

### Before Applying Power to the Drive

1. Disconnect and lock out power to the machine.
2. Verify that AC line power at the disconnect device is within the rated value of the drive.
3. If replacing a drive, verify the current drive's catalog number. Verify all options installed on the drive.
4. Verify that any digital control power is 24 volts.
5. Inspect grounding, wiring, connections, and environmental compatibility.
6. Verify that the Sink (SNK)/Source (SRC) jumper is set to match your control wiring scheme. See the [PowerFlex 523 Control I/O Wiring Block Diagram on page 11](#) and [PowerFlex 525 Control I/O Wiring Block Diagram on page 14](#) for location.

**IMPORTANT** The default control scheme is Source (SRC). The Stop terminal is jumpered to allow starting from the keypad or comms. If the control scheme is changed to Sink (SNK), the jumper must be removed from I/O Terminals 01 and 11 and installed between I/O Terminals 01 and 04.

Ensure the On/Off switch is in the OFF position on the trainers.

It is at your discretion if you would like the students to apply a lockout device to the plug.

The 24V supply voltage comes from the drive itself.



#1 – Ensure the On/Off switch is in the OFF position.

#4 – The 24V control power is built into the PowerFlex523.

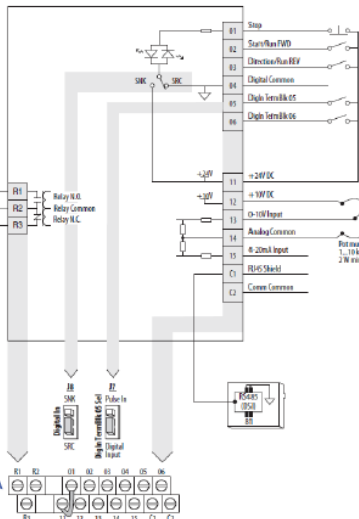
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7. Wire I/O as required for the application.
8. Wire the power input and output terminals.
9. Confirm that all inputs are connected to the correct terminals and are secure.
10. Collect and record motor nameplate and encoder or feedback device information. Verify motor connections.
  - Is the motor uncoupled from the load, including the gearbox?
  - What direction will the motor need to turn for the application?
11. Verify the input voltage to the drive. Verify if the drive is on a grounded system. Ensure the MOV jumpers are in the correct position. See [Ungrounded Distribution Systems on page 5](#) for more information on MOVs.

Students can remove the cover from the PowerFlex523 and view the power wiring and also the control wiring terminal block.

PowerFlex 523 Control I/O Wiring Block Diagram

Series A



#7 & #9 – Each hands-on activity will have different I/O wiring connected to the terminal strip near the bottom of the VFD.

#8 – The power input and output terminals are pre-wired on the PowerFlex523.

