

RX-7

Factory Service Material

This manual can be downloaded for free from
<http://members.xoom.com/twinturboteddy/fsm/rx7.htm>

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This includes

- 1993 Factory Service Manual
- 1988 Factory Service Manual
- 1995 Printed Microfiche of all parts
- 1989 Printed Microfiche of all parts*
- 1990 Printed Microfiche of all parts*
- 1986 Printed Microfiche of all parts*
- 1987 Printed Microfiche of all parts*
- 1988 Printed Microfiche of all parts*

The \$10 donation is used to offset the tremendous amount of time it takes to make everything available.



* These works are currently in process and may or not be readily available upon request. They will be hosted on the same link above and for download

PRE-DELIVERY INSPECTION AND SCHEDULED MAINTENANCE SERVICES

PRE-DELIVERY INSPECTION..... 0— 2
SCHEDULED MAINTENANCE SERVICES 0— 3

67U00X-001

0 PRE-DELIVERY INSPECTION

PRE-DELIVERY INSPECTION TABLE

EXTERIOR

INSPECT and **ADJUST**, if necessary, the following items to the specifications:

- Glass, exterior bright metal and paint for damage
- Wheel lug nuts
 - 88—118 N·m (9—12 m·kg, 65—87 ft·lb)
- Tire pressures (Refer to section 12)
- All weather strips for damage and detachment
- Operation of hood release and lock
- Operation of fuel lid and rear glass hatch opener
- Door operation and alignment
- Headlight aim

INSTALL the following parts

- Wheel caps (if equipped)
- Outside rearview mirror(s)
- Front air deflector (if equipped)
- Convertible top (if equipped)

UNDER HOOD—ENGINE OFF

INSPECT and **ADJUST**, if necessary, the following items to the specifications:

- Fuel, coolant and hydraulic lines, fittings, connections and components for leaks
- Engine oil level
- Headlight cleaner fluid level (if equipped)
- Power steering fluid level (if equipped)
- Brake and clutch master cylinder fluid levels (if equipped)
- Windshield washer reservoir fluid level
- Radiator coolant level and specific gravity

Protection °C (°F)	Specific gravity at 20 °C (68°F)
-4 (25)	1.028
-16 (3)	1.054
-26 (-15)	1.066
-40 (-40)	1.078

- Tightness of water hose clamps (including heater hoses)
- Tightness of battery terminals
- Drive belt tensions
- Accelerator cable and linkage for free movement
- Sub-zero starting system and fluid level

CLEAN spark plugs

NOTE: Do not blast with sand or abrasive cleaning materials

INTERIOR

INSTALL the following parts:

- Rubber stopper for inside rearview mirror
- Fuse for accessories

CHECK the operations of the following items:

- Seat controls (sliding and reclining) and head rest
- Door locks
- Seat belts and warning system
- Ignition switch and steering lock
- All lights including warning and indicator lights and retractable headlight mechanism
- IC sound warning system
- Horn, wipers and washers (front and rear, if equipped)
- Radio and antenna (if equipped)
- Cigarette lighter and clock
- Remote control outside rearview mirror (if equipped)
- Power window (if equipped)
- Heater, defroster and air conditioner at various mode selections (if equipped)

- Sunroof (if equipped)
- Headlight cleaner (if equipped)
- Theft-deterrent system (if equipped)
- Convertible Top (if equipped)

INTERIOR (cont'd)

CHECK the following items:

- Presence of spare fuse
- Upholstery and interior finish

CHECK and **ADJUST**, if necessary, the following items:

- Operation and fit of windows
- Pedal height and free play of brake and clutch pedal

	Pedal height mm (in)	free play mm (in)
Clutch pedal	220—225 (8.66—8.86)	0.6—3.0 (0.02—0.12)
Brake pedal	205—210 (8.07—8.27)	4—7 (0.16—0.28)

- Parking brake
 - 4—5 noches/98 N (10 kg, 22 lb)

UNDER HOOD—ENGINE RUNNING AT OPERATING TEMPERATURE

CHECK the following items:

- By-pass air control system
- Automatic transmission fluid level
- Initial ignition timing
- Idle speed
- Setting of throttle sensor

NOTE: Engine must not be started to perform this item.

ON HOIST

CHECK the following items:

- Manual transmission oil level
- Rear axle oil level
- Underside fuel, coolant and hydraulic lines, fittings, connections and components for leaks
- Tires for cuts and bruises
- Steering linkage, suspension, exhaust system and all underside hardware for looseness or damage

ROAD TEST

CHECK the following items:

- Brake operation
- Clutch operation
- Steering control
- Operation of meters and gauges
- Squeaks, rattles or unusual noise
- Engine general performance (including turbo)
- Emergency locking retractors
- Cruise control system (if equipped)

AFTER ROAD TEST

- REMOVE seat and floor mat protective covers
- CHECK for necessary owner information materials, tools and spare tire in vehicle
- REMOVE identification color tape on directional tires

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SCHEDULED MAINTENANCE SERVICES

Follow the Schedule 1 (Normal Driving Condition) if you mainly operate your vehicle where none of the following conditions apply. Follow the Schedule 2 (Unique Driving Condition) if one or more of the items below apply:

- REPEATED SHORT DISTANCE DRIVING.
- DRIVING IN DUSTY CONDITION.
- DRIVING WITH EXTENDED USE OF BRAKES.
- DRIVING IN AREAS USING ROAD SALT OR OTHER CORROSIVE MATERIALS.
- DRIVING ON ROUGH AND/OR MUDDY ROADS.
- EXTENDED PERIODS OF IDLING AND/OR LOW SPEED OPERATION.
- DRIVING FOR A PROLONGED PERIOD IN COLD TEMPERATURE AND/OR EXTREMELY HUMID CLIMATES.

Schedule 1 (Normal Driving Condition)

MAINTENANCE INTERVALS	Number of months or miles (kilometers), whichever comes first						Service data and inspection point	Page				
	Months	7.5	15	22.5	30	37.5			45	52.5	60	
MAINTENANCE OPERATION	Months	2,000	7,500	15,000	22,500	30,000	37,500	45,000	52,500	60,000		
	Miles (Km)	(3,000)	(12,000)	(24,000)	(36,000)	(48,000)	(60,000)	(72,000)	(84,000)	(96,000)		

Engine

Drive belts (except air pump drive belt)																			• Cracks or damage • Tension	1-7
Engine oil	Non-Turbo	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	• Oil pan capacity: 4.4 liters (4.7 US qt, 3.9 lpm qt)	2-5
	Turbo	Replace every 5,000 miles (8,000 km) or 5 months																		
Oil filter	Non-Turbo		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	• Oil filter capacity: 0.3 liters (0.32 US qt, 0.26 lmp qt)	2-7
	Turbo	R	Replace every 5,000 miles (8,000 km) or 5 months																	

Air Conditioner System (if equipped)

Refrigerant	Inspect the refrigerant amount annually																				
Compressor	Inspect the operation annually																				

Air Cleaner

Air cleaner element									R												4A-53 4B-59
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Ignition System

Spark plugs																						5-31

- Plug gap 2.0 mm (0.08 in)
- Recommended spark plugs

	Leading	Trailing
NGK	SD 10A	SD 11A

0 SCHEDULED MAINTENANCE SERVICES

Schedule 1 (Normal Driving Condition)

MAINTENANCE INTERVALS	Number of months or miles (kilometers), whichever comes first											Service data and inspection point	Page	
	Months	7.5	15	22.5	30	37.5	45	52.5	60					
	Miles (Km)	2,000 (3,000)	7,500 (12,000)	15,000 (24,000)	22,500 (36,000)	30,000 (48,000)	37,500 (60,000)	45,000 (72,000)	52,500 (84,000)	60,000 (96,000)				
MAINTENANCE OPERATION														
Cooling System														
Cooling system			I		I		I		I		I		• Hoses for cracks or wear • Coolant level	3-5
Engine coolant					R						R		• Coolant capacity: Turbo 8.7 liters (9.2 US qt, 7.7 Imp qt) Non-Turbo 7.3 liters (7.7 US qt, 6.4 Imp qt)	3-5
Fuel System														
Idle speed	I		I ²		I ²		I ²		I ²		I		Idle speed: 750 ± 25 (A/T, N Range)	4A-77 4B-80
Fuel filter											R			4A-76 4B-79
Fuel lines					I ¹						I		• Fittings, connections and components for leaks	4A-76 4B-79
Electrical System														
Engine oil level warning system			I		I		I		I		I			15A-39
Engine coolant level warning system					I		I		I		I			15A-42
Sub-zero starting assist system			Inspect the operation seasonally (sub-zero weather use only).											4A-87 4B-90
Chassis and Body														
Brake line hoses and connections			I		I		I		I		I		• Proper attachment and connections	11-5
Disc brakes			I		I		I		I		I		• Caliper Operation • Thickness of disc plate: minimum... 1 mm (0.04 in) • Thickness of pad: minimum... 1 mm (0.04 in) • Disc run out ... 1 mm (0.04 in)	11-27 11-32
Steering operations and linkage					I						I		• Free play: 5-20 mm (0.20-0.79 in) • Operation and looseness • Fluid leakage or oozing	10A-5 10B-5

Schedule 1 (Normal Driving Condition)

MAINTENANCE INTERVALS	Number of months or miles (kilometers), whichever comes first										Service data and inspection point	Page
	Months	7.5	15	22.5	30	37.5	45	52.5	60	60,000		
MAINTENANCE OPERATION	2,000	7,500	15,000	22,500	30,000	37,500	45,000	52,500	60,000	60,000		
(Kkm)	(3,000)	(12,000)	(24,000)	(36,000)	(48,000)	(60,000)	(72,000)	(84,000)	(96,000)	(96,000)		

Chassis and Body

Front suspension ball joints					I						I	• Damage, looseness and grease leakage	13-11
Drive shaft dust boots					I						I	• For cracks, damage, leakage of grease or looseness of band	9-16
Exhaust system heat shield					I						I	• clearance to body, and exhaust system	4A-83 4B-86
Front wheel bearings					L						L		9-4
Manual transmission oil											R		7A-3
Rear axle oil											R		9-4B
Bolts and nuts on chassis and body			T								T		
Toe control hub and control link					I						I		13-24 9-14

SCHEDULED 1 (NORMAL DRIVING CONDITION)

Chart symbols:

- I: Inspect, and if necessary correct, clean or replace
- R: Replace or change
- T: Tighten
- L: Lubricate

Remarks:

After 60 months or 60,000 miles (96,000 km), continue to follow the described maintenance items and intervals periodically. As for * marked items in this maintenance chart, please pay attention to the following points.

- *1 This maintenance operation is recommended by Mazda. However, this maintenance is not necessary for emission warranty coverage or manufacturer recall liability.
- *2 This maintenance operation is required for Canada and all states except California. However we do recommend that this operation be performed on California vehicles as well.

SCHEDULED MAINTENANCE SERVICES

Schedule 2 (Unique Driving Condition)

MAINTENANCE INTERVALS	Number of months or miles (kilometers), whichever comes first												Service data and inspection point	Page	
	Months	5	10	15	20	25	30	35	40	45	50	55			60
MAINTENANCE OPERATION	2	5	10	15	20	25	30	35	40	45	50	55	60		
(x1000 Km)	(3)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)	(80)	(88)	(96)		

Engine

Drive belts (Except air pump drive belt)																<ul style="list-style-type: none"> • Check for damage • Tension 	1-7
Engine oil	Non-Turbo	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Oil pan capacity: 4.4 liters (4.7 US qt, 3.9 Imp qt)	2-5
	Turbo															Replace every 3,000 miles (5,000 km) or 3 months	
Oil filter	Non-Turbo	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Oil filter capacity: 0.3 liters (0.32 US qt, 0.26 Imp qt)	2-7
	Turbo															Replace every 3,000 miles (5,000 km) or 3 months	

Air Conditioner System (If equipped)

Refrigerant	Inspect the refrigerant amount annually														
Compressor	Inspect the operation annually														

Air Cleaner

Air cleaner element																		4A-53 4B-59
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Ignition System

Spark plugs																		<ul style="list-style-type: none"> • Plug gap 2.0 mm (0.08 in) • Recommended spark plugs <table border="1"> <tr> <td>Leading</td> <td>Trailing</td> </tr> <tr> <td>NGK</td> <td>SD 10A SD 11A</td> </tr> </table>	Leading	Trailing	NGK	SD 10A SD 11A	5-31
Leading	Trailing																						
NGK	SD 10A SD 11A																						

Cooling System

Cooling system																		<ul style="list-style-type: none"> • Hoses for cracks or wear • Coolant level 	3-5
Engine coolant																		<ul style="list-style-type: none"> • Coolant capacity: Turbo: 8.7 liters (9.2 US qt, 7.7 Imp qt) Non-Turbo: 7.3 liters (7.7 US qt, 6.4 Imp qt)	3-5

Fuel System

Idle speed																		Idle speed: 750 ± 25 (A/T: N Range)	4A-77 4B-80
Fuel filter																			4A-76 4B-79
Fuel lines																		<ul style="list-style-type: none"> • Fittings, connections and components for leaks 	4A-76 4B-79

Schedule 2 (Unique Driving Condition) (Cont'd)

MAINTENANCE INTERVALS	Number of months or miles (kilometers), whichever comes first													Service data and inspection point	Page		
	Months	5	10	15	20	25	30	35	40	45	50	55	60				
	x1000 Miles (x1000 Km)	(2)	(4)	(6)	(8)	(10)	(12)	(14)	(16)	(18)	(20)	(22)	(24)			(26)	
MAINTENANCE OPERATION																	

Electrical System

Engine oil level warning system																	15A-39
Engine coolant level warning system																	15A-42
Sub-zero starting assist system																	4A-87 4B-90

inspect the operation seasonally (sub zero weather use only).

Chassis and Body

Brake line hoses and connections																		11-5
Brake fluid																		11-5
Disc brakes																		11-27 11-32
Steering operations and linkage																		10A-5 10B-5
Front suspension ball joints																		13-11
Exhaust system heat shield																		4A-83 4B-86
Drive shaft dust boots																		9-16
Front wheel bearings																		9-4
Manual transmission oil																		7A-3
Rear axle oil																		9-48
Bolts and nuts on chassis and body																		—
Toe control hub and control link																		13-24 9-14

0 SCHEDULED MAINTENANCE SERVICES

SCHEDULE 2 (UNIQUE DRIVING CONDITION)

Chart symbols:

I :Inspect, and if necessary correct, clean or replace

R:Replace or change

T:Tighten

L:Lubricate

Remarks:

After 60 months or 60,000 miles (96,000 km), continue to follow the described maintenance items and intervals periodically. As for * marked items in this maintenance chart please pay attention to the following points.

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