

# Chapter 21

## Mazda

### Contents

Index of vehicles	Retrieving fault codes without a fault code reader (FCR) - flash codes	3
Self-Diagnosis	Self-Diagnosis connector location	2
Clearing codes without a fault code reader (FCR)	Self-Diagnosis with a fault code reader (FCR)	5
Guide to test procedures	<b>Fault code tables</b>	
Introduction		1

### Index of vehicles

Model	Engine code	Year	System
121 1.3 SOHC 16V cat	B3	1991 to 1995	Mazda EGI-S SPi
323 1.3i SOHC 16V cat	B3	1991 to 1995	Mazda EGI MPi
323 1.3i SOHC 16V	B3	1995 to 1997	Mazda EGI MPi
323 1.5i DOHC 16V	Z5	1994 to 1997	Mazda EGI MPi
323 1600i	B6	1985 to 1987	Mazda EGI MPi
323 1.6i Turbo 4x4 DOHC	B6	1986 to 1989	Mazda EGI MPi
323 1.6i SOHC 16V cat	B6	1991 to 1994	Mazda EGI MPi
323 1.6i Estate SOHC cat	B6E	1991 to 1994	Mazda EGI MPi
323 1.8i DOHC 16V cat	BP	1991 to 1994	Mazda EGI MPi
323 2.0i DOHC V6 24V	KF	1995 to 1997	Mazda EGI MPi
323 2.0i DOHC V6 24V	KF	1996 to 1997	Mazda EGI MPi
626 1.8i cat DOHC 16V	FP	1992 to 1997	Mazda EGI MPi
626 2000i fwd	FE	1985 to 1987	Mazda EGI MPi
626 2.0i GT DOHC 16V	FE	1987 to 1990	Mazda EGI MPi
626 2.0i DOHC 16V	FE	1990 to 1993	Mazda EGI MPi
626 2.0i DOHC 16V cat	FE	1990 to 1995	Mazda EGI MPi
626 2.0i DOHC 16V cat	FS	1992 to 1997	Mazda EGI MPi
626 2.2i 4x4 SOHC cat	F2	1990 to 1993	Mazda EGI MPi
626 2.5i DOHC V6 cat	KL	1992 to 1997	Mazda EGI MPi
E2000	FE	1994 to 1997	Mazda EGI MPi
MX-3 1.6i SOHC 16V	B6	1991 to 1997	Mazda EGI MPi
MX-3 1.8i DOHC V6	K8	1991 to 1997	Mazda EGI MPi
MX-5 1.8i DOHC 16V	BP	1995 to 1997	Mazda EGI MPi
MX-6 2.5i V6 DOHC cat	KL	1992 to 1997	Mazda EGI MPi
Xedos 6 1.6i DOHC 16V	B6	1994 to 1997	Mazda EGI MPi
Xedos 6 2.0i DOHC 24V	KF	1992 to 1997	Mazda EGI MPi
Xedos 9 2.0i DOHC 24V	KF	1994 to 1995	Mazda EGI MPi
Xedos 9 2.5i DOHC 24V	KL	1994 to 1997	Mazda EGI MPi
RX7	RE13B	1986 to 1990	Mazda EGI MPi

### Self-Diagnosis

#### 1 Introduction

The engine management system (EMS) fitted to Mazda vehicles is Mazda EGI, which exists in both MPI and SPi forms. Mazda EGI controls the primary ignition, fuel injection and idle functions from within the same control module.

#### Self-Diagnosis (SD) function

Each ECM has a self-test capability that continually examines the signals from certain engine sensors and actuators, and compares each signal to a table of programmed values. If the diagnostic software determines that a fault is present, the ECM stores one or more fault

codes. Codes will not be stored about components for which a code is not available, or for conditions not covered by the diagnostic software.

Mazda EGI generates fault codes for retrieval by manual means (flash codes) or by a dedicated fault code reader (FCR). Until 1995, the fault code structure was 2-digit. After 1995, in some Mazda models the fault code structure was changed to 4-digit. The code tables at the end of the Chapter indicate the meaning for both 2- and 4 digit codes.

#### Limited operating strategy (LOS)

Mazda systems featured in this Chapter utilise LOS (a function that is commonly called the "limp-home mode"). Once certain faults have been identified (not all faults will initiate

LOS), the ECM will implement LOS and refer to a programmed default value rather than the sensor signal. This enables the vehicle to be safely driven to a workshop/garage for repair or testing. Once the fault has cleared, the ECM will revert to normal operation.

#### Adaptive or learning capability

Mazda systems also utilise an adaptive function that will modify the basic programmed values for most effective operation during normal running, and with due regard to engine wear.

#### Self-Diagnosis (SD) warning light

The majority of Mazda models are equipped with a SD warning light located within the instrument panel.