

Traction Splint Trainer

Operating Instructions



Splint Not Included



The Base Control Plate of the Traction Splint Trainer

This trainer measures the amount of force of traction applied by a practitioner during the treatment of a femur fracture. In the trainer's normal position, a deformity appears in the lateral aspect of the mid-femur area. During the application of traction to the device, the deformity will reduce and the leg will extend.

The instructor determines what weight class the patient will represent and sets the device so that the LED light illuminates for that class. A digital readout of the traction pressure applied to the device will appear in the screen.

For training purposes, the instructor can turn on the "Alarm" that will indicate the pressure range that the student applies so that the student can be self-coached into realizing what the correct pressure feels like. This alarm can be turned off during testing procedures and the instructor can refer to the digital readout to determine the adequacy of the practitioner's traction application.

The device can also be set to display metric equivalents to the US Standards.

Getting Started

The device is driven by an on-board, rechargeable battery. This battery arrives fully charged and will last for many days without the need for charging. However, if the battery drops below 7 volts, you will experience a very sluggish movement of the interior motor used to set the tension of the main spring according to the weight class chosen. Plug in the provided charger to charge the interior battery back to its 12 volt capacity. The light will turn green on the charger once the battery reaches full charge.

BEFORE TURNING ON THE DEVICE: push the leg assembly up into the thigh to verify that the device is properly seated against the interior stops. This will ensure that the electrical devices are appropriately positioned for accurate tension readings.

Turn the Traction Splint Trainer on by moving the Power rocker switch to the ON position. After power is on, the red LED indicating the patient weight setting of 50 pounds will illuminate. If the pull force reading is not 0 lbs, 0 oz., turn the unit off and push the leg inwards (towards the torso) as directed above.



Charger cord attached and the power switch in the “On” position
Weight setting is 50 Lbs.

Press the “Weight Select” button and the product cycles through the patient weight options. The LED will illuminate next to the patient weight selected. The LCD must read less than 1 lb for the weight setting to be changed. If it reads more than 1 lb., push the leg up into the torso until the reading is 0 lb 0 oz. There will be a short delay after the weight selection has been made before the Traction Splint Trainer starts to pre-load the spring. Once the desired weight has been selected, the Traction Splint Trainer motor will pre-load the spring to the appropriate amount of tension. Make one more check of the scale reading to determine if you need to push the leg into the manikin to get the scale to read zero/zero before the student applies traction.

If your device fails to sound the alarm at the appropriate levels on your first initiation of the device, turn it off and then push the leg back into the manikin to the stops. Turn the unit back on and it should function appropriately.

Once the device initiates the first time, you may press the button consecutively in order to move to a different weight class. However, once the motor starts to change a tension setting, you must wait until it finishes before changing the weight setting. In other words, don't wait for the motor to engage if you want to go from 200 lbs to 150 lbs. The weight setting only changes in an upward direction and, if you have to wait for the motor to stop between each setting, it will take three minutes to accomplish what could be done in about 3 seconds.

If you turn the device off by flipping the rocker switch while the unit motor is running, the motor will continue to operate until it reaches its designated position for the weight setting that you initiated. The unit will then turn off. Any time you turn the unit back on after making a weight selection (i.e., 150 lbs.), it returns to the same weight setting, not 50 lbs.



150 lbs Setting and 0 lbs 0 oz

Once the motor has stopped running in its adjustment to the new weight class, the unit is ready to use. The LCD will display the amount of pull force on the leg in lbs or kg. To switch between the two, press the “lbs/kg Display” button once and the display changes to the desired setting. Pushing the button again will change the selection.

An audible alarm is available that will sound when the force applied to the leg is not within approximately 5% of the target pull force. This alarm function is toggled on and off with the “Alarm On/Off” button. The alarm will beep at a slow interval when the leg is below 95% of the target pull force and at a fast interval when the leg is above 105% of the target pull force.

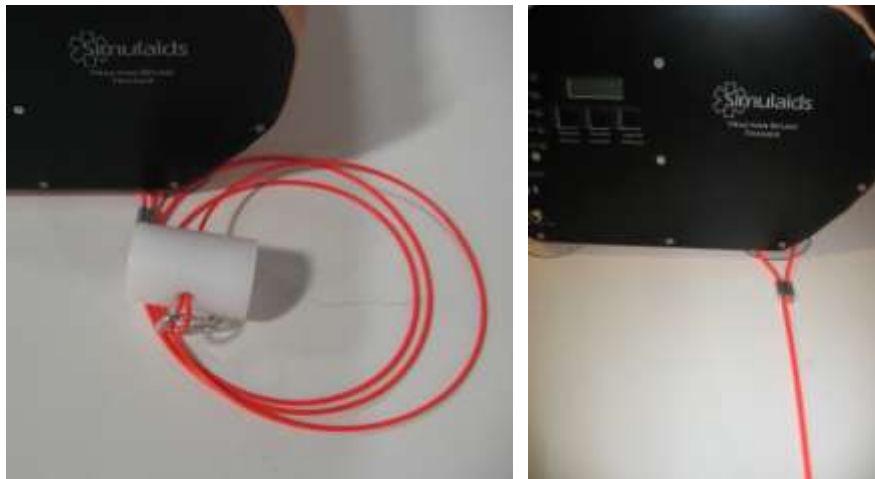
If you turn on the alarm and select the 100 lb weight class, the device will sound an alarm until you reach 9 lb 8 oz and then will sound again if you attain 10 lb 8 oz or more. It is not necessary to use the alarm. The instructor can read the LCD and pass this information on to the practitioner or use this feature for testing.

Because of the limitations of the equipment, instructors should establish acceptable ranges of the display tension that will qualify students. For instance, in the above example of the 100 lb weight class, the instructor may choose to accept display values of between 9 lb 06 oz and 10 lb 14 oz to qualify their students.

The “12VDC In” jack is used to re-charge the internal 12Vdc battery. The included 110 VAC wall mount battery charger has a red and green LED indicator. Red indicates the battery is charging and Green illuminates when the battery is fully charged.

The battery is a 12VDC, 8.0 AH Maintenance-free Sealed Lead-acid re-chargeable type. When used with the supplied 110VAC charger, this battery should provide at least 12 months of service (under normal operating conditions).

The battery part number is SLA-12V7-F1. This battery is a 12 volt/8 Ah/20HR unit.



Stabilizing Hitch

The Traction Splint Trainer by itself will not withstand the application of pressure without sliding along on a surface. To assist in keeping the unit in one place there are two features: suction cups and a cable hitch. If you are on a smooth floor surface, the suction cups may hold the unit in place. If they do not, or if you are on a carpeted surface or a stretcher, utilize the cable hitch to secure the unit. The hitch may be used on a table leg, stretcher cross bar, backboard slots, or the “plug” of the strap may be placed on the opposite side of a door. Close the door to hold the trainer in place while the practitioner applies traction. The hitch loop is placed around the suction-cup-foot stud on the side of the trainer that has the leg so that the trainer is held in place as linear force is applied to the leg.

Baby Powder Use

The skin surface of the lower thigh must be coated with talcum powder (baby powder) to ensure that the skin surfaces slide easily against each other. If you experience a leg that tends to stick during traction application and restoring the leg to its neutral position against the stops, clean the leg skin thoroughly, dry it off, and apply a layer of talcum powder to the lower thigh skin where it enters the upper thigh.

TARGET PULL FORCE BY PATIENT WEIGHT SELECTED

Patient Weight	Pull Force
50 lbs	5 lbs
100 lbs	10 lbs
150 lbs	15 lbs
200 lbs	15 lbs
250 lbs	15 lbs

CLEANING and CARE

Caution: This is an electrical product. Do not submerge in water or soak it! Water damage is not covered by the factory or extended warranty.

Use a water soluble cleaner and damp cloth to wipe off dirt and grime.

Store the product in an environment that is comfortable for human occupation. Extreme temperatures, either cold or hot, will affect the product's surface and may damage the internal parts. Utilize a large garbage bag to help keep it clean during long storage periods.

The hitch for maintaining stability of the unit during the application of traction may be washed with any spray cleaner and wiped dry.

Item Number Description Factory Warranty Period Extended Warranty Period Total Warranty Coverage Available Contact your Simulaids' Distributor for current pricing

4000 CPR Recording Manikin 1 year 2 years 3 years
031 Traction Splint Trainer 1 year 2 years 3 years
030 Child Heart and Lung Sounds Trainer 1 year 2 years 3 years
405 SMART STAT 1 year 2 years 3 years
400 PDA STAT 3 years 2 years 5 years
401 PDA STAT Baby 3 years 2 years 5 years

WARRANTY: Simulaids warrants the product to be free from defects in materials and/or workmanship for a period of one year from the date of purchase, as evidenced by the date on the invoice of the product shipment. This warranty expressly does not cover abuse, accidental or purposeful damage, or any form of modification to the product.

Simulaids reserves the right to either repair or replace affected parts or the entire unit, at their sole discretion, after investigating and reviewing the actual product and the damage.

RETURN POLICY: At no time will any product be accepted without proper return authorization issued by Simulaids. Please contact our Customer Service Department to arrange a return and obtain a RGA number. Freight and Shipping charges are the sole responsibility of the end user. No product will be received with shipping charges due. Serial number and invoice number from the agency through whom the product was purchased must be provided for warranty repairs. No return authorization number will be provided without this information. Should you have any questions or wish further information on any product we manufacture call or write our Customer Service Department.



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