



Technical Bulletin

Troubleshooting Error Conditions/Studio 7

The Studio 7 plotter has preprogrammed error conditions, which are defined by a particular colored light sequence emitted from the keypad error light. The error conditions are as follows:

Error Condition	Description	Possible Cause/Solution	
Steady Red	Memory Buffer Overrun or a Major Communication Error	Defective RS-232 cable. Defective computer serial port. Damaged RS-232 interface IC on logic board.	Replace cable. Perform computer port test from control center software to verify, if fails replace serial port. Perform plotter port test from control center software to verify, if fails replace communication chip (102822 IC, RS-232 Interface)
Flashing Red	X-Axis Jam	Paper jammed into grit shaft. Ceased grit shaft bearing(s). Ceased servo motor. Blown transistor(s) on logic board (Position Q1–Q4) Loose x-axis transmission motor pulley. Damaged x-axis transmission gear assy. Loose set screw on flex coupling. Loose set screw on grit shaft assy.	Clear paper jam. Replace grit shaft bearing(s). Manually turn motor shaft; if hard to turn replace servo motor. Test transistor(s) w/ohm meter touching D (drain) & S (source) leads; should read 2.23 mega ohms, replace if reading is less. Inspect and check pulley set screws. Inspect gear for damaged teeth, replace damaged gear. Inspect and check flex coupling set screws. Check all set screws on grit shaft assy.

Flashing Green	Y-Axis	<p>Knife caught on edge of material causing jam. Ceased y-axis transmission bearing(s).</p> <p>Ceased servo motor.</p> <p>Blown transistor(s) on logic board (Position Q5–Q8)</p> <p>Damaged or striped y-axis drive belt teeth. Damaged y-axis transmission gear assy.</p> <p>Loose y-axis transmission motor pulley.</p>	<p>Clear jammed material. Inspect bearing(s) for damage, replace y-axis transmission bearing(s).</p> <p>Manually turn motor shaft, if hard to turn replace servo motor.</p> <p>Test transistor(s) w/ohm meter touching D (drain) & S (source) leads; should read 2.23 mega ohms, replace if reading is less.</p> <p>Inspect and replace drive belt if needed.</p> <p>Inspect gear for damaged teeth, replace damaged gear.</p> <p>Inspect and check pulley set screws.</p>
Alternating Red/Green	Plotter Language Syntax Error or Major Communication Error	<p>Wrong plotter language.</p> <p>Wrong plotter driver.</p> <p>Wrong data transfer protocol settings for serial port Bad or corrupt file/Recreate file.</p> <p>File sent before plotter was placed online. Synchronization problem caused by defective servo motor encoder. Defective computer serial port.</p> <p>Damaged RS-232 interface IC on logic board.</p>	<p>Change plotter language selected in your signmaking software (DMPL or HPGL)</p> <p>Select the driver for Studio 7 in your signmaking software.</p> <p>Check port settings from windows control panel and/or communication settings in your signmaking software (9600 bps, 8 data bits, 1 stop bit, Xon/Xoff or Hardware Handshaking).</p> <p>Abort file, reset plotter power to clear buffer. Clean encoder disk, replace servo motor.</p> <p>Perform computer port test from control center software to verify, if fails replace serial port.</p> <p>Perform plotter port test from control center software to verify, if fails replace communication chip (102822 IC, RS-232 Interface)</p>