



Southern California Regional Transit Training Consortium

COURSE NAME: Powertrain Electronics Diagnosis and Repair - E4

COURSE #SC-EL-1600-IV

PREREQUISITES: Course prerequisites include proficiency in #SC-EL-1600-I, SC-EL-1600-II and SC-EL-1600-III; Technicians attending this course must have alternatively fueled computerized engine management systems software experience.

COURSE DESCRIPTION: This course integrates the complex system operation of alternatively fueled computerized engine management systems through the various communication operating protocols. This course features the most intense lab activities, due to the complexity of the J1587 / J1708 / J1939 harness functions in the modern transit vehicle. This course is intended for the individual who has completed the previous three modules and has experience in the proper wiring harness repair techniques following symbols and manufactures schematics for alternate fuel vehicles. Upon completion of this course, the student will have a complete understanding of the Powertrain wiring harness and also use a break out harness simplifying diagnostic procedures in the work place. Course includes both lecture and lab experiences.

WHO SHOULD ATTEND

This course is intended for the supervisor, technician who needs an overview of proper Powertrain diagnostic and repair techniques following symbols and manufactures schematics.

Day One

- Serial data processing and operation
 - Data bus hardware and software protocols for current Powertrain
 - SAE J1587, slow speed communication on electronically managed systems
 - SAE J1708, serial communications hard ware compatibility used in 6 pin Deutsch connectors
 - SAE J1939, current heavy duty data bus that uses CAN 2 architecture used in the 9 pin Deutsch connector on the back bone network.
 - Serial data communication, 5 volt vs.12 volt

Day Two

- Troubleshooting Skill Sets
 - "FUZZY LOGIC" language
 - DVOM usage as a trouble shooting tool
 - Scope usage as a trouble shooting tool

Course Times: 7:00am - 3:30pm each day. (SUBJECT TO CHANGE – CHECK REGISTRATION)

Number of Hours/Days: 16 Hours over 2-Days

Continuing Education Units (CEU): 0

Register **today** to reserve a spot
www.scrttc.com