

# Steps In Start-Up

- 1) **Observation** - *Bent up corners on base, etc.*
- **Check Mechanical Connections**
  - **Check Installation Procedures**
  - **Check Cabling, Control Wiring, Input / Output**
- 2) **Paperwork**
- **No Power Applied / Use Start-Up Form**
  - **Record Critical Information (FLA, Motor Data)**

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# **Steps In Start-Up**

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- 3) Power Applied (Motor Disconnected)**
  - **Program “Start-Up Data” Section**
  - **Verify no shorts in Motor Wiring**
- 4) Power Applied (Motor Connects)**
  - **Electrical Measurements (Start-Up Form)**
  - **Motor Rotation Check**
  - **Operate the Process (Go To Process Speed)**
  - **No Load & Full Load Measurements**

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## **Steps In Start-Up**

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- 5) Perform "User Save" Macro**  
**(Also Make A Hardcopy of Final Parameters)**
- 6) Certification**
  - **Sign Certified Start-Up Form (Note Exceptions)**
  - **Have Customer Sign Form**
  - **Copy To:**
    - **Customer Support Division - DENNIS DEAN**
    - **Customer**
    - **You**

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## Safety Concerns During Start-Up

- 1) Approach Any Drive as if it were “Live”
  - No Bus LED to Rely On
  - Take Meter Readings to Verify Voltage Levels
  - Don't Believe Display, It May Be Dead
  - Note: DC Bus is at 1.35 X Line Input Voltage
- 2) Never Work Alone (Perform Lock-Out / Tag-Out)
- 3) Use (1) Hand During Start-Up (As Much As Possible)
- 4) Some Boards May Not Be At Ground Potential

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## Safety Concerns During Start-Up (Continued)

- 5) With Meters, Use The Highest Range, Then Go Down  
(i.e. Simpson Model 260 or Equivalent)
  - Fused or Breaker on Meter
  - Simpson Gives True Output (RMS, Analog)
  - Digital Meter Will Read 8-10% High (If At All)
  - Know What You're Measuring  
(i.e. Volts, Amps, Ohms)
- 6) Never Wear Wrist Strap When working on "Live"  
Equipment

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