



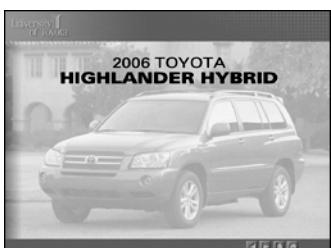
2006 Highlander Hybrid New Model



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Instructor's Guide

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I. INTRODUCTION

A. GENERAL

1. Line-off: March, 2005
2. Manufacturing Location: Toyota Motors Kyushu (Japan)
3. Launch Date: June, 2005
4. EPA:
 - a. 4WD: 31mpg city, 27 mpg highway, 29 mpg combined
 - b. 2WD: 33mpg city, 28mpg hwy, 30 mpg combined

B. HIGHLANDER HYBRID NEW MODEL PREVIEW

1. Web-based
2. Introduces new features
3. Available through Dealer Daily

C. TOYOTA TECH

1. Articles in the 2nd and 3rd quarter issues introducing the Highlander Hybrid and its components

**INSTRUCTOR NOTE**

The following Model Outline section is for instructor information. As much of this information was provided in the Web-based New Model Preview and the Toyota Tech articles, it will not be necessary for many classes.



II. MODEL OUTLINE

A. HYBRID SYNERGY DRIVE (HSD)

- 1. Hybrid transaxle**
 - a. MG1
 - b. MG2
 - c. Compound gear unit
- 2. Motor Generator Rear (MGR)**
- 3. Inverter**
- 4. HV battery**
- 5. Hybrid system controls**

B. ENGINE

- 1. 3MZ-FE**
- 2. Cooling system**
- 3. Engine control system**
- 4. Closed fuel tank system**
- 5. Evaporative emissions**

C. CHASSIS

- 1. Hybrid transaxle**
- 2. Rear transaxle**
- 3. 4WD-I system**
- 4. Brake**
 - a. VDIM
 - b. Regenerative Braking
 - c. Electronically Controlled Braking (ECB)