

### ENGINE MECHANICAL DIAGNOSIS TRAINER

**No other trainer can offer  
this level of authenticity!**



#### Educational Advantages

- Saves significant instructor setup time for creating common engine mechanical faults and learning exercises
- Engine systems respond to inserted faults with real world symptoms, OEM DTC's, scan tool data-stream of changes and Check Engine Light operation
- Repeatable faults allow multiple students to demonstrate all required diagnostic tests required to identify cause (Prevents students from "memorizing" the faults. They would be required to perform the required testing)
- Mechanical faults cause compression, cylinder leak down, head gaskets and engine timing negative operational issues

#### Support Materials

- Laminated electrical schematics
- Pre-determined faults
- Operation manual
- Full curriculum package with student assignments & instructor answer keys (coming soon)

Have you ever wanted a running engine with repeatable mechanical faults that all of your students could diagnose? Would you like a system that has internal mechanical faults not requiring you to re-insert and repair them? The EM-141S-TY01 does exactly that. It was designed for the purposes of teaching students mechanical engine component failure diagnosis and is a real time-saver allowing instructors to instantly provide a "turn-key" engine mechanical fault diagnosis package.

#### Features

- Vehicle application: 2013-2016 Toyota Corolla North American model 1.8L 2ZR-FE engine with automatic transmission.
- Recycled engine, transmission and complete assembly of components
- A fully operational engine that starts/runs with OEM instrument panel
- Three "permanent" inserted industry common mechanical faults and one defective component fault that can be removed/replaced.
- Provides a "real world" running engine that will demonstrate all negative operational symptoms based on the faults.
- Functional Electronic Throttle Control, Catalytic Converter and Variable Valve Timing systems
- Emergency stop button
- Customized OEM exhaust system
- OEM Fuel Pump Module
- OEM power distribution center with circuit protection
- Automatic regulated 12V battery charger
- Robust trainer frame and stand with special design features for:
  - Easy removal and installation of radiator
  - Front motor mount is removable providing access to front engine timing cover
  - Defective control component that can be replaced with a non-defective unit correcting the fault
  - Included tool storage tray
  - Removable safety shields on all rotating components
  - Additional instructor led engine component R&R (timing chain, etc)

#### Physical Specifications

- Dimensions: 54.5" L x 33.25" W x 49" H (138.5 x 84.5 x 124.5 cm) / 36" L x 60" W x 52" H (90 x 150 x 130 cm) w/packaging
- Weight: 830 lb (376 kg) / 885 lb (401 kg) w/packaging