

3-Dmed[®]

LEARNING THROUGH SIMULATION



T5-RM-HD MITS
User Manual
Original Instructions

T5-RM-HD Minimally Invasive Training System

Thank you for purchasing the T5-RM-HD MITS from 3-Dmed®. Each has been fully tested prior to shipment and is easy to setup and use.

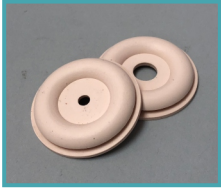
FEATURES:



Size & Weight

Length: 21" (53.5cm) Width: 13.5" (34.5cm)

Height: 12" (30.5cm) Weight: 18 lbs. (8 kg)



Your instruments can be inserted into any of the fourteen ports. They can be used with or without trocars.

The trainer comes with both 5mm and 10mm grommets. The grommets are easily removed or replaced.

The trainer has a generous, well-lit work area. It will accommodate either artificial anatomical structures or animal tissue. Consider using an absorbent pad under animal tissue.

Monitor Adjustments:

To make adjustments, push the "☰" button. Use the arrows to adjust different functions.

Contrast - It increases/decreases the separation between light and dark.

Brightness - Adjusts the light level on the screen.

Hue (Color) - Controls the level of the color.

Saturation - Increases or decreases color in relation to brightness.

Sharpness - Adjusts edge contrast of objects being viewed.

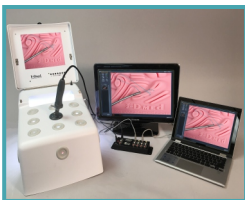
Color Temperature - Cooler is generally better for tasks, our light is "cool."

SimScope™

The SimScope™ can move in and out to change the field of view and swivels to provide a full range of motion. It will fit into any of the ports.

Using Alternate Displays:

The camera image can be sent to any other television monitor that has an RCA video input, such as a large TV. Simply remove the RCA plug from the gold RCA jack, and attach an RCA female/male extension cord (not supplied) between the SimScope™ and the alternate monitor's "video" input. This works great for lectures or demonstrations.



Recording and Using Multiple Monitors:

Activity can be digital recording and analog recording by connecting the 3-DMED® SSVI07 Video Interface (sold separately) between the trainer and a digital storage device (computer/network). Additionally, the SSVI07 can split the input signal and can use up to four monitors. For more information, please visit our website.

Setup Instructions



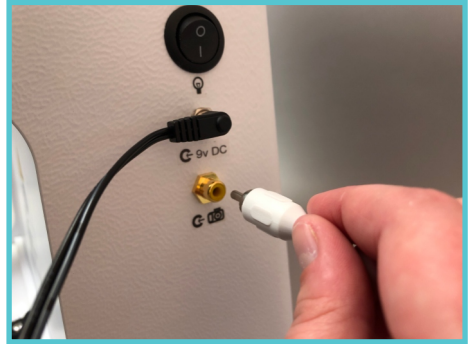
1. Lift the lid by the black knob to open.



2. The power cord is stored in the trainer. Remove the cord by unhooking the Rip-Tie® strap. The cord is retained in the strap for transportation or storage.

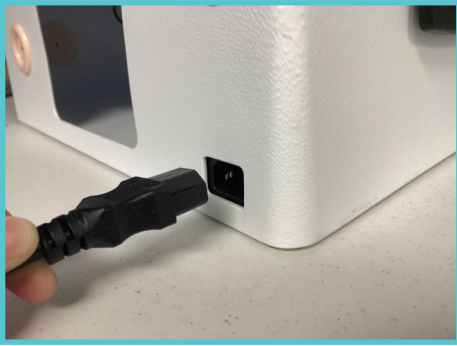


3. Mount the **SimScope™** (see p.3). Then, plug the black cord into the receptacle marked "9V DC" on the right side of the trainer.

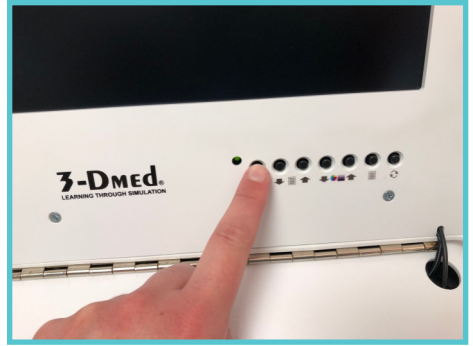


4. Plug the white RCA plug into the "📷" receptacle.

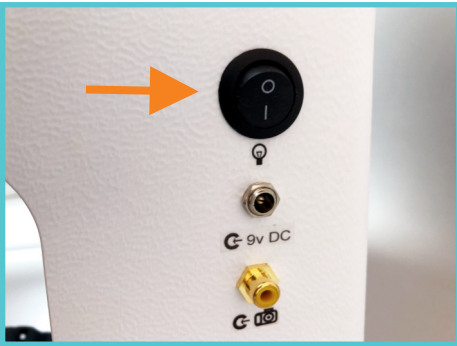
Setup Instructions (continued)



5. Attach the power cord on the side of the unit. Plug into a standard 120V AC outlet.



6. Once trainer is powered, press the "⏻" button for two seconds. The red LED light will turn green when monitor is on. When turning the monitor off, press the "⏻" button for one second.



7. To illuminate the work area, press the black switch (labeled "💡") that is located on the right side of the trainer.

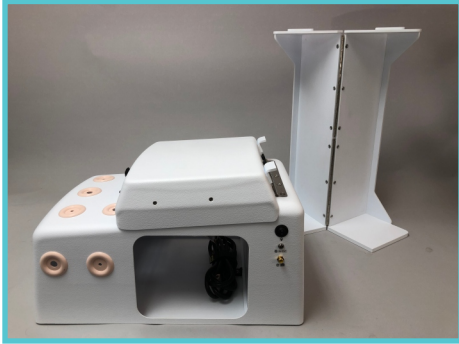


8. If monitor adjustments are needed, press the "📺" button. Use the arrows "⬇️📺⬆️" to choose the setting. Use "⬇️📺⬆️" to adjust the setting. The "🔄" button should be set to "AV."

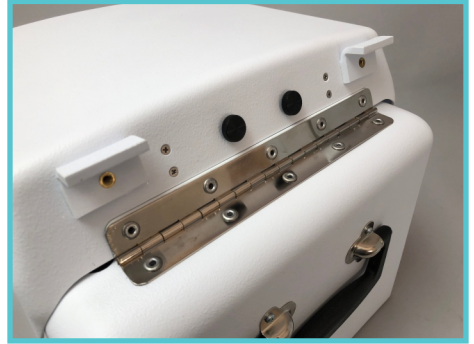
NOTE: The monitor is Liquid Crystal Display (LCD) and care must be exercised regarding the surface of the screen. To clean: use a soft cotton cloth lightly dampened with water, or a commercial computer LCD monitor cleanser, or use a solution of 50% isopropyl alcohol and 50% distilled water. Products containing ammonia should not be used. Do not apply any cleaning solutions directly onto the screen. Never use cleaning products that contain abrasives or strong solvents. Turn monitor off when not in use.

Transferring Screen Module to Pedestal

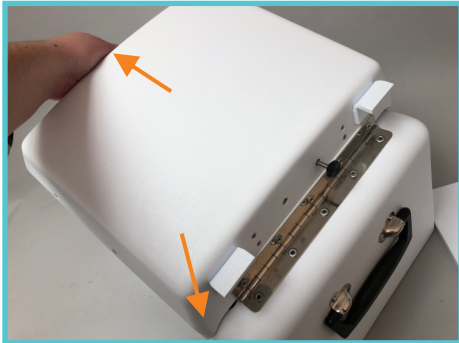
(Please read the entire procedure and refer to the figures as directed before proceeding)



1. Separate the trainer and pedestal. Fold the pedestal 90° and stand it vertically with the slots to at the top. Place it near the trainer.



2. Unlatch the screen module and leave it in the closed position. Locate the black thumbscrews on the back of the module and remove them.



3. Grab the screen module by the knob and near the locating tab. Using the knob, lift the assembly straight up clearing it from the mounting flange on the hinge.

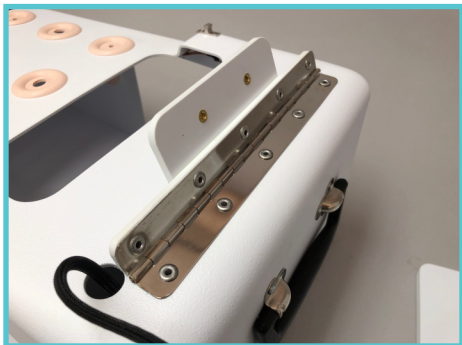


4. Position the tabs on the bottom of the screen module into the slots on the pedestal until they are fully seated. The screen will face the holes in front of the slots.



5. Continue to hold the screen assembly while securing it to the pedestal with the thumbscrews through the pedestal. Tighten securely.

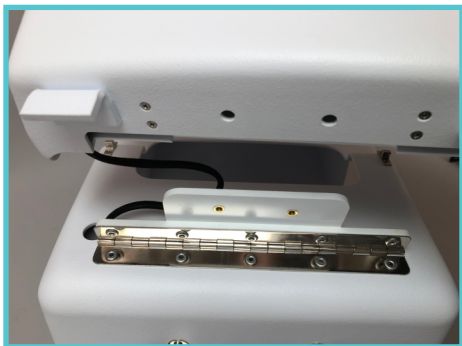
Returning Screen Module to Trainer Body



1. Position the mounting flange for the module in the upright position



2. Hold the screen module while removing the thumbscrews that retain it to the pedestal.



3. Remove the module from the pedestal and feed the black cord back into the trainer body as you guide it into position on the mounting flange. Avoid pinching or twisting of the cord. The screen module must be in the horizontal position when placed on the mounting flange.



4. When fully seated on the flange, secure the thumbscrews through the back of the module to the mounting flange.

SETUP & ADJUSTMENTS

Note: Please remove lens cap before using.

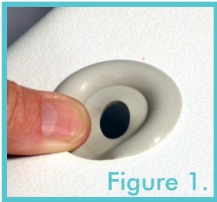


Figure 1.



Figure 2

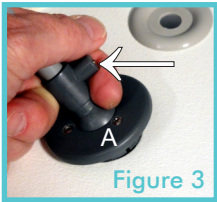





Figure 3

1. The SimScope™ can be installed in any port. Simply remove the grommet from the desired port. To do this, press the outer edge of the grommet in toward the center then down (fig. 1).

2. Insert the camera end of the SimScope™ into the hole (fig.2). Grasp the swivel collar and press until it “snaps” into place.

3. Connect the black power cord to the receptacle marked “ 12v DC” below the light switches on the right side of the trainer.

4. Connect the white RCA plug to the gold RCA receptacle marked “  ” under the power receptacle.

5. To increase the resistance of the ball joint movement: tighten the three phillips screws (“A” fig.3) with a #1 phillips screwdriver. Adjust in small increments. Do not over tighten!

6. To adjust the resistance of the shaft slide movement: turn the insert in the tension adjustment boss (arrow fig.3) with a small flat blade screwdriver. Turn clockwise for more resistance, or counter clockwise for less. Adjust in small increments. DO NOT OVER TIGHTEN or DAMAGE to the shaft WILL RESULT.

7. To remove the SimScope™ grasp the swivel collar placing your forefinger under the tension adjustment boss for leverage, and pull out with a rocking motion (fig. 3).

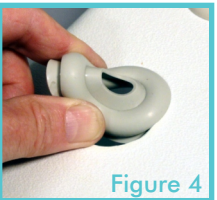


Figure 4

8. To replace a grommet, squeeze it on opposite sides and fit the slot in the grommet over the edge of the hole (fig.4) Work your way around the hole.

9. If there’s a need to adjust the focus of the camera lens, you must first loosen the set screw in the side of the lens body with a .05” hex key (Allen™ wrench). Adjust the focus by screwing the lens in or out then gently secure the set screw to maintain that setting.

In order to provide warranty or future service, please contact us via e-mail at: support@3-Dmed.com prior to taking any action. This will help expedite the process. Problems can be resolved by e-mail or phone.










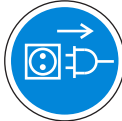
3-DMED®, a division of 3-D Technical Services Co., warrants this Product against defects, material, or workmanship subject to the following conditions:

1. **MONITOR and CAMERA:** These items are covered by their manufacturer's warranty for a period of one year. **3-DMED®** will act as liaison in the case of your claim, but final determination of coverage is the manufacturer's decision.
2. **LABOR:** For a period of 90 days from the date of purchase, if **3-DMED®** determines the Product (part) to be defective, we will repair or replace the Product (part) at no charge. After the warranty period, we will provide an estimate for labor charges upon request.
3. **PARTS:** **3-DMED®** will replace defective parts with new or rebuilt replacements for a period of 90 days. After the warranty period, parts are available through **3-DMED®** and pricing will be provided upon request.

TO OBTAIN WARRANTY SERVICE: YOU MUST OBTAIN A RETURN AUTHORIZATION NUMBER via phone or e-mail **BEFORE** sending the unit back. The Product must be sent in its original packaging, or packaging affording an equal degree of protection, to **3-DMED®** with insurance for its full value. Uninsured parcels are sent at **YOUR RISK** for loss or damage.

This warranty does not cover user cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, or modification to any part of the Product. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than a trained technician at **3-DMED®**. This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

T5-RM-HD MITS - Symbol Legend

	- POWER, ON AND OFF		- LIGHT SWITCH
	- MENU ACCESS or MONITOR CONTROL NAVIGATION		- RECEPTACLE FOR SIMSCOPE™ VIDEO CAMERA
	- ADJUST DISPLAY VALUES or CHOOSE MONITOR CONTROL FUNCTION		- RECEPTACLE FOR SIMSCOPE™ POWER CORD
	- DISPLAY VALUES		- WARNING: ELECTRICAL HAZARD
	- SWITCH INPUT MODES		- WARNING: DISCONNECT POWER PRIOR TO ACCESS

SCOPE AND LIMITS OF USE

- This Product is designed for laparoscopic surgical training tasks.
- This Product is intended for simulation and training purposes only.
- This Product is able to house animal tissue, for training purposes.
- Task inserts intended for use inside the MITS can be purchased at www.3-dmed.com.
- This Product is not to be used on or with human patients.
- Only use this Product with the appropriate power source.
- Unplug the Product when not in use

CE 2019

3-Dmed

255 INDUSTRIAL DRIVE, FRANKLIN, OH, 45005, USA

DESIGNATION OF THE MACHINERY:

MINIMALLY INVASIVE TRAINING SYSTEM (MITS)

MODEL: T5-RM-HD

INPUT: 100-240 VAC, 1.2A, 50-60Hz

WEIGHT: 18 lbs. (8 kg)

Emitted sound pressure level is below 70dB (A).

Weight and Lifting Requirements

- The weight of the T5-RM-HD is 18 lbs. (8 kg).
- Use caution when lifting and carrying.
- Before lifting, make sure cord is securely strapped.
- Trainer can be lifted by the handle on the back, or by placing your hands underneath the bottom outside edge of the trainer.

Visually inspect the T5-RM-HD Trainer once every year to ensure the trainer is working properly and safely. Please contact us if you notice any of the following:

- Frayed wires
- Loose parts
- Screen damage
- Exposed cables
- Damaged parts
- Physical damage
- Loose connections



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product or their local government office for details of where and how to safely recycle the item.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.



Laparoscopic Task Inserts



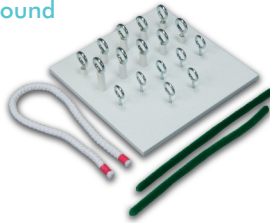
Playground



Soft Tissue Suture Pad



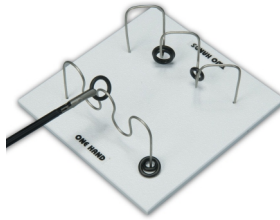
Tray of Organs



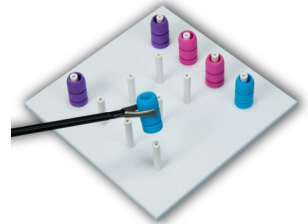
Skill Building Task 1
Loops and Wire



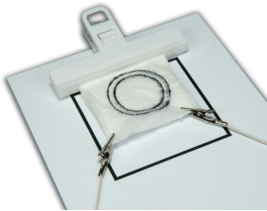
Skill Building Task 2
Pea on a Peg



Skill Building Task 3
Wire Chaser



Skill Building Task 4
Post and Sleeve



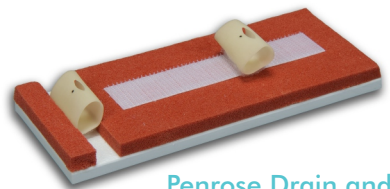
Practice Board
for FLS® Skills



Vaginal Cuff and Holder



Bowel Sections

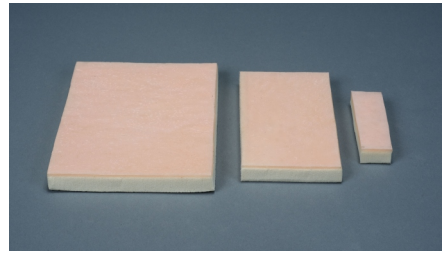


Penrose Drain and
Holiotomy™ Holder

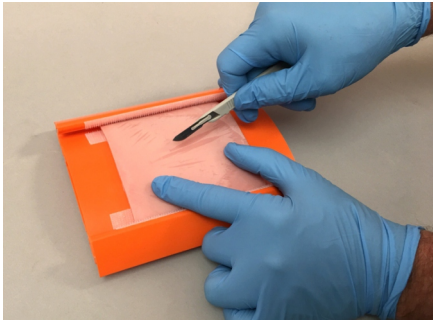
More Products from 3-D Med®



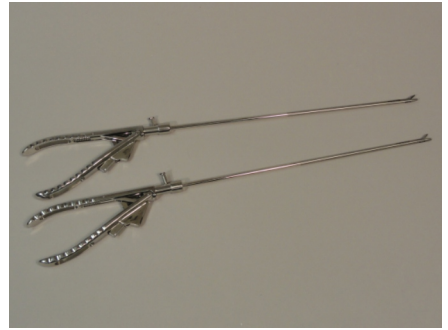
ENA Suture Kit



3-Layer Skin Pads



Skin Pad Holder



Mock Medical Instruments



ECMO Simulation Kit



Adjustable Height MITS
Work Station



Lifelike Biotissue



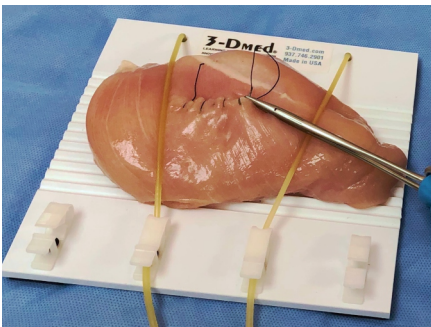
Task Trainers



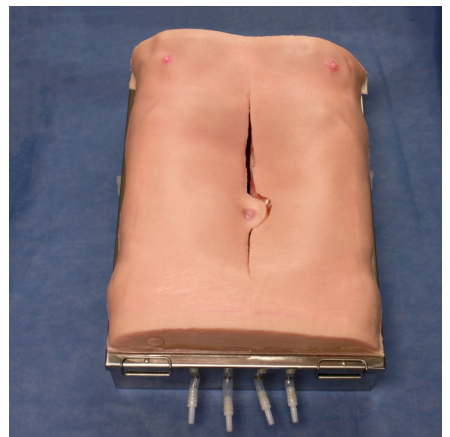
Organ Crossword Game



Ultrasound Phantoms



Tissue Mounting Board



AAA Abdomen Simulator

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