

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TSB No. EG034-07 is Obsolete and any printed versions should be discarded.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

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

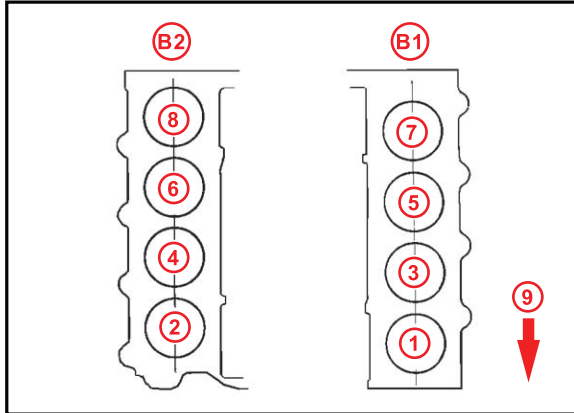
Applicable Vehicles (Continued)

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

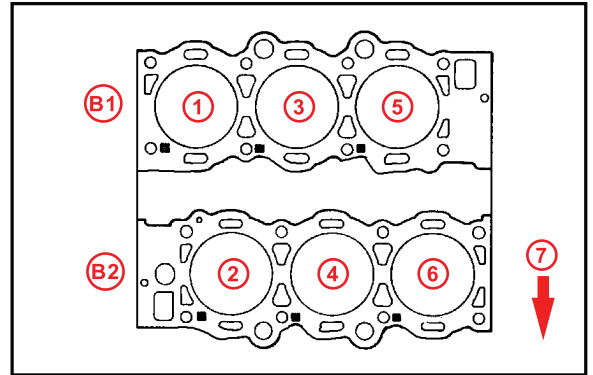
Engine Bank Identification

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



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

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

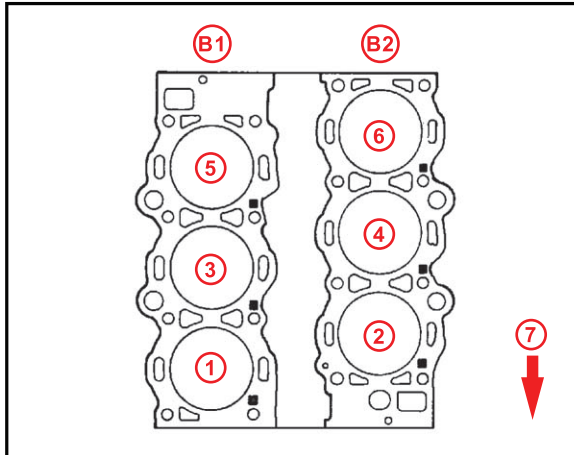


B1	Bank 1
B2	Bank 2
1	No. 1 Cylinder
2	No. 2 Cylinder
3	No. 3 Cylinder
4	No. 4 Cylinder
5	No. 5 Cylinder
6	No. 6 Cylinder
7	Front of Vehicle

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

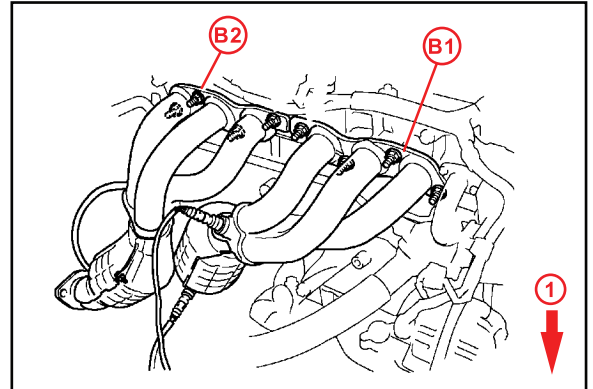
Engine Bank Identification (Continued)

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



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

Figure 4. Engine Bank Identification: 2JZ-GE

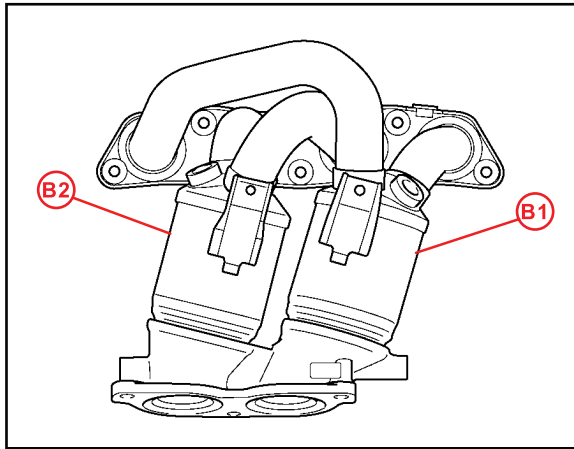


B1	Bank 1
B2	Bank 2
1	Front of Vehicle

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

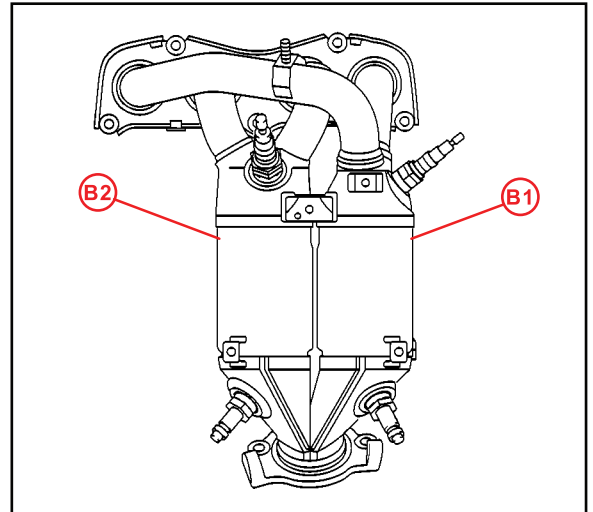
Engine Bank Identification (Continued)

Figure 5. Engine Bank Identification: 1ZZ-FE



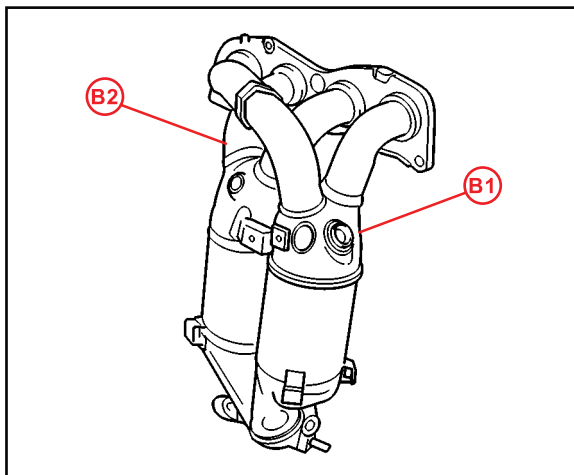
B1	Bank 1
B2	Bank 2

Figure 6. Engine Bank Identification: 1AZ-FE



B1	Bank 1
B2	Bank 2

Figure 7. Engine Bank Identification: 2AZ-FE

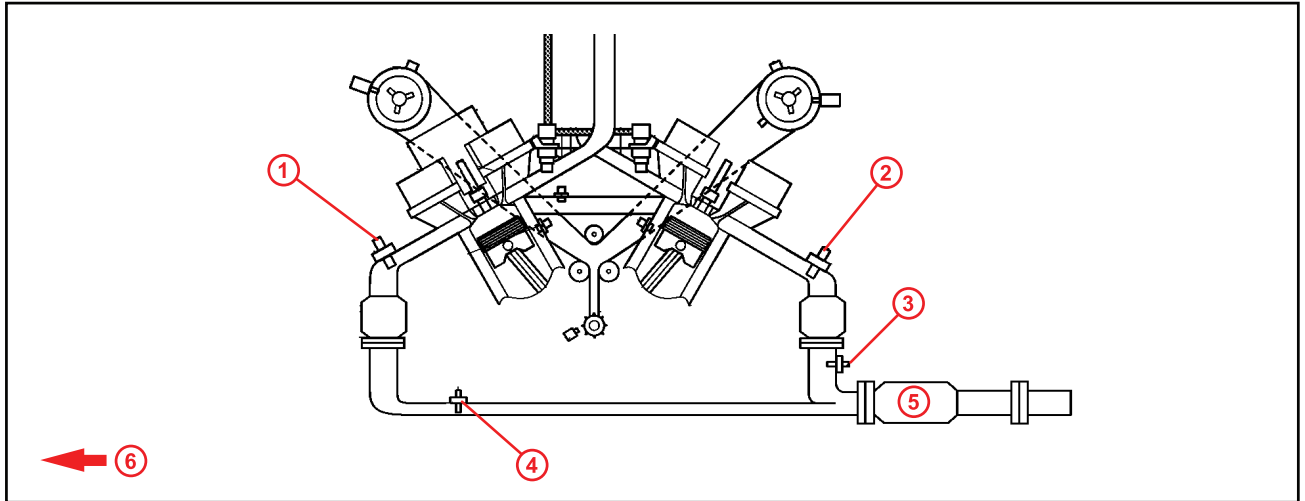


B1	Bank 1
B2	Bank 2

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

A/F and O2 Sensor Identification

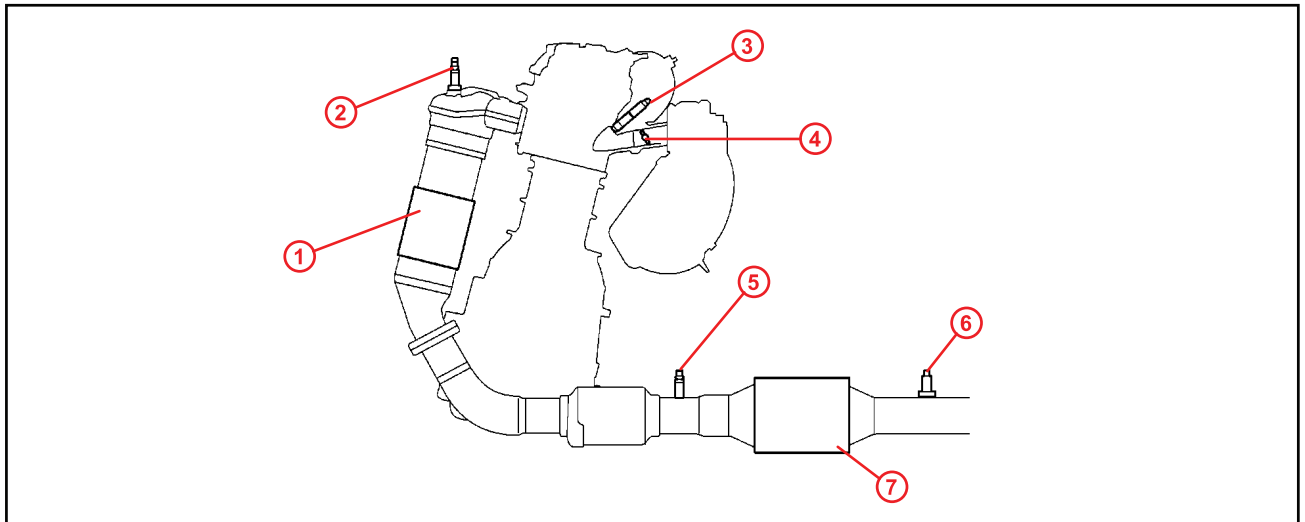
Figure 8. Sensor Identification: FWD V6



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

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

Figure 9. Sensor Identification: 2AZ-FE PZEV



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

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