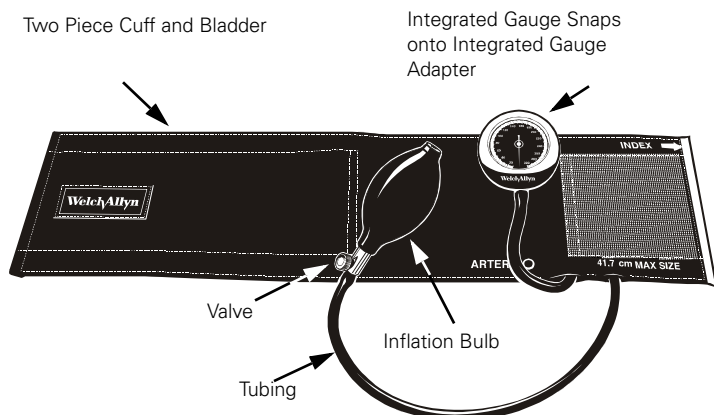


Welch Allyn® DuraShock™ Aneroid Sphygmomanometer with Integrated Gauge Adapter

Part No. 590505 Rev. D

DuraShock is the **first and only** gear-free, shock-resistant aneroid sphygmomanometer technology. We expect you will receive years of trouble free operation from this product.

Components of the Welch Allyn DuraShock Aneroid Sphygmomanometer with Integrated Gauge Adapter



Assembly Instructions

1. Snap the gauge into the adapter (Figure 1).
2. Slide the clip on the back of the gauge through the cuff loop (Figure 2).
3. Press the clip into the locked position (Figure 3).
4. Attach the shorter hose from the cuff to the stem at the bottom of the adapter.

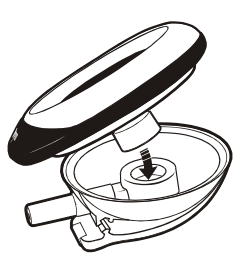


Figure 1

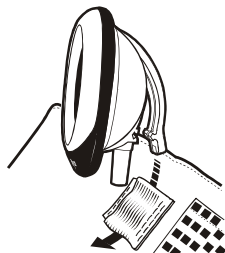


Figure 2



Figure 3

Operating Instructions

Auscultatory Method

1. Select cuff size appropriate for the patient's arm circumference. The applicable range, in centimeters, is printed on each cuff.

Note: The "Index Marker" on the cuff should fall within the "Range" indicated on the cuff. If the index marker falls short of range, a larger cuff should be used to ensure accurate results. If the index marker is past the range, a smaller cuff should be used to ensure accurate results.
2. Wrap the cuff around the arm with the Arteria (artery) located over the brachial artery and with the lower edge of the cuff 1-inch (2.5 cm) above the bend in the elbow.
3. Inflate cuff rapidly to a level 30 mm Hg above estimated (or palpatory) systolic pressure.
4. Partially open the valve to allow deflation at a rate of 2 to 3 mm Hg per second.
5. As the pressure falls, note systolic pressure and diastolic pressure with your stethoscope.
6. Rapidly release the remaining pressure and record measurements immediately. After a minimum of 30 seconds, repeat the above steps for a second reading.



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



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.

Inflation System Change and Replacement

1. To remove the inflation system, disengage the clip on the back of the integrated gauge adapter and slide the gauge off the cuff loop. Pull the short tube off the adapter stem.
2. To install the new cuff, follow steps two, three, and four of the Assembly Instructions.

Specifications and Standards

The Welch Allyn DuraShock aneroid sphygmomanometer with Integrated Gauge Adapter is accurate to ± 3 mm Hg and conforms to applicable sections of the following standards for aneroid sphygmomanometers:

- American National Standard ANSI/AAMI SP10-2003, Non-automated sphygmomanometers.
- European Standard EN 1060-1: 1996, Non-invasive sphygmomanometers, Part 1: General Requirements
- European Standard EN 1060-2: 1996, Part 2: Supplementary requirements for mechanical sphygmomanometers (excluding Section 7.4.3 for pointer thickness).
- INMETRO Technical Metrological Regulation Number 24 of February 26, 1996 (excluding Section 5.4 for pointer thickness).

This product will maintain the safety and performance characteristics specified at temperatures ranging from 0°C (32°F) to 46°C (115°F) at a relative humidity level not to exceed 85%.

Calibration Check of Aneroid Sphygmomanometer

Welch Allyn recommends that the calibration of aneroid sphygmomanometers be checked using the following procedure on an annual basis.

1. Connect gauge to a high-quality, known pressure standard¹ using a Y-connector.
2. Pressurize gauge to slightly above 300 mm Hg.
3. Bleed pressure down no faster than 10 mm Hg per second, stopping to check the pressure at 300, 250, 200, 150, 60 and 0 mm Hg.

NOTE: Your ability to measure the accuracy of a gauge depends upon the sensitivity of the pressure standard you use for the calibration procedure.

- If using a manometer (mercury column or aneroid gauge) rated at ± 3.0 mm Hg, you will be able to determine the accuracy of the gauge being tested to within ± 6.0 mm Hg.
- If using a device (e.g., digital pressure standard) rated at ± 0.1 mm Hg, you will be able to determine the accuracy of the gauge being tested to within ± 3.1 mm Hg.

¹ Welch Allyn recommends using as sensitive as possible a pressure standard when performing calibration checks. A Setra Pressure Meter (part no. 2270-01), which is calibrated for ± 0.1 mm Hg, or Netech (part no. 200-2000IN), which is calibrated for ± 1.0 mm Hg, work well for this application. Both meters can be purchased from Welch Allyn by calling 828-684-4895.

How to Clean, Disinfect, and Sterilize the Welch Allyn DuraShock Sphygmomanometer

Cleaning

Aneroid Gauge, Inflation Bulb, and Valve: Clean the aneroid gauge, inflation bulb, and valve by wiping with slightly dampened cloth or alcohol pad.

Two-Piece Cuff and Bladder: Safely clean the cuffs with a damp cloth or wash in warm water (140° F, 60° C maximum) with mild detergent.

Before laundering the cuff:

1. Remove the bladder, inflation bulb and valve.
2. Place the hook and loop fasteners in the closed position.
3. Machine launder using gentle cycle, warm water, and mild detergent.
4. Air dry completely and reassemble components.

DO NOT PRESS WITH HOT IRON.

Disinfection

To disinfect the two-piece cuff, use Glutaraldehyde-type liquid disinfectants. Follow instructions for use provided with the Glutaraldehyde product. Prolonged use of these disinfectants may cause discoloration. Do not use glutaraldehyde-type liquid disinfectants on the aneroid gauge, bulb, valve, or bladder.

Sterilization

Gas sterilization is acceptable for the two-piece blood pressure cuff. Do not use steam or heat to sterilize the cuff, bulb, valve, or bladder. Do not attempt to sterilize the aneroid gauge.

Warranty

Your Welch Allyn DuraShock Aneroid Sphygmomanometer with Integrated Gauge Adapter, when new, is warranted to be free from original defects in material and workmanship and to perform in accordance with manufacturer's specifications under normal use and service. The warranty period* begins from the date of purchase from Welch Allyn, Inc. or its authorized distributors. Welch Allyn's obligation is limited to the repair or replacement of components determined by Welch Allyn to be defective within the warranty period. These warranties extend to the original purchaser and cannot be assigned or transferred to any third party. This warranty shall not apply to any damage or product failure determined by Welch Allyn to have been caused by misuse, accident (including shipping damage), neglect, improper maintenance, modification, or repair by someone other than Welch Allyn or one of its authorized service representatives.

*Gauge Warranty

Should the Welch Allyn DuraShock Aneroid Sphygmomanometer with Integrated Gauge Adapter deviate from the ± 3 mm Hg accuracy specification during the warranty period, Welch Allyn will recalibrate the sphygmomanometer at no charge. Return the defective component only to Welch Allyn Technical Service or your local Welch Allyn authorized representative.

Welch Allyn DuraShock Model DS45: Ten-year warranty
Welch Allyn DuraShock Model DS44: Five-year warranty

*Cuff Warranty

Welch Allyn Durable Two-Piece Cuff: Two-year warranty

*Accessory Warranty

Welch Allyn Inflation Bulb and Valve for Model DS45: Two years
Welch Allyn Inflation Bulb and Valve for Model DS44: One year

These express warranties are in lieu of any and all other warranties, express or implied, including the warranties of merchantability and fitness for a particular purpose, and no other person has been authorized to assume for Welch Allyn any other liability in connection with the sale of the Welch Allyn DuraShock Aneroid Sphygmomanometer with Integrated Gauge Adapter. Welch Allyn shall not be liable for any loss or damages, whether direct, incidental, or consequential, resulting from the breach of any express warranty, except as set forth herein.

Patents: 5,966,829; 6,036,718; 6,082,170; 6,120,458; 6,168,566; 6,234,972.
 Additional patents pending.

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Optional Accessories and Replacement Parts

Description	Part Number	
	Model DS45	Model DS44
DuraShock Gauge Only	DS45	DS44
DuraShock Gauge with Integrated Adapter (no cuff)	DS45A	DS44A
Color Variety Pack, Four Bumpers	N.A.	DS44-V
Inflation Bulb, Medium	5086-01 (black)	5086-08 (gray)
Inflation Bulb, Large	5086-03 (black)	N.A.
Valve	5087-01	5087-16
Storage Case	5085-07	5085-09
Integrated Gauge Adapter	5082-257	5082-257
Universal Tube Plug Accessory	5082-163	5082-163

Durable Two-Piece Blood Pressure Cuff Accessories (two-tube)

Cuff Size	Child (9)	Child Print (9)	Adult (11)	Large Adult (12)	Thigh (13)
Cuff Range (cm)	20 - 29	20 - 29	29 - 42	34-52	41 - 60
Cuff & Bladder Combination	5082-24	5082-79	5082-25	5082-26	5082-78
Inflation System (Cuff, bladder, bulb & valve)	5082-21	5082-80	5082-22	5082-23	5082-45

Cuff Size	Child (9)	Child Print (9)	Adult (11)	Large Adult (12)	Thigh (13)
Cuff Only	5082-02	5082-18	5082-01	5082-16	5082-11
Bladder Only	5089-02	5089-02	5089-01	5089-22	5089-19

Service Policy

All repairs on products under warranty must be performed or approved by a Welch Allyn Service Center. Unauthorized repairs will void the warranty. Products out of warranty should be repaired by qualified personnel or a Welch Allyn Service Center.

Technical Assistance

If you have an equipment problem that you cannot resolve, you may call the Welch Allyn Service Center nearest you for assistance. Technical service support is available by telephone on normal business days at the phone numbers listed on page 2.

If you are advised to return a product to Welch Allyn for repair or routine maintenance, schedule the repair with the service center nearest you.

Before returning a product for repair you must obtain authorization from Welch Allyn. An RMA (Return Merchandise Authorization) number will be given to you by our service personnel. Be sure to note this number on the outside of your shipping box. Returns without an RMA number will not be accepted for delivery.

Technical Service Phone Numbers

Welch Allyn, Inc.

4341 State Street Road
 Skaneateles Falls, NY 13153
 USA
 Tel: 315-685-4560 or 800-535-6663
 Fax: 315-685-3361
 www.welchallyn.com

Welch Allyn Canada Ltd.

Tel: 905 890 0004
 Fax: 905 890 0008

Welch Allyn U.K. Ltd.

Tel: 44 1296 682140
 Fax: 44 1296 682104

Welch Allyn Ireland Ltd.

Tel: 353 46 67700
 Fax: 353 46 27128

Welch Allyn Italy

Tel: 39 02 669 9291
 Fax: 39 02 6671 3599

Welch Allyn Australia Pty. Ltd.

Tel: 612 9638 3000
 Fax: 612 9638 3500

Welch Allyn Hong Kong

Tel: 852 2886 8980
 Fax: 852 2886 8360

Welch Allyn China

Tel: 86 21 6327 9631
 Fax: 86 21 6327 9632

Welch Allyn Japan K.K.

Tel: 81 3 5212 7391
 Fax: 81 3 3261 7372

Welch Allyn Ltd. Singapore

Tel: 65 291 0882
 Fax: 65 291 5780

Welch Allyn Ltd. Thailand

Tel: 662 4400280
 Fax: 662 4400084

Welch Allyn Germany

Tel: 49 7477 9271 0
 Fax: 49 7477 9271 90

Welch Allyn France

Tel: 01 60 09 33 66
 Fax: 01 60 09 67 97



The CE mark on this product indicates that it is in conformity with the provisions of Council Directive 93/42/EEC.

Authorized European Representative Address:

European Regulatory Manager
 Welch Allyn Ltd.
 Navan Business Park
 Dublin Road
 Navan, County Meath, Republic of Ireland.
 Tel.: 353-46-67700
 Fax: 353-46-27128