measurements.
- Do record the date and time measurement was made.
- Do not talk, eat, drink, or move during the measurement process.
- Do not allow any single measurement to concern you. Your blood pressure history is far more important.
- Do not use or store the instrument in temperature extremes as it may damage the instrument and affect measurement accuracy.
- Do not apply the cuff over any article of clothing. Make sure the clothing is not binding on the arm.

7. Troubleshooting

In the chart below are some of the more common problems you may experience during measurement. Refer to this chart BEFORE sending the instrument in for factory repair service.

Problem	Possible Solution
Needle does not rest within oval mark at bottom of gauge.	Remove from tubing to release any residual air. If needle remains outside of oval, return to factory for recalibration.
Cuff deflates too quickly or slowly	Adjust valve by following the procedures outlined on page 18 of this manual.
Measured home values vary from those obtained by doctor. Values vary each time blood pressure is measured.	Blood pressure varies enormously. Refer to the section titled "About Blood Pressure" for guidelines.
Can't hear pulse sounds.	Make sure chestpiece is positioned properly and stethoscope tubing is not obstructed or kinked. If problem persists consult with physician for guidance on proper measurement techniques.

8. Care and Maintenance

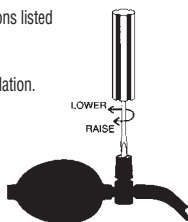
- Clean the gauge with a soft cloth very slightly moistened with water or mild detergent. Wipe dry.
- Never clean cuff or gauge with alcohol, hydrogen peroxide, thinners, or any other harsh chemicals.
- Avoid exposure to extremes in temperature, humidity, direct sunlight, or dust.
- Take care when storing the cuff and tubing to avoid kinking or damage.
- Do not drop the instrument or subject to strong vibration.
- Do not attempt to disassemble the main unit or cuff.

9. Adjusting Deflation Rate

Your ADC® Blood Pressure Instrument is equipped with an automatic deflation valve that releases air at the factory preset rate of approximately 2-5 mmHg per second in accordance with the recommendations of the American Heart Association. Correct deflation rate is essential to accurate readings.

The deflation rate is influenced by cuff size. If using a cuff other than the one shipped with the unit, you may have to adjust the deflation rate.

1. To check the rate, begin the measurement procedure by following the instructions listed on pages 12-16.
2. Observe the positions of the indicator needle for a 10 second period during deflation. Subtract the reading at the end of the test from the reading at the beginning and divide by 10. If the rate is 2-5mmHg no further adjustment is needed. For example, if at the beginning of the test the reading was 180 and at the end the reading was 130, during a 10 second period, the rate of deflation is 5. $(180-130=50, 50 / 10=5)$.



If the deflation rate is not within this range, the valve should be adjusted as follows:

1. The deflation rate adjustment screw is located on the push button of the automatic valve. With a small, flathead screwdriver, rotate adjusting screw approximately 1/8 turn clockwise to increase deflation speed, or counterclockwise to decrease speed.
2. Repeat test to determine deflation rate.
3. Continue this process until the deflation rate is between 2-5mmHg.

Note: The adjustment screw is very sensitive and should be rotated gradually.

10. Ordering A Different Cuff

Use of a correctly sized cuff, along with proper positioning of the cuff, are essential to accurate measurements. The ADCUFF™, with its proprietary Size Guide™ marking system, simplifies correct cuff application and helps prevent "miscuffing." The ADCUFF™ for Home is available in three sizes. If you need to order a size other than the one included with the instrument, call 1-800-ADC-2670.

Arm Circumference	Size
6.5" to 10.00"	Child
10" to 13.5"	Adult
12.00" to 16.00"	Large Adult

To determine the correct size, measure the circumference of the arm at the biceps,

half-way between the shoulder and elbow.

11. Limited Warranty

American Diagnostic Corporation (ADC) warrants its products against defects in materials and workmanship under normal use and service as follows:

- 1. Warranty service extends to the original retail purchaser only and commences with the date of delivery.**
- 2. The entire sphygmomanometer is warranted for one year.**
- 3. The manometer is warranted to remain accurate to $\pm 3\text{mmHg}$ over its full range when compared to a reference standard for 5 years.**

What is Covered: Calibration, repair, or replacement of parts and labor.

What is not covered: Transportation charges. Damage caused by abuse, misuse, accident, or negligence. Incidental, special, or consequential damages. Some states do not allow the exclusion or limitation of incidental, special, or consequential damages, so this limitation may not apply to you.

Implied Warranty: Any implied warranty shall be limited in duration to the terms of this warranty and in no case beyond the original selling price (except where prohibited by law. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

To Obtain Warranty Service: Send item(s) postage paid to Warranty Service Center indicated below. Please include your name and address, daytime phone no., proof of purchase, a brief note explaining the problem, and \$2.00 to cover the cost of return shipping and handling.

Send products in need of service to:

Warranty Service Center, 55 Commerce Drive, Hauppauge, NY 11788

12. Quality Standards

Device standard: This device corresponds to the requirements of the European and U.S. standards for non-invasive blood pressure monitor.

ANSI / AAMI SP10

13. How to contact us

To register your product and obtain further detailed user information about our products and services visit us at:

www.adctoday.com

and follow the links.

For questions, comments, or suggestions call us toll free at:

1-800-232-2670

American Diagnostic Corporation

55 Commerce Drive, Hauppauge, New York 11788

Telephone: 631-273-9600 • Fax: 631-273-9659

Email: info@adctoday.com

14. Technical Specifications

Weight:	437 g / 15.4oz.
Size:	7" (W) x 4" (L) x 2.5" (H) 17.8cm (W) x 10.2cm (L) x 6.4cm (H)
Storage temperature:	23°F - 122°F (-5°C to +50°C)
Humidity:	15% to 90% relative humidity maximum
Operation temperature:	50°F - 104°F (10°C to 40°C)
Measuring method:	Auscultatory

