Instruction Manual

Nasco Healthcare
Trauma Troy
101-088TT

Rev 1 - 6/26

Nasco HEALTHCARE

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Product Overview

Thank you for choosing Trauma Troy.

Trauma Troy is a full-body trauma skills trainer designed to support repeated hands-on training across EMS, military medicine, trauma nursing, disaster response, and field care environments.

Designed for durability and ease of use, Trauma Troy supports the development of essential trauma assessment and intervention skills through realistic, repeatable practice.

Training Capabilities:

Airway & Respiratory

- Intubation
- NPA, OPA & Advanced Airway Adjuncts
- BVM Ventilation
- Cricothyrotomy

Trauma Interventions

- Bilateral Tension Pneumothorax Decompression with Audible Air Release
- Chest Tube Insertion
- IV Access
- IM Access
- Sternal I/O
- Bilateral Carotid Pulses

Operational Readiness

- Water-Friendly Design
- CBRNE/Hazmat Ready
- WMD/Decontamination Training
- Rugged Full-Body Construction

What's Included

- Trauma Troy Manikin
- Carry Bag
- Water-Based Lubricant
- IV Reservoir Kit
- Pulse Bulb Assembly
- Foot Pump Assembly
- 10 Sternal I/O Replacement Pads
- 4 Pneumothorax Replacement Pads
- 4 Cricothyrotomy Replacement Neck Skins

Feature Overview

Trauma Troy includes multiple trauma training features designed to support realistic, repeatable hands-on practice. Refer to the numbered callouts below to identify each feature before use.

Airway & Respiratory

- Airway - Supports intubation, BVM ventilation, and placement of NPA, OPA, and advanced airway adjuncts.
- Cricothyrotomy Site - Replaceable training site for surgical airway procedures.

Trauma Interventions

- Left Needle Decompression Site - Bilateral tension pneumothorax decompression with audible air release.
- Right Needle Decompression Site - Bilateral tension pneumothorax decompression with audible air release.
- Chest Tube Sites - Right chest tube insertion training sites.
- Sternal I/O Site - Compatible with FAST1™ sternal intraosseous training.
- IV Access Arm - Venous access training with simulated flashback.
- IM Injection Sites – Intramuscular injection training in the right deltoid and left/right thigh.
- Bilateral Carotid Pulse Connection - Connect the supplied pulse bulb assembly to generate bilateral carotid pulses.

Operational Readiness

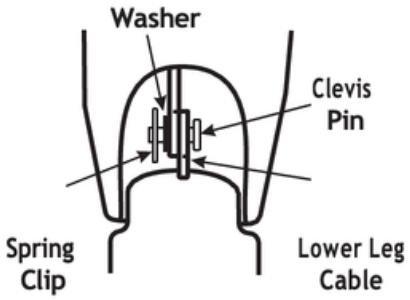
- Water-Friendly Design - Suitable for wet training environments and decontamination exercises.
- Rugged Full-Body Construction - Designed for repeated use in classroom, field, and disaster response training environments.

Assembly

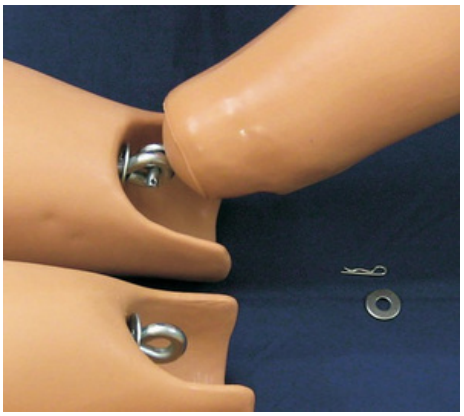
Trauma Troy is shipped with the lower legs detached to help protect the manikin during shipping. Complete the following steps before first use.

Attaching the Lower Legs

1. Place the manikin face down on a clean, stable surface.
2. Position the correct lower leg with the matching upper leg. Ensure the left and right legs are not reversed.
3. Align the holes in the upper and lower leg joints.
4. Insert the clevis pin through the aligned holes.
5. Install the washer onto the end of the clevis pin.
6. Secure the clevis pin with the spring clip.
7. Repeat the procedure for the opposite leg.



Note: Ensure the spring clip is fully engaged before lifting or moving the manikin.



Airway & Respiratory

This section provides instructions for intubation, airway adjunct placement, bag-valve-mask (BVM) ventilation, and cricothyrotomy training.

Intubation

Before You Begin

- Use only the supplied water-based lubricant or another water-based lubricant.
- Lubricate the endotracheal tube or other airway device before insertion.
- If needed, apply a small amount of water-based lubricant to the tongue and back of the throat to assist with airway placement.
- Do not use petroleum-based lubricants, as they may damage the airway materials.
- Maximum recommended endotracheal tube size: 8.0 mm

Procedure

1. Insert the endotracheal tube.
2. Confirm correct tube placement.

Training Notes

- Right mainstem intubation inflates the right lung only.
- Esophageal intubation inflates the stomach.

Airway Adjuncts

Supported airway adjuncts include:

- Nasopharyngeal Airway (NPA)
- Oropharyngeal Airway (OPA)
- Advanced airway adjuncts

Insert the selected airway adjunct.

Bag-Valve-Mask (BVM) Ventilation

1. Ventilate the patient.
2. Observe for visible chest rise.
3. If adequate chest rise is not achieved, reposition the airway and confirm correct airway placement.

Cricothyrotomy

A replaceable cricothyrotomy site supports surgical airway training.

Training Notes

- Replacement instructions for the cricothyrotomy membrane and neck skin are provided in the **Cleaning, Maintenance & Storage** section.

Trauma Interventions

Trauma Troy supports a variety of trauma assessment and intervention procedures commonly performed in emergency, military, and disaster response settings. This section provides instructions for preparing and using each trauma training feature.

Bilateral Tension Pneumothorax Decompression
Bilateral needle decompression sites are located at the second intercostal space along the mid-clavicular line.

Setup

1. Connect the foot pump to the needle decompression inflation port.
2. Inflate the system until resistance is felt.
3. Disconnect the foot pump.

Procedure

1. Identify the appropriate decompression site.
2. Insert the catheter until an audible release of air ("whoosh") confirms successful decompression.
3. Remove the catheter.

Training Notes

- Bilateral needle decompression sites are provided.
- Reinflate the system before repeating the procedure.

Chest Tube Insertion
Right chest tube insertion site supports chest tube placement training.

Setup

1. Push the wedge tab onto the tubing to stop the flow of water.
2. Fill the reservoir bag with clean water only.
3. Connect the reservoir tubing to the chest tube port on the left midaxillary side of the torso.
4. Open the tubing clamp and allow water to flow through the system.
5. Bleed all air from the system until water discharges.
6. Remove the chest tube. The system is now ready for training.

Procedure

1. Identify the appropriate chest tube insertion site.
2. Insert the chest tube into the site on the opposite side of the chest.
3. Advance the chest tube until it rests against the internal release valve.

Training Notes

- Right chest tube insertion site is provided.
- Use clean water only when preparing the chest tube system.
- Drain all water from the system after training. Refer to the **Cleaning, Maintenance & Storage** section.

IV Access

The IV access arm supports peripheral venous access and catheter placement with simulated flashback.

Setup

1. Ensure both reservoir bag clamps are closed.
2. Connect the reservoir tubing securely to the IV arm connectors.
3. Fill one reservoir bag with simulated blood or colored water.
4. Suspend the filled reservoir bag above the IV arm.
5. Open both clamps and allow fluid to circulate until all air has been removed from the tubing.

Procedure

1. Identify the desired venipuncture site.
2. Insert the catheter.
3. Confirm catheter placement by observing simulated flashback.

Training Notes

- Raising the filled reservoir bag increases fluid pressure and improves simulated flashback.
- Close the lower reservoir bag clamp before catheter insertion to maximize flashback.
- Open the lower reservoir bag clamp after successful catheter placement to allow fluid to circulate through the system.
- Flush the IV system with clean water after each training session. Refer to the **Cleaning, Maintenance & Storage** section.

IM Access
Right deltoid and right/left thigh intramuscular (IM) injection sites support injection training.

Procedure
1. Identify the desired IM injection site.
2. Insert the needle.
3. Inject water as required for the training exercise.

Training Notes
- The IM injection sites contain removable foam inserts designed for repeated use.
- Remove the foam inserts and allow them to dry completely after fluid injection training. Refer to the **Cleaning, Maintenance & Storage** section.

Sternal I/O
The replaceable sternal I/O site is compatible with the PYNG FAST1™ Training System.

Procedure
1. Position the FAST1™ target locator over the clavicular notch.
2. Align the target opening with the sternal I/O access site.
3. Perform the insertion using the FAST1™ Training System instructions.

Training Notes
- The sternal I/O site uses replaceable training discs.
- Replacement instructions are provided in the **Cleaning, Maintenance & Storage** section.

Bilateral Carotid Pulses

The bilateral carotid pulse system is manually operated using the supplied pulse bulb assembly.

Setup

1. Locate the pulse connection port on the side of the neck.
2. Align the pulse bulb connector with the neck fitting.
3. Push and gently twist the connector until it is fully seated.

Procedure

1. Squeeze the pulse bulb to generate bilateral carotid pulses.
2. Vary the pressure applied to simulate different pulse strengths.

Training Notes

- Ensure the pulse bulb assembly is securely connected before use.
- Disconnect the pulse bulb assembly before storing the manikin.

Operational Readiness

If the manikin has been exposed to contaminants, flush the affected area thoroughly with clean water. Water will not damage the trainer and can be used safely during decontamination.

Advanced Life Support (ALS) treatment may be initiated immediately while flushing contaminants, allowing patient care procedures to continue without delay.

Instructions:

1. Begin flushing the contaminated area with clean water.
2. Continue flushing until contaminants have been removed.
3. Simultaneously initiate appropriate Advanced Life Support (ALS) interventions as required.
4. After use, inspect the trainer and clean according to your facility's maintenance and disinfection protocols.

Cleaning, Maintenance and Storage

Proper cleaning, maintenance, and storage will help extend the life of the trainer and support reliable performance.

General Cleaning

- Clean vinyl body parts with a household, water-based liquid cleaner.
- Drain all fluids from the manikin after use. Detach and empty fluid supply bags before storage.
- Do not allow printed materials, ink, newsprint, cosmetics, or similar materials to contact the trainer surface. These materials may permanently stain the manikin.
- Do not store the trainer while fluids remain inside the manikin, tubing, or reservoir bags.

Airway

- Clean and disinfect the airway according to your organization's infection control procedures.
- Apply water-soluble disinfecting solution to the oral, pharyngeal, and nasopharyngeal airway passages. Ensure the solution contacts the internal airway surfaces, including the bronchus and esophagus.
- Allow the disinfecting solution to remain in contact for the required exposure time.
- After disinfecting, swab the inside and outside of the airway passages to dry them.
- If needed, a light application of warm air may help dry hard-to-reach areas. Do not overheat the plastic.

IV Access System

Flush the IV system at the end of each day of use to help prevent clogged lines.

To clean the IV system:

1. Drain simulated blood or colored water from the reservoir bags.
2. Fill a reservoir bag with warm tap water.
3. Allow warm water to circulate through the venous system.
4. Continue flushing until simulated blood or colored water has been removed.
5. Empty the reservoir bags.
6. Allow the tubing and reservoir bags to dry before storage.

If simulated blood accumulates under the skin, in the veins, or in the reservoirs, clean the affected areas with warm tap water.

Replacing the IV Arm/Hand Skin

Replacement IV arm/hand skin is available as part number 101-075.

1. Cut the arm and hand skins off using scissors.
2. Do not use a box cutter, scalpel, or sharp blade, as this may damage the underlying parts.
3. Remove the lower arm from the upper arm by disassembling the pin at the antecubital junction.
4. Apply a small amount of baby powder or talc inside the new skin and on the arm underform to help the skin slide into place.
5. Guide the vein tubing into the channels of the arm underform while installing the new skin.
6. Align the tubing opening in the skin with the tubing.
7. Align the skin slot at the elbow with the mounting eye in the elbow.
8. Stand the arm on its fingertips and push the skin down over the upper arm.

If the arm skin is difficult to install, apply low heat from a hair dryer to make the skin more pliable. Do not use too much heat. Move the dryer continuously to avoid hot spots.

The hand skin may be softened by dipping it in hot water. Immerse only enough of the hand skin to soften it. Do not get water inside the skin.

Two people may be needed to install the skin: one person to hold the arm and one person to install the skin.

Replacing the IV Vein Tubing

Replacement IV vein tubing is available as part number 101-074.

- Consider replacing the vein tubing when replacing the IV arm/hand skin.
- The vein replacement kit includes thread and replacement tubing. The new tubing is inserted as the old tubing is pulled out of the arm.
- Follow the instructions included with the IV vein replacement kit.

IM Injection Sites

The right deltoid and right/left thigh IM injection sites contain foam inserts for fluid injection training. Water is recommended for IM injection training.

After fluid injection training:

1. Remove the injection site.
2. Remove the foam insert.
3. Squeeze excess fluid from the foam.
4. Allow the foam to air dry completely.
5. Reinstall the foam insert before the next use.

The foam must be completely dry before storage.

Cricothyrotomy Site
The cricothyrotomy membrane must form an airtight seal for proper lung inflation during ventilation.

To replace the membrane:
1. Remove neck skin from manikin
2. Apply provided tape over the cricoid to simulate the cricoid membrane. Ensure an air tight seal
3. Install the neck skin onto the manikin and secure with the velcro tabs.
4. Perform the surgical cricothyrotomy procedure

Note: The provided tape must be replaced after every cricothyrotomy procedure. The neck strap can be rotated around the manikin to multiple incisions.

If the membrane does not seal the cricothyrotomy area, the lungs may not fully inflate.

Replacement cricothyrotomy neck skins are available in a package of 4.

Pneumothorax Pads
Replace pneumothorax pads when worn or damaged.

To replace a pneumothorax pad:
1. Pull the old pad off the posts holding it to the chest.
2. Place the new pad in the same position.
3. Position the smaller round surface as the top side.
4. Ensure the pad fits flush in the opening of the chest overlay.

Replacement pneumothorax pads are available in a package of 4.

Chest Tube System
After chest tube training:
1. Drain all water from the chest tube system.
2. Empty the reservoir bag.
3. Detach the reservoir bag before storage.
4. Allow the tubing and reservoir bag to dry before storage.

Use your organization's infection control procedures for any damp internal spaces where moisture may remain.

Cleaning, Maintenance and Storage

Sternal I/O Disc

- The sternal I/O disc is removable and replaceable.
- The number of uses before replacement may vary depending on how accurately catheter placement is performed.
- Replace the disc when it becomes worn or no longer provides an appropriate training surface.
- Replacement sternal I/O discs are available in a package of 10.

Decontamination Cleaning

- If the trainer has been exposed to contaminants during decontamination training, flush the affected area thoroughly with clean water.
- After the decontamination exercise, clean and dry the trainer before storage.

Storage

Before storing the trainer:

1. Drain all fluids from the manikin.
2. Empty and detach fluid supply bags.
3. Flush the IV lines with clean water.
4. Ensure all components are clean and dry.
5. Store the manikin in a supine position when possible to help preserve the shape of molded parts.
6. Avoid storing the trainer in high temperatures.
7. Do not place heavy objects or pressure on the trainer during storage.

High temperatures may soften the skin. Pressure against the trainer while the skin is softened may cause deformation. Rewarming the skin and removing pressure may allow the skin to return to its normal appearance as it cools.

Replacement Parts, Accessories, Warranty & Service

Replacement Parts

Replacement parts are available to help maintain the performance of your Trauma Troy trainer.

- Injection Site Discs (3 Pack) – 101-073
- IV Replacement Arm/Hand Skin – 101-075
- IV Replacement Vein – 101-074
- Simulated Blood Powder – 101-225
- Reservoir Bags – 101-144
- Sternal I/O Discs (10 Pack) – 101-413
- Cricothyrotomy Replacement Neck Skins (4 Pack) – 101-068
- Pneumothorax Replacement Pads (4 Pack) – 101-423

Accessories

Expand your trauma training with a range of compatible accessories.

- Advanced Military Casualty Simulation Kit – 800-819
- Deluxe Casualty Simulation Kit – 800-890
- Multiple Casualty Simulation Kit – 800-816
- Basic Casualty Simulation Kit – 800-815
- Xtreme Trauma Moulage Kit – 800-620
- Xtreme 2 Trauma Moulage Kit – 800-025
- PHTLS Moulage Kit – 800-665
- Weapons of Mass Destruction Kit – 800-870
- Simulated Blood – SB50245
- Coagulant Blood – 800-226
- Grease Paint Options – Various

Visit www.nascohealthcare.com to explore the full range of accessories and replacement parts.

Warranty & Service

For product support, service, instructional resources, and current warranty information, visit www.nascohealthcare.com or contact your local Nasco Healthcare representative.