

Technical Bulletin

Place a copy of this bulletin in the front of each Blueprints Manual. Redline drawings as needed and include a TB reference note. Reference TB implementation on site Action Item Box-chart and/or site tool history management log.

Number:	047
Date Issued:	09/27/04
Expiration Date:	09/27/05

Subject/Key Words:	Proper wet station shutdown and startup practices. Preventing data file corruption and power surge damage to the computer.	
Classification:	■ Informational □ Mandatory □ Safety Alert □ PM Impact	
	Warranty Purchase No Charge For Parts expires/ Impact Parts Reference this TB# when ordering NC parts.	
Applicable Akrion Procedures:	<u>Controlled EMO Shut Down and Start Up</u> – GAMA PM Manual (rev. 08.04) <u>Shut Down In Emergency and Non-Emergency Situations</u> – GAMA Operators Manual, Chapter 5 (rev. 09.04)	
Parts/Reference Documents:		
Attachments:	None	

Issue: Damage to the wet station computer due to improper shut-down and re-start technique. Most common when cycling the station off and on.

Symptoms: Improper bench and recipe operations due to corrupt data and recipe files; Blank screen; I/O and peripheral devices fail to operate.

- **FYI:** When an EMO button is pressed, either during an emergency or as part of a controlled shutdown, a small UPS inside the computer keeps the computer running for two minutes after power is cut to the rest of the wet station. After two minutes expire, the UPS triggers the computer to perform a safe, controlled shutdown of all programs including Akrion software and Windows. After Windows shuts down, the computer turns off. The entire process takes a total of about three minutes.
- **Solution:** Always wait at least 3 minutes before restarting the wet station after an EMO button is pressed to allow time for a safe, complete computer shut down. Determine the status of the shutdown by observing the display panel on the computer UPS located on the computer housing's front panel. The green "sine wave" indicates normal operation. The yellow "battery" indicates the UPS is powering the computer and the rest of the wet station is shut down; the yellow battery will appear for two minutes. When all indicators are off, the computer and its internal UPS have shut down. It is now safe to restart the wet station.