



**3-D MED**

LEARNING THROUGH SIMULATION



# T5-RM-HD MITS

## ORIGINAL INSTRUCTIONS

Got a question? We're ready. Here's how to connect.

**Our Website:**  
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# T5-RM-HD MINIMALLY INVASIVE TRAINING SYSTEM

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

## FEATURES:



# QUICK GUIDE

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.



## Size and Weight

Length: 21" (53.5 cm)

Width: : 13 .5" (34.5 cm)

Height 12" (30.5 cm)

Weight: 18 lbs. (8 kg)

## 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.

**Hue (Color):** Controls the level of the color.

**Saturation:** Increases or decreases color in relation to brightness.

**Brightness:** Adjusts the light level on the screen.

**Sharpness:** Adjusts edge contrast of objects being viewed.

**Color Temperature:** As 'cooler' light is generally better for tasks, the color temperature of our light is automatically set to '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.

# SETUP INSTRUCTION



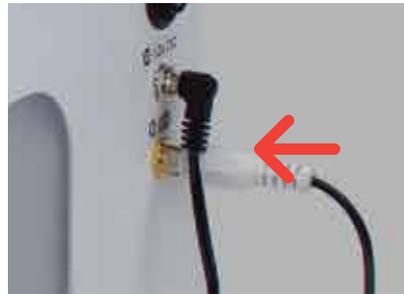
1. Lift the lid by the black knob to open.



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 **12VDC** on the right side of the trainer.



4. Plug the white RCA plug into the receptacle.



5. Attach the power cord on the side of the unit.

Plug into a standard 120-240v AC outlet.

Note: HDMI output receptacle location on back



6. Once trainer is powered, press the button for two seconds. The red LED light will turn green when the 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.

## 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.

to choose the setting.

Use to adjust the setting.

The "" button should be set to "AV."

# TRANSFERRING SCREEN MODULE TO PEDESTAL

(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

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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.

# THE 3D-MED® SIMSCOPE™

## SETUP & ADJUSTMENTS

**Note:** Please remove lens cap before using.



Figure 1



Figure 2



Figure 3



Figure 4

**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).

**3.** Connect the black power cord to the receptacle marked "⚡ 12v DC " below the light switch on the right side of the trainer.

**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.**

**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).

**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 1.5mm flat head screwdriver. Adjust the focus by screwing the lens in or out then gently secure the set screw to maintain that setting.

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

**4.** Connect the white RCA plug to the gold RCA receptacle marked "⚡ 📷 " under the power receptacle.

**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.**

**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.

# WARRANTY

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To ensure warranty coverage or receive future service, please contact us via email at support@3-Dmed.com before taking any action. This will help expedite the process. Most issues can be resolved by email or phone.

3-D MED®, a division of 3-D Technical Services Co., warrants this product against defects in materials or workmanship, subject to the following conditions:

## 1. MONITOR AND CAMERA:

These components are covered under their respective manufacturers' warranties for a period of one (1) year. 3-D MED® will act as a liaison during your claim process; however, final coverage decisions rest with the manufacturer.

## 2. LABOR:

For a period of 90 days from the date of purchase, if 3-D MED® determines that a product or part is defective, we will repair or replace it at no charge.

After the 90-day warranty period, labor charges will be provided as an estimate upon request.

## 3. PARTS:

3-DMED® will replace defective parts with new or rebuilt components for a period of 90 days. After this period, replacement parts are available through J-DMED®, and pricing will be provided upon request.

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## TO OBTAIN WARRANTY SERVICE:

**You must obtain a Return Authorization Number by phone or email before sending the unit back.**

The product must be shipped in its original packaging, or packaging that provides equal protection, and must be insured for its full value.

Uninsured shipments are sent at your own risk for loss or damage.

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## Warranty Exclusions:

This warranty does not cover:

- Cosmetic damage caused by the user.
- Damage due to acts of God, accident, misuse, abuse, negligence, or unauthorized modification.
- Damage resulting from improper operation, maintenance, or connection to an incorrect power supply.
- Repair attempts by anyone other than a trained technician at J-DMED®
- Any product with an altered or removed factory-applied serial number.

# T5-RM-HD SYMBOL LEGEND



Power ON and OFF



Menu Access or  
Monitor Control Navigation



Adjust Display Values or  
Choose Monitor Control Function



Display Values



Switch Input Modes



Light Switch



Receptacle for SimScope™  
Video Camera



Receptacle for SimScope™  
Power Cord



**WARNING - Electrical Hazard**



**WARNING - Disconnect Power  
Prior to Access**

## SCOPE AND LIMITS OF USE

This product is designed for laparoscopic surgical training tasks.

It is intended for simulation and training purposes only.

The product can accommodate animal tissue for training purposes.

Task inserts for use inside the MITS can be purchased at [www.3-dmed.com](http://www.3-dmed.com).

This product must not be used on or with human patients.

Use only with the appropriate power source.

Unplug the product when not in use.

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



2019

3-Dmed  
255 INDUSTRIAL DRIVE,  
FRANKLIN, OH, 45005, USA

DESIGNATION OF THE MACHINERY:  
MINIMALLY INVASIVE TRAINING SYSTEM (MITS)  
MODEL: TS-RM-HD  
SERIAL NUMBER:  
INPUT: 100-240 VAC, 1.2A, 50-60Hz  
WEIGHT: 18 lbs. (8 kg)

# T5-RM-HD MITS ADDITIONAL INFORMATION



## 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.**

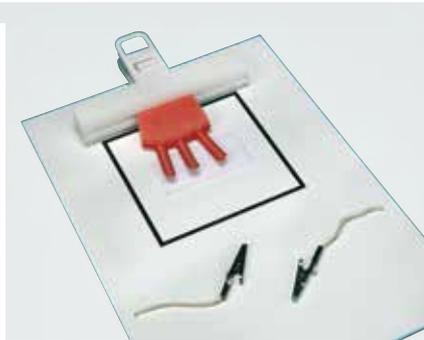
# LAPAROSCOPIC TASK INSERTS



**SOFT TISSUE SUTURE PAD**



**PLAYGROUND**



**PRACTICE BOARD FOR FLS® SKILLS**



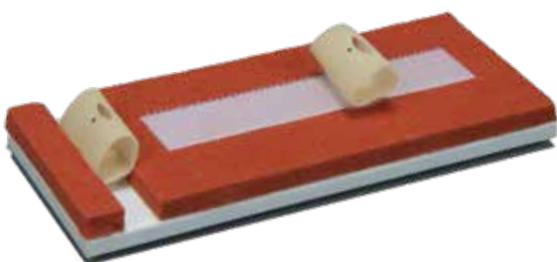
**TRAY OF ORGANS**



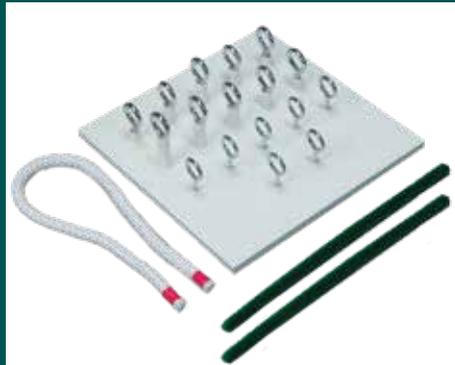
**BOWEL SECTIONS**



**VAGINAL CUFF AND HOLDER**



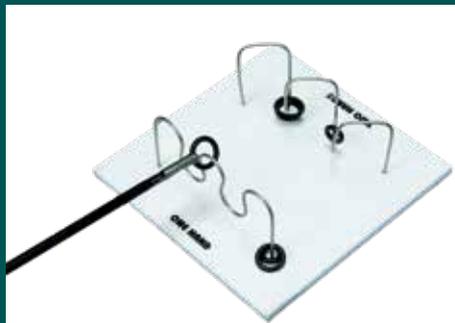
**PENROSE DRAIN AND HOLIOTOMY™ HOLDER**



**SKILL BUILDING TASK 1  
LOOPS AND WIRE**



**SKILL BUILDING TASK 2  
PEA ON A PEG**



**SKILL BUILDING TASK 3  
WIRE CHASER**

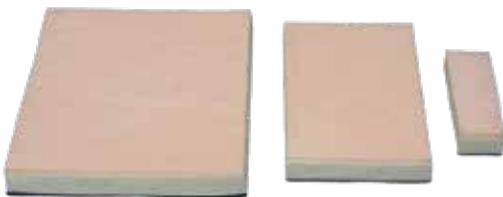


**SKILL BUILDING TASK 4  
POST AND SLEEVE**

**ENA SUTURE KIT**



**3-LAYER SKIN PADS**



**SKIN PAD HOLDER**



**MOCK  
MEDICAL  
INSTRUMENTS**



**TASK  
TRAINERS**



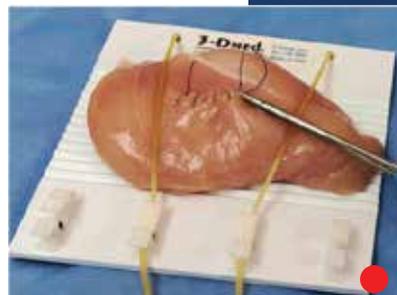
**ULTRASOUND  
PHANTOMS**



**ECMO  
INFANT**



**PICC LINE**



**TISSUE  
MOUNTING  
BOARD**