



# 2019 Technical Service School DCA Generator — Level 1 Training With Lab

**Multiquip's DCA Generator — Level 1 Service School** focuses on the rental industry's most popular portable generators. This class is available to service personnel of both MQ dealers and MQ customers looking to increase their knowledge in service and repair of DCA model generators. The class provides technical training on the fundamentals of diesel powered electrical power generation. Curriculum includes power generation theory, electrical schematic interpretation, component identification, engine service, engine operation, and system troubleshooting. (See page 2 for course description).

Multiquip's DCA Generator Service School — Level 1 will prove beneficial for both the entry level and the experienced technician in the industry. An interest and investment into your technicians continued training in an investment into your business that will result in less down time.

## Service School Dates and Locations

Location	Dates	Class
Lewisville, TX	Feb 19-21, 2019	DCA Gens w/Labs
Lewisville, TX	Oct 29-31, 2019	DCA Gens w/Labs
Lewisville, TX	Nov 12-14, 2019	DCA Gens w/Labs

This is a 3-day class  
Day 1 and 2: 8AM to 4PM; Day 3: 8AM to 3PM  
Attendance is limited to 12 students per class.  
Sign up to reserve your spot today!

Please fax or email this page to Brenda Hurtado at 310-632-6197 or  
bhurtado@multiquip.com For more information, call 800-421-1244

Customer and contact name: \_\_\_\_\_

Attendee name: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_ No. of hotel nights requesting: \_\_\_\_\_

Phone/Fax: \_\_\_\_\_  Driving  Flying\*

- **Classes may be cancelled** if there are not enough registered students.
- **Multiquip pays for three nights of lodging, breakfast and lunch.**
- **Dinner will be the student's responsibility.**
- **Maximum two enrollees per class per customer/dealer. Additional enrollees will be added to wait list.**
- **The lab is conducted in a shop environment so appropriate shop safe clothing must be worn.**

\* If flying, please fax us your flight itinerary ASAP. Student should arrange flights to arrive the day before the class begins. Return flights should be arranged for 3 hours after the close of class on the last day.

Choose One	DCA Generator Level 1 Training w/Labs — Location/Date
	Feb 19-21 — Lewisville, TX
	Oct 29-31 — Lewisville, TX
	Nov 12-14 — Lewisville, TX

By enrolling, the dealer/attendee agrees that in the event a class is cancelled, Multiquip will make every attempt to accommodate the attendees in the next available class. Multiquip is not responsible for refunding the cost of unused airline tickets or charges imposed by the airlines for changing itineraries. Once enrollment is confirmed, a credit card will be required to guarantee your hotel reservations. All attendees will receive a packet with arrival instructions and confirmation by fax or email.

Signature \_\_\_\_\_

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# DCA Generator — Level 1 Training With Lab Course Description

*The following is a general agenda of the course. Course agenda may change due to new products, product availability and overall student interest in various products and topics.*

*The lab is conducted in a shop environment so appropriate shop safe clothing must be worn.*

## CLASSROOM TRAINING

- **Basic Electrical Fundamentals and Generator Theory:** Knowing the basics serves as the foundation for a career as a qualified power generation service technician. Review Ohms Law and voltage drops are key fundamentals in troubleshooting. Learn to identify series & parallel circuits. Direct current and alternating current fundamentals. Understand the components and their function that make up the generator end.
- **Component ID:** An outline of the generators components and their function. Learn the flow of current thru the generators that's essential to proper excitation. Understanding the "how it works" is essential for the technician to accurately troubleshoot. Detailed training on rotors, stators, fields, armatures, OPEN DELTA winding, AVR operation, V-leg relay, voltage selector switch, high/low WYE winding configurations, change-over board, circuit breakers, CT's, over current relay, engine protection devices, auto-start controllers. Learn to read the DCA wiring schematics for troubleshooting circuits.
- **Troubleshooting:** Discussion on various faults and troubleshooting processes. No and Low voltage, Voltage unbalance, AVR, voltage selector switch testing and current testing and current flow thru the switch. Resistance and meggaohm testing wings.

- **Engine Service and Troubleshooting:** Powerpoint presentations lead thru the basics of Tier 3 engines with a focus on reading Isuzu flash code and CAN BUS J1939 code reader. Murphy PowerView and OTC.
- **Tier 4:** Overview of the components and theory behind Tier 4. Discussion of common faults and preventative measures to ensure reliable operation.

## HANDS-ON TRAINING

- **Take the theory to the shop** and review component ID on the units. Demonstration of excitement current and voltage and troubleshooting test points.
- **Put the meter in your hands** for resistance testing on excitation fields, main stator leads, rectifier diode testing, including using mega-ohm meters.
- **Demonstration** of engine code faults, students will be tested on flash code reading and have a chance to use code reader.
- **Generator load banking, preventive maintenance and wet stack prevention.**

## TESTING

- **The class will close after a quiz** testing the student's knowledge of the DCA units.

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