

Engine "Pinging" or "Knocking" Noise

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2001 – 2003	Highlander	Body Type(s): SUV Drive Type(s): 2WD, 4WD Engine(s): 1MZ Transmission(s): 4AT VDS(s): GF21A, HF21A

TSB REVISION NOTICE

- **June 18, 2008 Rev1:**
 - **Applicability has been updated to include 2001 and 2002 model years.**
 - **Parts Information has been updated with part numbers for 2001 and 2002 model years.**

Any previous printed versions of this service bulletin should be discarded.

Introduction

Some 2001 – 2003 model year Highlander vehicles equipped with a 1MZ-FE engine may exhibit an intermittent “pinging” or “knocking” noise when accelerating slowly up a grade. The Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) logic has been improved to address this condition.

Warranty Information

OP CODE	DESCRIPTION	TIME	OPF	T1	T2
EL8011	R & R ECM (PCM)	0.3	89661-48410 89661-48420	06	99

APPLICABLE WARRANTY

- **This repair is covered under the Toyota Federal Emission Warranty. This warranty is in effect for 96 months or 80,000 miles, whichever occurs first, from the vehicle’s in-service date.**
- **Warranty application is limited to correction of a problem based upon a customer’s specific complaint.**

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Parts Information

MODEL YEAR	DRIVETRAIN	PREVIOUS PART NUMBER	CURRENT PART NUMBER	PART NAME	QTY
2001	2WD	89661-48250	89661-48251	Computer, Engine Control (ECM/PCM)	1
	4WD	89661-48260	89661-48261		1
2002	2WD	89661-48350	89661-48351		1
	4WD	89661-48360	89661-48361		1
2003	2WD	89661-48410	89661-48411		1
	4WD	89661-48420	89661-48421		1

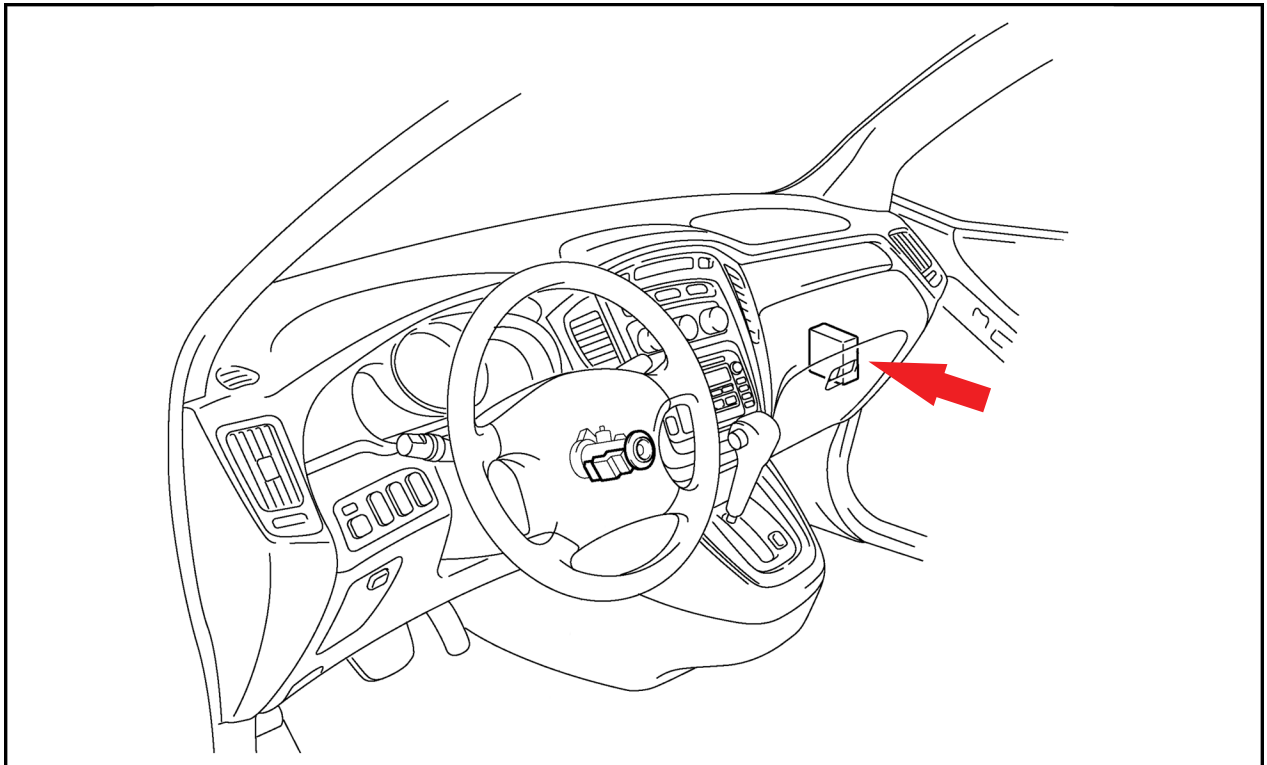
Inspection Procedure

1. Drive the vehicle slowly up a slight grade using light throttle input.
2. If engine "pinging" or "knocking" can be heard between 1400 – 1800 rpm, follow the procedure below to resolve the customer's concern.

Repair Procedure

1. Remove and replace the ECM (PCM).

Figure 1. ECM (PCM) Location



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Repair Procedure (Continued)

2. Start the engine and warm it up to normal operating temperature before test driving.
3. Test drive the vehicle to confirm normal operation. The repair is complete.