

1995 Mazda MX-3 Workshop Manual

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WARNING

Servicing a vehicle can be dangerous. If you have not received service-related training, the risks of injury and property damage increase. The recommended servicing procedures for the vehicle in this workshop manual were developed with Mazda-trained technicians in mind. This manual may be useful to non-Mazda trained technicians, but a technician with our service-related training and experience will be at less risk when performing servicing operations. However, all users of this manual are expected to know general safety procedures.

This manual contains "Warnings" and "Cautions" applicable to risks not normally encountered in a general technician's experience. They should be followed to reduce the risk of injury and the risk that improper service or repair may damage the vehicle or render it unsafe. It is also important to understand that the "Warnings" and "Cautions" are not exhaustive. It is impossible to warn of all the hazardous consequences that might result from failure to follow the procedures.

The procedures recommended and described in this manual are effective methods of performing service and repair. Some require tools specifically designed for a specific purpose. Nonrecommended procedures and tools should include consideration for safety of the technician and continued safe operation of the vehicle.

Parts should be replaced with genuine Mazda replacement parts, not parts of lesser quality. Use of a nonrecommended replacement part should include consideration for safety of the technician and continued safe operation of the vehicle.

1995 Mazda MX-3 Workshop Manual

FOREWORD

For proper repair and maintenance, a thorough familiarization with this manual is important, and it should always be kept in a handy place for quick and easy reference.

All the contents of this manual, including drawings and specifications, are the latest available at the time of printing. As modifications affecting repair or maintenance occur, relevant information supplementary to this volume will be made available at Mazda dealers. This manual should be kept up-to-date.

Mazda Motor Corporation reserves the right to alter the specifications and contents of this manual without obligation or advance notice.

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WARRANTY

The manufacturer's warranty on Mazda vehicles and engines can be voided if improper service or repairs are performed by persons other than those at an Authorized Mazda Dealer.

Mazda Motor Corporation
HIROSHIMA, JAPAN

APPLICATION:

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

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* Refer to the 1995 MX-3 Body Electrical Troubleshooting Manual (Form No. 1474-10-94H, Part No. 9999-95-086F-95) for servicing of the body electrical components.

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VEHICLE IDENTIFICATION NUMBERS (VIN)

JM1 EC433 * S0 400001 —
JM1 EC434 * S0 400001 —

PRE-DELIVERY INSPECTION AND SCHEDULED MAINTENANCE

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PRE-DELIVERY INSPECTION

PRE-DELIVERY INSPECTION TABLE

The following items may be done at any time prior to delivery to your customer.

EXTERIOR

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

- Glass, exterior bright metal, and paint for damage
 - Wheel lug nuts and locks (if equipped)
89–117 N·m {9–12 kgf·m, 66–86 ft·lbf}
 - All weatherstrips for damage or detachment
 - Operation of hood release and lock
 - Operation of rear hatch, and fuel lid opener
 - With trunk open, check for spare jack, tire, tools, and fasteners securing these items in place.
 - Door operation and alignment
 - Headlight aim
- INSTALL** the following parts:
- Wheel caps or rings (if equipped)

UNDER HOOD-ENGINE OFF

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

- Fuel, coolant and hydraulic lines, fittings, connections, and components for leaks
- Engine oil level
- Power steering fluid level
- Brake and clutch master cylinder fluid level
- Windshield washer reservoir fluid level
- Radiator coolant level
- Tightness of battery terminals
- Manual transaxle oil level

INTERIOR

INSTALL the following parts:

- Rubber stopper for rearview mirror
- CHECK** operation of the following items:
- Seat controls (slide and recline) and headrests
 - Folding rear seat
 - Door locks
 - Seat belts and warning system
 - Ignition switch and steering lock
 - Transaxle range switch (ATX only)
 - Starter interlock switch (clutch pedal, MTX only)
 - All lights, including warning and indicator lights
 - Sound warning system
 - Horn, wipers, and washers (front and rear, if equipped)
 - Audio system (if equipped)
 - Cigarette lighter and clock

- Sliding sunroof (if equipped)
- Power door lock (if equipped)
- Power outside mirrors (if equipped)
- Power windows (if equipped)
- Heater, defroster, and air conditioner at various mode selections (if equipped)

CHECK the following items:

- Presence of spare fuses
- Upholstery and interior finish

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

- Pedal height and free play of brake and clutch pedal

	Pedal height mm {in}	Free play mm {in}
Clutch pedal	199–204 {7.83–8.03} (With carpet)	5–16 {0.19–0.63}
Brake pedal	193–196 {7.60–7.72}	4–7 {0.16–0.28}

- Parking brake
5–7 notches/98 N {10 kgf, 22 lbf}

UNDER HOOD-ENGINE RUNNING AT OPERATING TEMPERATURE

CHECK the following items:

- Automatic transaxle fluid level

ON HOIST

CHECK the following items:

- Underside fuel, coolant and hydraulic lines, fittings, connections, and components for leaks
- Tires for cuts or 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 gauges
- Squeaks, rattles or unusual noises
- Emergency locking retractors
- Cruise control system (if equipped)

AFTER ROAD TEST

CHECK for owner information materials.

The following items must be done just before delivery to your customer.

- Load test battery and charge if necessary
- Adjust tire pressure to specification
(Refer to door label)
- Clean outside of vehicle

Volts
Load test result

- Install fuses for accessories
- Remove seat and cabin carpet protective covers
- Vacuum and clean interior of vehicle
- Inspect installation of optional parts

SCHEDULED MAINTENANCE**SCHEDULED MAINTENANCE TABLE (EXCEPT CANADA)****Schedule 1 (Normal driving conditions)**

The vehicle is mainly operated where none of the “unique driving conditions” apply.

Schedule 2 (Unique driving conditions)

- Repeated short-distance driving.
- Driving in dusty conditions.
- Driving with extended use of brakes.
- Driving in areas where road salt or other corrosive materials are used.
- Driving on rough or muddy roads.
- Extended periods of idling or low-speed operation.
- Driving for long prolonged periods in cold temperatures or extremely humid climates.

A

SCHEDULED MAINTENANCE

Schedule 1 (Normal driving conditions)

Maintenance Interval Maintenance Item	Number of months or miles (kilometers), whichever comes first								
	Months	6	12	18	24	30	36	42	48
	× 1,000 Kilometers Miles	12	24	36	48	60	72	84	96
		7.5	15	22.5	30	37.5	45	52.5	60

Engine

Engine oil	R	R	R	R	R	R	R	R	R
Oil filter	R	R	R	R	R	R	R	R	R
Tension of all drive belts				I					I
Engine timing belt	Replace every 60,000 miles (96,000 km)								
Engine timing belt (California)	Inspect at 60,000 miles (96,000 km) and again at 90,000 miles (144,000 km) *2								
	Replace every 105,000 miles (168,000 km)								
Hose and tube for emission									I*2

Air cleaner

Air cleaner element				R					R
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Ignition system

Spark plugs				R					R
-------------	--	--	--	---	--	--	--	--	---

Fuel system

Idle speed				I*2					I*1
Fuel filter									R*1
Fuel lines and hoses				I*2					I*1
Fuel hoses (California)	Inspect every 105,000 miles (168,000 km)								

Cooling system

Cooling system				I					I
Engine coolant				R					R

Chassis and body

Brake lines, hoses, and connections				I					I
Drum brakes				I					I
Disc brakes				I					I
Steering operation and linkages				I					I
Front suspension ball joints				I					I
Drive shaft dust boots				I					I
Bolts and nuts on chassis and body				I					I
Exhaust system heat shields				I					I
All locks and hinges	L	L	L	L	L	L	L	L	L

Air conditioner system (if equipped)

Refrigerant amount		I		I		I		I
A/C compressor operation		I		I		I		I

Chart symbols:

I : Inspect and repair, clean, or replace if necessary.

R: Replace

L: Lubricate

Remarks:

After 48 months or 60,000 miles (96,000 km), continue to follow the described maintenance at the recommended intervals.

*1 This maintenance is required for all states except California. However, we recommend that it also be performed on California vehicles.

*2 This maintenance is recommended by Mazda. However, it is not necessary for emission warranty coverage or manufacturer recall liability.

SCHEDULED MAINTENANCE

A

Schedule 2 (Unique driving conditions)

Maintenance Interval	Number of months or miles (kilometers), whichever comes first												
	Months	4	8	12	16	20	24	28	32	36	40	44	48
	× 1,000	Kilometers	8	16	24	32	40	48	56	64	72	80	88
Miles		5	10	15	20	25	30	35	40	45	50	55	60

Engine

Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil (Puerto Rico)	Replace every 3,000 miles (4,800 km) or 3 months												
Oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R
Tension of all drive belts						I							I
Engine timing belt	Replace every 60,000 miles (96,000 km)												
Engine timing belt (California)	Inspect at 60,000 miles (96,000 km) and again at 90,000 miles (144,000 km)*2												
Hose and tube for emission													I*2

Air cleaner

Air cleaner element			I*2				R			I*2			R
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Ignition system

Spark plugs							R						R
-------------	--	--	--	--	--	--	---	--	--	--	--	--	---

Fuel system

Idle speed							I*2						I*1
Fuel filter													R*1
Fuel lines and hoses							I*2						I*1
Fuel hoses (California)	Inspect every 105,000 miles (168,000 km)												

Cooling system

Cooling system							I						I
Engine coolant							R						R

Chassis and body

Brake lines, hoses, and connections							I						I
Drum brakes							I						I
Disc brakes			I				I			I			I
Steering operation and linkages							I						I
Front suspension ball joints							I						I
Drive shaft dust boots							I						I
Bolts and nuts on chassis and body			I				I			I			I
Exhaust system heat shields							I						I
All locks and hinges	L	L	L	L	L	L	L	L	L	L	L	L	L

Air conditioner system (if equipped)

Refrigerant amount			I				I			I			I
A/C compressor operation			I				I			I			I

Chart symbols:

- I : Inspect and repair, clean, or replace if necessary.
(Inspect, and if necessary replace—Air cleaner element only)
- R: Replace
- L: Lubricate

Remarks:

- After 48 months or 60,000 miles (96,000 km), continue to follow the described maintenance at the recommended intervals.
- *1 This maintenance is required for all states except California. However, we recommend that it also be performed on California vehicles.
- *2 This maintenance is recommended by Mazda. However, it is not necessary for emission warranty coverage or manufacturer recall liability.

SCHEDULED MAINTENANCE TABLE (CANADA)

Maintenance Interval Maintenance Item	Number of months or miles (kilometers), whichever comes first												
	Months	5	10	15	20	25	30	35	40	45	50	55	60
	× 1,000 Kilometers	8	16	24	32	40	48	56	64	72	80	88	96
	Miles	5	10	15	20	25	30	35	40	45	50	55	60

Engine

Engine oil	R	R	R	R	R	R	R	R	R	R	R	R	R
Oil filter	R	R	R	R	R	R	R	R	R	R	R	R	R
Tension of all drive belts	I	I	I	I	I	I	I	I	I	I	I	I	I
Engine timing belt													R*1

Air cleaner

Air cleaner element			I				R			I			R
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Ignition system

Spark plugs							R						R
-------------	--	--	--	--	--	--	---	--	--	--	--	--	---

Cooling system

Engine coolant level and strength	I	I	I	I	I	I	I	I	I	I	I	I	I
Cooling system for leaks			I				I			I			I
Engine coolant							R						R

Fuel system

Idle speed			I				I			I			I
Fuel lines and hoses							I*2						I
Fuel filter							R						R
PCV valve													I*2
Emission hoses and tubes													I

Chassis and body

Automatic transaxle fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Transaxle oil (MTX and ATX)							R						R
Drive shaft dust boots							I						I
Brake lines and hoses							I						I
Brake and clutch fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake fluid							R*3						R*3
Disc brakes (front and rear)			I				I			I			I
Rear drum brakes							I						I
Tire inflation pressure and tire wear	I	I	I	I	I	I	I	I	I	I	I	I	I
Tires			Rt				Rt			Rt			Rt
Power steering fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering operation and linkage (includes four wheel alignment)							I						I
Front and rear suspension components							I						I
All chassis and body nuts and bolts			I				I			I			I
Exhaust system heat shields							I						I
All locks and hinges	L	L	L	L	L	L	L	L	L	L	L	L	L
Washer fluid level	I	I	I	I	I	I	I	I	I	I	I	I	I
Function of all lights	I	I	I	I	I	I	I	I	I	I	I	I	I

Air conditioner system (if equipped)

Refrigerant amount		I		I			I			I			I
A/C compressor operation		I		I			I			I			I