User Guide

Fundamentals of Laparoscopic Surgery™ Trainer System & Accessories

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Limbs & Things Inc.
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Limbs & Things, a leader in medical and surgical simulation for the past 25 years, has worked closely with the SAGES-ACS FLS Committee to update the FLS Trainer and is pleased to present a new series of Laparoscopic training products designed exclusively for the FLS Program.

The new versatile and exciting design meets the need for gaining fundamental skills at an affordable cost. Limbs & Things offers three purchasing options for the FLS Trainer, which allow for parts such as the camera and light source to be easily replaced by the customer.
Components: Trainer System

1. Trainer Box Top
2. Trainer Box Base
3. Skin Frame
4. Trocars
5. Camera
6. Monitor cable
7. Power Cable and Adaptors
8. String and Alligator Clips
Components: Consumables

**Note:** The following FLS Trainer Systems do not include consumables: Part No’s: 50301, 50303, 50305

**Task One:** Peg Transfer

1. Peg Board with 6 Triangles

**Task Two:** Precision Cutting

1. Jumbo Clip Retainer
2. 25 Gauze Pads with Single Circle
3. 25 Gauze Pads with Double Circle

**Task Three:** Ligating Loop

1. 3 Foam Organs

**Tasks Four & Five:** Knot Tying

1. 1 Suture Block with 50 Penrose Drains

**Additional Equipment Available for Purchase**

Instruments, Single/Multi Use Ligating Loops and Sutures can be purchased in multi-packs from the FLS website - [www.fls-products.com](http://www.fls-products.com)

**Note:** Ligating Loops are required for Task Three and Sutures are required for Tasks Four and Five.
Attaching New Trocars

1. Before attaching the frame to the unit, insert the trocars through the holes in the black neoprene.
2. Turn the frame upside down and place on a hard surface. Attach the trocar rings so that the trocar is secure.

Attaching the Frame

1. Align the two holes either side of the frame with the black clips on either side of the unit to fit the frame in place.
2. Once the frame is in place, twist the black clips to secure.
Assembling the Trainer Box

1. The Trainer will arrive in two halves

2. Ensure the trainer is aligned correctly (power points and alligator clips should be at the front of the trainer)

3. Line up the holes on the top half of the model with the connecting points on the rubber sleeve on both sides of the model

4. Gently press the top half of the model down onto the rubber connecting points on both sides. The two halves of the model are now securely fixed
Connecting a Monitor

Note: If you are connecting a different monitor than the one provided with the FLS system, please refer to your monitor’s instruction manual for connection instructions.

The positioning of the yellow connector may vary depending on the monitor being used as illustrated in photos 3 and 4.

1. Attach the power cable to the power connection point and plug into a power source.

2. Attach the cable with the yellow connector to the remaining connection point.

3. The TV comes with the adaptor in the picture. Plug this into the top socket on the left hand side of the TV and then plug the long cable with yellow ends into the yellow socket on that adaptor.

4. If you are connecting a different monitor than the one provided, plug the other end of the yellow connector into the relevant connection on the back of the monitor.
Configuring the Monitor

**Note:** If you have connected a different monitor than the one provided with the FLS system, please refer to your monitor’s instruction manual for configuration instructions.

1. Once the trainer is linked to the monitor, the power light on the bottom right will show that the TV has power going to it and is in standby mode.

2. Press the standby button on the remote control.

3. The monitor should now display the camera view.

4. **IF THE MONITOR IS NOT DISPLAYING THE CORRECT CHANNEL,** press the INPUT button on the remote control.
The Input Source menu will display. If TV is selected, use the arrows on the remote to scroll down the menu.

Select Component/AV on the Input Source Menu, and press enter on the remote control.

After a few seconds the AV channel will display the camera view.

Press the Aspect button on the remote control to change the aspect ratio. There are 4 options to choose from: Normal, wide, cinema and zoom.
Adjusting the Camera (Slider) to Center the Image

1. Twist the two black clips and detach the frame from the top of the trainer

2. Locate the single screw that holds the camera in place on the trainer box

3. Using a Phillips screwdriver (not included), loosen the screw in order to realign the camera

4. Slide the screw to the preferred position (looking at the monitor to check the camera view)
The monitor view can also be adjusted by gently moving the camera unit up or down.

Check on the monitor that the image is displaying as required.

Once the camera is in the correct position, tighten the screw to hold the camera in place.

Re-attach the frame to the top of the trainer.

IMPORTANT:
Please, ensure that the plastic cap covering the camera lens is removed before use.