# TB221 (Rev1) - Spin232 Troubleshooting

Preliminary - Verify that the wiring and jumper settings match board silk screening. Ensure that the spindle is in manual mode and the spindle speed display varies according to the override knob position or +/- keys. If it is a Spin232C then make sure there is a jumper between E-Stop and GND on the Spin232C board.

#### Step 1 - Check for CW/CCW relay operation:

- This function does not require the minimum and maximum spindle speed initialization.
- PLC inputs such as probe detect and spindle drive fault will not prevent CW/CCW relay operation.
- If this output works, communication between the PC and Spin232 is okay, proceed to step 2.

#### Step 2 - Check for error Conditions:

- Probe Detect or Spindle Drive Fault inputs will prevent Vout and EN (spindle enable) relay operation.
- Toggle E-Stop to clear error messages and make sure that E-Stop has been released.
- Make sure that MEM78 and MEM79 are defined in the PLC program and the dual range spindle option is unlocked.
- If Spin232 is still not working then proceed to step 3.

### Step 3 - Verify settings and Re-initialize:

- Check minimum and Maximum Spindle Speed Settings.
- Update parameter 65 with the value that is already there and save (F10). The update causes CNC10 to send the initialization commands again.
- If the EN relay is not operational at this point, it is likely that something is still wrong with the PLC input status or CNC10 settings. This is assuming the CW/CCW relay is working (step 1).
- If the EN relay works but there is no Vout signal, The DAC circuitry could be bad.

Parameter Information				
Parameter	Description	Value		
31	COM port number	1 or 2		
32	Baud Rate	19200		
33	Spindle Gear Ratio 1			

PLC Debugging Information				
Input	M400 No.	M15 No.	Value for Spin232 to work	
Estop	11	1	0	
Probe not detected	10	5	1	
Spindle OK	14	4	1	
Spin. Enable	MEM78	MEM78	-	
Spin. Direction	MEM79	МЕМ79	-	

## **Document History**

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