

1989 Mazda RX-7 Factory Service Manual

This Online/PC version of the Manual has been brought to you by “Scott 89t2” and www.1300cc.com

Thanks to those who are hosting it for me.



Some parts of the manual may be hard to read or see on the screen, but if you print the pages out it's perfect. Well except for the crookedness ☺.

***Terms of Use:** This online/PC copy of the manual is only to be used and in your possession if you already own the printed version. It is for backup purposes only in case yours (or part of) is lost or damaged. If you downloaded this manual by mistake, Please Remove it from your possession. I also take no responsibility for what you do to yourself or your car while you use this manual.

SPECIAL TOOLS

GENERAL INFORMATION	ST- 2
ENGINE	ST- 3
COOLING SYSTEM.....	ST- 4
CLUTCH AND MANUAL TRANSMISSION ...	ST- 4
AUTOMATIC TRANSMISSION.....	ST- 5
FRONT AND REAR AXLES.....	ST- 6
DIFFERENTIAL	ST- 6
BRAKING SYSTEM.....	ST- 7
STEERING SYSTEM AND SUSPENSION	ST- 7
HEATING AND AIR CONDITIONING SYSTEMS	ST- 9
CHECKER AND OTHER EQUIPMENT.....	ST-10

97USTX-001



GENERAL INFORMATION

The letters A and B in the priority column indicate the degree of importance of each tool.

A.....Indispensable

The tools ranked A in this list are indispensable for performing operations satisfactorily, easily, safely, and efficiently. It is, therefore advisable that all service shops have these tools.

B.....Selective

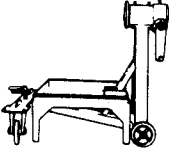
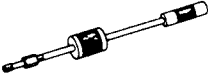
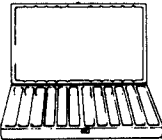
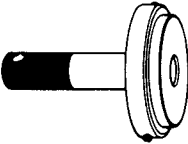
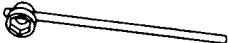
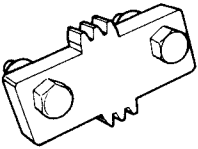
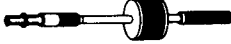
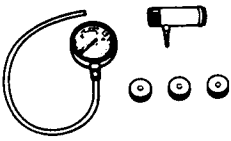
The tools in this list are not as necessary as tools ranked A, but all service shops should have these tools to perform repairs more easily and more efficiently.

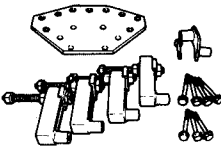

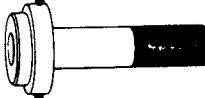


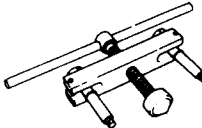
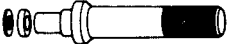

Note

When ordering tool sets which consist of several tools, check the list in the Special Service Tools Booklet (4063-12-87J) etc. to make sure that some tools are duplicated in other sets which may already have been purchased. If so, order only those new tools which are needed.


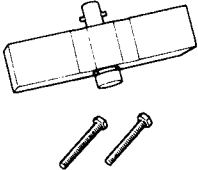
97USTX-002

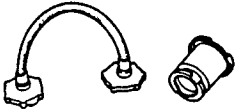
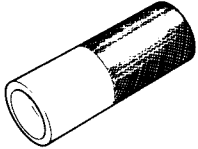
ENGINE

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0107 680A Engine stand	A	
49 0813 215A Puller, tubular dowel & A/T oil pump	A	
49 0813 250 Seal case	B	
49 0813 240 Installer & puller, rotor bush	A	
49 0820 035 Box wrench, flywheel	A	
49 F011 101 Brake, ring gear (Manual transmission)	A	
49 1285 071 Puller, bearing	A	
49 2113 010B Gauge set, air pump	A	


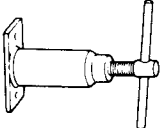
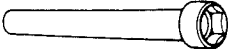

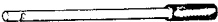
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 L010 1A0 Hanger set, engine stand	A	
49 0813 225 Remover, oil seal	B	
49 0813 235 Puller & installer, main bearing	A	
49 0839 165 Gauge, corner seal	A	
49 1881 055 Stopper, counter weight (Automatic transmission)	A	
49 0839 305A Puller, counter weight	A	
49 0823 072A Installer, eccentric shaft bearing	A	
49 0187 280 Oil pressure gauge	B	

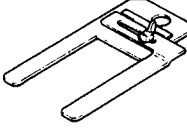
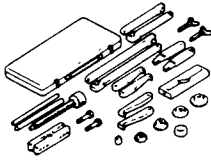
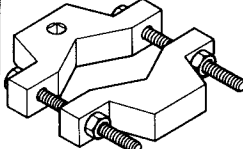
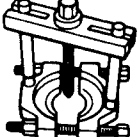
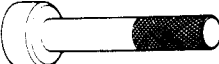
COOLING SYSTEM

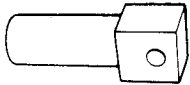
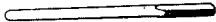
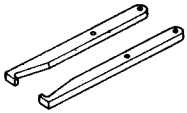
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0823 146 Supporting block, water pump impeller	B	
49 F015 001 Puller & Installer, water pump pulley boss	A	

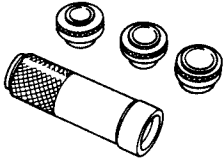

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 9200 145 Radiator cap tester adapter set	A	
49 F015 002 Installer, water seal	A	

CLUTCH AND MANUAL TRANSMISSION

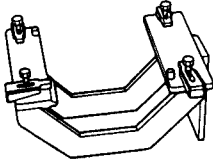
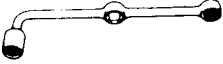

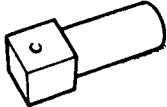
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 SE01 310 Centering tool, clutch disc	A	
49 0305 430 Pusher, main drive shaft	A	
49 1243 465A Wrench, main shaft locknut	A	
49 0180 321A Installer, main drive gear bearing	A	
49 0862 350 Guide, shift fork assembly	B	

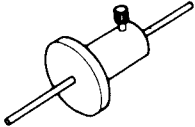
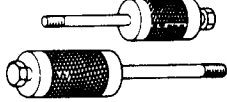
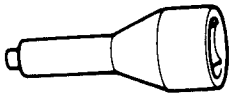
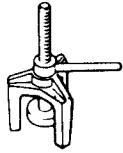
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F017 101 Holder synchronizer ring	A	
49 0839 425C Puller set, bearing	A	
49 F017 1A0 Wrench	A	
49 0710 520 Puller, bearing	A	
49 0500 330 Installer, transmission bearing	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0259 440 Holder, mainshaft	A	
49 0187 451A Guide, interlock pin assembly	B	
49 H017 101 Hook	A	

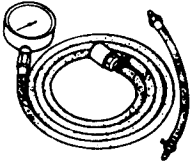
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F401 330B Installer set, bearing	A	
49 0636 145 Puller, fan pulley boss	A	
—	—	—

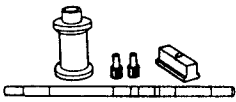
AUTOMATIC TRANSMISSION

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 U019 0A0 Hanger, transmission	B	
49 0877 435 Box and socket wrench	A	
49 G030 795 Installer, oil seal	A	
49 S120 440 Holder, main shaft	A	

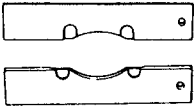

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 G032 355 Adjust gauge	A	
49 0378 390 Puller, oil pump	A	
49 0378 346 Hex head wrench	A	
49 0378 375 Compressor, clutch spring	A	

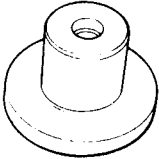
ST SPECIAL TOOLS

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0378 400A Gauge set, oil pressure	A	

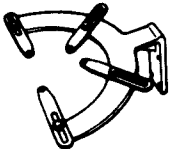
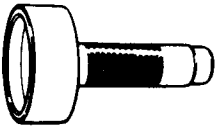
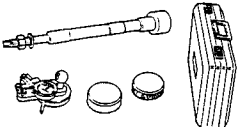
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 S019 0A0 Set, centering tool	A	

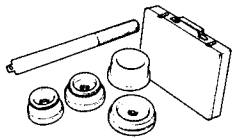

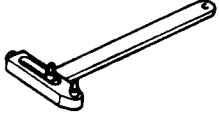
FRONT AND REAR AXLES


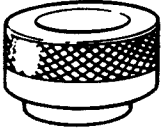
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F026 103 Puller, wheel hub	A	
49 0259 748 Attachment, bearing separator	A	

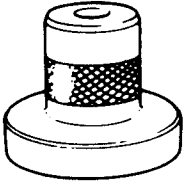
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F026 102 Installer, bearing	A	
—	—	—

DIFFERENTIAL


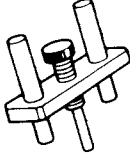
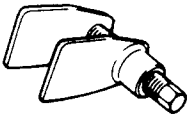
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 M005 561 Hanger, diff. carrier	A	
49 B001 795 Installer, oil seal	A	
49 F027 0A0 Gauge set, pinion height adjustment	A	

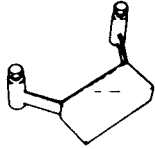
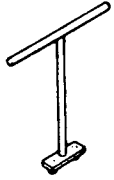
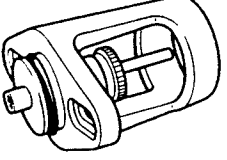
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F027 0A1 Installer set, bearing	A	
49 G030 338 Attachment E	A	
49 0259 720 Wrench, diff. side bearing adjusting nut	B	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 S120 710 Holder, coupling flange	B	
49 UB71 525 Installer, bearing	A	

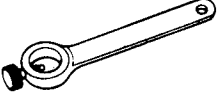
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 V001 795 Installer, oil seal	A	
—	—	—

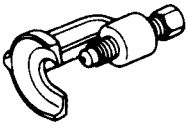
BRAKING SYSTEM

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0259 770B Wrench, flare nut	A	
49 F043 001 Adjust gauge	A	
49 0221 600C Expand tool, disc brake	B	

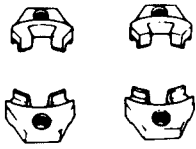

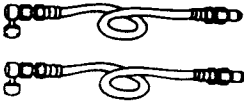
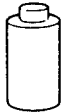
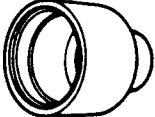
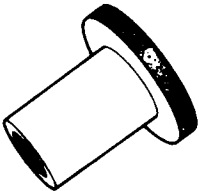
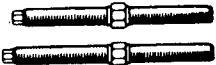
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F033 001 Stopper, disc brake piston	A	
49 FA18 602 Wrench, disc brake piston	B	
49 B043 001 Adjust gauge	A	

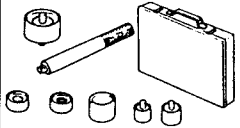
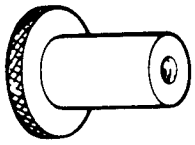

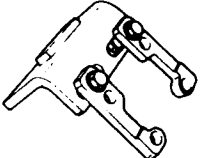
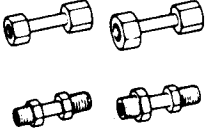
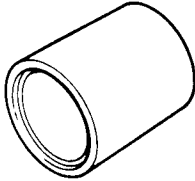

STEERING SYSTEM AND SUSPENSION

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0180 510B Attachment, preload measuring	B	

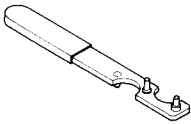
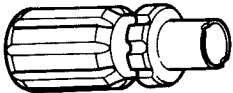
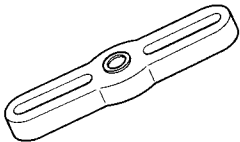
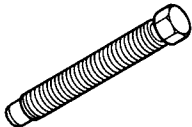
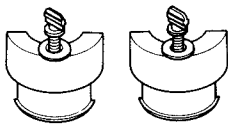
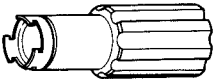

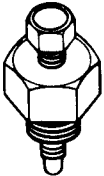
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0118 850C Puller, ball joint	B	


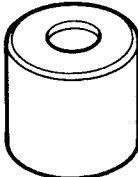
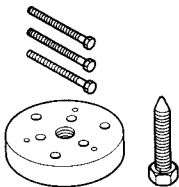
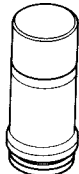
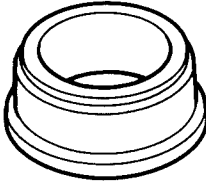

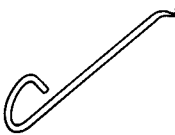
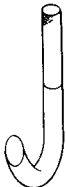
ST SPECIAL TOOLS

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0223 640B Arm, coil spring compressor	A	
49 1232 670A Gauge set, power steering	A	
49 H002 671 Adapter, power steering gauge	A	
49 G030 627A Puller & Installer, lower arm bush	B	
49 8038 785 Boot installer, ball joint dust cover	B	
49 F026 101 Adapter, caster camber gauge	A	
49 0370 641 Screw, coil spring compressor	A	

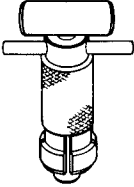
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F028 2A0 Puller & Installer set, rubber bush	A	
49 1205 605 Adapter, caster camber gauge	B	
49 F032 3A0 Repair set, power steering	A	
49 F032 301 Hanger, power steering pump	A	
49 F032 3A1 Adapter set, power steering	A	
49 F034 201 Boot installer, ball joint dust cover	A	
49 W023 585 Adjust wench	A	

HEATING AND AIR CONDITIONING SYSTEMS

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
0000-41-0809-01 Holder, clutch	A	
0000-41-0810-73 Remover & installer, seal seat	A	
0000-41-0804-57 Universal puller body	A	
0000-41-0804-51 Universal puller arbor	A	
0000-41-0810-76 Removal set, pulley & clutch	A	
0000-41-0812-11 Remover & installer, seal	A	
000-41-0812-13 Protector, seal sleeve	A	
4992-02-020 Pressure plate remover		

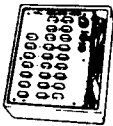
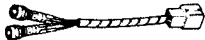
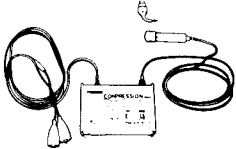
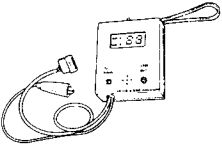

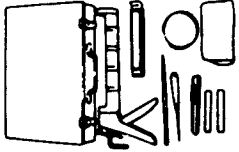
TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
4992-02-040 Shaft seal remover		
0000-41-0810-77 Clutch pilot	A	
0000-41-0809-02 Puller, clutch plate	A	
0000-41-0804-43 Installer, clutch rotor bearing	A	
0000-41-0810-59 Clutch rotor driver	A	
0000-41-0809-10 Shaft protector pilot	A	
0000-41-0804-12 Remover, O-ring	A	
4992-02-010 Pressure plate holder bar		

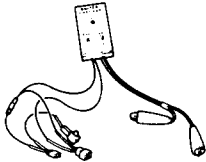
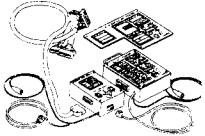
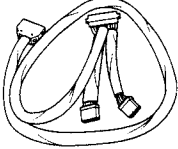
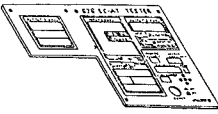
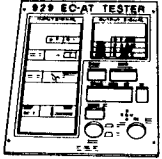
ST SPECIAL TOOLS

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
4992-02-030 Seal plate remover		

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
—	—	—

CHECKER AND OTHER EQUIPMENT

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0839 285 Checker, fuel thermometer	A	
49 F018 001 Checker lamp	A	
49 F018 9A0 Compression tester	A	
49 H018 9A1 Self-diagnosis checker	A	
49 H019 9A1 EC-AT tester set	A	
49 0305 870A Tool set, window (bond type)	A	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F018 002 Igniter checker	A	
49 H019 9A0 EC-AT adapter set	A	
49 F019 901 Harness	A	
49 F019 903 Panel	A	
49 F019 902 Panel	A	
—	—	—