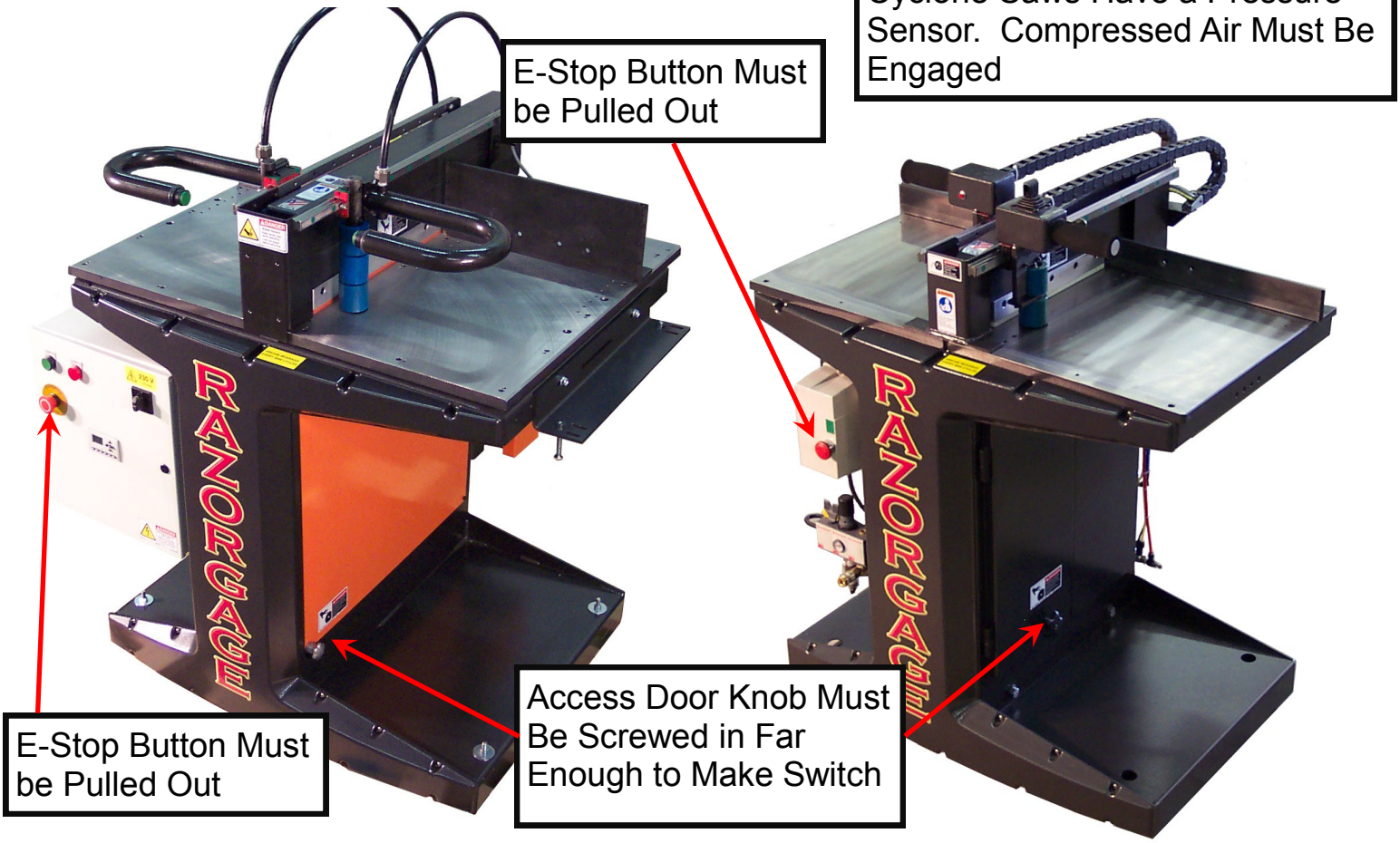
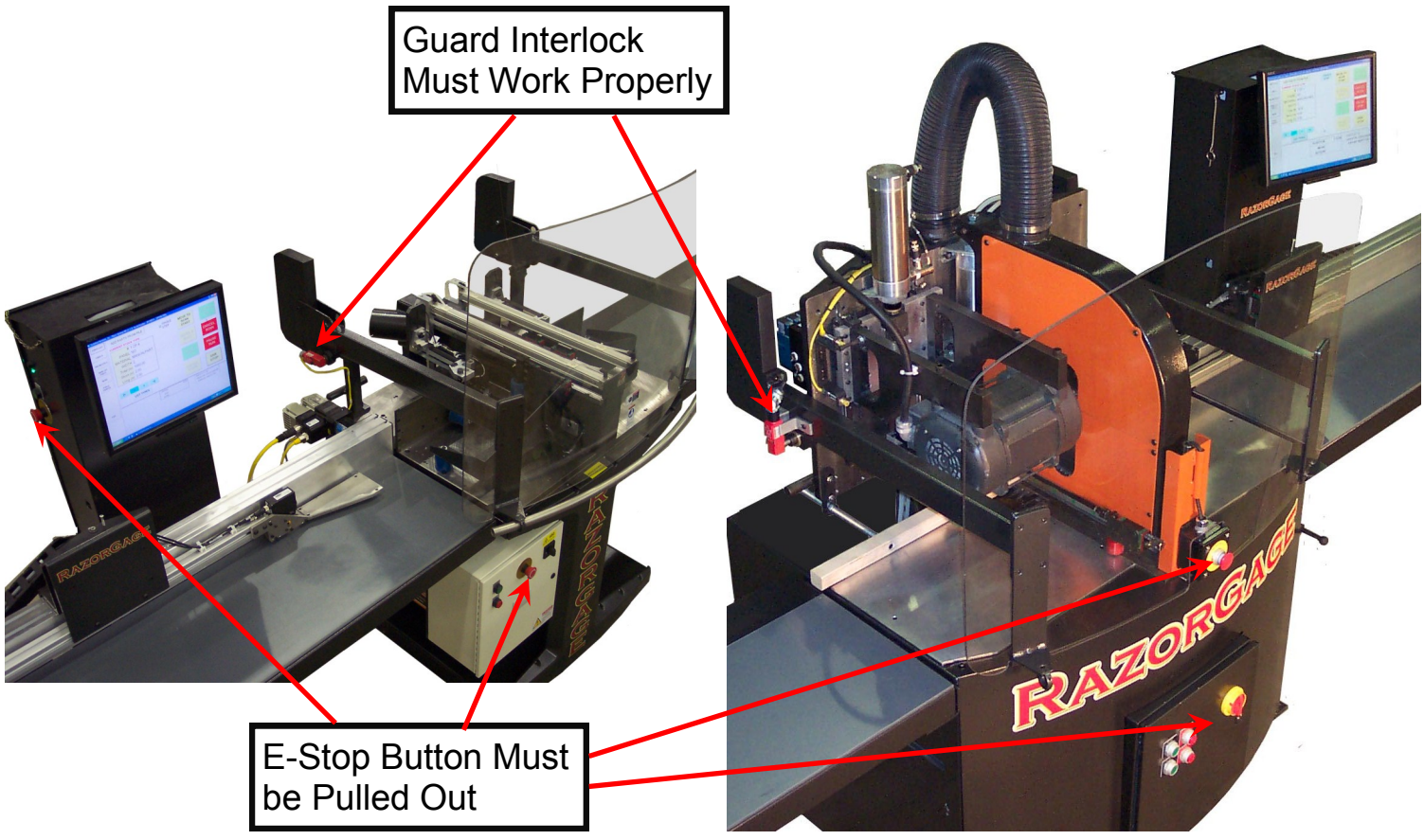
RAZORGAGE
POSITIONERS • SOFTWARE • SYSTEMS

# Troubleshooting E-Stop Faults



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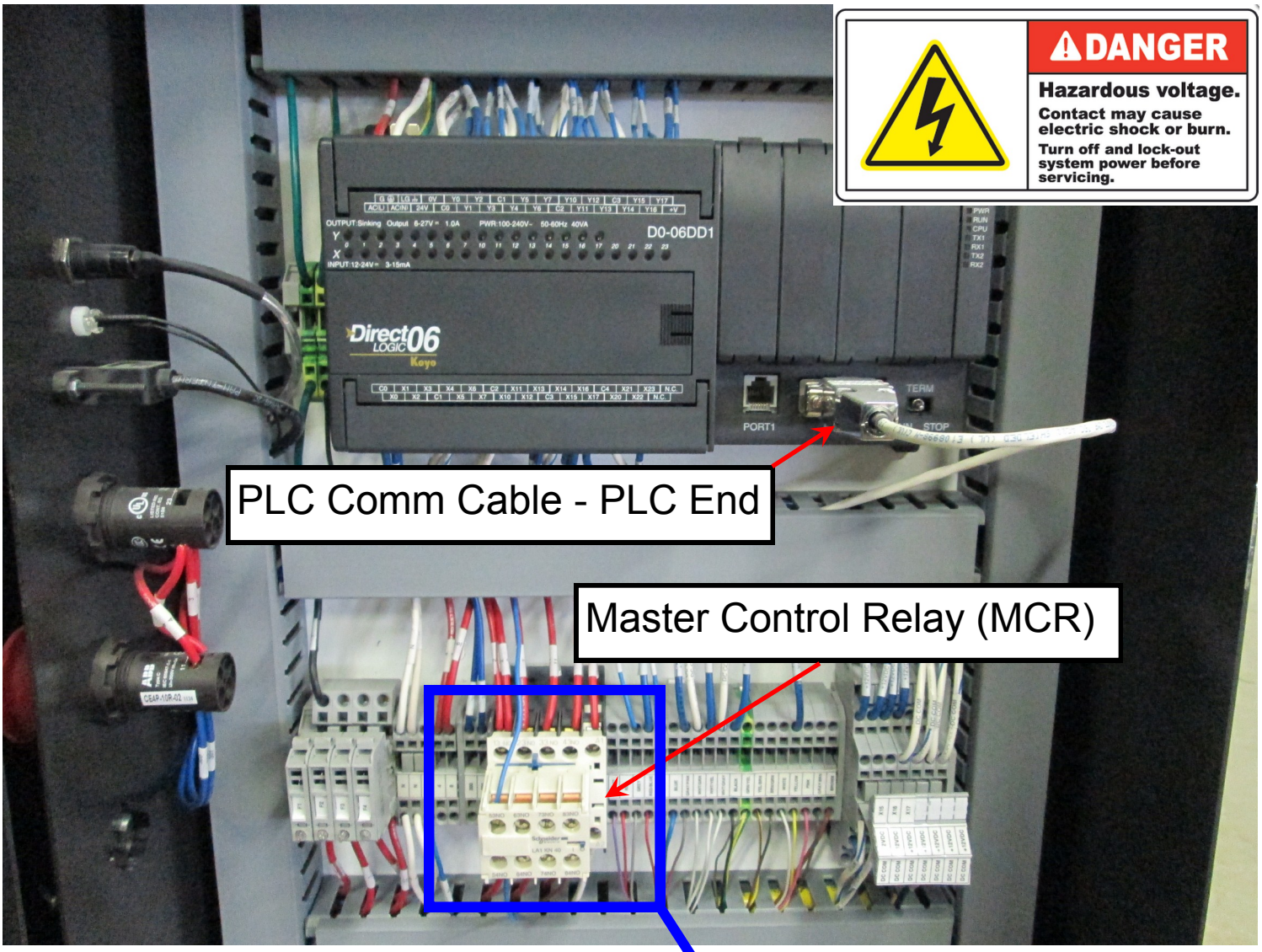
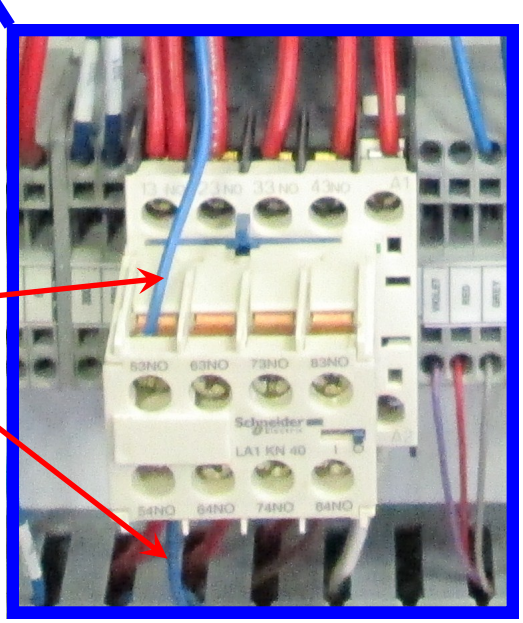
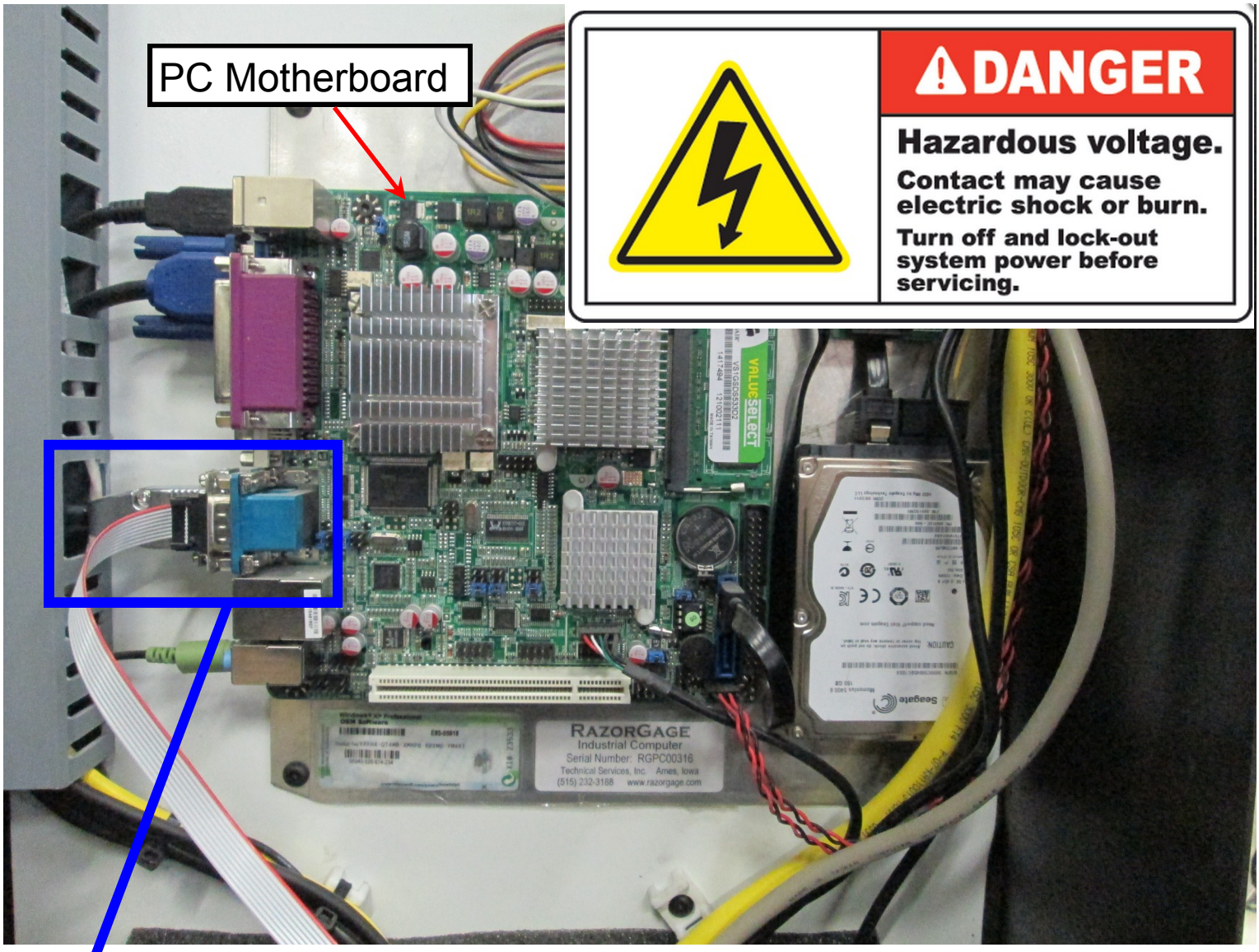
# Troubleshooting Random E-Stop Faults When E-Stops and Guard Switches are Intact

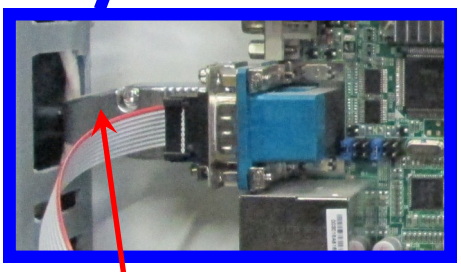
An E-Stop circuit is a hard wired system intended to drop power and air whenever any component in the E-Stop circuit changes from closed to open. This circuit cannot rely on software to drop power and air yet it is helpful if the software informs the user that an E-Stop condition is present. On RazorGage systems we use two normally unused pins on one of the serial communication connectors to trigger a software event that we use to display the E-Stop screen. If your system randomly displays E-Stop screens even though all guard interlocks are closed, air pressure is present, and all E-Stop switches are disengaged then it is possible that the software E-Stop circuit is compromised. The software E-Stop circuit comprises two wires that go from the Master Control Relay to the DB-9 connector that is on the PC end of the PLC communication cable. To trouble shoot this potential problem, disconnect all power to the RazorGage using your company's standard lock-out / tag-out procedure then open the door on the PLC Enclosure. This is the enclosure to which the touch screen monitor is mounted. The pictures on the following pages will lead you through the troubleshooting process. Your enclosure may vary from the one shown in the photos but the basic components and methods will be the same.



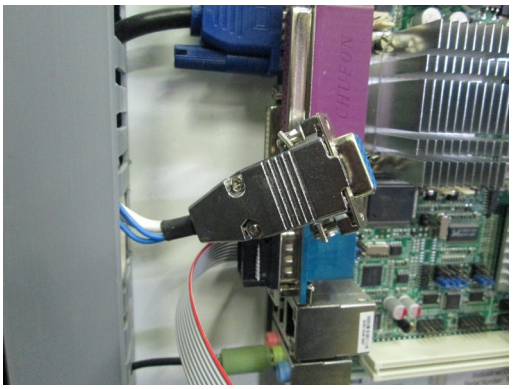

Software E-Stop Leads on MCR. Check to make sure these screw terminals are tight and that they are clamped on the wire and not on the wire's insulation.



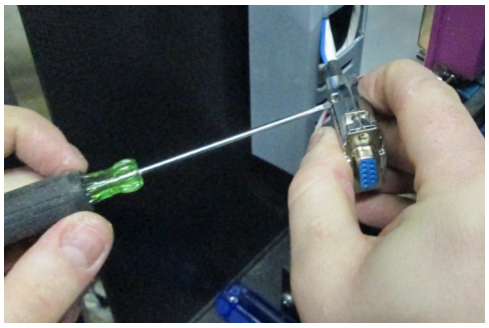


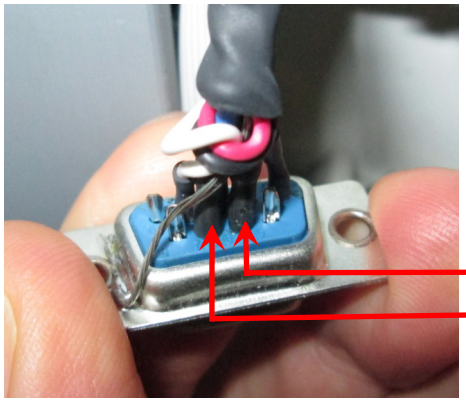
PLC Comm Cable PC End



Unplug Cable



Remove Shell from Connector



Check for loose solder connections on these two wires.