

★ BRING US TO YOUR FACILITY ★

Or Check Our Website For Classes Near You

THE MOST USEFUL ONE DAY SEMINAR YOU CAN ATTEND

TROUBLESHOOTING ELECTRICAL CONTROLS

NO PRIOR ELECTRICAL EXPERIENCE REQUIRED

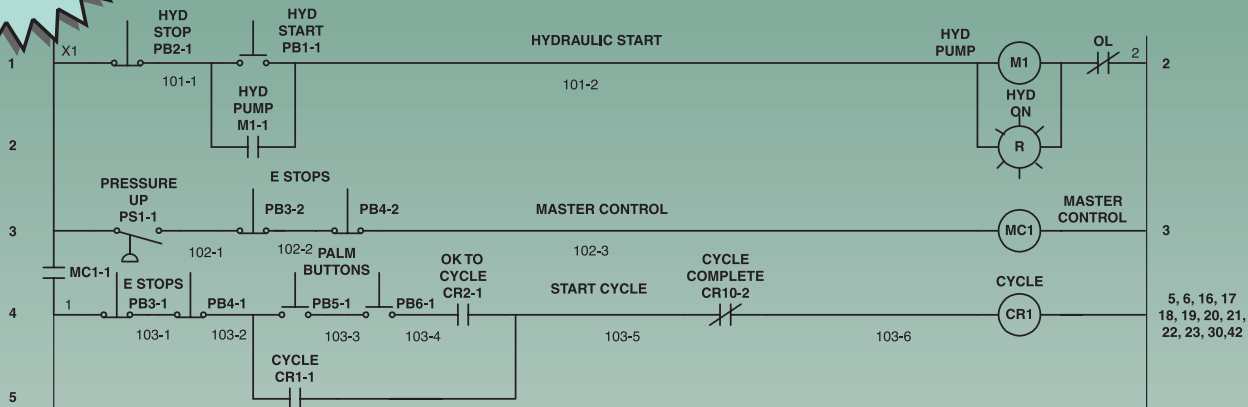
STOP!

WASTING \$\$\$ SWAPPING PARTS HOPING TO FIX THE PROBLEM

START!

SAVING \$\$\$ REPLACING ONLY WHAT IS DEFECTIVE

8 HANDS
ON LABS



LEARN TO:

USE A VOLTMETER TO QUICKLY FIND PROBLEMS
LOGICALLY METHODICALLY IDENTIFY PROBLEMS
TROUBLESHOOT LIVE CIRCUITS SAFELY
USE YOUR ELECTRICAL DRAWINGS AS A ROADMAP

*"Best Class I've ever been to. Great Instructor."
Nick Crisp - Plaskolite Inc.*



Impact
Training Services, Inc.

Training that "WORKS" SM



(502) 252-9128 or www.impactu.com

"THE INSTRUCTOR BROKE DOWN PROBLEMS THAT I SEE EVERY DAY AND CUT MY DOWN TIME TROUBLESHOOTING IN HALF."

DEREK NOFFSINGER - SUPERIOR GRAPHITE

TROUBLESHOOTING ELECTRICAL CONTROLS COURSE OUTLINE

THIS CLASS IS 50% HANDS-ON LABS

LEARN TO QUICKLY AND EFFECTIVELY TROUBLESHOOT ELECTRICAL CONTROL CIRCUITS

LABS USING

**CONTROL RELAYS
PLUG-IN RELAYS
TIME-DELAY RELAYS
SOLID-STATE RELAYS
MOTOR STARTERS
PUSHBUTTONS
SELECTOR SWITCHES**

RELAYS

**COILS, CONTACTS
CONTROL, PLUG-IN,
TIME DELAY, SOLID-STATE**

MOTOR STARTERS

**COILS, HIGH VOLTAGE CONTACTS
AUXILIARY CONTACTS, OVERLOADS**

SOLENOIDS

**COILS,
OPERATION**

SHORTS

**DEAD SHORTS, STUCK CONTACTS
INDICATIONS, CAUSES, FINDING SHORTS**

OPENS

**INDICATIONS, CAUSES,
FINDING OPENS WITH A VOLTMETER**

READING LADDER DIAGRAMS

**TRACING THROUGH THE DRAWINGS
WIRE NUMBERS
CROSS REFERENCING**

SWITCHES

**CONTACTS
MANUALLY OPERATED SWITCHES
AUTOMATIC SWITCHES
SCHEMATIC SYMBOLS**

CONTROL CIRCUITS DISCUSSED

**PERMISSIVE
INTERLOCKING
HOLDING/SEAL-IN
MASTER CONTROL
TIME SEQUENCING
EVENT SEQUENCING
START/STOP
JOG/OFF/RUN
HAND/OFF/AUTO
FORWARD/REVERSING**

TROUBLESHOOTING TECHNIQUES

**A LOGICAL APPROACH
EFFECTIVELY USING THE PRINTS
TRACING THROUGH CIRCUITS
TIME SAVING TIPS FOR LOCATING OPENS
ELIMINATING SHORTS QUICKLY
CORRECTLY USING A VOLTMETER**

"I LEARNED MORE IN ONE DAY THAN I HAVE IN A YEAR..."

RANDALL CHAPMAN - INTERNATIONAL PAPER

BRING ANY OF OUR CLASSES TO YOUR FACILITY

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