



*Assembly & Operation Instructions*

# CASUALTY SIMULATION KITS



**The purpose of this document is to offer instruction and tips on how to effectively use the Simulaids Casualty Simulation Kit you have purchased.**

| CASUALTY KIT                       | ITEM |
|------------------------------------|------|
| PHTLS Kit                          | 665  |
| Forensic Science Wound Kit         | 700  |
| Forensic Science Wound Kit Package | 710  |
| Basic Casualty Kit                 | 815  |
| Multiple Casualty Kit              | 816  |
| EMT Casualty Kit                   | 818  |
| Advanced Military Kit              | 819  |
| WMD Kit                            | 870  |
| Deluxe Casualty Kit                | 890  |



## Casualty Simulation Kits with Stick-on and Strap-on Wounds

### Thank you for purchasing a Simulaids product.

The purpose of this document is to offer tips on how to effectively use the casualty simulation kit you have purchased. The kits contain light weight plastic stick on wounds painted to mimic various injuries and heavier, flesh colored, PVC plastic molded injuries with strap on wounds that have hook and loop straps to use for securing the product to the location on the volunteer victim or manikin. Some of the strap-on wounds are made to connect to a blood filled reservoir bag supplied with the moulage. Some wounds are not made to bleed, but you can add blood to the wound to create the realistic appearance of a fresh wound.

### Instructions for Use

**Preparation of Simulated Blood:** Thoroughly mix contents of packet in 1 quart of hot water. Stir briskly for 5 minutes or until powder has completely and evenly been mixed with all of the water. Now add an additional 3 quarts of cold water. Stir actively until solution is complete. If you have remaining blood, you may store it in a closed container in a refrigerator for approximately one week.

Simulaids sells a bottled Coagulant Blood product (item 226), but if you want to make your own out of the powdered blood packages, follow these instructions.

**Preparation of Simulated Coagulant Blood:** Add one heaping teaspoon of the methyl cellulose powder to 1/2 cup of hot water. Stir briskly, and when powder is completely dissolved, add 1-1/2 cups of simulated blood. The resultant thick blood is suitable for use with many casualty simulations.

**NOTE:** Blood Powder and Simulated Coagulant Blood contains certified food colors which may stain. Extreme caution should be practiced when using near fabrics, wood floors, upholstery and human hair. Good laundering will remove color from many fabrics but may leave permanent stains on hair, wood, certain fabrics and some synthetics. Certified food colors are formulated with USP methyl cellulose and USP sodium benzoate to prevent spoilage. Not intended for human consumption. **DO NOT PUT IN MOUTH**

**Clothing:** Victims should use old clothing, which may be torn to “conform” to the type of injury being demonstrated. Bleeding moulages should be concealed under the victim’s clothing and only the wound should be showing. Short sleeves and shorts are not recommended for extremity bleeding compound fractures.

### Strap-on Injuries: Assembly and Operation

#### A. Prepare the Reservoir Bag

**Steps:** 1. Clamp tube in reservoir line closed with plastic clamp.  
2. Open cap on reservoir and fill with simulated blood.  
3. Close cap.

4. Affix moulage to appropriate part of body and connect tube to bloodline.

**NOTE:** To remove any kinks from reservoir assemblies, dip tubing into hot water approximately 15 to 20 seconds and cool before using.

#### B. Set Up the Wound

**Steps:** 1. After “wounded” person is in position, open reservoir line clamp.  
2. Squeeze bulb several times until blood fills bulb and bloodline to moulage.  
3. Gentle, intermittent squeezing of the bulb will simulate arterial bleeding.

**C.** The sucking wound of the chest moulage does not have a reservoir. It is connected directly to the single outlet bulb which is initially half filled with simulated blood. The bulb, when squeezed and released in synchronization with the breathing, will create a sucking and frothing effect at the wound site.

**D.** For non-bleeding injuries, coagulant blood and brown grease paint should be smeared on the injury area.

Included in some casualty simulation kits are face masks. The intent of the face masks is that they be used on manikins. The face masks in these kits are made to fit the Regular Rescue Randy units within the 1300 series of product numbers.

Simulaids assumes no risk if you choose to use these masks on live victim volunteers. You would be better off applying makeup to the faces of these individuals. Face masks used on live volunteers require proper arrangements for the victims’ well-being. You must be sure to trim the nares and mouth openings so that there is air exchange room for the victim to breathe. Keeping a close eye on the victims during the exercise is critical. Do not let them become dehydrated or suffocated behind the masks.

### Stick-on Injuries:

**Steps:** 1. Liberally coat the back of plastic replica with the adhesive provided.  
2. Also coat the area of the skin on which the wound will be placed.  
3. Let them both dry to tacky feel.  
4. Press replica firmly against skin and hold until the adhesive sets up.  
5. Feather edges and surrounding area with simulation wax.  
6. Smear dark brown grease paint on palms of hands and rub into and around wound area.  
7. Apply coagulant blood to bleeding type injuries. Tobacco ash, dirt or similar foreign matter may be rubbed into wounds for additional realism. Coagulant blood is also excellent for nose and ear bleeding.



## Make-up Materials And Supplies

Make-up may be used to simulate a large variety of casualties. Before application of grease paint, coat area with cold cream. Grease paint is applied using the fingers and palms of the hand. Liners are used for detail coloring.

**Shock:** Apply cold cream to entire face area. Rub in white paint to cover. Apply blue grease paint under eyes, cheeks, ear lobes and mouth. Blend in. The cold cream exudes moisture and simulates perspiration. A spritz of glycerin can be used to augment diaphoresis.

**Scrapes and Abrasions:** Apply light coating of adhesive to the injury site. Rub in a small amount of brown grease paint, and then gently rub dirt or sand into the wound. Apply a small amount of coagulant blood. Use comb to mark direction of abrasion.

**1st and 2nd Degree Burns:** Apply adhesive to burn area. Use red and brown grease paint to simulate burned area. Petroleum jelly makes effective blisters for 2nd degree burns. To complete the visual effect for a burned victim, tear and char clothes prior to the victim wearing them.

## Removal of Make-up Injuries and Make-up

Adhesive and PLASTEX (clay like material for molding wounds) are soluble in alcohol. Grease paint may be best removed using make-up remover or cold cream.

## Cleaning and Maintenance

Empty the reservoir of all simulated blood. Fill bag with warm water and a few drops of a mild dish detergent. Run soapy water through bloodlines to remove any remaining blood. Refill bag with clear, warm water and run through to rinse soap from bloodlines. Wash the moulages with mild soap and warm water. Rinse. Let dry thoroughly before storing.

**NOTE:** Do not scrub, use boiling water, harsh detergents or abrasive cleaners. Moulages should be rolled for storage. DO NOT FOLD.

## To Simulate Glass in Wound

Smooth a narrow mound of make-up wax on "victim's" skin, imbed plastic glass fragment in the wax, and cover entrance site of the glass with simulated coagulant blood. Other objects, such as nails, pieces of metal, etc., can be used. **CAUTION: SOME PIECES MAY CONTAIN SHARP EDGES!** To avoid injury, dull the sharp edges before applying to victim.

## Return Goods Policy

Should it be necessary to return an item for any reason, contact our Customer Service Department to obtain a **RETURN AUTHORIZATION NUMBER**. Merchandise cannot be accepted without prior return authorization. Please refer to your invoice number when phoning in your request for returning merchandise. If needed, a shipping carton and packing instructions will be sent to you to facilitate return of the item.

## Warranty

**Note: Casualty Simulation products are not covered under the factory warranty described below.**

Simulaids warrants this product to be free from any defect in materials and/or workmanship for a period of three years from the date of purchase, as evidenced by the date of invoice when the product was shipped to the end user. This warranty expressly does not cover abuse, accidental or purposeful damage, or any form of modification to the product. Simulaids reserves the right to either repair or replace affected parts or the entire unit, at their sole discretion, after investigating and reviewing the actual product and the damage. In most instances, a digital photo of the product in question showing the damage will help qualify a product for return to the factory. At no time will any product be accepted at the plant without proper return authorization issued by Simulaids.

Freight and Shipping charges are the sole responsibility of the end user. No product will be received with shipping charges due. Any product considered for warranty work must be identified by serial number and invoice number from the agency through whom the product was purchased. Without this information the product will not receive a return authorization number as required above.

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## PHTLS Wound Moulage Kit #665

### Kit Contents:

Skin Tite & Thi-vex Kit (PP0503); Shotgun Wound (800-714); Instruct Kit/815/816/818/819 (SA1004); Intermediate Wound "flake" (800-715); Blood Powder 3 Pk (SA225-3); Intermediate Wound Round (800-716); Coagulant Blood 4 Oz. (800-226); Close Shotgun Wound (800-721); Spirit Gum 1 Oz w/brush (800-232); Contact Shotgun Wound (800-723); Open Rib Fracture (800-603); Screwdriver Wound (800-724); Open Humerus Fracture (800-607); Single Edge Wound (800-727); Exposed Denture Avulsion (800-608); Double Edge Wound (800-730); Open Skull Fracture (800-609); Bunny Ears (800-731); Burned Face (800-613); Contact Wound (800-732); Large Road Rash (800-654); Small Exit Wound (800-733); Burn Chest 2 & 3 Degree (800-6724); Contact Hand Gun Wound (800-735); Broken Clavicle w/ contusion; Ice Pick Wound (800-736); Abdominal w/ protruding Intestine (800-6808)



## Forensic Wound Simulation Training Kit #700

### Wounds Included:

Petechiae (719); Ecchymosis (717); Pattern Ligature (712); Slash (713); Shotgun Close Range (721); Shotgun (714); Shotgun Intermediate Range (720); Intermediate Range Round (716); Intermediate Range Flake (715); Exit Gunshot (722); Contact Gunshot (723); Contact Handgun (735); Contact Wound (732); Screwdriver (724); Bite Partial (725); Bite Complete (729); Hesitation (726); Single-Edge Knife (727); Double-Edge Knife (730); Blunt Bat (728); Bunny Ears (731); Exit Wound Small (733); Exit Wound Large (734); Ice Pick (736); Compound Fracture Humerus (830); Foreign Body Protrusion (901); Large Laceration (903); Medium Laceration (904); Large Compound Fracture (908); 2nd Degree Burn (914); Blood Powder (225)



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## Forensic Science Wound Package #710

### Package Contents:

Petechiae (719); Ecchymosis (717); Pattern Ligature (712); Slash (713); Shotgun Close Range (721); Shotgun (714); Shotgun Intermediate Range (720); Intermediate Range Round (716); Intermediate Range Flake (715); Exit Gunshot (722); Contact Gunshot (723); Contact Handgun (735); Contact Wound (732); Screwdriver (724); Bite Partial (725); Bite Complete (729); Hesitation (726); Single-Edge Knife (727); Double-Edge Knife (730); Blunt Bat (728); Bunny Ears (731); Exit Wound Small (733); Exit Wound Large (734); Ice Pick (736)



## Basic Casualty Simulation Kit #815

### Kit Contents:

**Wounds:** 1 Compound fracture Tibia (6761); 12 assorted stick-on lacerations and open fractures (219)

**Accessories:** 1 Casualty Simulation Wax (223); 1Pkg. Of Broken Plexiglas® for Simulating Glass Imbedded In Wound (230); 1 Each Grease Paint, Colors: White, Blue, Brown, And Red (220, 222, 221 & 218); 1 Body Adhesive For Stick-On Wounds (PP2159); 1 Atomizer Mist Sprayer (839); 3 Spatulas (Reorder 835 Pk. Of 6); 3 Tongue Depressors (Reorder 842 A Pack Of 100); 1 Pkg. Of Methyl Cellulose For Blood Thickening (228); 1 Bottle Coagulant Blood (226); 1 Pkg. Powdered Blood (225); 1 Atomizer Mist Sprayer (839)



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## Multiple Casualty Simulation Kit #816

### Kit Contents:

**Bleeding Strap On Wounds with Reservoir Bags and Pump Assembly:** 1 Leg Amputation (6760); 1 Compound Fracture of Tibia, Lower Leg (6761); 1 Compound Fracture of Humerus, Upper Arm (6816); 1 Sucking Wound of The Chest (6713); 1 Gunshot Wound of The Palm (6881); 24 Assorted, Stick-On Lacerations, & Open Fracture Wounds (219 - 1 Dozen)

**Accessories:** 1 Bottle Of Coagulant Makeup Blood (226); 1 Pkg. of Methyl Cellulose For Blood Thickening (228); 3 Packages of Powder To Make Three Gallons of Simulated Blood (225 Pk.); 1 Body Adhesive For Stick-On Wounds (PP2159); 1 Casualty Simulation Wax (223); 1 Pkg. of Broken Plexiglas, For Simulating Glass Imbedded In Wound. (230); 1 Each Grease Paint, Colors: White, Blue, Brown, and Red (220, 222, 221, 218); 4 Reservoir Bags, with Pumps Assembled (229 Each); 1 Atomizer Mist Sprayer (839); 3 Spatulas (Reorder 835 Pk. Of 6); 3 Tongue Depressors (Reorder 842 a Pack of 100)



## EMT Casualty Simulation Kit #818

### Kit Contents:

**Bleeding Strap on Wounds Complete with Reservoir Bags with Pump Assembly:** 1 Jaw Wound (6807); 1 Abdominal Wound With Protruding Intestines (6808); 1 Sucking Wound of The Chest (6713); 2 Compound Fracture of the Humerus, Upper Arm (6816); Compound Fracture of Femur, Upper Leg (6819); Laceration of The Forehead (6725); 1 Leg Amputation (6760); Compound Fracture of Tibia; Lower Leg (6761); Gunshot Wound Of Palm (6881)

**Non-Bleeding Simulated Wounds:** 1 Phosphorous Burn Of The Hand (6801), 1 Face In Shock (6882); 1st, 2nd, & 3rd Degree Burn Of The Face (# 6828); 1st, 2nd, & 3rd Degree Burn Of The Chest (6724), 1st, 2nd, & 3rd Degree Burn Of The Back (6773); 1st, 2nd, & 3rd Degree Burn Of The Hand (6799); 1st, 2nd, & 3rd Degree Burn of the Forearm (6802); 36 Assorted; Stick-On Lacerations & Open Fracture Wounds (Reorder 219 - 1 Doz.)

**Makeup Accessories:** 1 Body Adhesive for Stick-On Wounds (PP2159); 2 Casualty Simulation Wax (223); 3 Bottles Of Coagulant Makeup Blood (226); 5 Packages of Powder To Make Five Gallons of Simulated Blood (225); 1 Pkg. of Methyl Cellulose for Blood Thickening (228); 2 Each Grease Paint, Colors: White, Blue, Brown, and Red (220, 222, 221 & 218); 2 Packages of broken Plexiglas, Simulating Glass Imbedded In Wound (230); Container of Cold Cream (851); 2 Atomizer Mist Sprayer (839); 1 Plastelene Modeling Clay, White (856); 1 Plastelene Modeling Clay, Dark (855); 6 Tongue Depressors (842); 1 Tissues (844); 1 Fake Dirt (233); 1 Charcoal (854); 1 Petroleum Jelly (239); 1 Mirror (838); 6 Spatulas (835 - 6 pk.)





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## Advanced Military Casualty Simulation Kit #819

### Kit Contents:

**Bleeding Strap on Moulages complete with Reservoir Bag & Pump Assembly:** 2 Compound Fracture Humerus, Upper Arm (6816); 2 Compound Fracture Tibia, Lower Leg (6761); 5 Dozen Assorted Stick-On Injury Simulations (219); 1 Make Up Palette (834); 1 Pair of Scissors (836); 1 Mirror (838); 1 Measuring Cup (840); 2 Atomizer Mist Sprayer (839); 2 Casualty Simulation Wax (223); 1 Body Adhesive For Stick-On Wounds (PP2159); 2 Bottles of Coagulant Makeup Blood (226); 3 Packages of Powder To Make, Three Gallons of Simulated Blood (# 225); 1 Methyl Cellulose For Blood Thickening (228); 2 Packages of Broken Plexiglas, Simulating Glass Imbedded In Wound (230); 2 Fake Dirt (233); 1 Glycerin For Simulating Perspiration (847); 1 Cold Cream (851); 1 Mineral Oil (240); 1 Charcoal (854); 3 Latex Compound to Simulate Scars (231); 2 Petroleum Jelly (239); 2 Pressure Sensitive Tape (845); 1 Plastelene Modeling Clay - White (856); 1 Plastelene Modeling Clay - Dark (855); 2 Each Makeup Liners ½ Oz. Each, Colors: Red (866), Blue (868), Brown (235), White (234), Yellow (867), Black (236) & Flesh (237 reorder is 1 each)

**Also Included:** An Assortment of Cotton Balls (843); Cotton Applicators/Swab Sticks (841); Tongue Depressors (842); Tissues (844); Makeup Sponges (241 set of 6); and Spatulas (835 - 6 Pk.)



## Weapons of Mass Destruction Casualty Simulation Kit #870

**Stick-On Moulages:** 6 2nd Degree Burn (914); 6 Burned Eyes from Mustard Gas (630); 6 Compound Fracture Humerus (907); 6 1st, 2nd, 3rd Degree Burn (827); 6 Major Avulsion, 8 x 5 cm (912); 6 Avulsion, 3.5 cm (911); 6 Small Sepsis Wound (909); 6 Small Exit Wound (733); 6 Star-Shaped Anthrax Wound (632); 6 Oblong Anthrax Wound (633); 6 Large Star-Shaped Anthrax Wound (634); 6 Smallpox, Double Wound (635); 6 Multiple Smallpox Wound (636); 6 IED Wound (637); 6 Multiple Mustard Gas Wound (638); 6 Small Mustard Gas Wound (639); 6 Medium Mustard Gas Wound (640); 6 Large Mustard Gas Wound (641)

**Strap-On Moulages:** 1 Hand Amputation (621); 1 Leg Amputation (6760); 1 Arm Amputation (623); 1 Anthrax Forehead (624); 1 Mustard Gas Face (625); 1 Anthrax Double Wound Face (626); 1 2nd-3rd Day Smallpox Face (627); 1 8th-10th Day Smallpox Face (628); 3 Sarin, Ricin Faces (629, Bleeding Eyes and Nose, Sweating)

**Makeup Accessories:** 100 Tongue Depressors (842); 1 Coagulant Blood, 4 oz. (226); 1 Methyl Cellulose (228); 1 Blood Powder 1 Per Gallon (225, 5 Pack); 1 Body Adhesive (2159); 1 Casualty Simulation Wax, 8 oz. (223); 1 White Grease Paint, 2 oz. (220); 1 Brown Grease Paint, 2 oz. (221); 1 Blue Grease Paint, 2 oz. (222); 1 Red Grease Paint, 2 oz. (218); 1 Powdered Charcoal, 2 oz. (854); 1 Atomizer (839); 6 Makeup Sponge Wedges (241); 1 Baby Powder, 4 oz. (0194)



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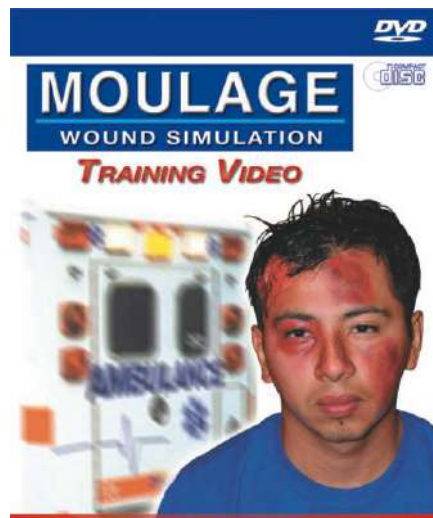
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## Deluxe Casualty Simulation Kit #890

**Stick-on wounds:** Eyeball (900); Foreign Body Protrusion (901); Eviscerated Intestines (902); Large Laceration 5 cm (903); Medium Laceration 3 cm (904); Small Laceration 1 cm (905); Compound Fractured Tibia (906); Compound Fractured Humerus (907); Compound Fractured Femur (908); Small Sepsis Wound (909); Large Sepsis Wound (910); Avulsion 3 x 5 cm (911); Major Avulsion 8 x 5 cm (912); Crushed Foot (913); 2nd Degree Burn (914)

**Makeup Accessories:** Atomizer (839); Body Adhesive (PP2159); Cold Cream (851); Cotton Balls (843, pk. of 100); Glycerin (847); Mineral Oil (240); Mirror (838); Pallet (834); Petroleum Jelly (239); Plexiglas® Pack (230); Q-tips (841, pk. of 100); Scissors (836); Spatulas (835, pk. of 6); Sponges (241, pk. of 6)



## Moulage Instruction #880

Moulage instruction is hard to find, unless you look at the Moulage Movie by Simulaids. Produced in conjunction with a leading artist using Hollywood-training techniques and years of military experience, the Moulage Movie explains the use and application of every portion of the Simulaids Casualty Simulation Kits. Start simple and go for the realism; each segment of moulage is represented within the frames you'll see during this 45-minute presentation. Use it as a base to build your repertoire of the most realistic moulage to add challenge to your next casualty incident.