

**Product Name :**  
Hybrid GEN3 Engine Cut-Away, Toyota Prius, Manual Crank

**Product Code :**  
TechnicalLab0409

**Description :**

Hybrid GEN3 Engine Cut-Away, Toyota Prius, Manual Crank

The NEW Toyota Prius GEN3 Hybrid Cut-Away Training Engine – Manual Operation is a training system designed specifically for teaching how a hybrid drive train operates. This unit consists of all cut-away drive train components and are cut-away to allow clear student visual learning.

In comparison to the 2nd Generation Hybrid Trainer, this engine is larger and more powerful with a 1.8 liter Atkinson-cycle, four-cylinder, and 98 horsepower at 5,200 rpm. Together with the electric motor, the new hybrid system is designed to generate a combined net horsepower of 134. This is an improvement of 24 horsepower versus the previous generation.

Instructors and students will clearly see the moving internal parts of this engine. The larger engine actually reduces fuel consumption on the highway by running at a lower RPM than the GEN2 1.5 liter engine.

**EDUCATIONAL ADVANTAGES:**

- Clear cut-away allows for detailed student visualization of the hybrid drive train system components.
- Students can observe the multiple operational modes.
- Completely safe and powered by manual crank.
- Allows students to observe every component from different angles to obtain a complete understanding of this cutting edge engine.

#### APPLICATION:

- 2010-2013 Toyota Prius (GEN III)
- 1.8L 2ZR-FXE 4 Cylinder with VVT-i Atkinson cycle with Hybrid Synergy Drive

#### SPECIFICATIONS:

- OEM Components
- Powder coated components
- 4 cylinders
- Connecting rod, piston, cooling engine air space, water pump
- Oil filter
- Exhaust collector with Lambda probe
- Flywheel
- DOHC overhead camshaft
- Gears
- Roller chain
- Differential group

Contact us at 1-800-799-6232 or email [nouri@nadascientific.com](mailto:nouri@nadascientific.com) for a quote or additional technical specifications.

#### HYBRID ELECTRIC VEHICLE TECHNOLOGY TEXTBOOK:

Hybrid Electric Vehicle Technology provides foundational information about vehicles that use more than one propulsion technology to power a drive system. This textbook (279 pages) is filled with technical illustrations (197) and concise descriptions of the different configurations and vehicle platforms, the operation of various systems and the technology involved, and the maintenance of hybrid electric vehicles.

#### Content Highlights:

- Introduction to HEV Technology

- Hybrid Engines
  - Power Inverter Systems
  - Electric Propulsion Sensing Systems
  - Nickel-Metal Hydride Technology
  - Hybrid Vehicle Braking Systems
- Textbook CD-ROM Includes: Quick Quizzes, Media Clips, Illustrated Glossary, Review Questions, and Flash Cards.

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