

TB241 (Rev1) - How to Connect a Replacement Servo PC/Console

Overview:

This tech bulletin shows the proper connection of new and old components with the new labeling system when trying to install an updated PC that contains a new CPU10B into a system that has the original fiber optic cables or when replacing the fiber optic cables in a system still using the original components. It also explains the new checks when you home your control for the first time with your new console or servo PC.

Connections To properly connect the fiber optic cables and encoders to your new console or servo PC refer to the tables and pictures below.

Fiber Label	Devices	
1	PLC	CPU7 CPU9 Drives Spin232 CPU7/ADD/Optic232
2		
3		
4	Drives	
5		
6		
7		
8	Spin232	
9	CPU7/ADD/Optic232	
10		
11		

Table 1: New Label Correlation between Different Components

CPU7		CPU9		Legacy PLC	
New Label	Old Label	New Label	Old Label	New Label	Old Label
1	TXS	1	XMT	1	TXS
2	CKS	2	CLK	2	CKS
3	RXS	3	RCV	3	RXS
4	DATA	4	RFMS		
5	SYNC	5	DR0		
		6	DT0		
		7	SCLK0		

Table 2: Legacy Motion Card Fiber Optic Label Breakdown & Default PLC labels

PLCIO2		Spin232		CPU7ADD/Optic232	
New Label	Old Label	New Label	Old Label	New Label	Old Label
1	RCV	8	RCV	9	INT
2	CKS			10	RXD
3	XMT			11	TXD
M15DRV1/Servo3IO		Servo1/Optic1		Servo4	
New Label	Old Label	New Label	Old label	New Label	Old Label
1	TXS	4	DATA	4	RFS
2	CKS	5	SYNC	5	DR
3	RXS			6	DT
4	DATA			7	SCLK
5	SYNC				
8	RCV				

Table 3: Legacy PLC and Drive Fiber Optic Label Breakdown

DB9 Encoder Connections		
New Label	Mill	Lathe
1	X	Z
2	Y	X
3	Z	C
4	4th	
5	5th	

Table 4: Encoder Label Breakdown

Now that you know how the labeling works for the fibers and encoders, take a look at the following pictures to put it all together and connect your new console or servo PC to your system.

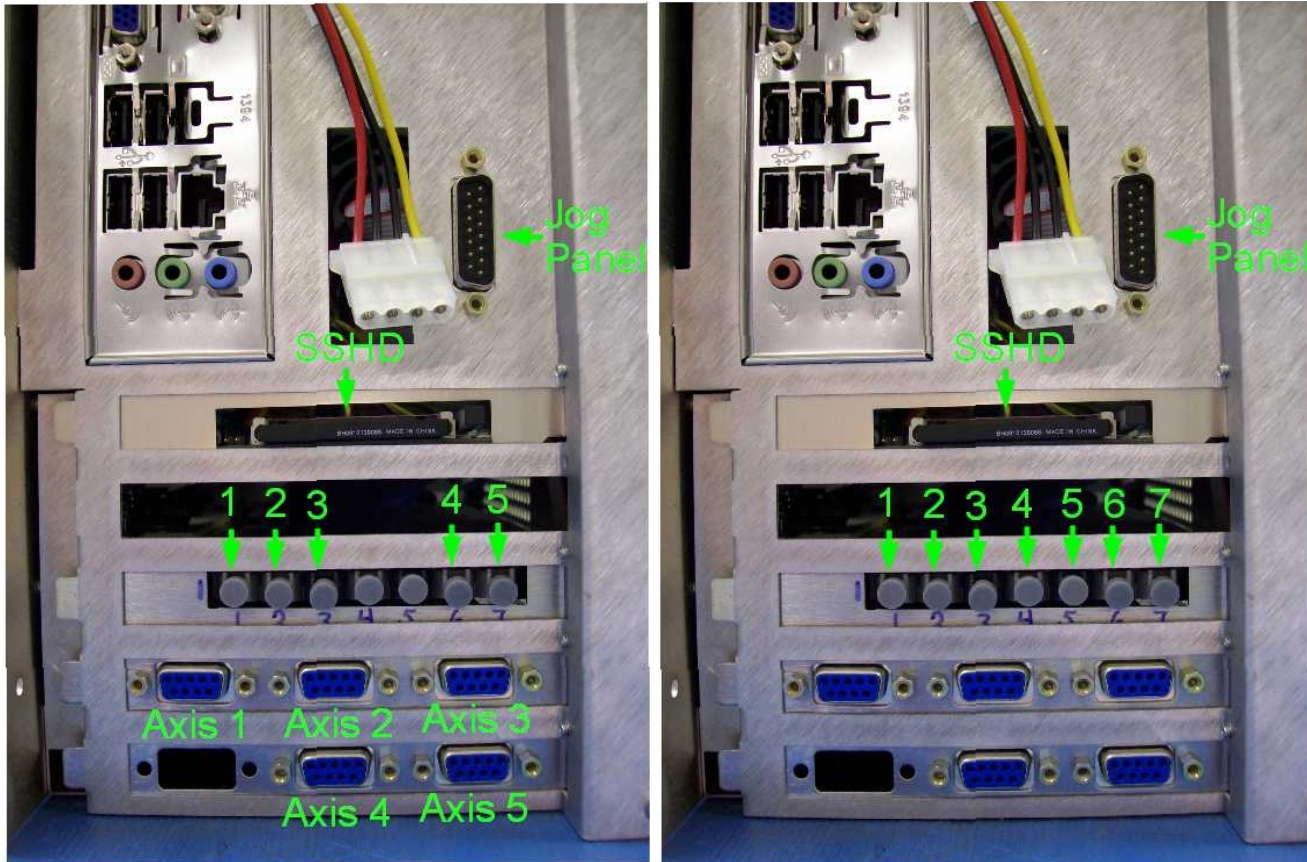


Illustration 1: Connections for a DC System

Illustration 2: Connections for an AC System

Initial Power-up

Before powering up the system, we would like to explain the improved homing procedure. The ?318 _axis too close to switch? message has been removed. Instead, the Centroid software keeps track of how many encoder counts between the home switch and the encoder's index pulse to set home. If this number differs by a quarter of a revolution from the previous time that the homing program ran, the message ?WARNING: _axis home differs by xxxx counts. Accept new home position (Y/N)? will appear. If Y is pressed, then the new difference in encoder counts gets stored in the homelog.txt file.

Power up your control and press Cycle Start to home your machine. If the above encoder count warning message appears for any of the axes, press Y to continue with the homing procedure. Once the machine has homed, you should never see that message again. If the message does appear, it could be an issue with the home switch, encoder, or the motor pulley. After the machine has homed, all of your work coordinates will have to be changed since the reference has now changed.

Document History

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