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**Title: Failure Prevention of the Freezer Hinges**

<b>Description:</b>	Failure of the Chamber Lid Hinges of the Plasma Freezers can be prevented with taking proper care when opening and closing the lids.
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**Equipment Affected: All THERMOGENESIS CORP. Plasma Freezers**

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### **Scope**

Applies to all THERMOGENESIS CORP. Plasma Freezers.

### **Subject: Failure Prevention of the Hinges**

Failure of the hinges on the Plasma Freezer lids can be easily prevented by opening and closing the chamber lids with proper care.

### **Background**

The reported hinge failures prompted THERMOGENESIS CORP. to conduct an investigation to better assess the mode of the failure of the hinges. After a complete investigation of the failed hinges, it was concluded that the failures were caused by exertion of excessive forces on the hinges due to rapidly opening the chamber lids. The excessive forces created stress in the internal components of the hinge leading to breakdown of the hinge. Each failure was determined to have occurred when the lid had reached its maximum limit of opening.

Hinges on our MP750, MP1000, MP1100, MP2000, and MP2200 freezer models, include a reinforced polyurethane tube that has been directly placed over the outside of the hinge to act as a spring damper to reduce the rate at which the lid can be opened. The tube reduces the speed at which the lid opens; however, if the lid is thrown open in an upward motion with a great amount of force, the purpose of the damper will be defeated.

### **What to do**

#### ***Opening the Lids:***

To control the opening of a chamber lid, use both hands to guide the lid open. Do not let the lid spring open.

#### ***Closing the Lids:***

Use the hand support to close a chamber lid. Do not let the lid slam close on the deck.