



S415 / S415.100

BLOOD PRESSURE TRAINING SYSTEM

USER GUIDE



The Blood Pressure Training System is an interactive educational system developed to assist a certified instructor. It is not a substitute for a comprehensive understanding of the subject matter and not intended for clinical decision making.

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1. INTRODUCTION

1.1 SPECIFICATIONS

Blood Pressure Training System

- » 19 lbs.
- » 35x15x19 inches

The Blood Pressure Training System with OMNI® controller is a full-size adult left arm. The package includes the OMNI® controller for simple, tap-and-go operation. An additional set of speakers is included with the S415.100..

1.2 TERMINOLOGY

Facilitator: The person conducting the simulation; an instructor or lab staff member

Provider: A person participating in the simulation as a healthcare provider

1.3 CARE AND MAINTENANCE

CAUTION: Damage caused by misuse is not covered by your warranty. It is critical to understand and comply with the following guidelines.

General

- Do not wrap this or any other Gaumard product in newsprint.
- Marks made with ballpoint pens, ink or marker cannot be removed.
- Replacement parts are available from Gaumard or from your distributor.
- Do not inject fluids into the intramuscular injection site.
IM sites are used for placement exercises only.

Cautions

- Use the blood pressure arm with the same precautions used with a real patient.
- Have providers wash their hands prior to use to prevent dirt and oils from clinging to the material.
- Do not palpate using fingernails as this may tear the skin; palpate using the pads of the fingers.

Operating Temperatures

- Operating temperature: 50°- 95° F (10°- 35° C).
- Humidity: 5% - 95% (non-condensing).

Storage

- Store the blood pressure arm in a cool, dry place.
- Humidity: 40% - 60% (non-condensing).
- Do not stack or store heavy materials on top of the box.
Please store and ship it in the bag provided.

Cleaning

- The blood pressure arm is “splash-proof” but not water proof. Do not submerge in water.
- The blood pressure arm should be cleaned with a cloth dampened with diluted liquid dishwashing soap.
- Do not clean with harsh abrasives.
- Dry thoroughly after every cleaning.
- After drying, application of talcum powder can return the arm to its lifelike feel.

2. OVERVIEW

2.1 BLOOD PRESSURE ARM FEATURES

- Assists health professionals teach the skills required to accurately auscultate and palpate blood pressure.
- Includes programmable, palpable radial pulse when cuff pressure is less than the selected systolic blood pressure.
- Attaches to select Gaumard® adult simulators.

2.2 PROCEDURES

Auscultation

- Korotkoff sounds K1 through K4 are audible between systolic and diastolic pressures.
- Programmable auscultatory gap automatically silences Korotkoff sounds
- Korotkoff sounds are responsive to the heart rate and the rate of cuff deflation
- Programmable blood pressure auscultation tutor

Palpation

- Programmable radial pulse synchronized with heart rate
- Automatic return of radial pulse when cuff pressure is less than the selected systolic blood pressure.

2.3 EXTERNAL SPEAKER SET FOR S415.100

- Play Korotkoff sounds through volume controlled speakers while auscultating with the stethoscope
- Incorporate collaborative learning by playing the Korotkoff sounds for many providers simultaneously
- Available in 110 and 220 volt variety

3. INITIAL SETUP

3.1 CARE AND CAUTIONS WHEN UNBOXING

- Lift the arm from the box and remove the bag it is shipped in.
- Rest the arm on a bed or clean, flat surface near an electrical outlet.

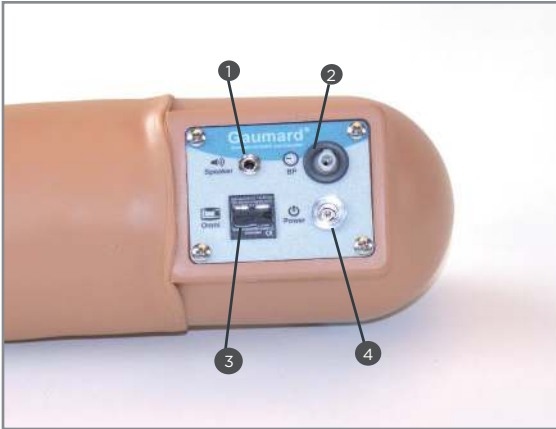
3.2 PACKAGE CONTENTS



1. Blood Pressure Training Arm
2. Modified Blood Pressure Cuff and Stethoscope
3. Power Supply
4. OMNI® Controller
5. Soft Carrying Bag
6. External Speaker Set (for S415.100)

3.3 CONTROL PANEL

The control panel on the shoulder region of the arm consists of the following ports:



1. Speaker
2. BP
3. OMNI
4. Power

3.4 CONNECTING THE POWER SUPPLY

- A control panel in the shoulder of the arm consists of all the blood pressure arm adapters. Each adapter is labeled.
- Connect the power supply to a wall outlet and then connect the cable to the power input in the arm's control panel



3.5 CONNECTING THE MODIFIED BLOOD PRESSURE CUFF

1. Wrap the blood pressure cuff around the arm above the elbow.

NOTE: Make sure to orient the cuff where the arrow on the cuff points toward the elbow.



2. Connect the blood pressure cuff extension to the adapter labeled BP on the control panel.

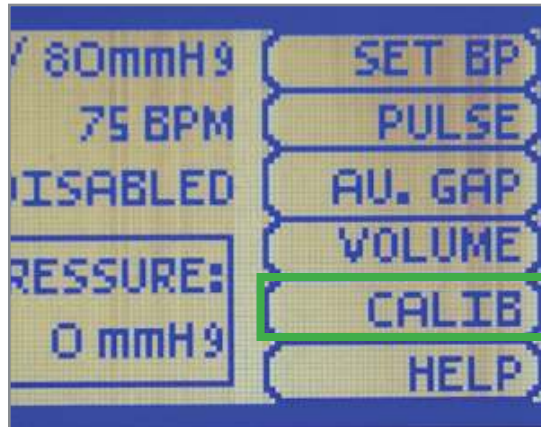


3.6 CALIBRATING THE BLOOD PRESSURE ARM

1. Connect the OMNI® controller to the BP arm.



2. Select the CALIB menu from the main screen and press NEXT to begin the calibration procedure.



3. OMNI® will display a prompt to set the BP cuff to 0mmHg then press NEXT. Do not inflate the cuff until prompted.

OMNI® will prompt you to set the BP cuff to 20 mmHg. Increase the BP cuff pressure when the display prompts you to inflate the cuff one value at a time.

Continue to press NEXT after setting each increment. After calibrating the sensor, OMNI® will return the main screen and display the reading shown on the sphygmomanometer



4. USING THE OMNI® CONTROLLER

4.1 BP ARM OMNI® MENUS

Use the BP Arm menu to gain access to additional settings, real time feedback, and navigation menus that control all the features of the blood pressure arm.



Submenus

Edit blood pressure settings using the submenus. Select a menu item by pressing the soft key buttons located on the right side of the controller. Use the submenus to decrease, increase, accept, or cancel values.



Set BP

- Use this menu to set the blood pressure in the simulator.
- Select systolic or diastolic and adjust the pressure using the + and - buttons.
- Press OK to save the changes and return to the previous screen



Pulse

- Use this menu to set the heart rate. Adjust the beats per minute using the + And - buttons.
- Press OK to save the changes and return to previous screen.



AU. Gap

- Enable and set an interval of pressure where Korotkoff sounds dissipate. The auscultatory gap is disabled by default.
- Pressing the Enable button activates the UPPER and LOWER menus. Use these menus to set the limits of the auscultatory gap.
- Adjust the limits of the auscultatory gap using the + And - buttons.
- Press OK to save the changes and return to previous screen. The default upper and lower limits for the auscultatory gap are 100 mmHg and 90 mmHg.



Volume

- Increase or decrease the volume of Korotkoff sounds using the VOLUME menu.
- Press OK to save the changes and return to the previous screen. The default value for the Korotkoff sounds volume is 5.



Calib.

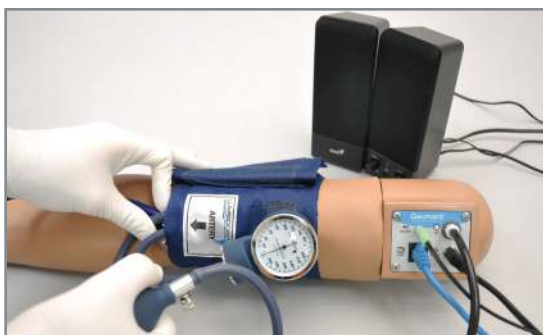
Calibrate the sensors inside the simulator using this option. Set the standard against which auscultation will be evaluated during the exercise.

BP cuff calibration should be performed only when the Korotkoff sounds do not match the systolic and diastolic values set from OMNI®.



4.2 EXTERNAL SPEAKERS FOR THE S415.100

Connect the speakers' audio jack to the Speaker adapter on the control panel to listen to the Korotkoff sounds aloud while measuring the blood pressure.



5. TROUBLESHOOTING

Review the OMNI® user guide for the most common troubleshooting topics regarding the OMNI® Controller

5.1 RESTORING TO FACTORY SETTINGS

- The RESET option is used to restore the sensor back to factory settings, erasing any calibrations performed by the user. Ensure that when factory settings are being reset, no one is practicing auscultation. This action will interfere with the reset.
- Tap on "Calibration" in the Menu screen. When the "RESET LEFT BLOOD PRESSURE MODULE" is selected, the words "OK" will appear at the bottom.
- In the event the facilitator decides that calibration is necessary, the simulator may be reset to factory default settings using this option.



5.2 CONNECTIVITY TO THE BP ARM IS NOT ESTABLISHED

Probable Cause	Solution
Corrupted connection	Reboot OMNI® By unplugging the communication cable and reconnecting after a few seconds.
Data cable is not connected	Ensure the Ethernet cable is plugged into OMNI® and the simulator.
	Verify the power cable is connected to the simulator.

5.3 OMNI® IS NOT TURNING ON

Probable Cause	Solution
Power supply may not be connected to the simulator	Make sure the power supply cable is connected
Communication cable is not connected to OMNI® Or the simulator.	Connect the communication cable to the simulator and to OMNI®

5.4 NO RADIAL PULSE IS FOUND

Probable Cause	Solution
Pulse rate was set to 0 BPM	Increase the pulse rate
BP arm is not connected	Tap the Menu icon and select "Bluetooth Connection Setup and tap the serial number. It will appear under "Paired devices."

5.5 THE READINGS ON THE BP ARM DO NOT MATCH OMNI 2

Probable Cause	Solution
Calibration may be off	Calibrate simulator following the calibration instructions listed in Section 3.6 Calibrating the Blood Pressure Arm.

6. APPENDIX

6.1 PARTS LIST

Product	Item Number	Contents
Blood Pressure Training System with OMNI® 2	S415/S415.100	Blood Pressure Training System Arm Modified Blood Pressure Cuff Power Supply OMNI® Controller Soft Carrying Bag External Speakers (S415.100 only)
Modified Blood Pressure Cuff	S415.982/ S415.100.928	Modified BP Cuff
Power Supply	S415.968/ S415.100.968	Power supply with cord. 120V/240V AC, 6V DC, 3A
Soft Carrying Bag	S415.807/ S415.100.807	Carrying bag replacement
OMNI® for CPR	S415.184/ S415.100.184	OMNI® controller
External Speakers	S415.100.900	External speakers replacement. Set of two

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- Damage resulting from failure to properly maintain the Gaumard product in accordance with Gaumard product instructions, including failure to properly clean the Gaumard product; and
- Damage resulting from a repair or attempted repair of the Gaumard product by anyone other than Gaumard or a Gaumard representative.

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2. Gaumard product to Gaumard without prior authorization.
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6.3 CONTACT GAUMARD

Before contacting technical support, please make sure to have your simulator and user guide readily available.

Email: support@gaumard.com

USA: 800-882-6655

INT: 01-305-971-3790

6.4 GENERAL INFORMATION

E-mail: sales@gaumard.com

USA: 800-882-6655

INT: 01-305-971-3790

Fax: 305-252-0755

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