

## Overview

This Safety guide outlines general safety practices for MTS test system operation.

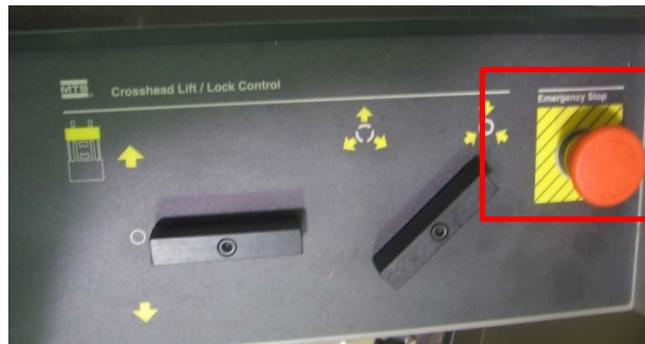
A technician should train you, before using this machine. You should study this manual carefully before attempting any test system procedure. This will help to gain an understanding of the system functions. In depth MTS operating manuals are found online.

Link:....

## Before operating the system

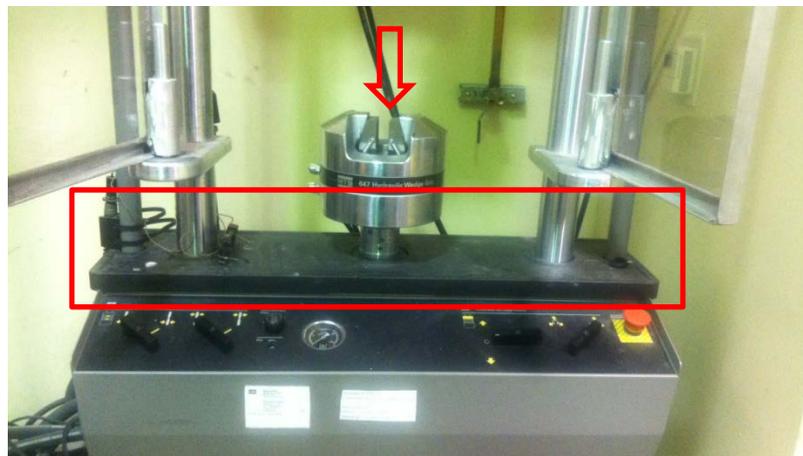
### Locate Emergency Stop Buttons

The **emergency stop** button is located on the right hand side of the MTS control interface. Know where all of the system emergency stop buttons are located so that you can stop the system quickly in an emergency. MTS will **NOT** run if it is engaged.



### Know potential crush and pinch points

Be aware of the systems potential crush and pinch points and keep personnel and equipment clear of these areas. It is likely that as stored energy dissipates from the servo hydraulic system, gravity will cause portions of the system to move when shut down. Keep area around the crossheads clear from any collision.



### Know the controls

Before you operate the system for the first time, make a trial run through the operating procedures with the drive power off. Locate all hardware and software controls and know their functions and required adjustments. If any control function or operating adjustment is unclear, review the applicable information until you understand it thoroughly.

### Practice good housekeeping

Keep work area floors clean. Hydraulic fluid spilled on any type of flooring can result in a dangerous, slippery surface.

### Protect hoses and cables

Protect electrical cables from spilled hydraulic fluid. Protect all system hoses and cables from sharp or abrasive objects that can cause the hose or cable to fail. Never walk on hoses or cables or move heavy objects over them. Route hoses and cables away from areas that may expose them to possible damage. Report any damaged, loose, or punctured hoses.

## While operating the system

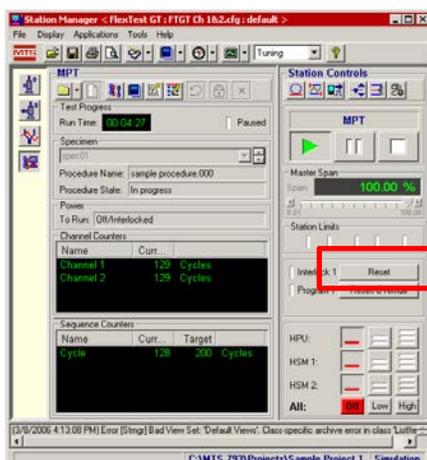
### Wear appropriate protection

Wear eye protection when working with high pressure hydraulic fluid, explosive specimens, or when anything peculiar to the specimen setup could break apart.

Wear appropriate protection (gloves, boots, and lab coats) in general while operating the MTS.

### Know servo hydraulic system interlocks

Never rely only on system interlock to protect you or any personnel. Interlock devices are designed to minimize the chances of accidental damage to test specimens or equipment. Unless system interlock is clear, MTS will not run a test.



← The Station Manager main window displays interlock and limit status; counters; run, stop, and hold status, and generated messages.



When you power up your controller, the hydraulic interlock will be set. Make sure to press the **Rest** button on the front of the Hydraulic Power Unit Control or interlock will be set.



Make sure that the upper and lower grip control knobs are in the decompressed state.  
Make sure that the upper crosshead control knob is in the compressed state.  
Make sure that the Emergency Knob is not pressed in.

Now the system interlock can now be cleared on the control panel.

#### Inspect and contain small leaks

Check hoses for any possible leaks. Do not use fingers or hands to stop small hydraulic or pneumatic hose leaks. Substantial pressure can build up, especially if the hole is small. This may cause oil or gas to penetrate skin causing painful and dangerous

wounds. Turn off the hydraulic supply and allow the hydraulic pressure to dissipate before removing and replacing the hose.

#### Avoid crush points

Stay clear of any potential crush points. The MTS is capable of producing sudden high-force motion. Never assume that your reaction time is fast enough to escape injury during system failure. When turning on machine, make sure upper crosshead is clear off any collision with lower crosshead. Due to pressure build up in the system, lower crosshead may rise when machine is turned on.



#### Further Details

MTS In depth **Application Software** and **Controller Overview Manuals** can be found in the Composites Lab MTS Cabinet located underneath the center table.

For technical support or damaged equipment contact:  
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