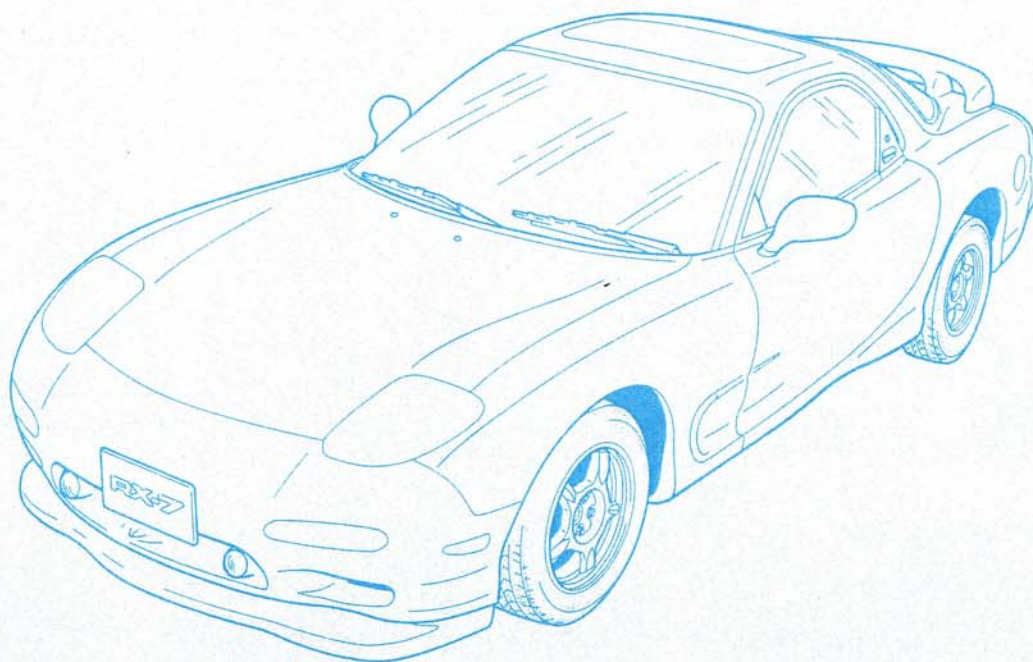


# Mazda RX-7

1994  
Wiring Diagram



# MAZDA

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# 1994 Mazda RX-7 Wiring Diagram

## FOREWORD

This wiring diagram incorporates the wiring schematics of the basic vehicle and available optional equipment. Actual vehicle wiring may vary slightly depending on optional equipment or local specifications, or both. All information in this booklet is based on information available at the time of printing. Mazda Motor Corporation reserves the right to make changes without previous notice.

Mazda Motor Corporation  
HIROSHIMA, JAPAN

## APPLICATION:

This manual applies to vehicles beginning with the Vehicle Identification Numbers (VIN) on the following page.

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SYSTEM CIRCUIT DIAGRAM/ CONNECTOR LOCATIONS	A~U
COMMON CONNECTORS	X
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Z

**VEHICLE IDENTIFICATION NUMBERS (VIN)  
(CHASSIS NUMBER)**

JM1 FD333\*R0 300001~

**WIRING COLOR CODE**

<b>Color</b>	<b>Code</b>	<b>Color</b>	<b>Code</b>
Blue	L	Orange	O
Black	B	Pink	P
Brown	BR	Red	R
Dark Blue	DL	Purple	PU
Dark Green	DG	Sky Blue	SB
Green	G	Tan	T
Gray	GY	White	W
Light Blue	LB	Yellow	Y
Light Green	LG	Violet	V
Natural	N		

# GENERAL INFORMATION

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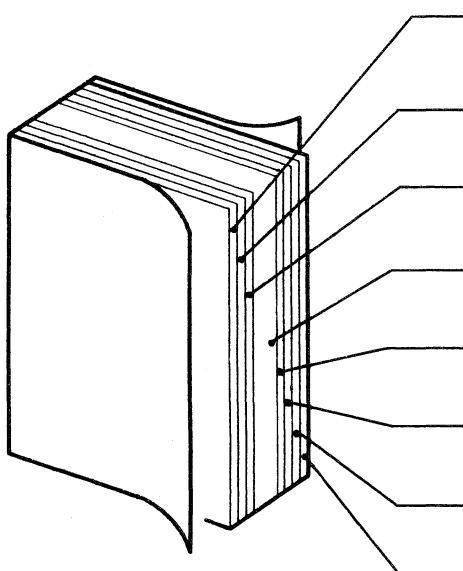
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## Contents of wiring diagrams


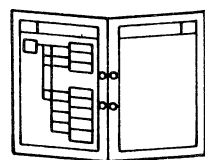
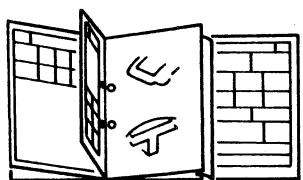
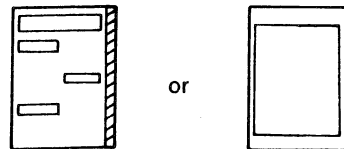
- This document comprises the 8 groups shown below. The main components are summarized in the components location diagram at the end of the document.



GI	<b>General Information</b>	A how-to on using and reading wiring diagrams, using test equipment, checking harnesses and connectors, and finding trouble spots
Y	<b>Ground points</b>	Ground routes from and to the battery
W	<b>Electrical wiring schematics</b>	Shows main fuses and other fuses for each system
A~U	<b>Circuit diagrams for individual systems</b>	Shows circuit and connector diagrams and component and connector location diagrams
X	<b>Common connectors</b>	Shows connectors common throughout system
JB	<b>Joint box complete wiring system</b>	Shows internal circuits and connectors
PL	<b>Parts location</b>	Shows location of major electrical parts
PI	<b>Index</b>	Gives page number of circuit diagram for each component

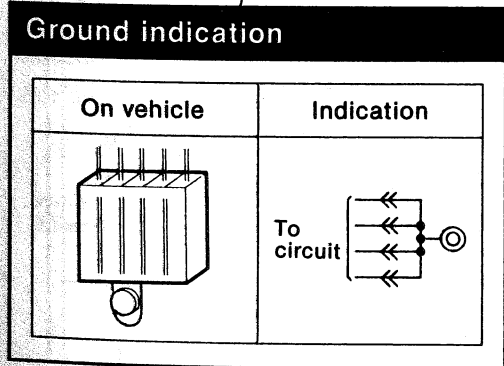
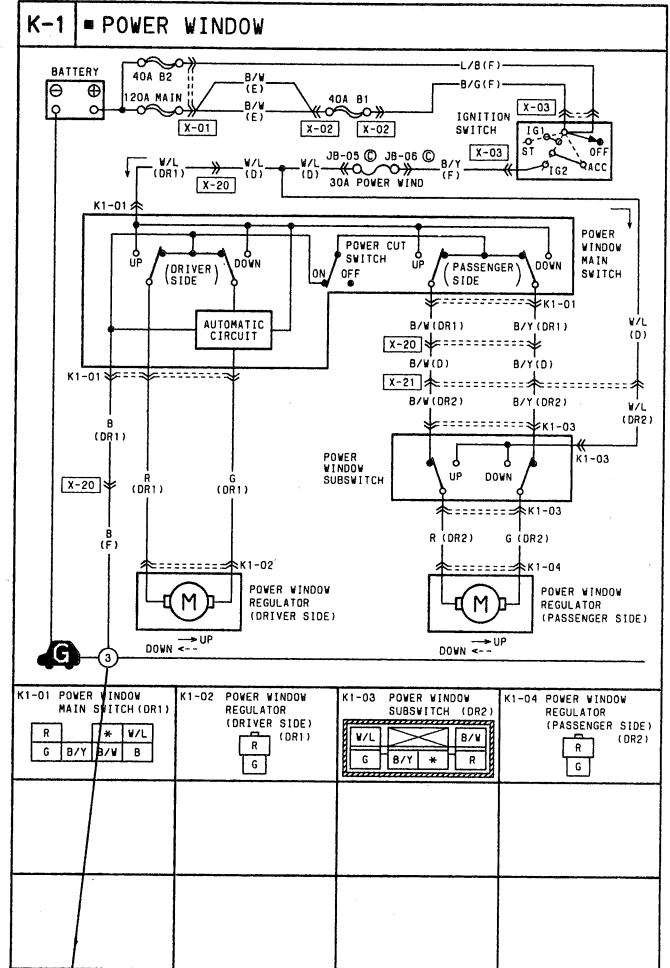
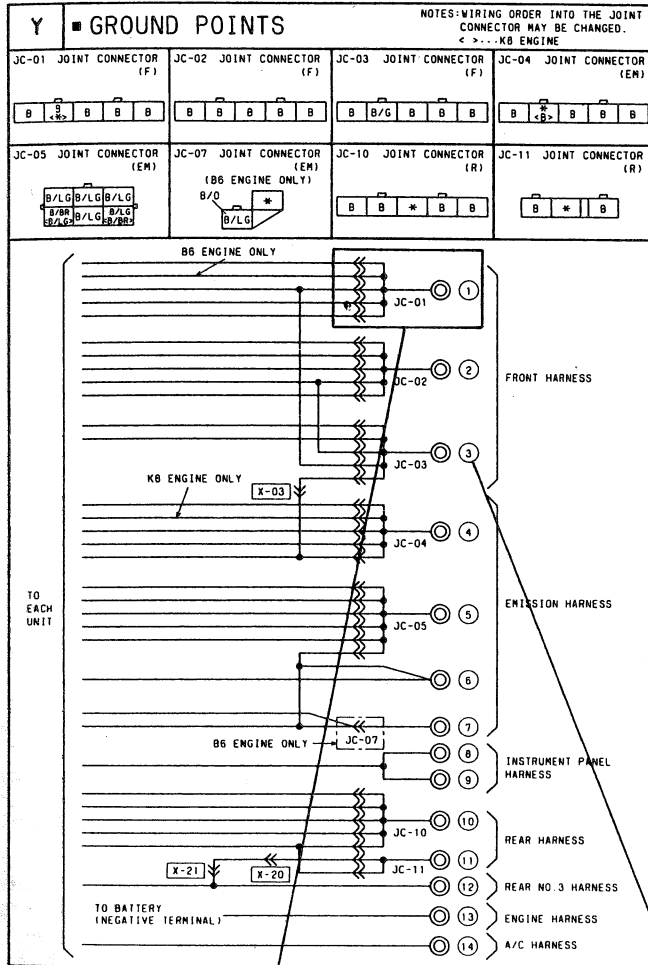
## Using wiring diagrams

- The use of the wiring diagram depends on its application.

Application	Use	Application	Use
For checking circuits of individual systems	 <p>Open to page with circuit diagram and harness routing to be used and fold out common connector diagram or joint box diagram.</p>	For checking fuse connections	 <p>Open to electrical wiring schematic.</p>
For checking ground circuit of individual systems	 <p>Open to page with ground point diagram and fold out common connector diagram or joint box diagram.</p>	For finding page numbers of systems and components	<p>Parts Index                      System Index</p>  <p>or</p> <p>Open to parts index or system index.</p>

## Ground points

- This shows ground points of the harness.



**On circuit diagrams and ground points**

The ground connection numbers in system circuit diagrams correspond to those in the ground point diagram.

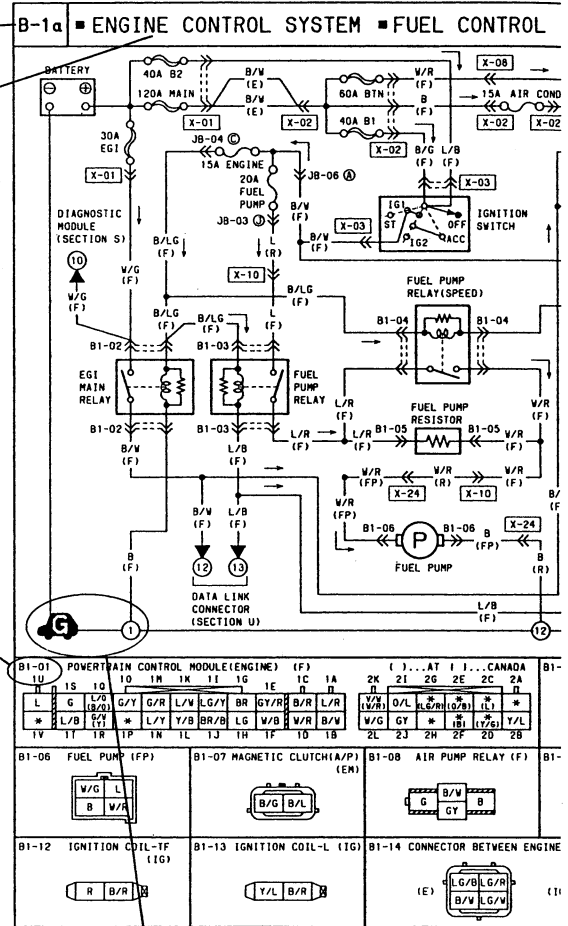
## System circuit diagram/connector diagram

- These show the circuits for each system, from the power supply to the ground. The power supply side is on the upper part of the page, the ground side on the lower part. The diagrams describe circuits with the ignition switch off.

Below is an explanation of the various points in the diagram.

**System code**

**System name**



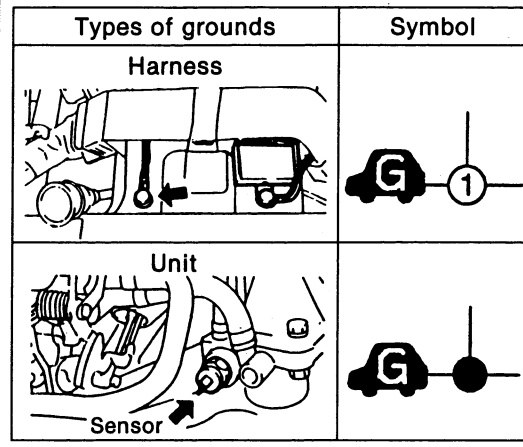
### Connector code

The prefix letter indicates the system in which the connector is used.

- JB: Joint box connections
- X : Common connectors
- A : Charging system/starting system connectors
- B : Engine control system connectors
- C : Gauge control system connectors
- D : Wiper system connectors
- E : Lighting system connectors
- F : Signal system connectors
- G : Air-conditioning system connectors
- H : Transmission control system connectors
- I : Interior lamp system connectors
- J : Audio/radio connectors
- K : Power window/power door lock system connectors
- L : Remote control mirror system connectors
- M : Sliding sunroof system connectors
- N : Power steering/4-wheel steering system connectors
- O : Anti-lock brake system connectors
- P : Power seat/seat heater system connectors
- Q : Auto cruise control system connectors
- R : Auto adjusting suspension system connectors
- S : Passive shoulder belt control/air bag system connectors
- T : Others
- Y : Ground connector

### Ground numbers

A harness ground is represented differently than a unit ground.





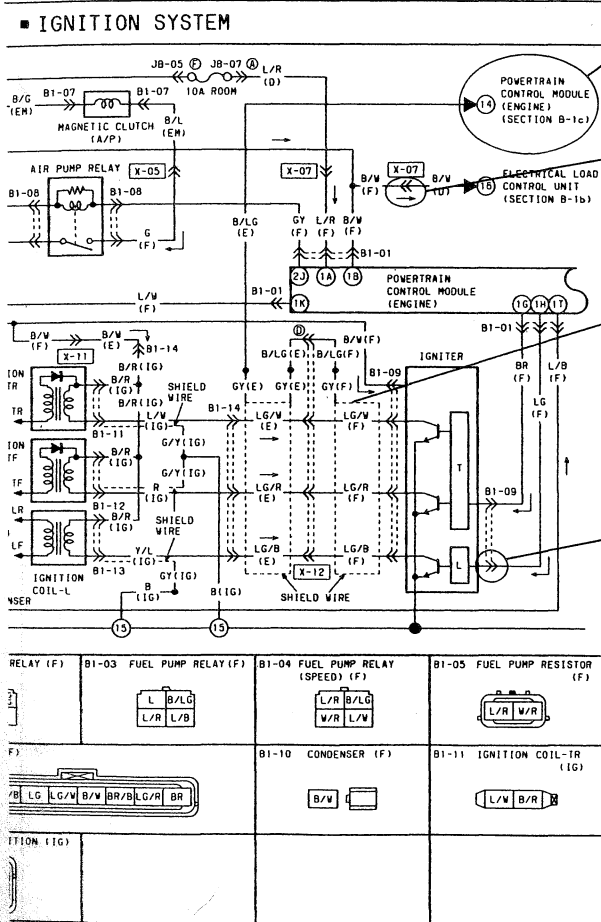
The number indicates that the circuit continues to the related system diagram.

Current symbol

Current flows in the direction of the arrow.

Indicates shielded wire.\*

\*Shielded wire:  
Prevents signal disturbances from electrical interference.  
Wire is covered by a metal meshing for grounding.



## Connector symbols

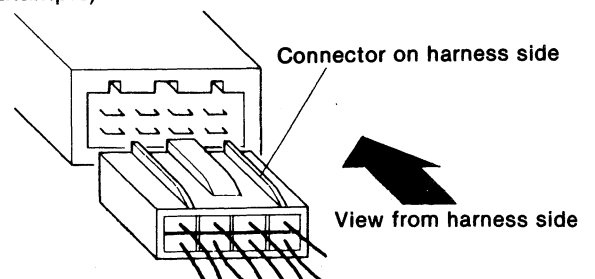
• Male and female connectors are represented as follows in the circuit and connector diagrams.

	Circuit diagram symbol	Connector diagram symbol
Male		
Female		

• Like connectors are linked by dashed lines between the connector symbols.

• Connector diagrams show connectors on the harness side. The terminal indicates the view from the harness side.

(Example)



• Colors for connectors except milk-white are given in locations.

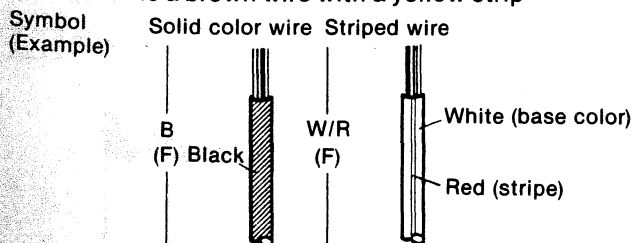
• Unused terminals are indicated by \*

## Wire color code (harness symbol)

• Two-color wires are indicated by a two-letter symbol. The first indicates the base color of the wire, the second the color of the stripe.

For example:

W/R is a white wire with a red strip  
BR/Y is a brown wire with a yellow strip



• The harness symbol is in ( ) following the harness symbols (refer to GI-7).

# Z-GI-6

# Reading Wiring Diagrams

## Routing diagram

- The routing diagram shows where electrical components are on the system circuit diagram by call out line and connector symbols.
- Specified values are listed beside the routing diagram or on the following page.

**Connector symbol**

Shows the system that uses the connector.

(Example)

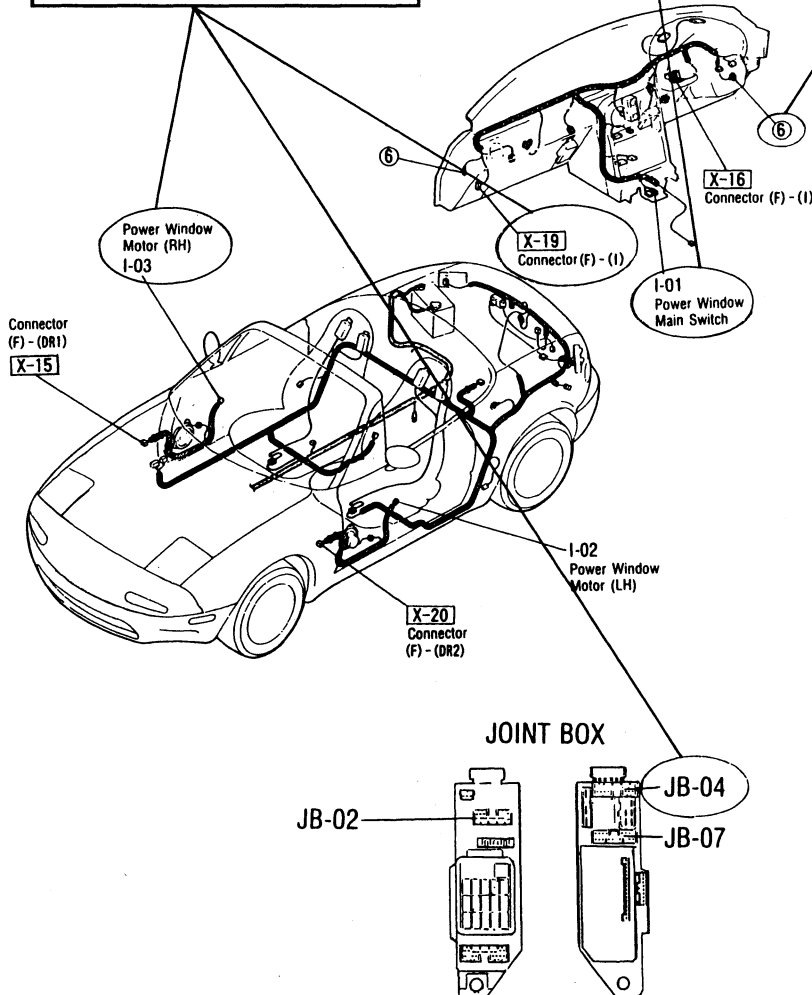
Connector	Symbol
Joint box	JB-04
Common connectors	X-19
System connectors	I-03

**Component name**

Shows the names of components in routing diagrams.

**Ground symbol**

Shows the ground in system diagrams.



Engine control unit terminal (unit side)

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
1K	O		Diagnosis Connector	At System Selector test switch "O <sub>2</sub> MONITOR"	Approx. 12V	
1N	O		Throttle sensor (idle point)	Accelerator pedal released	Approx. 0V	Ignition switch ON
1O	O		Stoplight switch	Brake pedal released	Approx. 12V	
1P	O		P/S pressure switch	Brake pedal depressed	Approx. 12V	
1R	O		Fan switch	Ignition switch ON	Approx. 12V	
1U	O		Headlight switch	P/S ON (at idle)	Approx. 12V	
1V	O		Neutral or clutch switch	P/S OFF (at idle)	Approx. 12V	
2A	-	-	Ground (injector)	Fan operating (Engine coolant temperature over 97°C (207°F) or diagnosis connector terminal TFA grounded)	Approx. 0V	
2B	-	-	Ground (Output)	Fan not operating (idle)	Approx. 12V	
2C	-	-	Ground (CPU)	Headlights ON (Tail, parking, low beam or high beam)	Approx. 12V	
2D	-	-	Ground (input)	Headlights OFF	Approx. 0V	
2E	O		Crank angle sensor (18° input)	Neutral position or clutch pedal depressed	Approx. 10V	
2G	O		Crank angle sensor (6° signal)	Other conditions	Approx. 12V	
2J	O		Ground	Constant	0V	
2K	O		Airflow meter	Ignition switch ON	Approx. 0V or 5V	
2L	O		Throttle sensor (Power terminal)	Idle	Approx. 12V	
2N	O		Oxygen sensor	Accelerator pedal released	Approx. 5V	
2O	O		Airflow meter	Accelerator pedal fully depressed	Approx. 0V	
2P	O		Airflow sensor (Intake air thermosensor)	Ignition switch ON	0V	
2Q	O		Water thermosensor	Idle (Cold engine)	0-1V	
				Idle (After warm up)	0-1V	
				Increase engine speed (After warm up)	0.5-1V	
				Deceleration	0-0.4V	
				Ignition switch ON	Approx. 3.8V	
				At 20°C (68°F)	Approx. 3.3V	
				After warm up	Approx. 2.5V	
				Engine coolant temperature 20°C (68°F)	Approx. 2.5V	
				After warm up	Approx. 0.4V	

**Specified values**

Shows values for determining whether an electrical component is good.