



NEW FOR 2026

⚡ ELECTRICAL TRACK

Mastering transit excellence starts with better diagnostics.

CTTC's new Electrical I-V series gives agencies a structured pathway—from fundamentals to multiplex systems—built with the technicians who keep fleets moving.

WHY THIS TRACK MATTERS

“This is exactly what the transit industry has been asking for, and we built it.”

CTTC Electrical Working Committee

- **Transit agencies**
Standardize capability across fleets and cut diagnostic downtime.
- **Technicians & maintenance teams**
Progress from fundamentals to multiplex on real transit systems.
- **Workforce development**
A clear pathway for today's buses—and tomorrow's.

BUILT WITH INDUSTRY

Agency techs shaped every course in this series.

[EXPLORE THE ELECTRICAL SERIES](#)

⚡ TRAINING PATHWAY

Electrical I-V

One cohesive series—from fundamentals to advanced multiplex.

I **Electrical Fundamentals**
Online

II **Electrical Circuit Diagnosis**
2-Day ILT

III **Powertrain Control & CAN**
2-Day ILT

IV **Multiplex — DINEX**
2-Day ILT

V **Multiplex — VANSCO**
3-Day ILT

Program Funding
provided in part by:



California
ENERGY COMMISSION

Ready to upskill your electrical team?

Watch for launch details in the Member Portal—or contact CTTC to plan agency enrollment.



SCAN FOR INFO

[LEARN MORE](#) ▶

cttc.com/electrical

CTTC ELECTRICAL SERIES COURSE DESCRIPTIONS



ONLINE

Electrical 1: Electrical Fundamentals

This course is designed to improve a technician's basic electrical skills and use of the digital voltmeter. The course covers the basic fundamentals of electricity, including electron theory, electromagnetism, electrical circuits, electrical formulas and basic electrical diagnosis. The benefit of this course is to prepare students for advanced electrical circuits, schematics reading, and circuit troubleshooting. Students will gain knowledge about series and parallel circuit construction, voltage drop techniques, and problem-solving skills needed for proper diagnosis and repair of alternatively fueled vehicles.



2-DAY ILT

Electrical 2: Electrical Circuit Diagnosis

This course is designed to improve technicians' electrical circuit diagnosis on bus electronic management systems for alternative fuel vehicles. Students will be performing diagnosis in real circuit conditions with vehicle schematics. The lab exercises will provide real world simulations for advanced electrical circuit troubleshooting. Students will gain knowledge about voltage drop techniques and problem-solving skills needed for computer-controlled circuits.



2-DAY ILT

Electrical 3: Powertrain Control and CAN

This course is designed to give technicians fundamental knowledge and troubleshooting techniques for powertrain control and CAN J1939 communication networks. The course covers: J1939 protocols, powertrain interface, gateways, and data logging. This course features lab activities, which demonstrate hands-on how to perform diagnosis and repairs communication networks on an actual transit bus.



2-DAY ILT

Electrical 4: Multiplex DINEX

This course is designed to give technicians operational knowledge of the DINEX multiplex system. The course covers: G4/G5 operation, ladder logic, software use, programming, and system diagnosis. This course features lab activities, which demonstrate hands-on how to perform diagnosis and repairs of IO systems on an actual transit bus using software, dashboard, and printed documentation.



3-DAY ILT

Electrical 5: Multiplex VANSKO

This course is designed to give technicians operational knowledge of the VANSKO multiplex system. The course covers: ladder logic, software use, programming, and system diagnosis. This course features lab activities, which demonstrate hands-on how to perform diagnosis and repairs of IO systems on an actual transit bus using software, dashboard, and printed documentation.

BUILT WITH INDUSTRY

- Developed with CTTC's Electrical Working Committee
- Grounded in day-to-day transit maintenance realities
- Progressive pathway: online foundation → hands-on ILT
- Aligned for Member Portal & course catalog updates

FROM THE COMMITTEE

“We are in the day to day of operations and know exactly what our techs need; we built exactly what the industry has been looking for.”

Obed Meija

Education Service Committee Chair - CTTC

Senior Bus Equipment Maintenance Instructor — LA METRO

Register. Learn more. Watch for launch.

Coordinate enrollment through your training lead, or reach out to CTTC for agency scheduling and Member Portal access.



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cttc.com · [Electrical Systems Training](#)

portal.cttc.com

info@cttc.com