



Attention Operators! Technician Training With Randy Fromm October 26-29, 2016 (Wed-Sat)

This class assumes no previous knowledge of electronics. Our final goal is component-level repair of power supplies and LCD monitors as well as general electronics troubleshooting for typical amusement equipment. It's fun and easy. Please join us in Springfield on October 26th.

Class Schedule 9:00am-4:00pm Daily

Day One - Beginning Electronics for Amusement Technicians

We'll start off by taking a simple, NO MATH look at electronics. No previous knowledge of electronics is required. We'll take a quick peek at atomic theory and define some electronics terminology but we'll quickly move on to the practical world of electronics troubleshooting and repair.

Using a Digital Multimeter - The DMM is the single most important piece of test equipment you can use. You'll learn how to use the meter to make the tests and measurements necessary for fixing all types of machines.

Schematic Diagrams - Schematic diagrams are the blueprints for electronic circuits. Learning to interpret schematic diagrams is a natural part of the school. Schematic symbols and diagrams are used throughout the course so students become familiar with them.

Electronic Components - All of the individual components used in amusement machines are introduced. Parts such as resistors, potentiometers and capacitors are covered individually. Students learn how the components function in the circuits and how to test them for proper operation using the digital multimeter and ESR meter.

Day Two - Diodes, Transistors & Other Semiconductors Hands-On Transistor Test Lab

Semiconductors-Semiconductor failures are common problems when fixing power supplies, audio amplifiers and other gear. This part of the school takes a look at all of the different types

of semiconductors commonly seen in amusement machines. We'll take a look at the operation of each component, along with testing procedures to determine if the part is good or bad. Students will have ample opportunities to practice their testing skills during the hands-on transistor lab. Replacement components will also be discussed.

Day Three - Soldering

"Component Removal and Replacement" is a better term for this segment as that is what will we do to repair printed circuit boards. The ability to solder quickly and accurately is the most important skill a technician can possess. During this segment, each student will be provided with their own soldering iron, solder and desoldering supplies as well as an educational soldering practice kit and an extremely useful component tester kit (tests capacitor ESR as well as identifying and testing semiconductors). This equipment will be theirs to keep. This is the most fun thing we do in the class!

Day Four - (Morning Session) Power Supplies

Power supplies are at the heart of all electronic systems and power supply failure is common in all of them. Amusements are certainly not immune. It is not uncommon for an amusement machine, jukebox or bill changer to have a half dozen power supplies working together. This session covers all types of power supplies, including linear power supplies and Switched-Mode Power Supplies.

Day Four - (Afternoon Session) LCD Monitor Repair

LCD Monitor repair is generally pretty easy thanks to their modular design. This segment covers the theory of operation of LCD monitors. There will be a presentation on the repair techniques including CCFL backlight testing and replacement with LED backlighting.

Tuition for the four-day class includes a digital multimeter, soldering iron and supplies, a small collection of hand tools, textbook, component tester kit and other classroom supplies such as sample components.

To enroll, contact Ron Kinney
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