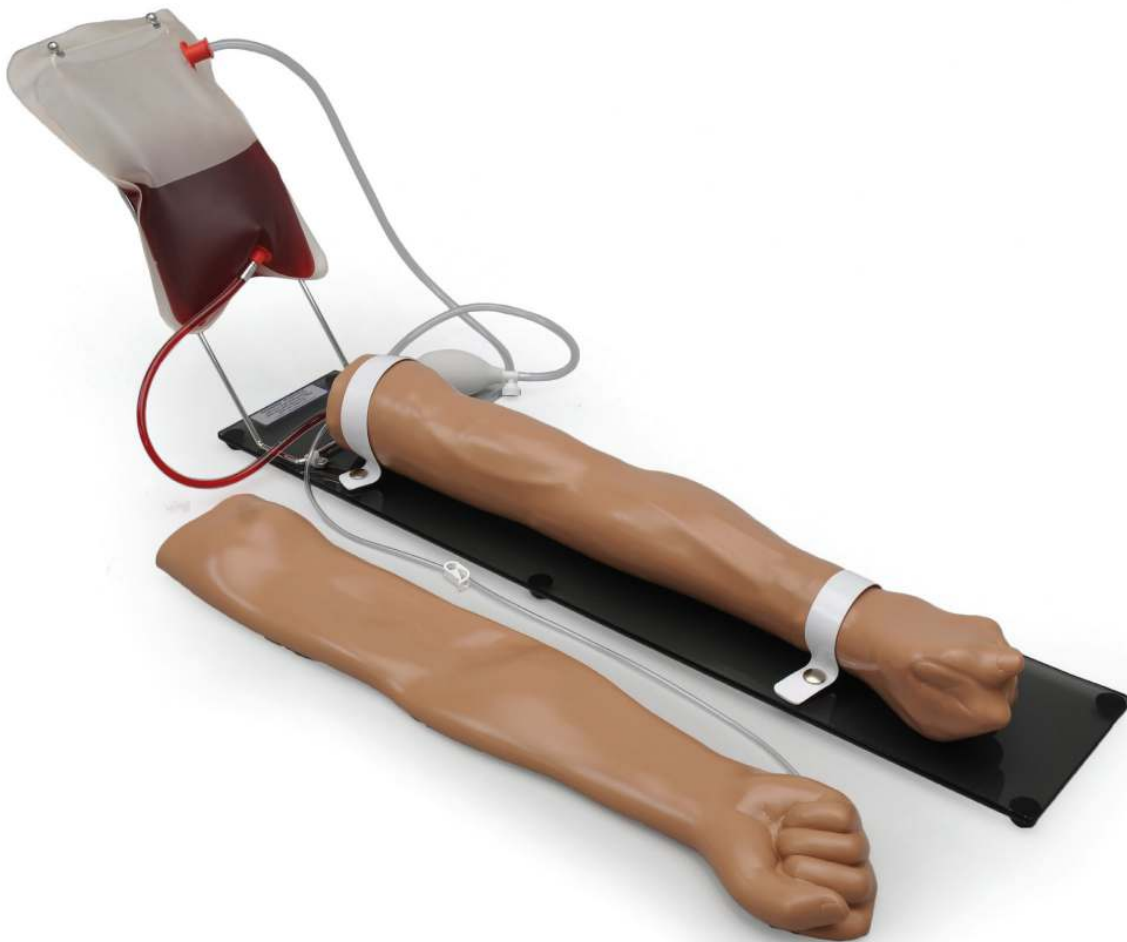




S400

INTRAVENOUS TRAINING ARM[®]

USER GUIDE



The Intravenous Training Arm[®] 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

- » 8 lbs.
- » 33x7x7 inches

The S400 Intravenous Training Arm simulates a normal adult arm and contains anatomically located venous grooves, which are fitted with soft tubes that closely simulate veins. Its pliable skin is removable and washable and stretches over the venous structure.

1.2 CARE AND MAINTENANCE

CAUTION: Damage caused by misuse may void the manufacturer's warranty. Failure to comply with the following guidelines may result in injury or damage to the equipment.

General

- Treat the simulator with the same precautions used with a real patient.
- Do not wrap this or any other Gaumard product in newsprint.
- Marks made with ballpoint pens, ink or marker cannot be removed.
- Do not use iodine or Betadine - type solutions as these may permanently stain the simulator.
- Use of needle sizes 19 gauge and smaller will extend the usage of the skin and tubing.
- Only use the simulated blood provided by Gaumard. Other simulated blood containing sugars and other additives may cause blockage of the vasculature system.
- Replacement parts are available from Gaumard or your local distributor.

Storage

- Improper storage may damage the simulator. Keep it stored in the box and/or bag provided.
- Store the simulator in a cool, dry place. Extended storage should be between 32°- 85° F (0° - 29° C). Temperatures above 85° F (29° C) will cause the simulator to soften and slowly warp.
- Store and ship it in the soft blue bag provided.
- Do not stack or store heavy materials on top of the case.

Cleaning

- Drain all fluid from the vasculature after unclamping the drainage tube by pumping the squeeze bulb attached to the dispensing bag.
- After each day of simulation, flush the veins with a 30:70 mix of isopropyl alcohol to water. Fill the dispensing bag using the funnel provided with this mixture.
- Drain the fluid by pumping the squeeze bulb until the fluid is clear.
- Push air through the dispensing bag by pumping the squeeze bulb. This will prevent mold from forming in the vasculature.
- The IV 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 baby powder can return the simulator to its lifelike feel.

2. OVERVIEW

2.1 PROCEDURES

- Venipuncture
- Intravenous injections
- Intravenous therapy (infusion)
- Blood collection

2.2 FEATURES

- Resealing veins and outer skin
- Prominent venous network
- Simulated cephalic, basilic, antecubital, radial, and ulnar veins
- The skin and veins are designed to show a minute leakage when it is punctured incorrectly
- Realistic “pop” as needle enters vein
- Practice infusion technique
- Administer medication by intravenous bolus
- Simulate clenched fist or tourniquet position
- Simulate collapsed veins

3. INITIAL SETUP

3.1 CARE AND CAUTIONS WHEN UNBOXING

Lift the arm from the box with both hands and remove the soft blue bag it is shipped in. Rest the skills trainer on a clean, flat surface for use.

3.2 PACKAGE CONTENTS

1. Intravenous Training Right Arm
2. Replacement Arm Skin
3. Smoked Lucite Base with Stand for Blood Bag
4. Dispensing Bag
5. Squeeze Bulb
6. Artificial Blood Concentrate
7. Funnel
8. Rubber Stopper
9. Talcum Powder
10. Silicone Oil Lubricant
11. Soft Carrying Bag



3.3 ASSEMBLY

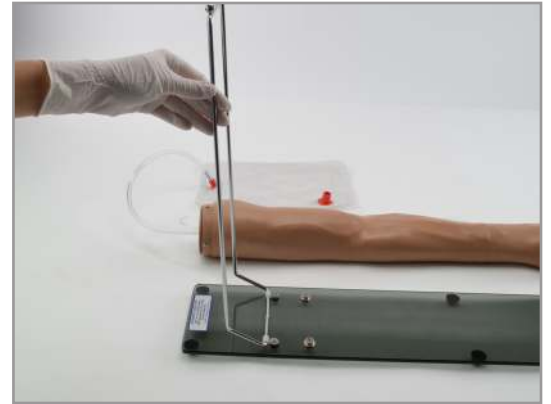
The S400 IV Training Arm includes a carrying bag that contains the training arm and hand mounted on a Lucite® base, a blood dispensing bag attached to a metal stand, synthetic blood concentrate, and a spare arm skin.

3.4 IV BAG & STAND ASSEMBLY

1. Place the arm and base on a clean, flat surface.



2. Erect the hinged metal stand.



3. Place the blood bag on the stand. Make sure the tubing is not kinked.



4. Place the arm on the base and secure it with the straps provided by gently pressing down on the snaps.



3.5 FILLING THE BLOOD BAG & IV ARM

CAUTION: If you are using simulated blood, use only the Gaumard simulated blood provided with the simulator. Any other brands of simulated blood may contain sugars and other additives that may cause blockage and/or interruption of the fluid system.

1. Clamp the drainage tube coming from the IV Arm.



2. Fill the blood bag with water or the Gaumard simulated blood provided using the funnel. Insert the funnel in the port on the upper right. The dispensing bag holds up to 1.5 Liters of fluid.



3. Unclamp the drainage tube and place it in a container until the blood flows from it without any air bubbles.



4. Clamp the drainage tube.



5. Use the black rubber stopper to plug the port on the upper right.



4. WORKING WITH THE SKILLS TRAINER

4.1 INTRAVENOUS EXERCISES

Exercise	Recommended Needle Size
Needle stick	22 gauge
Infusing large amounts of fluid	19 gauge/ 14-18 gauge cannula
General infusion	21 gauge/ 20 gauge cannula

CAUTION: Avoid the use of iodine or Betadine-type solutions as these may permanently stain the arm skin.

4.2 VENIPUNCTURE

Simulating Clenched Fist

- Replace the black rubber stopper with the squeeze bulb.
- Apply pressure using the squeeze bulb.



Simulating Collapsed Veins

- Release the air pressure by loosening the squeeze bulb's valve.



4.3 BLOOD COLLECTION

Refer to section 4.2 “Simulating Clenched Fist” or “Simulating Collapsed Veins” if this is necessary to the scenario.

1. Place the simulator on a level surface.



2. Ensure the drain tube is clamped.

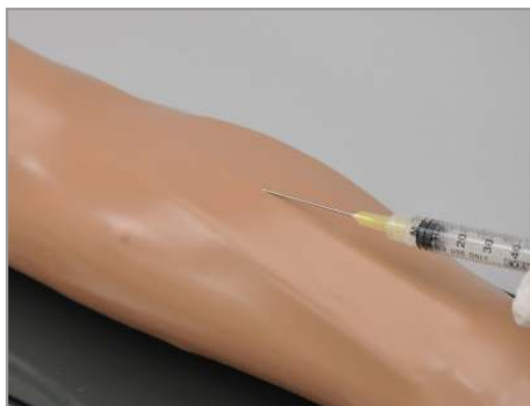


3. Apply the desired pressure to the veins via the squeeze bulb.



4. Perform the blood collection exercise.

NOTE: Drain and flush the system with clean water after each simulation day. Refer to section 1.2 "Cleaning" for more details.



4.4 INTRAVENOUS INJECTION

When practicing injections, unclamp the drainage tube to ensure the veins do not overflow.



4.5 INTRAVENOUS THERAPY / INFUSION

When preparing for IV therapy or infusion, make sure to unclamp the drainage tube to allow for continuous flow.



4.6 DRAINING THE VENOUS SYSTEM

Reference Section 1.2 "Cleaning" for more details for draining the venous system.

1. Unclamp the drainage tube.



2. Replace the black rubber stopper with the squeeze bulb.



3. Squeeze the squeeze bulb to push the remaining fluid out of the venous system.



4. Remove the squeeze bulb. Using the funnel, fill the dispensing bag with a 30:70 mix of water to isopropyl alcohol to flush the fluid system.



5. Replace the funnel with the squeeze bulb and squeeze the remaining fluid out through the drainage tube. Once the venous system is purged, push air through the system using the squeeze bulb.



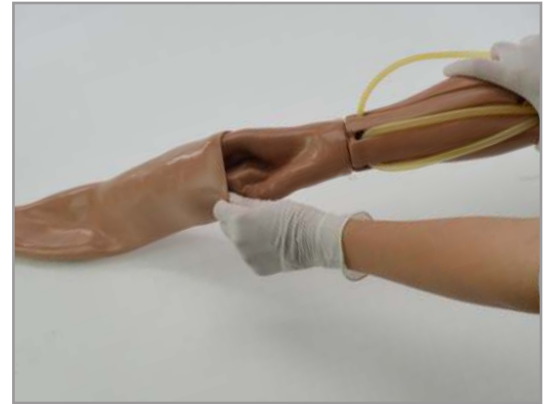
5. ROUTINE MAINTENANCE

5.1 REPLACING ARM SKIN

1. Starting at the top of the arm, gently slide the skin off the arm.



2. To place the new arm skin, lace the skin, gently slide it over the hand and up the arm.



3. If needed, use more lubricant to ease the skin into place.



5.2 CHECKING FOR VEIN BLOCKAGE

1. Follow steps 1 and 2 in Section 5.1 “Replacing Arm Skin” to remove the arm skin.



2. Make sure the tubes are not kinked.



3. To avoid further kinks in the tubes, use tape to secure them down to the arm.



4. Flush the system with water by following steps 4 and 5 in Section 4.6 "Draining the Venous System." Then reattach the arm skin.

NOTE: Arm reweaving is recommended to be done by a technician at Gaumard headquarters. If veins need to be replaced, please return the arm to Gaumard headquarters by opening a ticket through the Technical Support department.



6. APPENDIX

6.1 PARTS LIST

Product	Item Number	Contents
Intravenous Training Arm	S400	<ul style="list-style-type: none"> » Adult-sized Arm » Base with Stand » Silicone Lubricant » Talcum Powder » Carrying Bag
Arm Skin	S400.813	» Set of 2 arm skins
Artificial Blood Concentrate	S400.812	» 4 Oz Bottle (Makes 1 Gallon)
Dispensing Blood Bag	S400.811	» Holds up to 1.5 Liters
Lubricant	S400.974	» Lubricant
Talcum Powder	S400.948	» Talcum powder
Veins	S400.810	» One pre-cut vein: 104 inches long (8 feet)
Base with Stand for Blood Bag	S400.807	» Lucite® Base and blood bag
Squeeze Bulb	S400.816	» Bulb with hose
Rubber Stoppers	S400.824	» Set of 4
Funnel	S400.921	» Funnel

6.2 EXCLUSIVE ONE-YEAR LIMITED WARRANTY

Gaumard warrants that if the accompanying Gaumard product proves to be defective in material or workmanship within one year from the date on which the product is shipped from Gaumard to the customer, Gaumard will, at Gaumard's option, repair or replace the Gaumard product.

This limited warranty covers all defects in material and workmanship in the Gaumard product, except:

- Damage resulting from accident, misuse, abuse, neglect, or unintended use of the Gaumard product;
- 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.

This one-year limited warranty is the sole and exclusive warranty provided by Gaumard for the accompanying Gaumard product, and Gaumard hereby explicitly disclaims the implied warranties of merchantability, satisfactory quality, and fitness for a particular purpose. Except for the limited obligations specifically set forth in this one-year limited warranty, Gaumard will not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory regardless of whether Gaumard has been advised of the possibilities of such damages. Some jurisdictions do not allow disclaimers of implied warranties or the exclusion or limitation of consequential damages, so the above disclaimers and exclusions may not apply and the first purchaser may have other legal rights.

This limited warranty applies only to the first purchaser of the product and is not transferable. Any subsequent purchasers or users of the product acquire the product "as is" and this limited warranty does not apply.

[This limited warranty applies only to the products manufactured and produced by Gaumard. This limited warranty does not apply to any products provided along with the Gaumard product that are manufactured by third parties.](#)

For example, third-party products such as computers (desktop, laptop, tablet, or handheld) and monitors (standard or touch-screen) are not covered by this limited warranty. However, third-party products are covered by the warranties provided by the respective third-party manufacturers and such warranties are transferred from Gaumard to purchaser upon purchase of the Gaumard product. Defects in third-party products are covered exclusively by the warranties provided by the third-parties. Gaumard does not provide any warranty, express or implied, with respect to any third-party products. Please contact the third-party manufacturer for information regarding the availability of extended warranties for third-party products. Any waiver or amendment of this warranty must be in writing and signed by an officer of Gaumard.

In the event of a perceived defect in material or workmanship of the Gaumard product, the first purchaser must:

1. Contact Gaumard and request authorization to return the Gaumard product. Do NOT return the
2. Gaumard product to Gaumard without prior authorization.
3. Upon receiving authorization from Gaumard, send the Gaumard product along with copies of (1) the original bill of sale or receipt and (2) this limited warranty document to Gaumard at 14700 SW 136 Street, Miami, FL, 33196-5691 USA.

If the necessary repairs to the Gaumard product are covered by this limited warranty, then the first purchaser will pay only the incidental expenses associated with the repair, including any shipping, handling, and related costs for sending the product to Gaumard and for sending the product back to the first purchaser. However, if the repairs are not covered by this limited warranty, then the first purchaser will be liable for all repair costs in addition to costs of shipping and handling.

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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Office Hours

Monday-Friday, 8:30am - 7:30pm EST (GMT-5)



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Always dispose of this product and its components in compliance with local laws and regulations.

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