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# Diagnostic LED Reference

*For the Epilog Fusion CO2 and FiberMark*

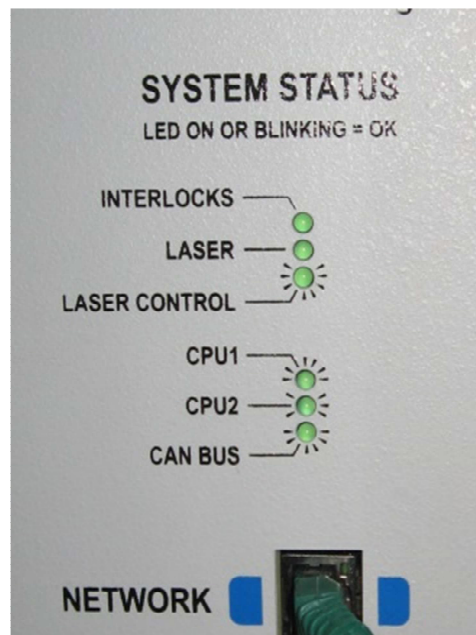
10/11/2013

## Fusion Diagnostic LEDs

This document will describe how the diagnostic LEDs function and how they will behave at startup.

### Locating the Diagnostic LEDs

The diagnostic LEDs are on the Control Assembly panel in the back of the engraver. This panel also contains connections for Ethernet, USB and Air Assist. The LEDs are labeled "Interlocks", "Laser", "Laser Control", "CPU1", "CPU2" and "CAN Bus".



## **Interpreting the diagnostic LEDs**

### **Interlocks**

When the Interlocks LED is illuminated it indicates that the doors on the engraver are closed. If the LED is not illuminated for any reason the laser will not fire, and in some regions the engraver will cease mechanical movement.

### **Laser**

This is a laser status LED. It will indicate whether the laser is working as determined by the system. As of October 2013 LED is currently not implemented. Until it is implemented, it will be permanently illuminated. This led is controlled by CPU2.

### **Laser Control**

This LED indicates whether or not the Control Assembly is sending control and fire data to the laser tube. This LED will not be illuminated if the laser is not attempting to fire. And will either flicker quickly or come on solid when the laser is attempting to fire. If this LED comes on and the laser dose not fire then the Laser tube may not be receiving the fire data, may be damaged, or the laser beam may not be getting to the bed.

### **CPU1**

This LED will blink twice every second on boot to indicate that the Altera FPGA and the iMX35 primary CPU are working. This LED will only indicate an error on boot.

### **CPU2**

This LED will blink once every second on boot. This indicates that the PIC32 auxiliary processor is functioning at the time of boot. This LED will only indicate an error on boot.

### **CAN Bus**

This LED indicates that internal data network (Controller Area Network data buses) is working. This is also an indirect indication that both of the CPUs are working after boot. This LED will reflect valid data any time.