



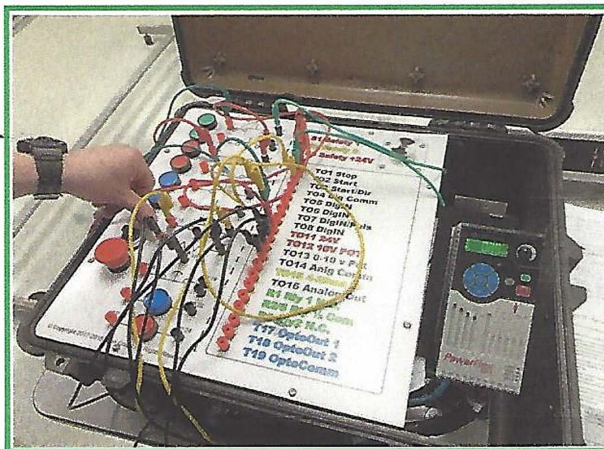
MAINTENANCE TROUBLESHOOTING INTERNATIONAL LLC

VFD-402

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VFD-402 Level 2 - VFD Software Programming

This course introduces the fundamental topics of variable speed drives using the PowerFlex 525 drive and Connected Components Workbench. The instructor guided information along with hands-on activities allow participants to immediately utilize the newly developed skills. Topic coverage will allow participants to perform installation and wiring tasks, in addition to drive configurations using software. Perform hands-on activities with a real-life variable frequency drive. Input motor data into the variable frequency drive, set parameters for speed control and over-current protection, and check fault codes. Attendees leave this VFD training course with the ability to lower the cost of VFD operation, thus alleviating the need for hiring costly outside service contractors, all while establishing a culture of safe work practices among employees. This class is very much a "learn by doing" exercise with over 40 lab exercises to give the attendee a chance to build a circuit, program it, and then troubleshooting problems associated with it. A very unique approach to VFD learning.



VFD Operation and Applications Overview

- Variable Speed Drive Hardware
- Terminology
- Electrical Supply Connections
- Motor Wiring Connections
- Drive Basic Parameters
- External I/O Wiring
- Pushbutton Control Circuits
- Relay Outputs
- Advanced Parameters
- Analog Speed Control
- Setting IP address - BootP
- Setting up communications with the drive via Ethernet
- Using RSLinx communication software
- Using Connected Components Workbench
- Saving, uploading, downloading and backing up drive configurations
- Remotely controlling drive
- Applying VFD technology for your specific needs

Electrical Supply Connections

- Installation of a VFD
- Wiring and grounding VFDs

Motor Wiring Connections

- Drive Basic Parameters
- External I/O Wiring

Pushbutton Control Circuits Relay Output Advanced Parameters Analog Speed Control Hands On Assignments

- Lab 1S: Initialize the VFD
- Lab 2S: Controlling motor parameter
- Lab 3S: Activation
- Lab 4S: Accel/Decel time
- Lab 5S: Min/Max frequency
- Lab 6S: Stop mode
- Lab 7S: Reverse disable
- Lab 8S: Preset speeds 1
- Lab 9S: Remote start/stop 3-wire
- Lab 10S: Remote speed control
- Lab 11S: Remote start/stop 2-wire
- Lab 12S: Jog
- Lab 13S: Drive relay contacts
- Lab 14S: Display Amps
- Lab 17S: Display DC Bus Voltage
- Lab 18S: Display RPM
- Lab 19S: Display Drive Heat Sink Temperature
- Lab 20S: Preset Speeds 2 – Selector Switch 2 Speeds
- Lab 21S: Preset Speeds 3 – Selector Switch 3 Speeds
- Lab 22S: Jog Forward-PB
- Lab 23S: Jog Reverse-PB
- Lab 24S: Ramp to Stop

- Lab 25S: Coast to Stop
- Lab 26S: Opto – Blue Light at Frequency
- Lab 27S: Opto – Red Light at Motor Running
- Lab 28S: Opto – Red Light in Reverse
- Lab 29S: Opto – Blue Light on at Run Off at Frequency
- Lab 30S: Opto – Red Light On at Motor Off
- Lab 31S: Opto – Blue Light On at Motor in Forward
- Lab 32S: Relay – Blue Light On at Frequency
- Lab 33S: Relay – Blue Light Off at Frequency
- Lab 34S: Relay – Blue Light On at Motor Running
- Lab 35S: Relay – Blue Light Off at Motor Running
- And More

CLASS FORMATS AVAILABLE

- MTI Hands-On Center \$995/person
- ZOOM Interactive (Not available)
- On-Site (Your Location) Ask for Quote
Quick Quote Available in 48 hrs.

CLASS DURATION

2-days, 15 hours of instruction
85% Hands-On

FREE BOOKS

Allen Bradley Manual—Powerflex
Complete LAB Manual

Class Details: Each student will receive class books, work activity sheets, self-test progress evaluations, as well as questions from the instructor to make sure they understand the material presented. It is expected that an attendee will leave the class with the basic knowledge of the subject and possess new found skills to better equip them when they return to their job. A certificate suitable for framing will be issued to each attendee who successfully completes the course. Call, email or check the website for the next time this course is scheduled at the MTI training center. On-site sessions? Request a quick 48-hour turnaround quote. Revised: 12/02/21