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# ADC® Sphygmomanometer Accessories

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Directions  
for Use, Care, &  
Maintenance



**ADC**<sup>®</sup>  
AMERICAN DIAGNOSTIC CORPORATION

# ADC® Sphygmomanometer Replacement Parts

(manometer, cuff, bladder, bulb and valve)

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## Manometer

### Intended Use:

ADC® blood pressure manometers are designed to be used with ADC® and compatible noninvasive blood pressure cuffs. They are intended for use with compatible inflation systems and in conjunction with a stethoscope to obtain manual blood pressure readings.

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## General Warnings: ⚠

- ⚠ **WARNING:** If this equipment is modified, appropriate inspection and testing must be conducted to ensure its continued safe use.
- ⚠ **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:** Do not apply cuff to delicate or damaged skin. Check cuff site frequently for irritation.
- ⚠ **WARNING:** Safety and effectiveness with neonate cuff sizes 1 through 5 is not established.
- ⚠ **WARNING:** Only use the cuff when the range markings indicated on the cuff show that the proper cuff size is selected, otherwise erroneous readings may result.
- ⚠ **WARNING:** Allow space between patient and cuff. Two fingers should fit in this space if the cuff is correctly positioned.
- ⚠ **WARNING:** Do not apply cuff to limbs used for IV infusion.
- ⚠ **WARNING:** Patient should remain still during measurement to avoid erroneous readings.
- ⚠ **WARNING:** If luer lock connectors are used in the construction of tubing, there is a possibility that they might be inadvertently connected to intra-vascular fluid systems, allowing air to be pumped into a blood vessel. Immediately consult a physician if this occurs.

**⚠ CAUTION:** 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%-85% (non-condensing).

**⚠ CAUTION:** Manometer pressure range is 0 mmHg to 300 mmHg.

**⚠ CAUTION:** Extreme altitudes may affect blood pressure readings. Your device has been designed for normal environmental conditions.

**⚠ CAUTION:** This product will maintain the safety and performance characteristics specified at temperatures ranging from 32°F to 104°F (0°C to 40°C) at a relative humidity level of 15% to 85%.

**⚠ CAUTION:** Do not iron cuff.

**⚠ CAUTION:** Do not heat or steam sterilize cuff.

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## Symbol Definitions

The following symbols are associated with your ADC® Sphygmomanometer:

Symbol	Definition
	Important Warning/Caution
	Not made with natural rubber latex
	Phthalate Free
	Circumference Size

Symbol	Definition
	Conforms to EU Standards
	Authorized European Representative's Information
	Manufacturer's Information
	Temperature Limit
	Humidity Limitation

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Connecting the manometer to the inflation system:

### Pocket Style Models: 800, 802, 808N, 809N

The barb at the bottom of the manometer will friction fit onto the tubing of most commercially available two tube cuff and bladder systems.

**WARNING:** The pocket style manometer is designed for use with TWO tube systems where one tube connects to the manometer and the other connects to the inflation source (bulb and valve).



## Connecting Palm Style Model: 804N

**Legacy Connector:** Assemble the supplied luer slip connector into the connector port on top of palm gauge, rubber gasket side down. Make sure connector is fully seated in the connector port. Slide cuff tubing over the barbed end of the connector. Connector will friction fit onto the tubing of most commercially available ONE-tube cuff and bladder systems (Figure 1).

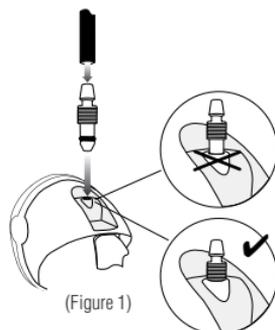
**New 804N Connector:** Insert white HP connector into metal receiver until it clicks (Figure 2).

**To Release:** Slide receiver collar downward toward gauge until connector releases.

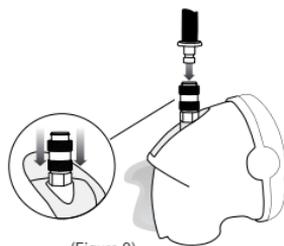
**WARNING:** Do **NOT** remove metal receiver from gauge.

**WARNING:** The palm-style manometer is designed for use with ONE-tube systems.

**WARNING:** To avoid damage to the instrument, do not force connector into port.



(Figure 1)



(Figure 2)

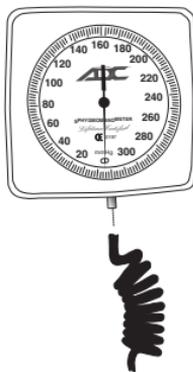
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## Clock Style Model: 805

The barb at the bottom of the manometer will friction fit onto most commercially available coiled tubing.

**WARNING:** The clock style manometer is designed for use with TWO-tube systems where one tube connects to the coiled tubing attached to the manometer, and the other connects to the inflation source (bulb and valve).

**CAUTION:** For all blood pressure systems that can be wall mounted, ensure that the unit is securely mounted prior to use to avoid damage to the instrument and potential patient injury.



## Maintenance:

The manometer may be cleaned with a soft cloth but should not be dismantled under any circumstances. Should the indicator needle of the manometer rest outside of the oval calibration mark, then the manometer must be re-calibrated to within  $\pm 3$  mmHg when compared to a reference device that has been certified to national or international measurement standards. No manometers that have their indicator needle resting outside of this mark are acceptable for use (Figure 3). The manufacturer recommends a calibration check every 2 years.



**NOTE:** Store gauge with valve in full exhaust position.

(Figure 3)

## Standards:

ANSI/AAMI/ISO 81060-1:2007 • EN / ISO 81060 - 1:2012

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## Bladder Model: 815 Series

### Intended Use:

ADCUFF™ bladders are noninvasive inflation bags designed to be used with ADC® and compatible blood pressure cuffs. They are intended for use with manual and automated noninvasive blood pressure measurement devices.

### Assembling the Convertible Bladder

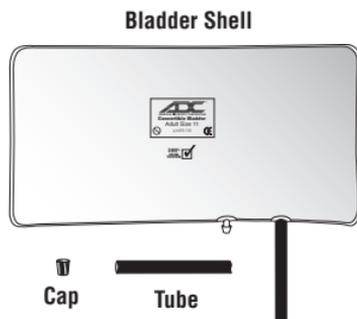
Build a 1 or 2 tube bladder connection depending upon your requirements.

*One simple connection is all that is necessary:*

- Pocket or Clock Aneroids or Mercurial Sphygs require a 2 tube bladder
- Palm or Multicuff Aneroids require a 1 tube bladder.

### What is included:

- (1) **Bladder Shell** with 1 tube attached and an open barb
- (1) **Cap:** To close off open barb for 1 tube bladder use
- (1) **Tube:** To connect to open barb for 2 tube bladder use

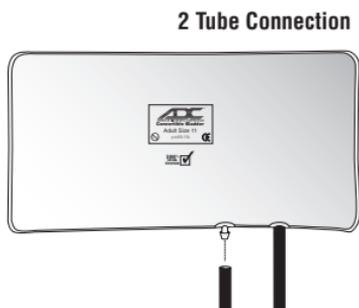
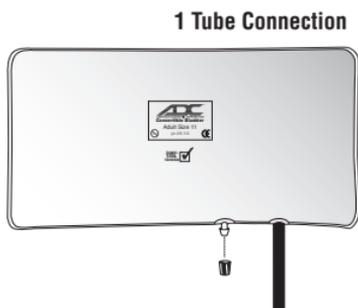


## Convertible Bladder

### Convertible Bladder Connections (1 or 2 tube)

**1 tube** - Securely attach enclosed Cap to exposed barb on bladder shell.

**2 tube** - Securely attach enclosed second tube to exposed barb on bladder shell.



**NOTE:** Rubbing alcohol or soapy water can facilitate connections. Make sure connection is secure.

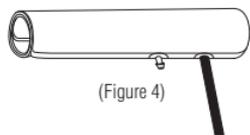
**WARNING:** Connections are not designed to be converted back and forth on a regular basis.

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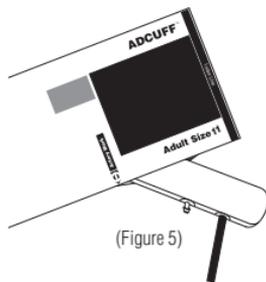
## Inserting Bladder into Cuff

To insert the bladder into the cuff;

1. Roll bladder into a tube starting from long edge opposite tubing (Figure 4).
2. Insert left edge of bladder into cuff opening (at bottom edge of cuff) until it is completely inside. Shake cuff until bladder fully unravels. (Figure 5).

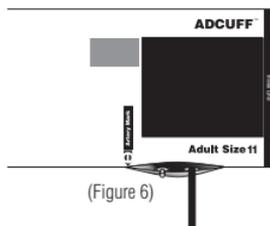


(Figure 4)



(Figure 5)

3. Thread tubes through smaller openings (from inside of cuff out) and tuck flap in to secure bladder. To make sure that bladder fills compartment, inflate before initial use. (Figure 6).



## Size Chart

### Cuff Models: 845 Series

#### Intended Use:

ADC® blood pressure cuffs are noninvasive blood pressure cuffs that are intended for use with manual and automated noninvasive blood pressure measurement devices.

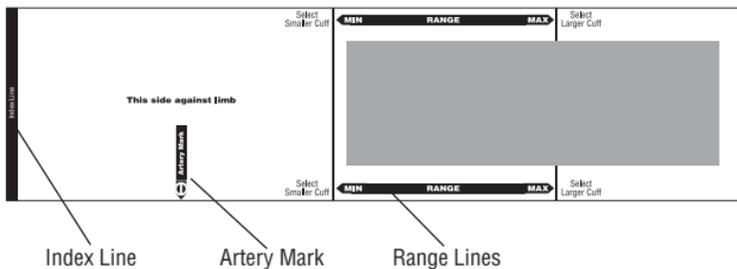
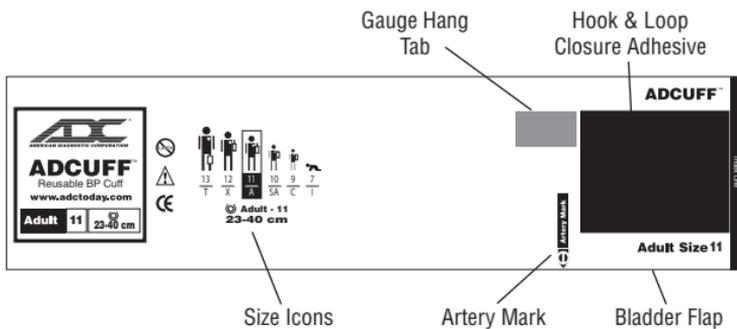
#### Contraindications:

Aneroid sphygmomanometers are contraindicated for neonate use. Do not use with neonatal cuffs or neonate patients. Review the size chart for proper age and limb range usage (Right).

Cuff	Size	Limb Range	
		Inches	CM
<b>Infant</b>	7	3.5 to 5.5	9 to 14
<b>Child</b>	9	5.1 to 7.6	13 to 19.5
<b>Small Adult</b>	10	7.4 to 10.6	19 to 27
<b>Adult</b>	11	9 to 15.7	23 to 40
<b>Large Adult</b>	12	13.3 to 19.6	34 to 50
<b>Thigh</b>	13	15.7 to 25.9	40 to 66
<b>Bariatric</b>	12	17.32 to 25.9	44 to 66

### Size Guide™ Marking System:

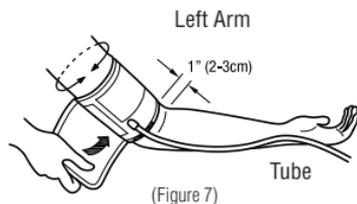
ADC®'s Size Guide™ marking system assures use of correct cuff size and proper cuff alignment. Printed Index and Range markings and applicable limb range (in cm) allow easy identification of the correct cuff size. An artery mark printed on both sides indicates bladder midpoint for correct cuff positioning. A convenient nylon hang tag permits flexible use with either pocket aneroids or mercury manometers. Hook-and-loop adhesive surface provides a snug, infinitely variable fit and is designed to withstand a minimum of 30,000 open/close cycles.



## Applying Cuff:

Place the cuff over the bare upper arm with the artery mark positioned directly over the brachial artery. The bottom edge of the cuff should be positioned approximately one inch (2-3cm) above the antecubital fold.

Wrap the end of the cuff NOT containing the bladder round arm snugly and smoothly and engage adhesive strips. To verify a correct fit, check that the INDEX line falls between the two RANGE lines (Figure 7).



## Maintenance:

Clean and disinfect as required

## Cleaning

- Use one or more of the following methods and allow to air dry:
- Wipe with mild detergent and water solution (1:9 solution). Rinse.
- Wipe with Enzol per manufacturer's instructions. Rinse.
- Wipe with .5% bleach and water solution. Rinse.
- Wipe with 70% isopropyl alcohol.
- Launder with mild detergent in warm water, normal wash cycle.  
Remove bladder first. Cuff is compatible with 5 wash cycles.

## Low Level Disinfection

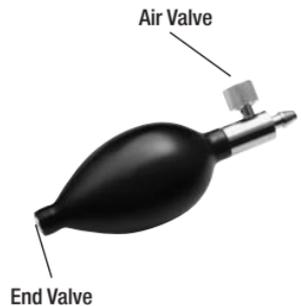
Prepare Enzol enzymatic detergent according to the manufacturer's instructions. Spray detergent solution liberally onto cuff and use a sterile brush to agitate the detergent solution over entire cuff surface for five minutes. Rinse continuously with distilled water for five minutes. To disinfect, first follow the cleaning steps above, then spray cuff with 10% bleach solution until saturated, agitate with a sterile brush over entire cuff surface for five minutes. Rinse continuously with distilled water for five minutes. Wipe off excess water with sterile cloth and allow cuff to air dry.

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## Bulb and Valve Assembly - Model 872N

### Intended Use

ADC® blood pressure bulb and valves allow for controlled inflation and deflation of the blood pressure cuff. They are intended for use with manual noninvasive blood pressure measurement devices.



### To Operate:

Close the air valve by fully rotating thumbscrew clockwise. To open, rotate counterclockwise. Deflation should be maintained at a consistent rate of 2-3mmHg/second throughout measurement for best results (in accordance with recommendations set forth by the AHA).

## Maintenance:

Your sphygmomanometer is equipped with a bulb-and-valve assembly consisting of 3 parts: an end (check) valve, a squeeze bulb, and an air control valve. On select models, the end and air valves feature a built-in filter screen to minimize dust contamination. We recommend that end and air valves be checked periodically for dust buildup. If the end valve appears clear but you feel increased resistance when squeezing the bulb, check for dust buildup on the air valve filter. (The bulb is friction fit to the air valve and can be easily removed, allowing access to this filter screen.) Dust and debris can be cleared with tweezers. Replacement filters, gaskets and valve parts will always be provided free of charge, if needed.

## Manometer Quality Control

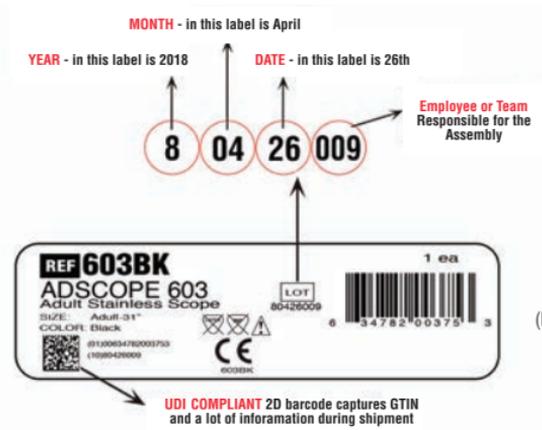
A serial number and lot number are automatically assigned to every aneroid during manufacturing, ensuring every item is controlled.

This serial number can be located on the faceplate of each aneroid (Figure 8).

The lot number is located on the outside label of all accessory packaging (Figure 9).



(Figure 8)



(Figure 9)

## Disposal

When your sphygmomanometer or any of its parts have reached their end of life, please be sure to dispose of them in accordance with all regional and national environmental regulations. Devices that have become contaminated should be disposed of in accordance with all local ordinances and regulations.

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## Warranty

American Diagnostic Corporation's (ADC®) warranty service extends to the original retail purchaser only and commences from the date of delivery. ADC warrants its products against defects in materials and workmanship under normal use and service as follows:

- Your manometer is warranted for 10 years, 20 years, or life depending upon the model. Refer to label or end panel for specific warranty denotation. The manometer is warranted to remain accurate to +/-3mmHg (or the prevailing standard) over its full range when compared to a reference standard for the duration of its warranty.
- Adcuff™ inflation system components (cuff, bladder, tubing, bulb, valves, and connectors) are warranted for three years. Specialty cuffs and bladders are warranted for two years.

**What is Covered:** Replacement of parts, and labor.

**What is Not Covered:** Transportation charges to ADC®. Damages 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.

**To Obtain Warranty Service:** Send item(s) postage paid to ADC®, Attn: Repair Dept., 55 Commerce Dr., Hauppauge, NY 11788. Please include your name and address, phone no., proof of purchase, and a brief note explaining the problem.

**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.

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To register your product visit us at  
**[www.adctoday.com/register](http://www.adctoday.com/register)**

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FOR QUESTIONS, COMMENTS,  
OR SUGGESTIONS CALL TOLL FREE:

**1-800-ADC-2670**

OR VISIT

**[www.adctoday.com/feedback](http://www.adctoday.com/feedback)**

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languages, follow the links for language options.

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