

TRAUMA F/X®

Emergency Medical Trauma Trainer - Tactical Medical Upper (EMITT-TMU)

Quick Start Guide

The TraumaFX® Emergency Medical Trauma Trainer - Tactical Medical (EMITT-TMU) is a ruggedized upper body medical trainer that takes realism to the next level by helping trainees learn how to treat and perform interventions on patients suffering from traumatic upper body injuries. EMITT-TMU trains responders on life-saving tasks such as maintaining a patient's airway, intubation, intraosseous infusion, needle decompression, cricothyroidotomy, and IV insertion. EMITT-TMU is designed for rugged use in realistic training environments.

EMITT-TMU also features articulating shoulders and reinforced silicone arms with realistic range of motion. It can be carried, dragged, and transported in a variety of vehicles and aircraft. EMITT-TMU can withstand nearly any weather condition, making it ideally suited for Tactical Combat Casualty Care (TCCC) and Combat Lifesaver training courses.

This quick start guide is intended for use as a simplified field guide for those already trained on operating EMITT-TMU. Please refer to the EMITT-TMU User Guide for in depth guidance on operating the EMITT-TMU Upper torso medical trainer.

1 **Unpack the case**

UPPER UNIT CASE

(Optional accessories where noted - some items may not be included)

EMITT-TMU UPPER BODY



Replaceable Skin Plugs And Components

Please see the User Guide for the full list of replaceable skin plugs and components that accompany the EMITT-TMU unit.

User Guide
Quick Start Guide (this guide)
Makita Operation Manual



2 **Charge the batteries**

EMITT-TMU and Custom Remote

EMITT-TMU uses two rechargeable 18v Makita Li-Ion batteries to power the unit, and one 18v Makita Li-Ion battery to power the custom remote (provided with your lower body simulator). Charge the Li-Ion batteries using the Makita charger provided with the lower body. Refer to the EMITT-TMU User Guide and manufacturer's user manual provided for additional information on charging the batteries.

3 **Insert the batteries**



EMITT-TMU

a. The battery compartment of the EMITT-TMU is located at the waist.

b. To open the hinged battery compartment door, disengage the 'H-Bracket', and firmly twist the two wire closure pins counterclockwise. The cover plate will open from the top. If the door does not swing open, then apply gentle pressure to open it.

c. Insert the two batteries into the battery compartment making sure they firmly lock into their slots with a solid 'click' sound.

d. Close the battery compartment door and securely fasten the wire closures by turning clockwise.



Removing the batteries

Press the white button located on each battery to unlock and remove it from the unit.



Transmitter

Insert the battery at the back of the unit by sliding the battery into the battery slot until it clicks into place.

4 **Mix blood & fill IV Reservoir**



a. Fill the blood fill bucket with 1 gallon of clean, potable, cold or warm water. DO NOT use hot water.

b. Empty contents of 1 blood powder bag per 1 gallon of water into the blood fill container and stir until thoroughly mixed.

c. Fill the supplied 120ml syringe with 80ml of simulated blood and slowly inject into the fill port under the left arm at the hard shoulder cuff.



d. When changing the IV skin plug, ensure that the fluid has been drained from the reservoir.

NOTE: The mixed blood is not perishable. Store the mixed blood with the lid on. When used again, simply stir before refilling unit.

5 **Attach lower unit**

The EMITT-TMU upper unit can be attached to any TraumaFX lower unit (optional). Attach a TraumaFX lower unit in the following manner:

Connecting to a Lower Unit



a. Fold back the chest fascia over the upper unit to expose the quick connect system and bring upper and lower together. Ensure bracket swings forward.



b. Remove hitch pins from the bracket and align the mounting holes on the bracket with the mounting holes on the lower unit. Insert the hitch pins through the brackets.



c. Pull down the chest fascia to cover the space between the upper and lower units.



Disassembling from the upper unit

To separate the lower and upper units, fold back the chest fascia over the abdomen of the upper unit to expose the quick connect system. Slightly lift up on the

unit to relieve the tension. The pins can now easily be removed to separate the upper and lower units.

6 Prep for training

Below is a brief summary of available simulation options.

- a. Blood paste can be applied to enhance the realism of the EMITT-TMU wounds and various surfaces. Your TraumaFX lower unit comes with one gallon of pre-mixed blood paste.
- b. Injured hands are available as optional accessories to enhance the realism of the crisis simulation.

NOTE: Blood paste is perishable, organic material with a shelf life dependant upon storage conditions. Store sealed and in a cool, dark place. Blood paste is cellulose based and could attract insects if left exposed.

NOT INTENDED FOR HUMAN CONSUMPTION

7 EMITT-TMU training sites

Simulated Dilated and Pinpoint Pupil

The *Simulated Dilated or Pinpoint Pupil* can be manually rotated to cue for symptoms of Traumatic Brain Injury (TBI), drug overdose, or exposure to nerve agents.

Simulated Nasal Airways

The *Simulated Nasal Airways* provide for nasopharyngeal intubation into the nostrils to facilitate opening and maintaining a clear airway. Using the remote, the nasal passageways can be closed to cue for another airway treatment, such as endotracheal intubation, oro-pharyngeal airway, or cricothyroidotomy.

Simulated Oral Airway with Sensors

The *Simulated Oral Airway* cavity with teeth and tongue provides for pharyngeal intubation into the mouth to facilitate opening or maintaining a clear airway for mechanical ventilation. This simulated airway can be used with King LT-D or other esophageal airways. This site also provides trainees with a flexible neck and jaw to perform endotracheal intubation.

EMITT-TMU has sensors in the airway to detect the insertion of airway adjuncts and to respond appropriately. The system can detect if a tube is placed properly in the trachea, in the right mainstem bronchi, or in the esophagus.



DO NOT OVER LUBRICATE! The oral airway comes prelubricated. Over lubrication can make intubation more difficult.

Simulated Cricothyroidotomy Training Site

The *Simulated Cricothyroidotomy Training Site* is a multi-use training site that allows for the palpation of landmarks to properly identify and locate the larynx. Additionally, this site allows trainees to create an incision through the skin and cricothyroid membrane for airway intubation. This site uses replaceable, multi-use skin plugs to accommodate repeated simulations.

Simulated Chest Wound Training Site

The *Simulated Chest Wound Training Site* is an interactive training site that presents as a bubbling chest wound. A small amount of simulated blood is placed in the wound, and site is activated using the RC Transmitter. Once active, a small amount of air will bubble through the blood, creating a realistic representation of a sucking chest wound requiring the placement of an occlusive seal.

Simulated Humeral Intraosseous Training Site

The *Simulated Infusible Humeral Intraosseous Site* allows trainees to insert an Intraosseous Infusion Introducer at this location. This site uses a multi-use, infusible manubrium with replaceable membranes to accommodate repeated simulations.

Simulated Sternal Intraosseous Training Site

The *Simulated Infusible Sternal Intraosseous Site* allows trainees to palpate the sternal notch for proper placement and insertion of any Intraosseous (IO) infusion introducer. The IO training site uses a multi-use replaceable infusible plug to accommodate repeated simulations.

Simulated Bilateral Needle 'D' (3¼" 14 gauge) Training Sites

The *Simulated Bilateral Needle 'D' Training Sites* provides trainees with palpable landmarks at the ribs to locate the correct needle decompression

site and fully insert the decompression needle to relieve pneumothorax caused by physical trauma to the chest such as a blast injury. This site uses reusable and replaceable needle 'd' skin plugs to accommodate repeated simulations.

Simulated IV Insertion Site with Flash Cue

This site at the left elbow is designed to provide trainees with a practice area for IV insertion and infusion, and is accompanied with flash cue. The site uses a reusable and replaceable skin plug, and accepts standard 18ga IV catheters.

8 After use care and maintenance

To keep EMITT-TMU operating as designed, the following preventive maintenance actions must be completed after each training session.

- a. Empty and rinse out the blood fill bucket with clean water.
- b. Remove any blood from the IV system using the supplied syringe, and flush the IV system with clean water
- c. Ensure EMITT-TMU and Remote are turned OFF
- d. Remove and charge batteries
- e. Wash skin and wounds with water. If stain persists, use a mild detergent and gently rub with a soft, damp cloth. DO NOT vigorously scrub the skin or surface area as this can cause permanent damage to the skin.
- f. Inspect EMITT-TMU for small skin cuts and repair found.

9 Safety instructions

Possible Reactions to Synthetic Blood Mix

DO NOT ingest blood paste, dry blood mix or mixed blood. The chemical components may cause skin and eye irritation for some users. Avoid ingestion or inhalation. If eye contact occurs, immediately flush eyes with cold water for 15 minutes. Seek medical attention if irritation occurs. If skin contact occurs and the skin becomes irritated, wash with soap and water.



CAUTION: Blood mix in powder or liquid form may stain clothes. If clothing comes into contact with blood mix, treat affected area with stain remover and/or laundry detergent within 24 hours for best removal results.

Contact Information

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Customer Support

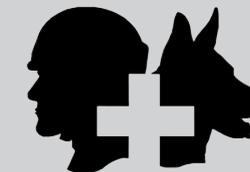
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