

# Engine Bank 1 and Bank 2 A/F and O2 Identification

**Service Category** Engine/Hybrid System

**Section** Engine Control

**Market** USA

Toyota Supports  
 ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
1993 – 2010	4Runner, Avalon, Camry, FJ Cruiser, Highlander, Highlander HV, Land Cruiser, MR2 Spyder, RAV4, Sequoia, Sienna, Solara, Supra, T100, Tacoma, Tundra	

### TSB SUPERSESSION NOTICE

The information contained in this TSB supersedes TSB No. EG034-07.

- Applicability has been updated to include 2009 – 2010 model year vehicles and 2006 – 2010 model year Highlander HV.

TSB No. EG034-07 is Obsolete and any printed versions should be discarded. Be sure to review the entire content of this service bulletin before proceeding.

## Introduction

This service bulletin provides information on the proper identification of engine bank 1 and engine bank 2 for correct A/F sensor and oxygen sensor replacement.

This bulletin contains information that identifies engine bank 1 and engine bank 2 on the following engines:

1AZ-FE, 2AZ-FE, 2AZ-FE (PZEV), 1GR-FE, 2GR-FE, 2JZ-GE, 1MZ-FE, 3MZ-FE, 1UR-FE, 3UR-FE, 2UZ-FE, 5VZ-FE, and 1ZZ-FE.

- Bank 1 (B1) refers to the bank that includes cylinder No. 1.
- Bank 2 (B2) refers to the bank opposite bank 1.
- Sensor 1 (S1) refers to the sensor that is located before the catalytic converters.
- Sensor 2 (S2) refers to the sensor that is located after the catalytic converters.

## Engine Bank 1 and Bank 2 A/F and O2 Identification

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### Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
N/A	Not Applicable to Warranty	–	–	–	–

### Applicable Vehicles

MODEL	MODEL YEAR	ENGINE
4Runner	1996 – 2002	5VZ-FE
	2003 – 2010	1GR-FE 2UZ-FE
Avalon	1995 – 2004	1MZ-FE 3MZ-FE
	2005 – 2010	2GR-FE
Camry	1994 – 2003	1MZ-FE
	2004 – 2006	1MZ-FE 3MZ-FE
	2003 – 2006	2AZ-FE PZEV
	2008 – 2010	2GR-FE
FJ Cruiser	2007 – 2010	1GR-FE
Highlander	2001 – 2003	1MZ-FE 2AZ-FE
	2004 – 2007	3MZ-FE
	2008 – 2010	2GR-FE
Highlander HV	2006 – 2010	3MZ-FE
Land Cruiser	1998 – 2007	2UZ-FE
	2008 – 2010	3UR-FE
MR2 Spyder	2000 – 2005	1ZZ-FE
RAV4	2001 – 2003	1AZ-FE
	2006 – 2010	2GR-FE
Sequoia	2001 – 2010	2UZ-FE
	2008 – 2010	3UR-FE
Sienna	1998 – 2003	1MZ-FE
	2004 – 2006	3MZ-FE
	2007 – 2010	2GR-FE
Solara	1999 – 2003	1MZ-FE
	2004 – 2010	3MZ-FE

## Engine Bank 1 and Bank 2 A/F and O2 Identification

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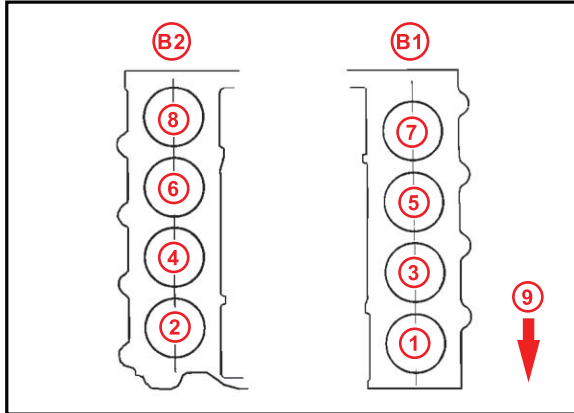
### Applicable Vehicles (Continued)

MODEL	MODEL YEAR	ENGINE
Supra	1993 – 1998	2JZ-GE
Tacoma	1995 – 2004	5VZ-FE
	2005 – 2010	1GR-FE
T-100	1995 – 1998	5VZ-FE
Tundra	2000 – 2004	5VZ-FE 2UZ-FE
	2005 – 2010	1GR-FE 2UZ-FE
	2007 – 2010	3UR-FE/3UR-FBE
	2010	1UR-FE

# Engine Bank 1 and Bank 2 A/F and O2 Identification

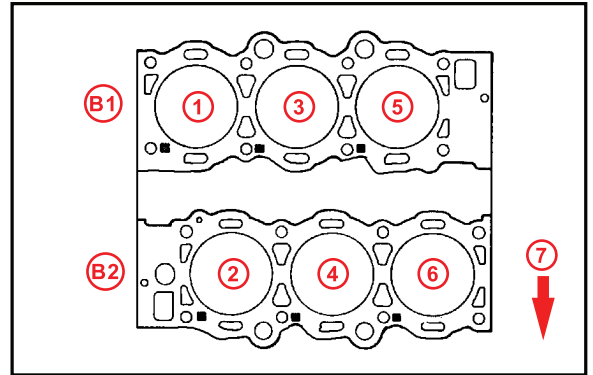
## Engine Bank Identification

**Figure 1. Engine Bank Identification: 1UR-FE, 3UR-FE, 2UZ-FE**



<b>B1</b>	Bank 1
<b>B2</b>	Bank 2
<b>1</b>	No. 1 Cylinder
<b>2</b>	No. 2 Cylinder
<b>3</b>	No. 3 Cylinder
<b>4</b>	No. 4 Cylinder
<b>5</b>	No. 5 Cylinder
<b>6</b>	No. 6 Cylinder
<b>7</b>	No. 7 Cylinder
<b>8</b>	No. 8 Cylinder
<b>9</b>	Front of Vehicle

**Figure 2. Engine Bank Identification: 2GR-FE, 1MZ-FE, 3MZ-FE**

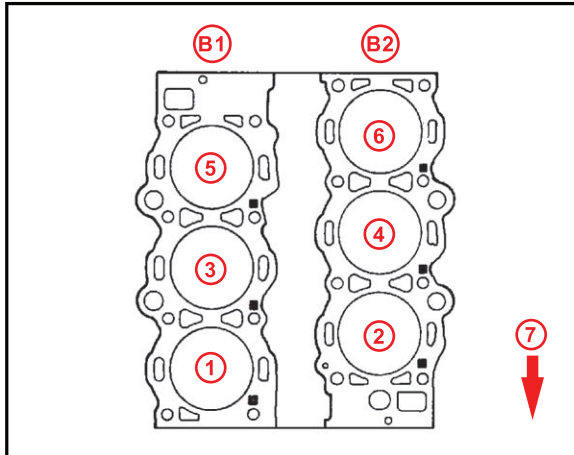


<b>B1</b>	Bank 1
<b>B2</b>	Bank 2
<b>1</b>	No. 1 Cylinder
<b>2</b>	No. 2 Cylinder
<b>3</b>	No. 3 Cylinder
<b>4</b>	No. 4 Cylinder
<b>5</b>	No. 5 Cylinder
<b>6</b>	No. 6 Cylinder
<b>7</b>	Front of Vehicle

## Engine Bank 1 and Bank 2 A/F and O2 Identification

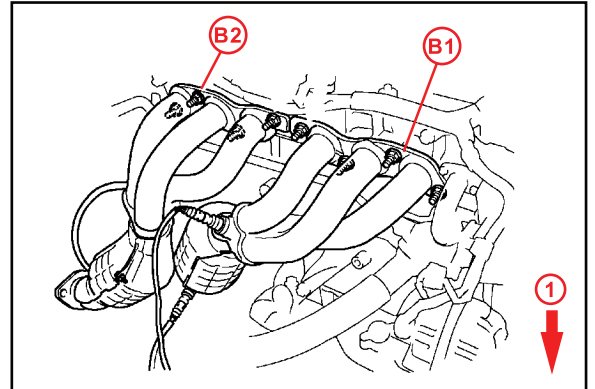
### Engine Bank Identification (Continued)

**Figure 3. Engine Bank Identification: 1GR-FE, 5VZ-FE**



<b>B1</b>	Bank 1
<b>B2</b>	Bank 2
<b>1</b>	No. 1 Cylinder
<b>2</b>	No. 2 Cylinder
<b>3</b>	No. 3 Cylinder
<b>4</b>	No. 4 Cylinder
<b>5</b>	No. 5 Cylinder
<b>6</b>	No. 6 Cylinder
<b>7</b>	Front of Vehicle

**Figure 4. Engine Bank Identification: 2JZ-GE**

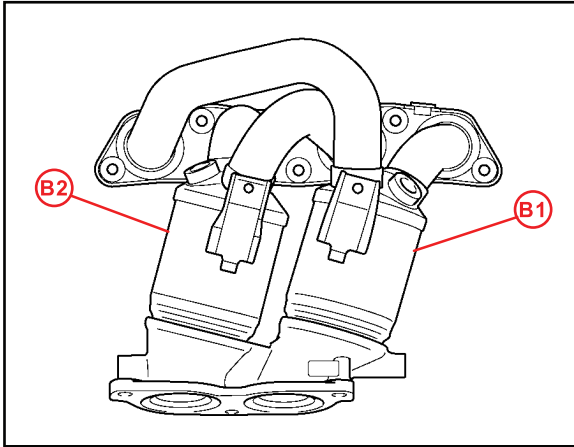


<b>B1</b>	Bank 1
<b>B2</b>	Bank 2
<b>1</b>	Front of Vehicle

# Engine Bank 1 and Bank 2 A/F and O2 Identification

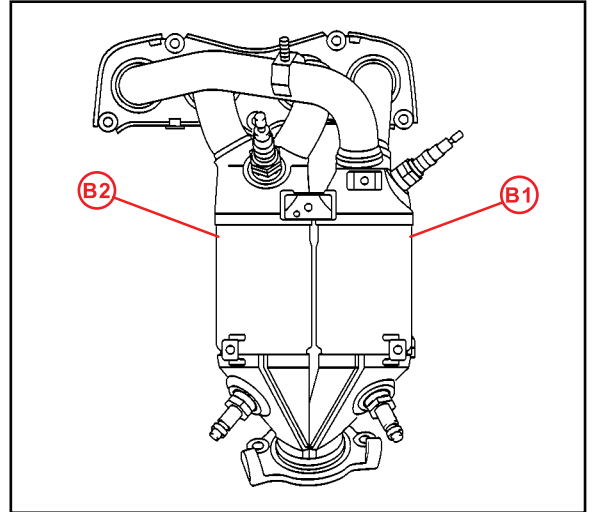
## Engine Bank Identification (Continued)

**Figure 5. Engine Bank Identification: 1ZZ-FE**



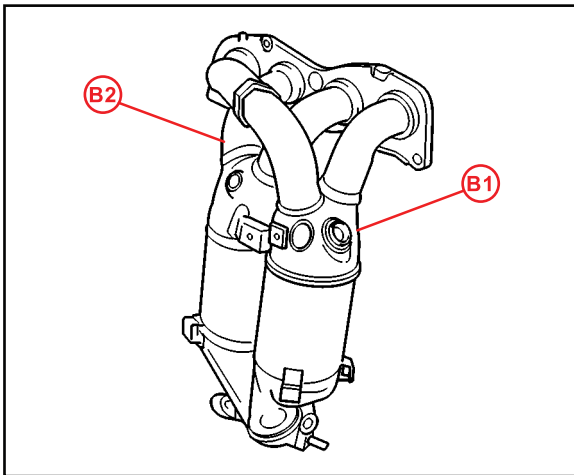
<b>B1</b>	Bank 1
<b>B2</b>	Bank 2

**Figure 6. Engine Bank Identification: 1AZ-FE**



<b>B1</b>	Bank 1
<b>B2</b>	Bank 2

**Figure 7. Engine Bank Identification: 2AZ-FE**

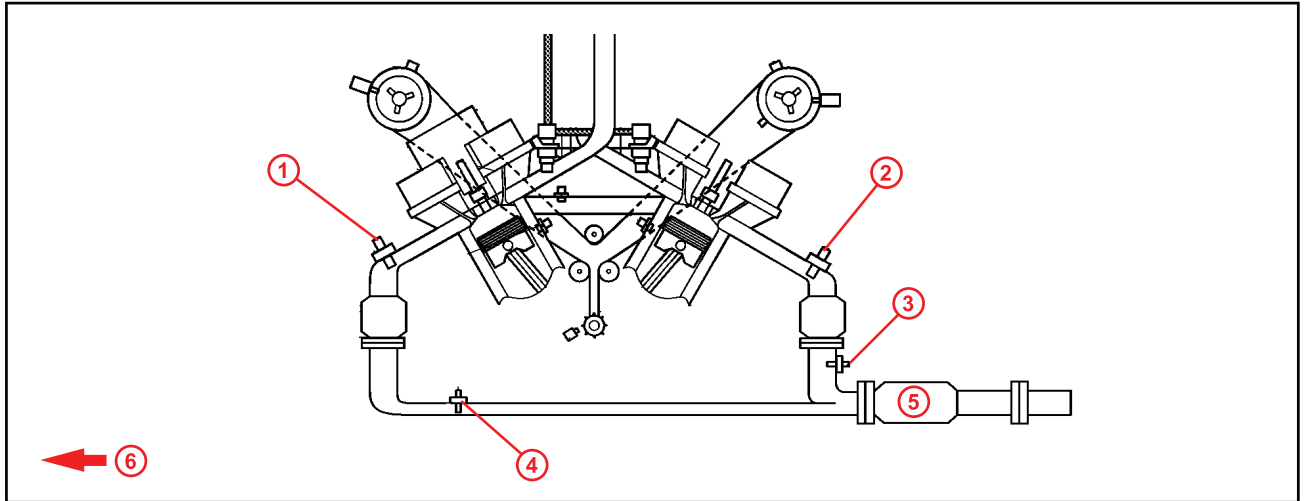


<b>B1</b>	Bank 1
<b>B2</b>	Bank 2

## Engine Bank 1 and Bank 2 A/F and O2 Identification

### A/F and O2 Sensor Identification

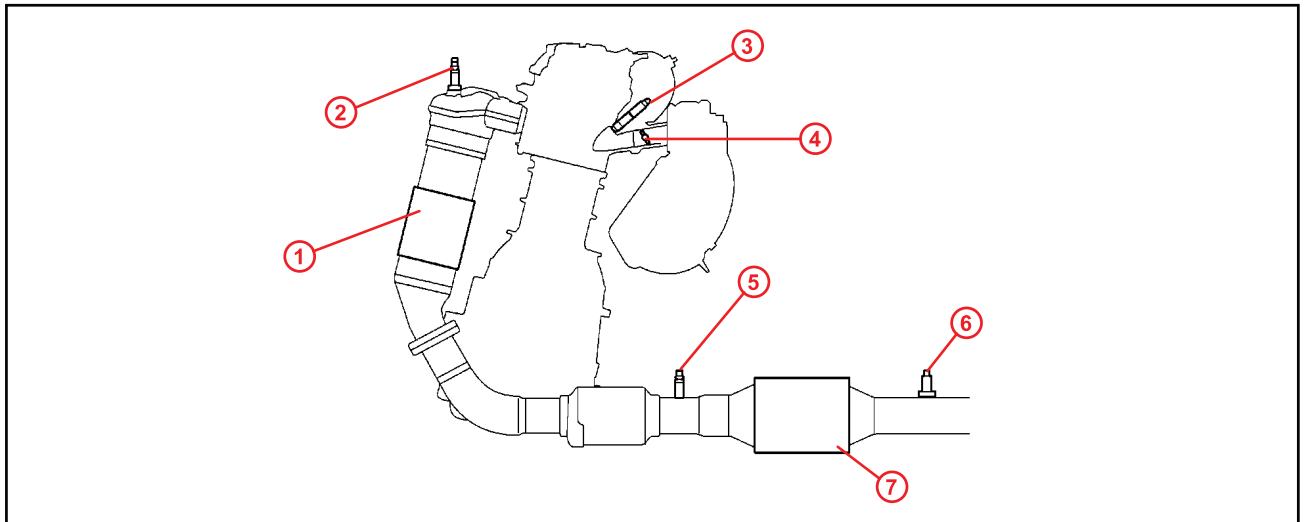
**Figure 8. Sensor Identification: FWD V6**



<b>1</b>	A/F Sensor (Bank 2, Sensor 1) (B2, S1)
<b>2</b>	A/F Sensor (Bank 1, Sensor 1) (B1, S1)
<b>3</b>	Heated Oxygen Sensor (Bank 1, Sensor 2) (B1, S2)

<b>4</b>	Heated Oxygen Sensor (Bank 2, Sensor 2) (B2, S2)
<b>5</b>	TWC
<b>6</b>	Front of Vehicle

**Figure 9. Sensor Identification: 2AZ-FE PZEV**



<b>1</b>	Warm-up Catalyst (Front Catalyst)
<b>2</b>	A/F Sensor (Bank 1, Sensor 1)
<b>3</b>	Fuel Injector
<b>4</b>	Intake Manifold Runner Valve

<b>5</b>	Heated Oxygen Sensor 2 (Bank 1, Sensor 2)
<b>6</b>	Heated Oxygen Sensor 3 (Bank 1, Sensor 3)
<b>7</b>	Under Floor Catalyst (Rear Catalyst) (HC Absorptive 3-Way Catalyst)