

Toyota A247E

Toyota RAV4 A247E Automatic Transaxle Service Manual (1998-2000)

Official Service and Repair Instructions

[Introduction](#) [Using This Manual](#) [Service Procedures](#) [Troubleshooting](#) [Technical Specifications](#) [Important Notes](#)

1. INTRODUCTION TO THE SERVICE MANUAL

This document serves as the official service and repair manual for the **Toyota RAV4 A247E Automatic Transaxle**, specifically covering model years 1998, 1999, and 2000. It is designed for qualified technicians and individuals with a comprehensive understanding of automotive repair procedures. The manual provides detailed, step-by-step instructions, exploded illustrations, and diagrams necessary for the proper diagnosis, maintenance, and repair of the A247E automatic transaxle system. This manual focuses exclusively on the transaxle system and does not cover other vehicle components or general vehicle maintenance. Its purpose is to ensure accurate and efficient service, helping to maintain the performance and longevity of the transaxle.

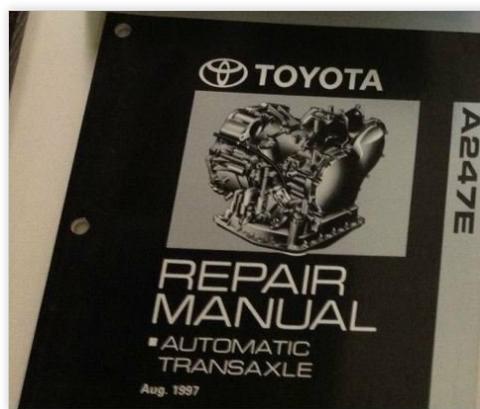


Image 1.1: Front cover of the official Toyota RAV4 A247E Automatic Transaxle Service Manual. This image displays the manual's title and branding, indicating its scope for 1998-2000 models.

2. USING THIS SERVICE MANUAL

To effectively utilize this service manual, it is recommended to familiarize yourself with its structure and conventions. The manual is organized into sections, each addressing specific aspects of the A247E transaxle.

2.1. General Navigation

- **Section Layout:** Each major section covers a distinct system or component group of the transaxle.
- **Illustrations and Diagrams:** Exploded views, wiring diagrams, and component illustrations are provided to aid in identification and assembly. Refer to these visuals in conjunction with the text instructions.
- **Step-by-Step Instructions:** Procedures are presented in a sequential, numbered format. Follow each step carefully to ensure correct execution.

2.2. Safety Precautions

Always observe standard automotive safety practices when performing any service or repair. This includes wearing appropriate personal protective equipment, disconnecting the vehicle's battery when necessary, and ensuring the vehicle is securely supported.

3. SERVICE PROCEDURES (MAINTENANCE & REPAIR)

This manual details a wide range of service procedures for the A247E automatic transaxle. These procedures are categorized to facilitate easy reference.

3.1. Disassembly and Assembly

Detailed instructions are provided for the complete disassembly and reassembly of the transaxle unit. This includes procedures for removing and installing internal components such as clutch packs, planetary gear sets, and valve bodies.

3.2. Inspection and Adjustment

The manual outlines critical inspection points and specifications for wear limits, clearances, and torque values. Procedures for adjusting various transaxle components to ensure optimal performance are also included.

3.3. Fluid Service

Information on proper transaxle fluid types, capacities, and procedures for fluid level checks and changes is covered. This is crucial for routine maintenance.

4. TROUBLESHOOTING AND DIAGNOSTICS

This section assists in diagnosing common issues and malfunctions related to the A247E automatic transaxle. It includes diagnostic charts, symptom-based troubleshooting guides, and testing procedures for electrical and mechanical components.

- **Diagnostic Trouble Codes (DTCs):** Explanation of relevant DTCs and their diagnostic pathways.
- **Symptom-Based Charts:** Guides for identifying potential causes based on observed transaxle symptoms (e.g., slipping, harsh shifting, no engagement).
- **Component Testing:** Procedures for testing individual sensors, solenoids, and other electrical components of the transaxle system.

5. TECHNICAL SPECIFICATIONS

The manual contains comprehensive technical specifications for the A247E automatic transaxle. This includes, but is not limited to:

- **Torque Specifications:** Fastener tightening values for all transaxle components.
- **Clearances and Tolerances:** Critical measurements for proper component fit and function.
- **Fluid Capacities and Types:** Recommended automatic transmission fluid (ATF) and fill volumes.
- **Electrical Values:** Resistance and voltage specifications for sensors and solenoids.

6. IMPORTANT NOTES

This service manual is intended for professional use or by individuals with advanced mechanical knowledge. Improper service or repair can lead to vehicle damage, personal injury, or unsafe operating conditions. Always refer to the latest service bulletins and updates from Toyota for the most current information.

6.1. Warranty and Support

This service manual itself does not provide warranty information for the Toyota RAV4 vehicle or its A247E automatic transaxle. For details regarding vehicle or component warranties, please consult your authorized Toyota dealer or the vehicle's owner's manual. Technical support for specific repair procedures beyond the scope of this manual should be sought from certified automotive professionals.

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