



Diagnosing 188/195 Errors



Before performing any service on the machine tool make sure to read and understand the procedure prior to making the repair. Follow all applicable safety rules and guidelines. Do not operate any machine that is in an unsafe condition and comply with company's local Lock out/Tag out procedure



Revision: 01

Applies to: cent7, 7200, 8200

Tools:

- Digital Multi-meter
- Allen wrenches

Note: error 188/195 is an interface card communication error. No information was received from the interface card for 10 heartbeats of the control, about .01 seconds.

Procedure:

1. Locate terminal blocks 12 and 22 in the electrical cabinet
 - a. Tb12 = 24VDC Tb22 = dc ground
 - b. With your meter on VDC check for 24VDC
 - c. Record the voltage _____ VDC
(Must be a 24VDC or better for ref 24.2VDC is good 23.9VDC is not good)

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2. Locate the 5 volt power supply in the electrical cabinet (Figurer 1)
 - a. Check voltage between +V and -V for 5VDC
 - b. Record the voltage _____ VDC
(Must be 5VDC or better for ref 5.2VDC is good 4.9VDC is not good)
 - c. Change your meter to VAC and check voltage on the dc output.
(This is checking for any AC voltage bleeding through the power supply)
 - d. Record the voltage _____ VAC



Figure 1 example of 5vdc power supplies

3. Check voltage on front panel power supply
 - a. Locate front panel power supply (see Figure 2) (there are a few variations of this power supply)

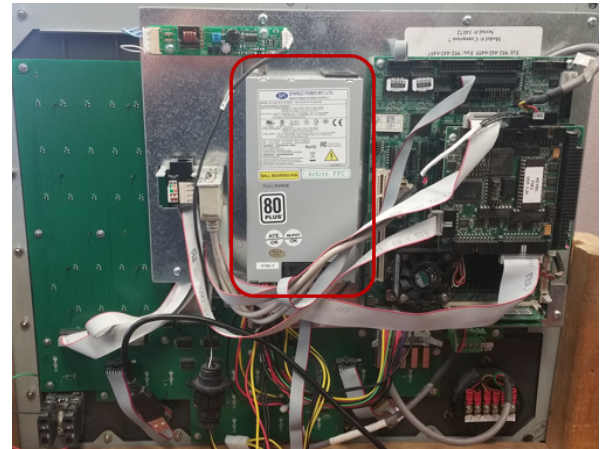


Figure 2 example of a front panel power supply

- b. Check the voltages of the power supply at one of the available accessory connectors (see Figure 3)

Yellow = 12VDC

Black = dc ground

Record the voltage _____ VDC

(Must be 12VDC or better for ref 12.2VDC is good 11.9VDC is not good)

Red = 5VDC

Black = dc ground

Record the voltage _____ VDC

(Must be 5VDC or better for ref 5.2VDC is good 4.9VDC is not good)

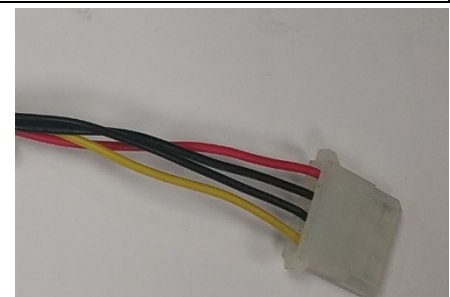


Figure 3

5. If any of the power supply voltages are low test the 110vac that is feeding the power supplies.
 - a. Check 110v AC on the secondary side of the 110 transformer, or between terminal blocks 1 & 2. See Figures 4 and 5 (*The secondary AC voltage must be between 110 and 125 VAC*)
 - b. If the 110v is out of range the transformer will need to be re taped on the secondary side to correct this.
(*The correct settings for a certain voltage will be indicated on the label on the transformer.*)

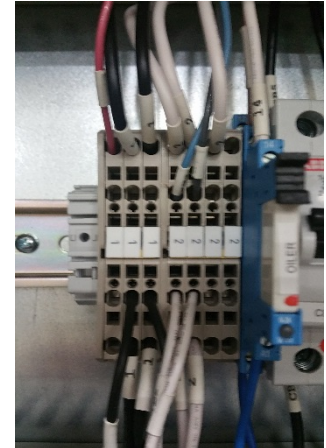


Figure 4



Figure 5

6. Check fiber optic cable for breaks in the cable also that it is plugged in to the interface (in the back cabinet see Figure 6) and to the ncb board (in front panel see figure 7)

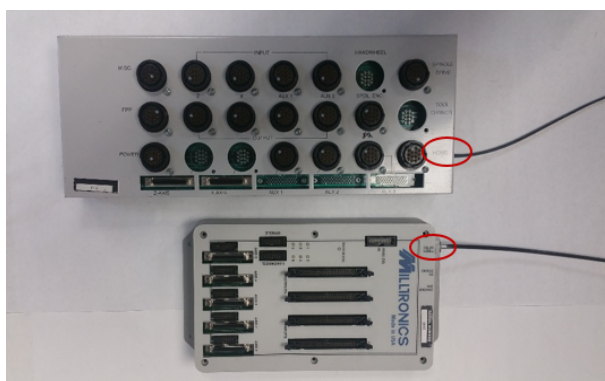


Figure 6 example of interfaces with fiber optic cable attached



Figure 7 front panel fiber optic cable location

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7. If everything checks out above the interface has more than likely failed and will either need to be sent into Milltronics for testing or will need to be replaced

Procedure Complete

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