

# Welch Allyn DuraShock Training Guide

## **Table of Contents**

- 1. Blood Pressure Background**
  - a. Review of Blood Pressure Anatomy
  - b. Blood Pressure Measurement
  - c. Classification of Office Blood Pressure Measurements
  - d. Normal Blood Pressure Variability
  - e. Treatment of Hypertension
- 2. Blood Pressure Market Overview**
  - a. The U.S. Blood Pressure Monitors Market
  - b. Blood Pressure Measurement Techniques
  - c. Blood Pressure Device History
  - d. Aneroid Sphygmomanometer Market Share and Revenue Forecasts
- 3. DuraShock Product Overview**
  - a. DuraShock Product Support Team
  - b. Traditional Aneroid and Gear-Free DuraShock Technologies
  - c. DuraShock Features and Benefits
  - d. DuraShock Model Summary
- 4. Selling Tips**
  - a. Overview
  - b. Target Markets
  - c. Distribution Channel Strategy
  - d. Hopkins N.E.A.D.S.
- 5. Frequently Asked Questions**
- 6. Competition**
- 7. Validation**
  - a. Specifications and Standards
    - i. AAMI
    - ii. European Standard
    - iii. IMETRO
  - b. DuraShock Patents
- 8. Published Articles**
- 9. Sales and Marketing Materials**
  - a. Sell Sheet
  - b. Advertising
  - c. Operating Instruction Manual
  - d. Tradeshow Booth
- 10. Part Numbers and Pricing**
- 11. Glossary**



## **1. Blood Pressure Background**

[Insert chapter from ABPM book.]

## 2. Blood Pressure Market Overview

### The U.S. Blood Pressure Monitors Market<sup>1</sup>

Blood pressure monitoring is especially important because high blood pressure often does not have any symptoms and is a major factor in heart disease and stroke.

*U.S. Blood Pressure and Temperature Monitors Market #7725-56, © 2001 Frost & Sullivan*

### Blood Pressure Measurement Techniques<sup>2</sup>

Blood pressure can be taken invasively or non-invasively. Invasive methods of measuring blood pressure use needles or catheters with intravascular transducers built into the tips. Invasive methods are the most accurate methods of measuring blood pressure. However, non-invasive methods are the easiest, and for most purposes, the most practical means of gathering blood pressure.

Non-invasive methods use a monitoring device in conjunction with a cuff and stethoscope to listen for Korotkoff sounds. When the cuff pressure increases to a point where circulation is occluded in the lower part of the arm, the sound of blood forced through the compressed artery can be detected.

The two most commonly accepted measurement technology methods are the auscultatory, or Riva-Rocci/Korotkoff, and the oscillometric methods:

- The auscultatory method uses a stethoscope or microphone placed over the brachial artery to listen for Korotkoff sounds. The first sound detected during deflation of the cuff is gathered to measure systolic blood pressure. The disappearance of the sound during cuff deflation provides diastolic pressure. This method has not changed much since the beginning of this century. However, today, five phases of Korotkoff sounds are listened to, and in some cases, digital technology is used for sound detection through an electronic microphone.
- The oscillometric method is based on pressure changes within the cuff that measure pulse changes created by the displacement of the artery during cuff inflation or deflation. The initial systolic oscillation provides the systolic reading, and the last significant oscillation corresponds to diastolic pressure.

### Blood Pressure Device History<sup>3</sup>

In 1774, the first blood pressure device was developed in Italy by Dr. R. Pagnini. The instrument was the first device capable of

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<sup>1</sup> Source: *U.S. Blood Pressure and Temperature Monitors Market #7725-56, © 2001 Frost & Sullivan*

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

measuring pressure in the arteries as a result of cardiac impulsion. These early devices were first used to perform invasive tests on horses, dogs, and other animals.

In 1896, another Italian, Scipione Riva-Rocci developed the first non-invasive monitor. The most important development Riva-Rocci introduced was the pneumatic arm cuff, which still bears his name. This pneumatic cuff provides uniform pressure that is placed around the limb.

A Russian doctor, Dr. Korotkoff, made the first major adaptation of blood pressure measurement devices to bring the basic technology up to modern standards. In 1905, Korotkoff discovered the importance of listening to arterial blood flow using a stethoscope during cuff deflation. The first sound detected during decompression provided a value for systolic pressure. Diastolic pressure was determined by the disappearance of the sound.

Currently, the blood pressure monitoring industry consists of a variety of devices. These devices range from older manual technologies that may have the same or similar designs going back more than 70 years to the latest high-technology electronic-based monitoring equipment.

The oldest blood pressure monitoring device used today is the mercury column sphygmomanometer. Since the turn of the century, the mercury column device has provided doctors with the most accurate way of diagnosing blood pressure. Even today, as a result of their precision, more modern devices (such as the aneroid and digital blood pressure monitors) are tested by checking measurements while connected to a mercury column sphygmomanometer.

Digital sphygmomanometers were introduced to the market in the 1970s during the electronic revolution. The initial digital products were expensive and had poor accuracy. Today, digital products provide fairly accurate measurements and much-needed ease-of-use features demanded by the homecare niche of the market.

Ambulatory blood pressure (ABP) monitors were invented in the 1960s, and were first introduced to the market in the mid 1970s by Del Mar Avionics. Digital blood pressure monitors are used throughout the world, and have the largest market presence in Europe where reimbursement has encouraged product use.

In 1976, the first commercial automated oscillometric non-invasive blood pressure (NIBP) monitor, the DINAMAP 825 was introduced by Critikon. Since their introduction, electronic NIBP monitors have increased significantly in popularity because of their cost effectiveness and accuracy.

The latest adaptation of electronic blood pressure monitoring technologies has been the development of monitors that operate by capturing measurements on the wrist or finger.

These devices operate using the technological advances of arterial tonometry. Arterial tonometry, which was introduced to the market in 1992, uses a sensor located on the patient's wrist to gather and display continuous blood pressure measurements. The technology provides continuous measurement of NIBP, much like measurements provided by invasive blood pressure monitors.

Although the technology has not yet proved itself reliable, industry observers speculate that it may become accepted technique in the next couple of years.

## **Aneroid Sphygmomanometer Market Share and Revenue Forecasts**

**Year 2000:**

### **Professional Aneroid Sphygmomanometer Market Size**

	World	USA
Total Market (u)	3,000,000	1,114,165
Market ASP	\$29.31	\$37.26
Total Market (\$)	\$87,932,492	\$41,511,110
WA Market Share (u)	15%	20%
WA Market Share (\$)	23%	31%
WA Sales (u)	441,697	225,215
WA Sales (\$)	\$20,058,393	\$13,000,370
WA ASP	\$45.00	\$58.00

Main trends:

- Low-cost, low-quality Asian aneroid gauges have gained market share due to lack of consumer awareness or concern of quality issues. Adoption is also being influenced by improved margins on Asian imports for Medical products distributors.
- The aneroid market size will increase is mainly due to the replacement of mercury sphygmomanometers by aneroid devices in professional settings. First time purchase of hospitals and clinics has also shifted towards aneroid devices as an alternative to mercury sphygmomanometers.
- There is a threat of aneroid device sales being impacted by the adoption of automated devices. So far, automated devices have been purchased in addition to rather than in place of aneroid devices. Long-term, however, as the trust in automated technology improves, these devices could replace more aneroid devices.

### 3. DuraShock Product Overview

#### DuraShock Product Support Team

Name	Function	Location	Phone
Tom Grant	Marketing Manager	Skaneateles, NY	x 4510
Eliot Zaiken	R&D Project Leader	Arden, NC	x 5232
Chuck Setzer	Quality Assurance Manager	Arden, NC	x 5262
John Seller	Clinical Coordination	Skaneateles, NY	x 2585
Dana Shelton	Customer Service Specialist	Arden, NC	x 5202
Teresa Grant	Customer Service Specialist	Arden, NC	x 5205
		Arden, NC	x 5249
Wayne Richards	Technical Service Specialist	Arden, NC	x 5219
Terry Major	Customer Direct Center	Skaneateles, NY	x 2679

## Traditional Aneroid and Gear-Free DuraShock Technologies

Aneroid sphygmomanometers have been based upon similar designs for more than 100 years - until now. Welch Allyn DuraShock is the only completely gear-free aneroid sphygmomanometer.

In traditional aneroid sphygmomanometer design, several delicate gears and springs convert and amplify minute vertical movement of the pinion (that rests on top of the bellows) to rotational movement to turn the pointer. The DuraShock gear-free design uses a single helix spring to directly convert the vertical movement of the pinion to rotation of the pointer without the use of a multi-step gear arrangement.

By creating a gear-free design, Welch Allyn has created a gauge that is shock resistant, lighter, and much thinner than traditional gauges. This new gauge is so thin and light, it is possible to imbed the gauge directly into the cuff creating an integrated system.

Until now, a dropped sphygmomanometer required recalibration or replacement. The DuraShock can fall 30 inches onto a hard surface and still remain accurate. It is the only gauge capable of meeting the **AAMI Shock Resistant specification**:

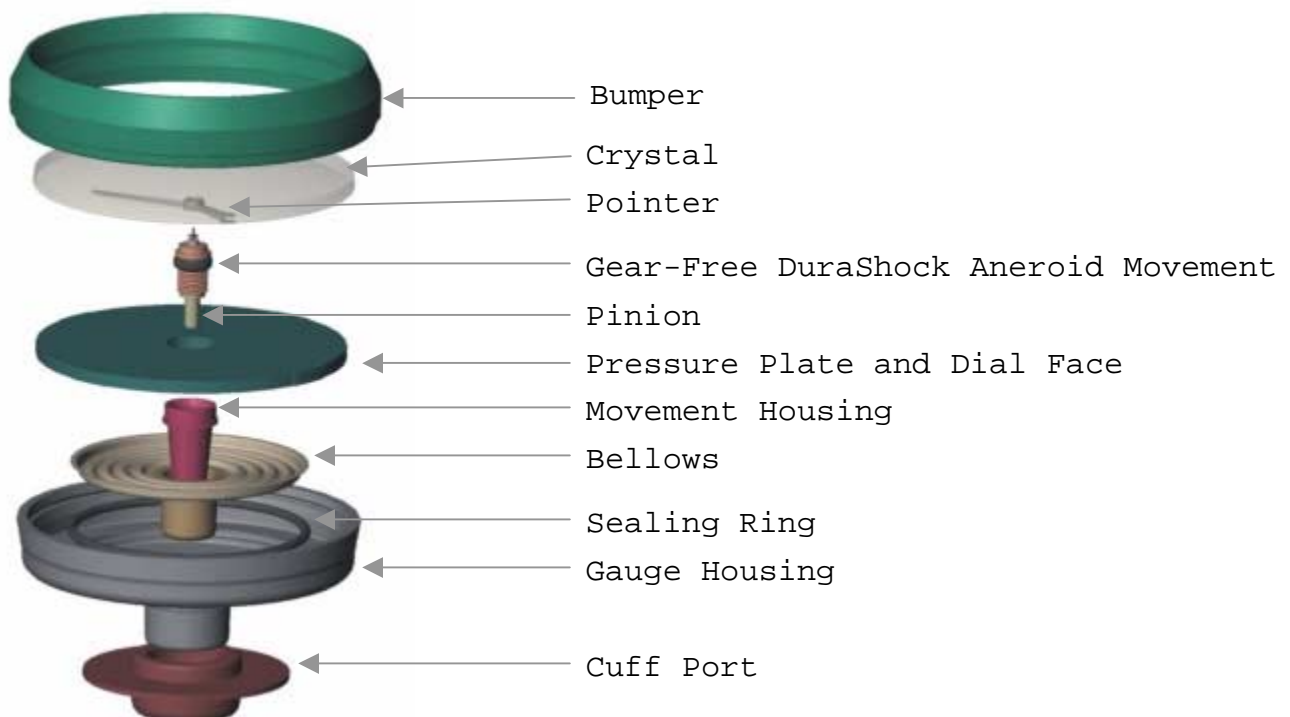
### **AAMI SP9: 1994 Section 4.2.3.2.**

Unpackaged Sphygmomanometers shall maintain their safety and performance standards or provide a clear indication of failure after being subjected to a drop of 30 inches (in.) in accordance with 5.2.3.2. Only units that maintain their safety and performance characteristics after the 30 inch drop (in accordance with 5.2.3.2) may be labeled "SHOCK RESISTANT"

### **AAMI SP9: 1994 Section 5.2.3.2.**

The sphygmomanometer is dropped 6 times (once on each side) from the height specified in 4.2.3.2 to a rigidly supported hard surface (3-in.-thick concrete covered by 1/8-in.-thick asphalt tile, or equivalent). After these drops, the sphygmomanometer is evaluated according to 5.4.

## Exploded View: DuraShock Gear-Free Integrated Aneroid





## DuraShock Features and Benefits

Feature	Benefit	Additional Information
Gear-Free	Durability	The patented DuraShock Gear-Free makes most of the other features possible, especially the lightweight and shock resistance. Additionally, no competitor will be able to make a gear-free aneroid for many years due to patent protection and the many proprietary manufacturing processes required to make this gauge accurate, reliable and durable. So by stressing gear-free technology to your customers you are ensured a differentiated product position in this commodity category.
Shock-Resistant	Gauge remains calibrated longer	DuraShock is the only gauge capable of passing the AAMI shock resistant specification, meaning it will survive a 30-inch drop onto a hard surface. You can use this feature with price-sensitive end-users to show this gauge will last as long as several non-shock resistant gauges, making DuraShock a better value. This feature also plays well with distributors and distributor reps that can avoid the cost and aggravation of replacing or recalibrating gauges that have been dropped.
Lightweight	Comfortable	This feature is surprisingly powerful. Nurses, especially, love the fact that the gauge is lightweight and more comfortable in when carried in their uniform pocket.
Snap-on Gauge	Effortless Cuff Changes	Generally, users don't change cuffs on pocket-style aneroids because it requires removing and reapplying the cuff tube to a friction-fit barb on the gauge, and this can be difficult. The DuraShock integrated system allows you to effortlessly snap the gauge into the inflation system. Recommend that your customers invest in complete inflations systems (with bulb and valve) for their accessory cuff sizes so they never have to remove the bulb and valve.
Gauge Rotates 360°	Better Viewing	Another feature made possible by the unique cuff-port connection is a gauge that rotates 360° for better viewing from any location.
Left or Right-Arm Cuff Design	Accurate Cuff Placement	This is a good feature to employ with users who favor proper clinical technique. Pocket-style gauges are usually located directly over the artery marker. If you apply the cuff properly, with the artery marker over the brachial artery, the gauge is unreadable because it is between the bicep and the chest wall. Therefore, when applying pocket-style gauges, most users "cheat" by moving the gauge away from the chest wall, to the top of the bicep for easier viewing. The DuraShock is designed so when applied properly, the artery marker is over the brachial artery and the gauge is on top of the bicep for easy viewing.
Two-Tone Cuff	Quicker to Orient and Apply	If you observe users as they prepare to take a blood pressure reading, the first thing they do is retrieve the sphygmomanometer from its storage location, lift it up and determine which side of the cuff is to applied to the patient. With a two-tone cuff, this orientation step is a bit quicker and more intuitive. The light gray material also provides a modern appearance, a neutral background for the vivid color bumper system, and showcases DuraShock as a unique and innovative product. This is not just another aneroid. It is a gear-free DuraShock!
Color Bumper System	Customization	The nursing market responds very favorably to color choice. In addition to using the color bumpers to customize the gauge to their favorite color, we have heard that users will use the color bumpers to identify gauges by department or floor. Additionally, by offering four color bumpers in one

Feature	Benefit	Additional Information
		pack, distributors are able to offer a broad color choice without needing to maintain too many part numbers.
Durable One-Piece Cuff	More Durable Easier to Use Safer	<p>All the benefits of the durable one-piece cuff apply:</p> <ol style="list-style-type: none"> <li>1. <i>More Durable</i>  Feature: Tested to 100,000 cycles, the one-piece cuff is more durable than traditional cuff-and-bladder systems that last 40,000 to 70,000 cycles. There are also no sewn seams to unravel.  Benefit: More economical to use over time because you don't replace as often.</li> <li>2. <i>Easy to Use</i>  Feature: One-Piece Design. No separate bladder to insert, remove or replace.  Benefit: Easier to use. Easier to order. Easier to inventory.</li> <li>3. <i>Safe</i>  Feature: Anti-microbial material is easy to clean, disinfect and sterilize.  Benefit: Safety! Bacterial cross contamination from the blood pressure cuff can be a serious problem, especially in hospital environments. This cuff can be washed or wiped clean; soaked glutaraldehyde solution to disinfect; or even gas sterilized.</li> </ol>
Latex Free	Safe	Latex sensitivity is a serious problem for both patients and healthcare workers. It is estimated that 7% of the general population and up to 17% of healthcare workers are latex sensitive with reactions ranging from mild skin irritation to anaphylactic shock.

## DuraShock Model Summary

	DuraShock DS45	DuraShock DS44
		
Model Number (adult cuff)	DS45-11*	DS44-11*
List Price	\$59.00	\$39.00
Discount	40 + 10 (46%)	40 + 10 (46%)
Dealer Net	\$31.86	\$21.06
Warranty	10 Years	5 Years
Dial Face	Laser Engraved	Pre-Printed
Bumper	Permanent, Premium	Changeable, One-Piece
Bulb	Large**, Black, Premium	Medium, Gray
Valve	Tycos Long Life	Standard
Cuff	Durable, Two-Tone	Durable, Two-Tone
Case	Nylon (optional)	Vinyl (optional)

\* Add a "W" to the part number (e.g., DS45-11W) for international version with multi-language packaging and instructions.

\*\* Model DS45 ships with a large, premium Tycos bulb on Adult cuff sizes and larger.

## 4. Selling Tips

### Overview

Blood pressure is the silent killer. It is serious business. Even though the procedure is often relegated to a "low-cost" health care practitioner and taken so routinely that critical steps are overlooked, the fact remains that undetected or misdiagnosed hypertension can have serious, fatal consequences.

Yet, the aneroid blood pressure gauge has become a commodity product. Poor quality, low-cost gauges from Asia have become common. Practitioners are often unaware of the quality difference between a premium Welch Allyn product and a low-priced copycat. Especially in the USA, inexpensive gauges often carry long warranties, sometimes lifetime warranties, in order to compete with Welch Allyn's warranty structure.

Welch Allyn DuraShock gear-free technology represents the first major innovation in aneroid sphygmomanometer technology in nearly 100 years. It provides a differentiated product with features your customers' value. Still the product is priced low enough to compete against Asian imports. The combination of high-value, differentiated product and attractive price offer a once-in-a-lifetime opportunity to earn market share.

### Target Markets

#### Acute Care (Hospital)

	Locations	Employees	Sales (\$000)s
Market Size <sup>4</sup> (USA)	9,845	4,169,850	\$338,152,800
	Welch Allyn	Competitors	Total
Estimated Aneroid Sales (USA)	108,103	130,230	238,333

Wall and mobile aneroids, as well as automated devices, are very popular in the acute care market. However, you will often find hand and pocket aneroids used as backup and stored at the nursing stations. Accuracy, durability and value will be key features for this market. Lightweight (will not weigh down their coat pocket) and color coding (to differentiate ownership by floor or department) will also be popular. The advantages of the one-piece cuff play well in this market, especially durability, latex free and the ability to disinfect and sterilize.

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<sup>4</sup> 1998 Occupational Employment Statistics (OES) Survey, Bureau of Labor Statistics, Department of Labor, website: <http://stats.bls.gov/oeshome.htm>.

**Alternate Care** (Physician Office and Clinics)

	Locations	Employees	Sales (\$000)s
Market Size <sup>5</sup> (USA)	9,845	2,111,065	\$170,546,500
	<b>Welch Allyn</b>	<b>Competitors</b>	<b>Total</b>
Estimated Aneroid Sales (USA)	103,599	106,165	209,764

Hand and pocket aneroids are very popular in Alternate Care making this an ideal market in most areas of the world. In the USA, for the first year, risk of cannibalizing more-profitable Tyco's Classic Aneroids sales is an issue. Cannibalization will be mitigated with the introduction of high-end DuraShock models in 2002. Where cannibalization is an issue, concentrate on incremental business with price sensitive customers previously could not afford Welch Allyn quality. If there is no risk of cannibalization, position DuraShock as a superior technology to traditional sphygmomanometers with gears. Shock resistance will be the key differentiating feature in this market.

**Extended Care** (Long-Term Care, Nursing Homes)

	Locations	Employees	Sales (\$000)s
Market Size <sup>6</sup> (USA)	31,083	1,837,297	\$64,258,600
	<b>Welch Allyn</b>	<b>Competitors</b>	<b>Total</b>
Estimated Aneroid Sales (USA)	9,009	112,000	121,009

Customers in extended care are more price sensitive than those in acute care and alternate care. Previously, Welch Allyn products have not been within reach of these customers because they are too expensive. In field trials, DuraShock has been very well received in this market due to the benefit of a shock resistant gauge and the ability to own a Welch Allyn branded product at this price point.

**Home Care** (Professional Home-Care Providers)

	Locations	Employees	Sales (\$000)s
Market Size <sup>7</sup> (USA)	17,433	559,327	\$23,296,800
	<b>Welch Allyn</b>	<b>Competitors</b>	<b>Total</b>
Estimated Aneroid Sales (USA)	1,126	107,778	108,904

Home care market segment is even more price sensitive than extended care. Visiting Nurse Associations (VNAs) are a key component of the home care market. Other members include nurse practitioners and home-health aids. These professionals travel into the home to deliver medical services. Often, these low-paid practitioners are responsible for purchasing their own sphygmomanometers and will purchase from retail-type locations (nurse uniform shops, pharmacy shops, home-health retailers) rather than medical-surgical product distribution channels. Since they carry their equipment from location to location, durability

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<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

and lightweight will be the key features for this market. A value proposition related to the ability of one DuraShock to last longer than several non-shock resistant gauges would be important to bring the product within reach of these price-sensitive customers.

**Emergency Medical Service** (Pre-Hospital Emergency Care, Ambulance Service)

	Locations	Employees	Sales (\$000)s
Market Size <sup>8</sup> (USA)	17,958	419,716	\$6,325,700
	<b>Welch Allyn</b>	<b>Competitors</b>	<b>Total</b>
Estimated Aneroid Sales (USA)	1,126	163,333	164,459

Durability is the key feature for this rugged environment. The ability to quickly change cuff sizes has also proven popular in field trials, especially when the product is bundled in a kit with several inflation systems. In the USA, the EMS market is being managed with a co-branded product with American Diagnostic Corporation (ADC). ADC has important relationships with EMS distribution in place and will allow us to service this market more effectively. EMS customers are price sensitive, but not as much so as in extended care and home care.

**Other** (Dialysis Clinics, Prison Systems, School Healthcare, Chiropractors, Occupational Healthcare, etc.)

	Locations	Employees	Sales (\$000)s
Market Size <sup>9</sup> (USA)	45,660	223,580	\$20,018,500
	<b>Welch Allyn</b>	<b>Competitors</b>	<b>Total</b>
Estimated Aneroid Sales (USA)	2,252	269,444	271,696

In addition to the markets listed above, there are many small, fragmented markets that use aneroid sphygmomanometers. In most, but not all, cases these customers are more price sensitive than in alternate care. Key features will vary by market, however shock resistance is clearly going to be attractive in nearly any environment.

**Distribution Channel Strategy**

In most cases, aneroid sphygmomanometers are a "distributor product". You will not be selling these gauges directly, but managing distributors that service the customer segments listed above.

The DuraShock is nearly a perfect distributor item. It is simple enough for a distributor representative to show and sell. It is unique enough for his customers to show interest. In addition, it is priced right so they should not experience much rejection in obtaining initial trial orders.

If you can get one DuraShock into the hands of customers (trial), we are confident that you will enjoy a healthy reorder rate (repeat). To get the trial and repeat cycle started, you will

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<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

want to partner with key dealers who can help you push the product into the hands of customers. Programs to accomplish this will vary from region to region and distributor to distributor, but some components will most likely be common.

- Distributor training. Be certain distributor reps understand the unique features and benefits of the DuraShock technology - the first major innovation in aneroid technology in 100 years!
- Demo product. This is a show and sell product. The program must be designed to put demo product in the hands of the distributor rep. Ideally; there should also be incentives in place to encourage the rep to show DuraShock.
- Margin incentive. There will need to be an incentive for the distributor to do the work and bring in the product. The design of the incentive program can take many shapes. One example is shown below.
- Performance goals. It is important to set realistic goals and provide an incentive for reaching those goals. A tiered program that pays additional rebates for hitting escalating sales targets has proven effective in the past.

Sample Distributor Program:

**Key facts** (details are contained in the attached spreadsheet):

Date: Promotion runs from Sept. 1 to Dec. 31 (For example. Typically a short-term, concentrated effort.)

**Welch Allyn commits to the following:**

- Welch Allyn will provide 50% discount on all DuraShock part numbers for 60 days (compared to normal 46% discount).
- Additionally, Welch Allyn will provide the DS-44V (with color bumpers) at DS-44 cost for 60 days (equivalent to a 53% discount). This could be passed along to the user as a free color bumper pack.
- Welch Allyn will provide a rebate at the end of the year if sales targets are met (2% to 7% depending upon volume in this example).
- Welch Allyn will provide two free demo units per representative.

**Distributor commits to the following:**

- Purchase/Sell at least 6,000 units in the 4-month period, about 1.4 per rep per week. (Break sales down to rep level to show feasibility.)
- Provide a purchase order covering the promotion period (product mix can be changed throughout). WA will ship and bill weekly. Standard terms.
- Remove certain competitive part numbers from the system to facilitate hitting DuraShock volume commitments.
- Reps will carry DuraShock demo units. Distributor will institute rep incentive to meet volume targets.

Spreadsheet detail:

"Distributor Name" / Welch Allyn DuraShock Sales Promotion

UNIT SALES	
4-Months	6,000
17-Weeks	353
Per rep/wk	1.4

UNIT SALES										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	141	176	141	141	600	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	847	1,059	847	847	3,600	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	424	529	424	424	1,800	
<b>Total</b>					<b>1,412</b>	<b>1,765</b>	<b>1,412</b>	<b>1,412</b>	<b>6,000</b>	

COST										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	\$ 2,753	\$ 3,441	\$ 2,973	\$ 2,973	\$ 12,140	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	\$ 17,839	\$ 22,299	\$ 20,584	\$ 20,584	\$ 81,305	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	\$ 12,494	\$ 15,618	\$ 13,494	\$ 13,494	\$ 55,099	
<b>Total</b>					<b>\$ 33,086</b>	<b>\$ 41,358</b>	<b>\$ 37,050</b>	<b>\$ 37,050</b>	<b>\$ 148,544</b>	

SAVINGS										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	\$ 220	\$ 275	\$ -	\$ -	\$ 496	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	\$ 2,744	\$ 3,431	\$ -	\$ -	\$ 6,175	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	\$ 1,000	\$ 1,249	\$ -	\$ -	\$ 2,249	
<b>Total</b>					<b>\$ 3,964</b>	<b>\$ 4,955</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,920</b>	

FREE DEMO PRODUCT					
Model	List	Net	Special	Quantity	Value
DS44-11V	\$ 45.00	\$ 24.30	\$ -	200	\$ 4,860
DS45-11	\$ 59.00	\$ 31.86	\$ -	200	\$ 6,372
<b>Total</b>					<b>400 \$ 11,232</b>

Savings	\$ 8,920	6%
Demo Value	\$ 11,232	8%
Rebate	\$ 2,971	2%
<b>Total</b>	<b>\$ 23,122</b>	<b>16%</b>

REBATE	Volume (year)	Cost (year)	Rebate (%)	Rebate (\$)
	6,000	\$ 148,544	2%	\$ 2,971

"Distributor Name" / Welch Allyn DuraShock Sales Promotion

UNIT SALES	
4-Months	9,000
17-Weeks	529
Per rep/wk	2.1

UNIT SALES										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	212	265	212	212	900	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	1,271	1,588	1,271	1,271	5,400	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	635	794	635	635	2,700	
<b>Total</b>					<b>2,118</b>	<b>2,647</b>	<b>2,118</b>	<b>2,118</b>	<b>9,000</b>	

COST										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	\$ 4,129	\$ 5,162	\$ 4,460	\$ 4,460	\$ 18,211	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	\$ 26,759	\$ 33,448	\$ 30,875	\$ 30,875	\$ 121,957	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	\$ 18,741	\$ 23,426	\$ 20,240	\$ 20,240	\$ 82,649	
<b>Total</b>					<b>\$ 49,629</b>	<b>\$ 62,036</b>	<b>\$ 55,576</b>	<b>\$ 55,576</b>	<b>\$ 222,817</b>	

SAVINGS										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	\$ 330	\$ 413	\$ -	\$ -	\$ 743	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	\$ 4,117	\$ 5,146	\$ -	\$ -	\$ 9,263	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	\$ 1,499	\$ 1,874	\$ -	\$ -	\$ 3,373	
<b>Total</b>					<b>\$ 5,946</b>	<b>\$ 7,433</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,379</b>	

FREE DEMO PRODUCT					
Model	List	Net	Special	Quantity	Value
DS44-11V	\$ 45.00	\$ 24.30	\$ -	200	\$ 4,860
DS45-11	\$ 59.00	\$ 31.86	\$ -	200	\$ 6,372
<b>Total</b>					<b>400 \$ 11,232</b>

Savings	\$ 13,379	6%
Demo Value	\$ 11,232	5%
Rebate	\$ 11,141	5%
<b>Total</b>	<b>\$ 35,752</b>	<b>16%</b>

REBATE	Volume (year)	Cost (year)	Rebate (%)	Rebate (\$)
	9,000	\$ 222,817	5%	\$ 11,141

"Distributor Name" / Welch Allyn DuraShock Sales Promotion

UNIT SALES	
4-Months	13,000
17-Weeks	765
Per rep/wk	3.1

UNIT SALES										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	306	382	306	306	1,300	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	1,835	2,294	1,835	1,835	7,800	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	918	1,147	918	918	3,900	
<b>Total</b>					<b>3,059</b>	<b>3,824</b>	<b>3,059</b>	<b>3,059</b>	<b>13,000</b>	

COST										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	\$ 5,965	\$ 7,456	\$ 6,442	\$ 6,442	\$ 26,304	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	\$ 38,651	\$ 48,314	\$ 44,598	\$ 44,598	\$ 176,161	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	\$ 27,071	\$ 33,838	\$ 29,236	\$ 29,236	\$ 119,381	
<b>Total</b>					<b>\$ 71,687</b>	<b>\$ 89,608</b>	<b>\$ 80,276</b>	<b>\$ 80,276</b>	<b>\$ 321,846</b>	

SAVINGS										
Model	List	Net	Special	Mix	SEP	OCT	NOV	DEC	TOTAL	
DS44-11	\$ 39.00	\$ 21.06	\$ 19.50	10%	\$ 477	\$ 596	\$ -	\$ -	\$ 1,074	
DS44-11V	\$ 45.00	\$ 24.30	\$ 21.06	60%	\$ 5,946	\$ 7,433	\$ -	\$ -	\$ 13,379	
DS45-11	\$ 59.00	\$ 31.86	\$ 29.50	30%	\$ 2,166	\$ 2,707	\$ -	\$ -	\$ 4,873	
<b>Total</b>					<b>\$ 8,589</b>	<b>\$ 10,736</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 19,326</b>	

FREE DEMO PRODUCT					
Model	List	Net	Special	Quantity	Value
DS44-11V	\$ 45.00	\$ 24.30	\$ -	200	\$ 4,860
DS45-11	\$ 59.00	\$ 31.86	\$ -	200	\$ 6,372
<b>Total</b>					<b>400 \$ 11,232</b>

Savings	\$ 19,326	6%
Demo Value	\$ 11,232	3%
Rebate	\$ 22,529	7%
<b>Total</b>	<b>\$ 53,087</b>	<b>16%</b>

REBATE	Volume (year)	Cost (year)	Rebate (%)	Rebate (\$)
	13,000	\$ 321,846	7%	\$ 22,529



## **Hopkins N.E.A.D.S.**

### **Now:**

- What type of aneroid sphygmomanometer are you using now?
- Do you specify a particular brand when choosing a sphygmomanometer?
- What causes you specify (or not specify) one particular brand over another?
- Are aneroid sphygmomanometers purchases covered under contract?
- Where do you store your aneroids? Are they kept at the point of care or stored at a central location such as a nurse's station?
- How do you tell if your gauges are in calibration?
- What do you do if a gauge is no longer in calibration?

### **Enjoy:**

- What do you like about your current sphygmomanometers?
- In what way do your current devices help you take blood pressure readings?

### **Alter:**

- If you could, what would you change about your current gauges?
- Do you feel your current gauges accurate enough?
- Are you satisfied with the durability of your current gauges?
- How would you change the procedure for taking blood pressure readings?

### **Decision Maker:**

- Who decides what brand of aneroids sphygmomanometer is purchased?
- Who purchases aneroids sphygmomanometers for your facility?

### **Solution:**

- I would love to show you a completely new aneroid technology from Welch Allyn.
- Welch Allyn has invented a completely new aneroid sphygmomanometer that I think you will appreciate.
- This new Welch Allyn DuraShock gear-free aneroid technology may be of interest to you.

## **5. Frequently Asked Questions**

### **What is different about Welch Allyn DuraShock sphygmomanometers?**

The most important difference is that DuraShock aneroid sphygmomanometers are gear-free. That enables the gauge to be much more durable than traditional aneroids with gears. In fact, DuraShock is the only gauge capable of passing the AAMI shock resistant specification of remaining calibrated after a 30-inch drop onto a hard surface.

### **Are there any other gear-free aneroid sphygmomanometers?**

Welch Allyn invented the DuraShock gear-free aneroid technology and no one else can make it. Several patents protect this technology.

### **Is the Welch Allyn DuraShock as accurate as my current gauge?**

Yes, Welch Allyn DuraShock is accurate to  $\pm 3$  mm Hg. However, since DuraShock is shock-resistant, it likely will stay accurately calibrated longer than your current gauge that is not shock resistant.

### **Can an end-user calibrate a Welch Allyn DuraShock gauge?**

Calibration of any aneroid sphygmomanometer requires some technical training and relatively sophisticated equipment, including a pressure standard capable of measuring pressure to  $\pm 0.1$  mm Hg. Most end users do not have the training or equipment to accurately recalibrate a gauge. There are some advertised sphygmomanometers that claim they can be "recalibrated" by the user. These gauges are generally not being recalibrated. In most cases, they are simply resetting the pointer to zero. This can mislead users into thinking they have an accurate gauge when it is not accurate across the entire range, 0 to 300 mm Hg, as specified by AAMI.

### **Can a local Welch Allyn distributor calibrate my DuraShock gauge?**

At introduction, only Welch Allyn will be able to calibrate DuraShock gauges. If your DuraShock gauge ever requires calibration within the warranty period, simply return it to Welch Allyn or an authorized Welch Allyn distributor. Your local distributor may even be equipped with warranty replacement gauges to provide an immediate and accurately calibrated replacement for your gauge. Otherwise, your gauge will be returned to Welch Allyn for recalibration.

### **Why do you call DuraShock an "integrated" aneroid sphygmomanometer?**

You may be familiar with common terms for categorizing sphygmomanometers such as wall aneroid, hand aneroid, and pocket aneroid. Well the Welch Allyn DuraShock is similar to a pocket aneroid, but unique because the gauge is actually imbedded in the cuff via a cuff-port connection. This unique feature is what creates the "integrated" system.

## 6. Competition

No other company manufactures a gear-free aneroid sphygmomanometer. Gear-free DuraShock is a superior and direct substitute for aneroid sphygmomanometers with gears, however, of which there are many brands.

American Diagnostic Company (ADC)	Graham-Field
Mabis	Medline
Omron/Nissei	Prestige
Trimline	LumiScope
Baum	Heine
Erka	Riester
Boso	Spengler
Accuson	Mars
Yamasu	Shanghei Medical
Goode	

## 7. Validation

### Specifications and Standards

The Welch Allyn DuraShock integrated aneroid sphygmomanometer is accurate to  $\pm 3$  mm Hg and conforms to applicable sections of the following standards for aneroid sphygmomanometers:

- American National Standard ANSI/AAMI SP9-1994, 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%.

### DuraShock Patents

- 5,966,829 Mechanism for Measuring Device
- 6,036,718 Durable One-Piece Cuff Patent
- 6,082,170 Mechanism for Measuring Device (Div.)
- 6,168,566 Pressure Sensing Device
- 6,120,458 Low Profile Measuring Device
- 6,234,972 Mechanism for Measuring Device (Div.)

Other patents pending.

## **8. *Published Articles***

Save this place for published articles that will be forthcoming on Welch Allyn DuraShock technology.

## 9. Sales and Marketing Materials

### Sell Sheet

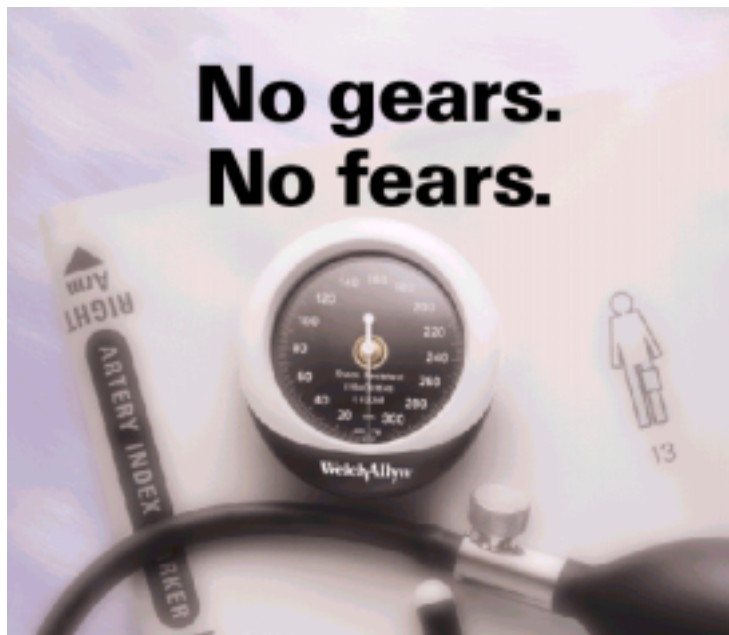
Four-page DuraShock product sell sheet is available in six languages:

Language	Part Number
English	SM2401
French	SM2401FR
Spanish	SM2401SP
Italian	SM2401IT
Portuguese	SM2401PR
German	SM2401GR



### Advertising

The "No Gears. No Fears" advertising campaign.



#### INTRODUCING WELCH ALLYN® DURASHOCK™ THE FIRST GEAR-FREE, SHOCK-RESISTANT ANEROID SPHYGMOMANOMETER.

For 100 years, aneroid sphygmomanometers have been made the same way with gears so delicate, vitally any significant shock to the instrument required recalibration or a new gauge. But now there's DuraShock. Its revolutionary gear-free design meets the current AAMI SP9 Standard for shock-resistant aneroid sphygmomanometers, and makes the gauge ideal for use in active medical environments where it may be handled roughly or dropped. So revolutionary is DuraShock's design that the this,



lightweight gauge actually snaps directly into the cuff and rotates 360° for easy readings on either arm. DuraShock is accurate to  $\pm 2$  mm Hg and engineered to stay that way. See how DuraShock can put your fears to rest. For information on DuraShock models 0544-11 and 0545-11 contact your local Welch Allyn distributor, call 1-888-369-2394, or go to [www.welchallyn.com/usa](http://www.welchallyn.com/usa).

DuraShock. Shock-resistant design. Fearless readings.

**Welch Allyn**

## Operating Instruction Manual

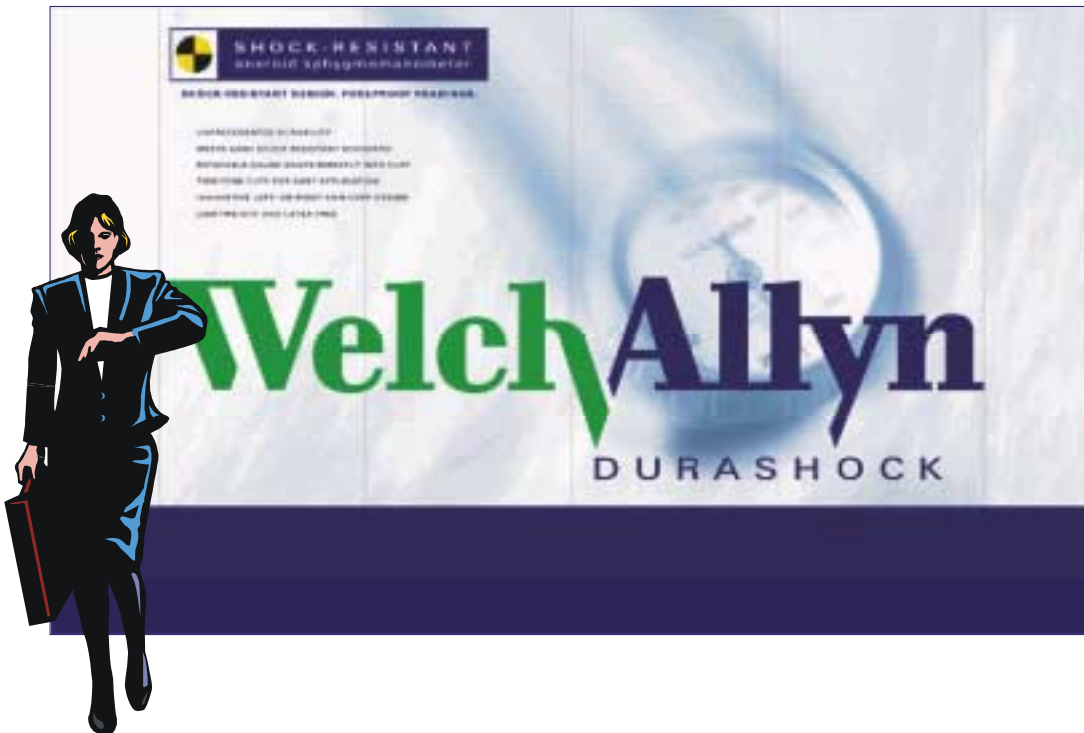
Eight-page **operating instruction manual** is available in an English only version and a multiple language version. The multiple language version includes all six languages listed above.

Language	Part Number
English Only	95P482
Multi-Language (six languages)	95P482W



## Tradeshow Booth

DuraShock **tradeshow booth** can also be used for key distributor meetings (10-feet wide).



## **10. Part Numbers and Pricing**



## **11. Glossary**