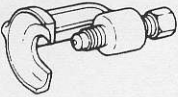
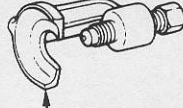


HOW TO USE THIS MANUAL

PREPARATION

PREPARATION points out the needed **Special Service Tool (SST)** for the service operation that it proceeds. Gather all necessary **SST** before beginning work.

Example:

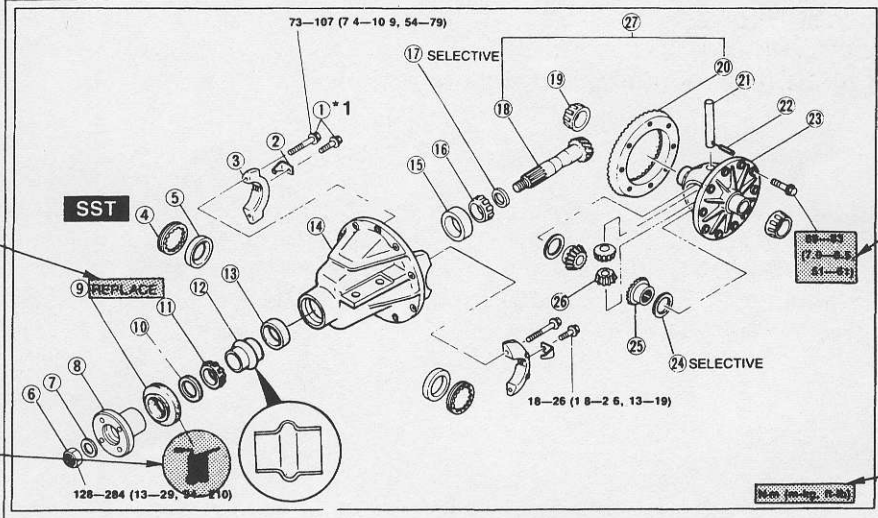
MANUAL STEERING		SST NUMBER	USAGE
49 0118 850C		49 0118 850C	For removal of tie-rod end
Puller, ball joint			
		SST NAME	SST ILLUSTRATION

03UGIX-006

REPAIR PROCEDURE

1. Most repair operations begin with an overview illustration. It identifies the components, shows how the parts fit together, and visual parts inspections. If a damaged or worn part is found, repair or replace it as necessary.
2. Expendable parts, tightening torques, and symbols for oil, grease, and sealant are shown in the overview illustration.
3. Pages related to service procedures are shown under the illustration. Refer to this information when servicing the related part.

Example:



SHOWS EXPENDABLE PARTS

SHOWS APPLICATION POINT OF OIL, ETC.

SHOWS TIGHTENING TORQUE SPECIFICATION *2

SHOWS TIGHTENING TORQUE UNIT

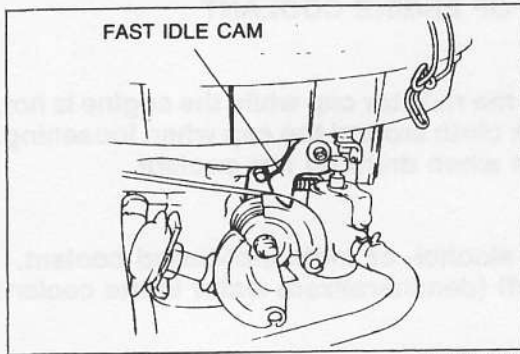
SHOWS VISUAL INSPECTION INFORMATION

SHOWS RELATED PAGE FOR SERVICE

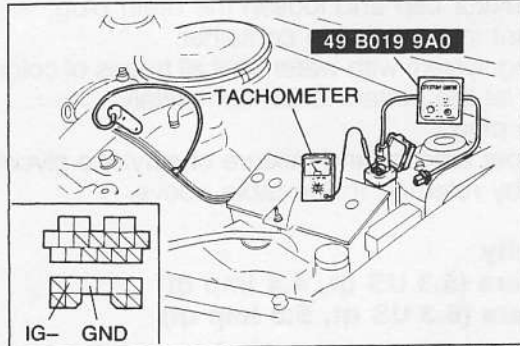
<p>1 Bolt</p> <p>2 Lock plate</p> <p>3 Bearing cup</p> <p>4 Adjusting screw</p> <p>5 Bearing outer race</p> <p>6 Locknut</p> <p>7 Washer</p> <p>8 Companion flange</p> <p>9 REPLACE</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16 Bearing inner race</p> <p>17 Spacer</p> <p>18 Drive pinion</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24 SELECTIVE</p> <p>25</p> <p>26</p> <p>27</p>	<p>73-107 (7 4-10 9, 54-79)</p> <p>1*1</p> <p>17 SELECTIVE</p> <p>18-26 (1 8-2 6, 13-19)</p> <p>128-284 (13-29, 94-210)</p> <p>74-94 (7 4-9 4, 51-87)</p> <p>Non Insul. P.B.B.</p> <p>Removal page M-21</p> <p>Inspect splines and teeth for wear or damage page M-22</p> <p>Adjustment of height. page M-24</p>
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*1: The numbering (ex. ①) shows service procedure.

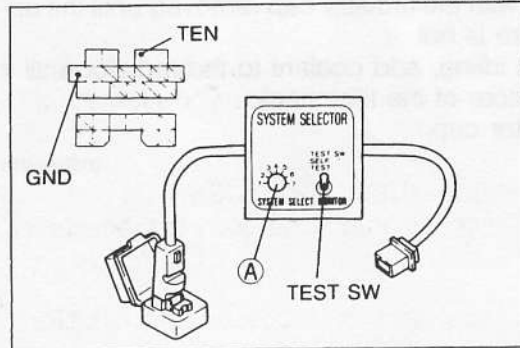
*2: Units shown in N·m (m·kg, ft·lb) unless otherwise specified.



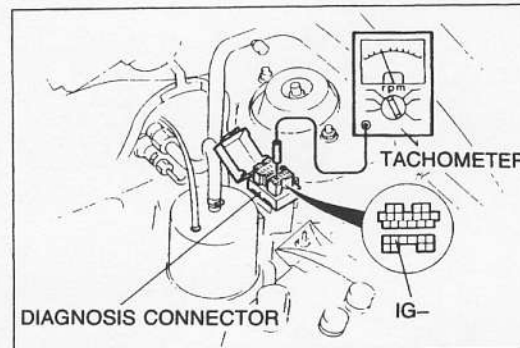
01E0AX-019



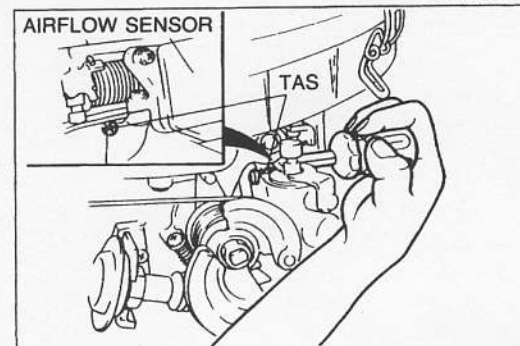
01A0AX-008



01E0F2-049



01E0AX-020



01E0AX-021

ADJUSTMENT OF IDLE SPEED

Preparation

1. Warm up the engine to normal operating temperature.
2. Verify that the wax rod extends outward fully and the idle cam separates from the roller.
3. Turn all electric loads OFF.
 - Blower Fan
 - Headlight
 - Rear Window Defroster
4. Make sure that the engine speed does not change when disconnecting the air bypass solenoid valve (A) connector.

Note

- If the engine speed decreases, the engine is still under the warm-up condition.

5. If the electric cooling fan is operating, wait till the fan stops.
6. Verify that the engine is running at idle in good condition.
7. Connect the **SST** to the diagnosis connector.
8. Connect a tachometer to the diagnosis connector **IG-** terminal as shown.

9. Set switch (A) to position 1.
10. Set TEST SW to SELF-TEST.

Note

- If the SST is not used, jump across the TEN terminal and the GND terminal of the diagnosis connector.

Idle Speed

1. Check the idle speed with a tachometer.

Idle speed: MTX (Neutral) 750 \pm 50 rpm
 ATX (P range) 1,100 \pm 50 rpm

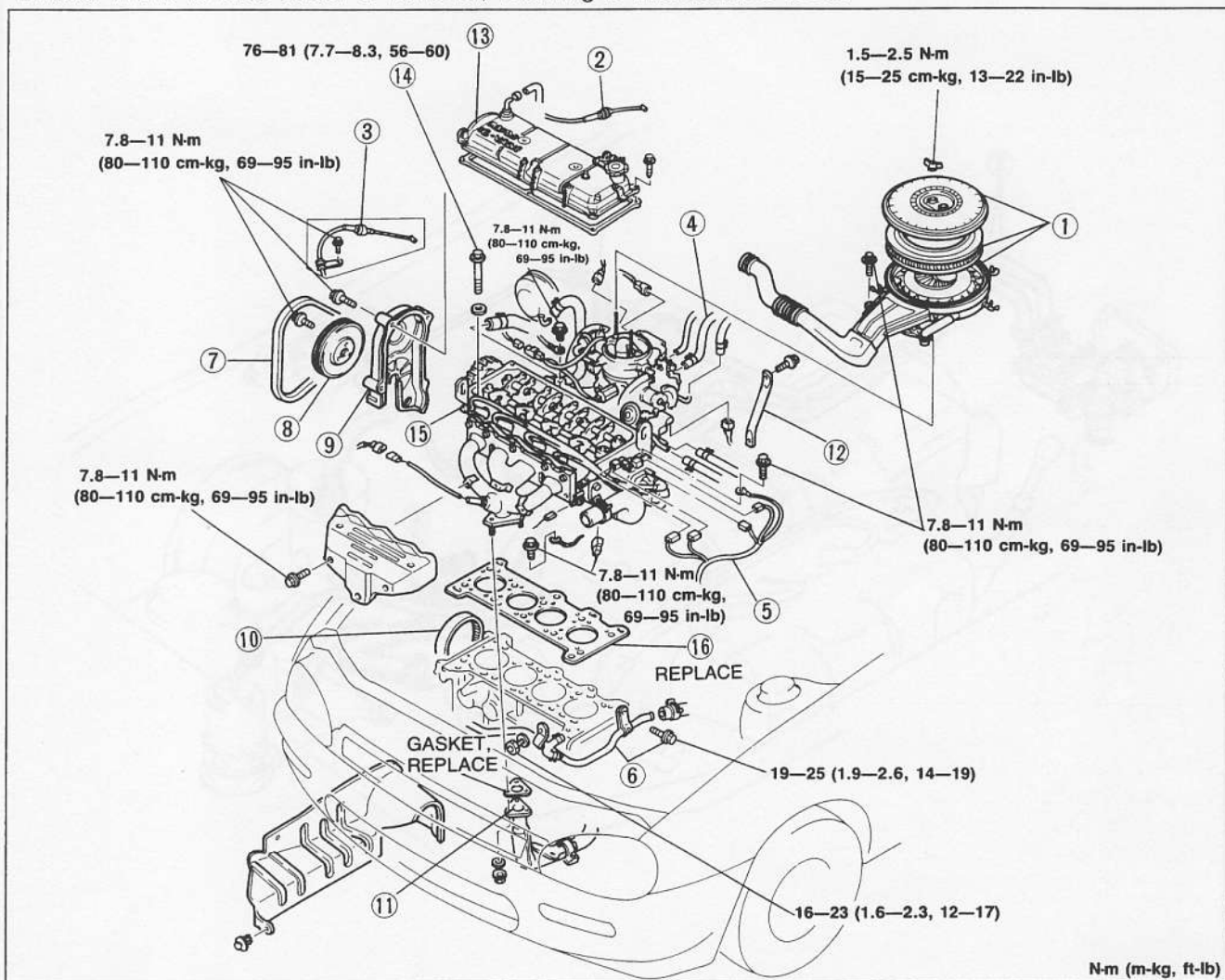
2. If not within the specification, adjust the idle by turning the throttle adjusting screw (TAS).

CYLINDER HEAD GASKET Replacement

Caution

- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.

- Disconnect the negative battery cable.
- Drain the engine coolant into a container.
- Remove in the order shown in the figure, referring to **Removal Note**.
- Install in the reverse order of removal, referring to **Installation Note**.



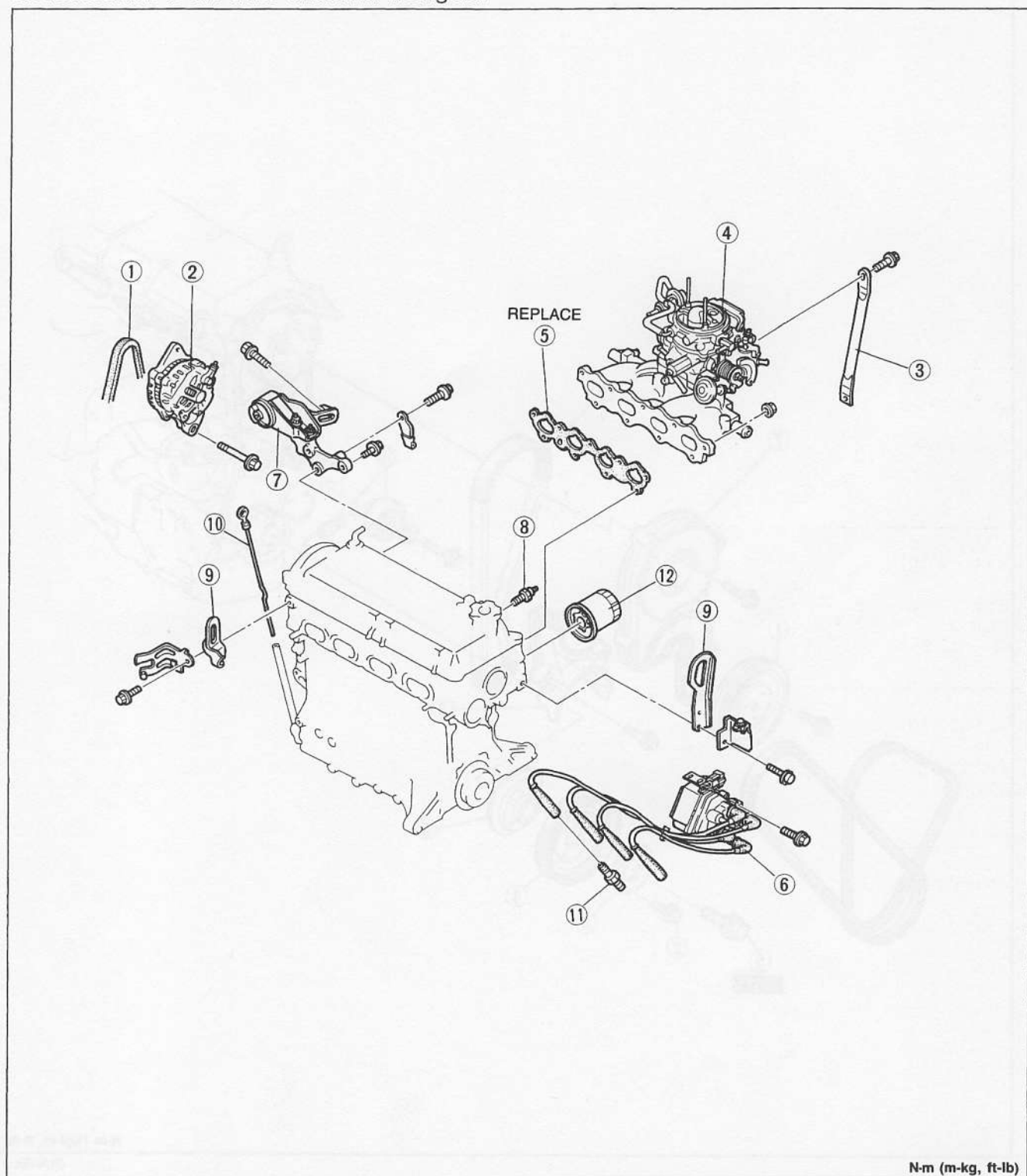
N·m (m·kg, ft·lb)

01A0BX-011

- | | |
|--|---------------------------------------|
| 1. Air cleaner assembly | 10. Timing belt |
| 2. Accelerator cable | Removal / Installation..... page B-12 |
| Installation Note..... page B-20 | 11. Front exhaust pipe |
| 3. Throttle cable | 12. Intake manifold stay |
| 4. Hoses | 13. Cylinder head cover |
| Removal / Installation Note..... page B-18 | 14. Cylinder head bolt |
| 5. Harnesses | Removal Note..... page B-19 |
| Removal / Installation Note..... page B-19 | Installation Note..... page B-20 |
| 6. Water bypass pipe nuts and bolts | 15. Cylinder head |
| 7. Alternator drive belt | Disassembly..... page B-40 |
| 8. Water pump pulley | Inspection..... page B-48 |
| 9. Timing belt cover, upper | Assembly..... page B-72 |
| | 16. Cylinder head gasket |

AUXILIARY PARTS

1. Drain the engine oil.
2. Disassemble in the order shown in the figure.



N-m (m-kg, ft-lb)

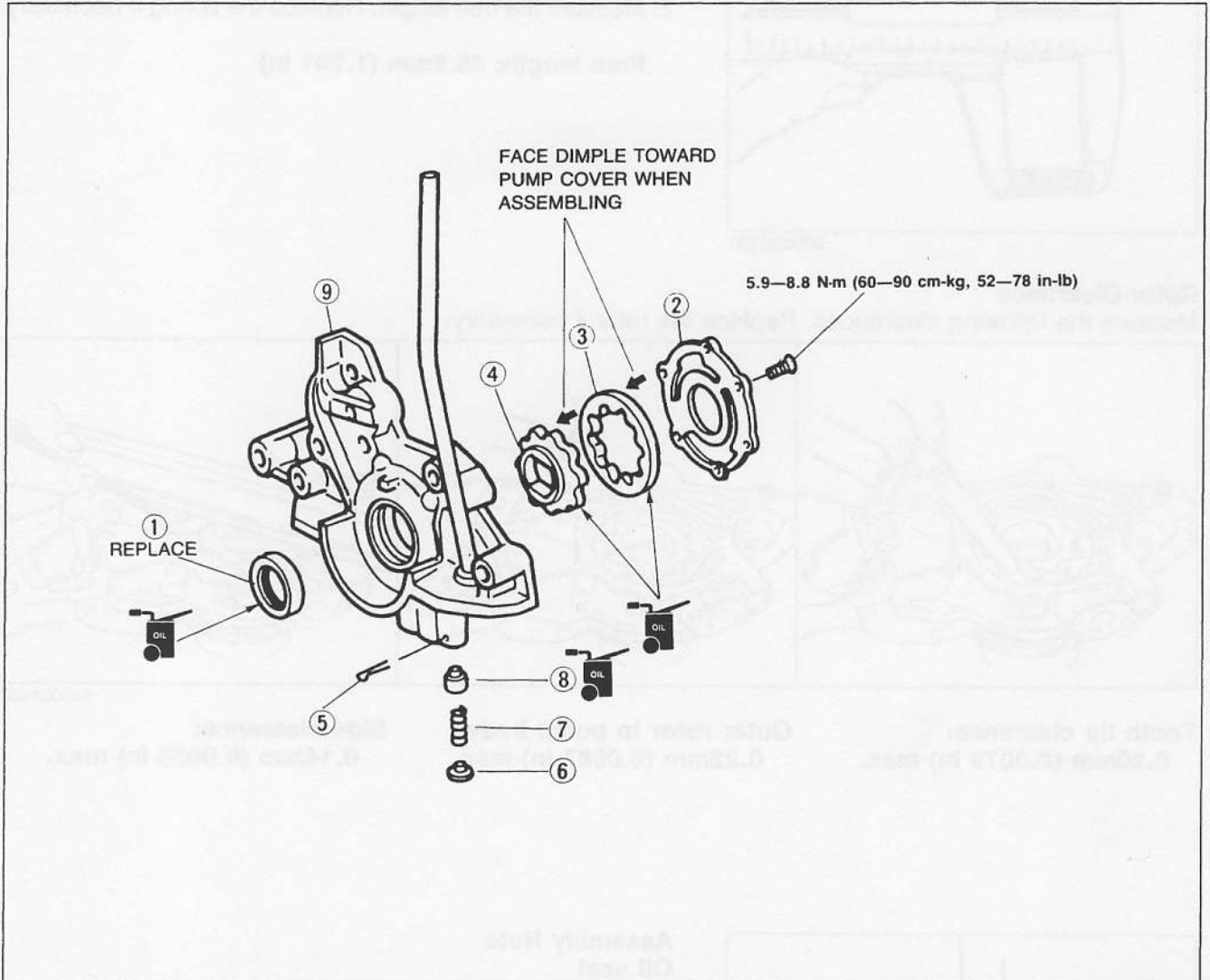
01E0BX-073

1. Alternator drive belt
2. Alternator
3. Intake manifold stay
4. Intake manifold assembly
5. Intake manifold gasket
6. Distributor and high-tension lead

7. No.3 engine mount bracket
8. Oil pressure switch
9. Engine hanger
10. Oil dipstick
11. Spark plug
12. Oil filter

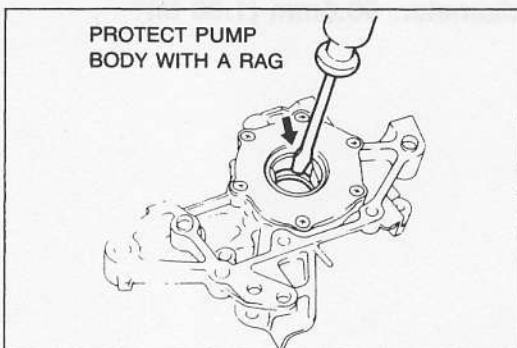
DISASSEMBLY / ASSEMBLY

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
2. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



01A0DX-014

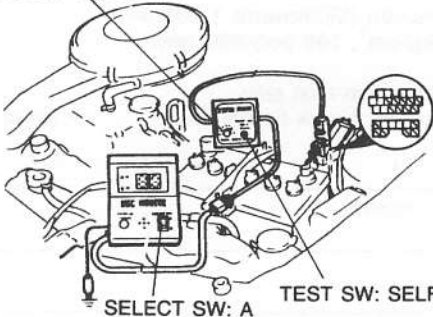
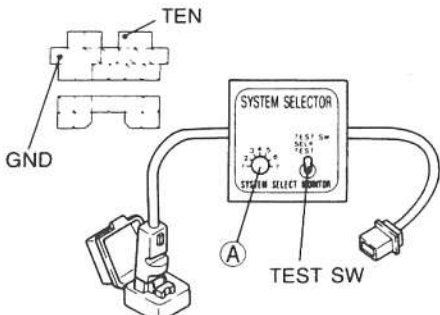
- | | |
|-----------------------------------|-----------------------------------|
| 1. Oil seal | 6. Spring seat |
| Disassembly Note below | 7. Pressure spring |
| Assembly Note page D-12 | Inspection page D-12 |
| 2. Pump cover | 8. Control plunger |
| Inspect for distortion and damage | Inspect for wear and damage |
| 3. Outer rotor | 9. Pump body |
| 4. Inner rotor | Inspect for distortion and damage |
| 5. Roll pin | |



05U0DX-030

Disassembly Note**Oil seal**

Remove the oil seal with a screwdriver protected with a rag.

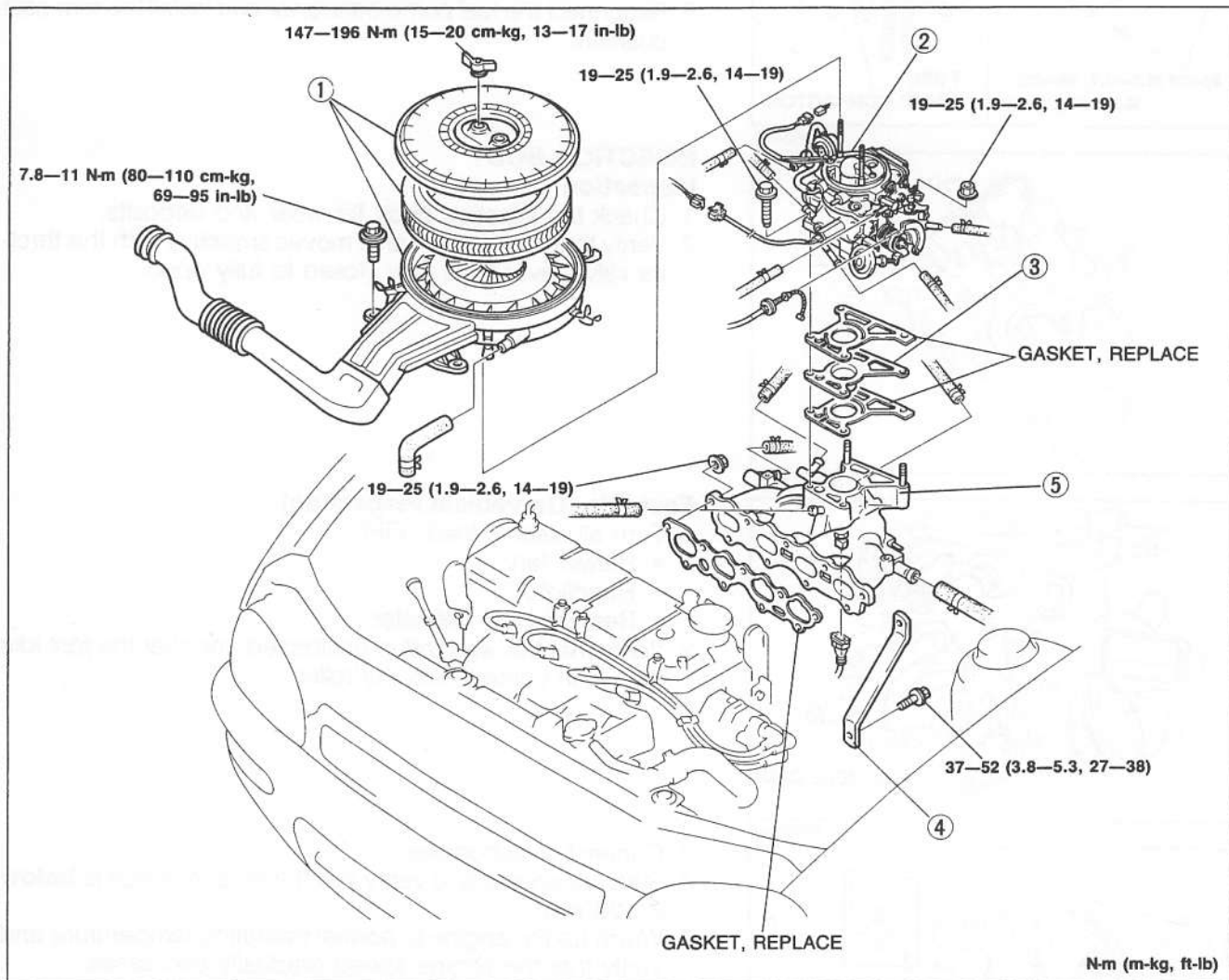
14	IDLE MOVES UP AND DOWN/IDLE HUNTING		
DESCRIPTION	• Engine speeds up and down periodically at idle		
[TROUBLESHOOTING HINTS]			
① Air leakage ② Throttle sensor misadjusted ③ Fuel injection amount inconstant ④ Poor ignition			
STEP	INSPECTION		ACTION
1	Is there air leakage at intake air system?	Yes	Repair or replace leakage point
		No	Go to next step
2	Is PCV valve OK? ☞ page F-99	Yes	Go to next step
		No	Replace PCV valve
3	Is air cleaner element clean?	Yes	Go to next step
		No	Replace element
4	Disconnect high-tension lead at idle; does engine speed decrease equally at each cylinder?	Yes	Go to next step
		No	Go to Step 9
5	Is "00" displayed on Self-Diagnosis Checker with ignition switch ON? ☞ page F-67 SYSTEM SELECT: 1 	Yes	Go to next step
		No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence) ☞ page F-70
		"88" flashes Check ECU terminal 1F voltage ☞ page F-114 Voltage: Approx. 12V (Ignition switch ON) ⇒ If OK, replace ECU ⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker ☞ page F-112	
6	Connect System Selector to diagnosis connector and set Test Switch to "SELF TEST" Is idle normal? 	Yes	Try known good ECU
		No	Go to next step

INTAKE AIR SYSTEM

COMPONENT PARTS

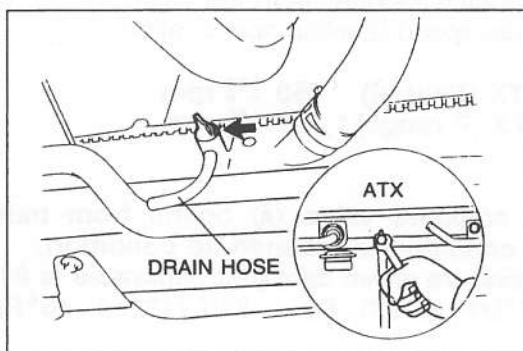
Removal / Inspection / Installation

1. Remove in the order shown in the figure, referring to **Removal Note**.
2. Visually inspect the intake air system components and repair or replace as necessary.
3. Install in the reverse order of removal.



01A0FX-061

- | | |
|--|----------------------------|
| 1. Air cleaner | 3. Baffle |
| Inspect for excessive dirt or damage | Inspection page F-86 |
| 2. Injection body | 4. Intake manifold stay |
| Inspection page F-84 | 5. Intake manifold |
| Disassembly / Assembly page F-85 | Inspection page F-86 |



01E0F2-086

Removal Note

Coolant

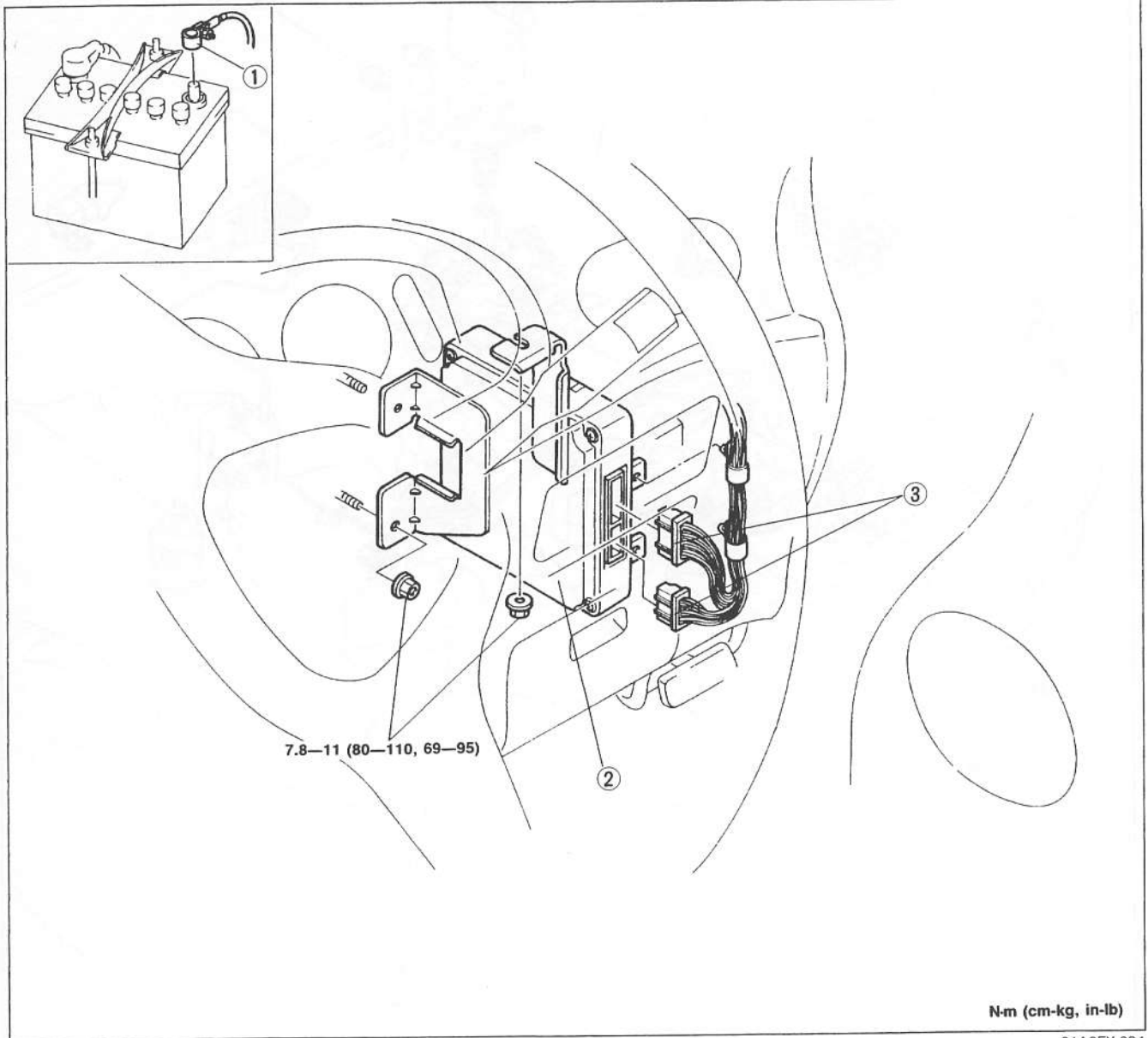
1. Drain the coolant into a suitable container before removing the injection body.
2. Refill with coolant after installation.

Caution

- Before loosening the radiator drain plug verify that the radiator drain hose faces straight down.

ENGINE CONTROL UNIT (ECU)**Replacement**

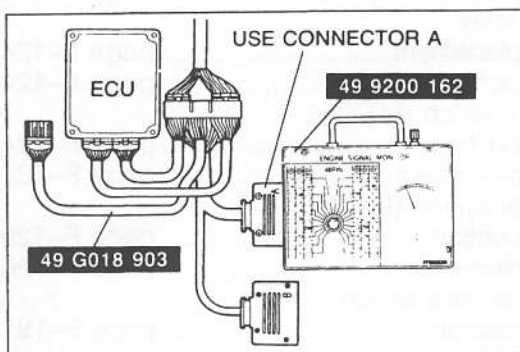
1. Remove in the order shown in the figure.
2. Install in the reverse order of removal.



1. Negative battery cable
2. ECU

3. ECU connector

Inspection page F-112



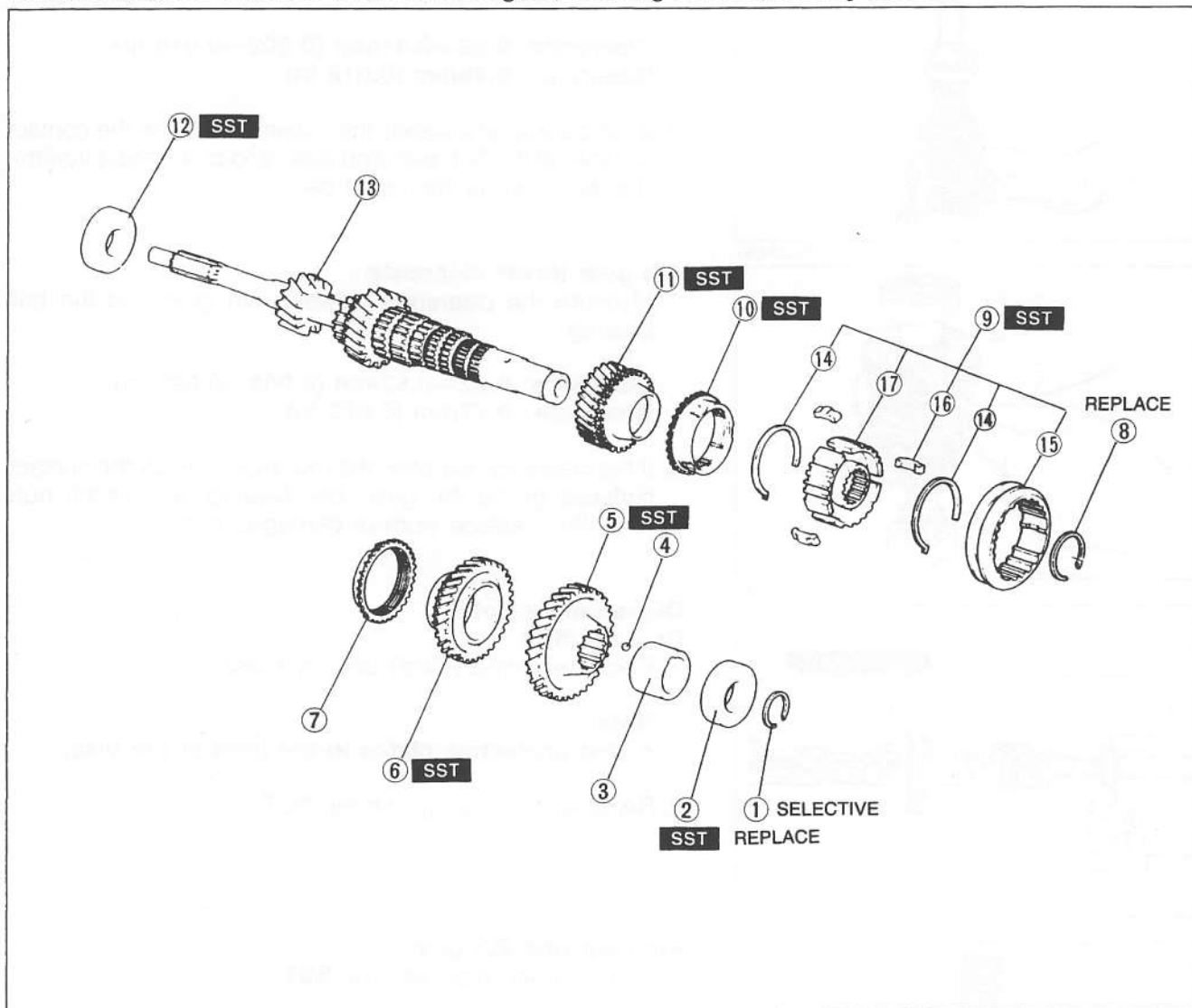
01E0F2-210

Inspection

1. Disconnect the ECU connectors.
2. Connect the **SSTs (Engine Signal Monitor and Adapter Harness)** to the ECU as shown.

Primary Shaft Assembly

1. Measure the thrust clearances of all gears before disassembly, referring to **Preinspection**.
2. Disassemble in the order shown in the figure, referring to **Disassembly Note**.







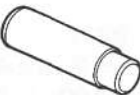











01E0JX-039

- | | |
|---|---------------------------------|
| 1. Retaining ring | 10. Synchronizer ring |
| 2. Bearing (5th) | Disassembly Note..... page J-22 |
| Disassembly Note..... page J-22 | Inspection..... page J-27 |
| Inspection..... page J-28 | 11. 3rd gear |
| 3. Spacer | Disassembly Note..... page J-22 |
| 4. Steel ball | Inspection..... page J-28 |
| 5. 5th gear | 12. Bearing |
| Disassembly Note..... page J-22 | Disassembly Note..... page J-22 |
| Inspect gear teeth for damage, wear, and cracks | Inspection..... page J-28 |
| 6. 4th gear | 13. Primary shaft |
| Disassembly Note..... page J-22 | Inspection..... page J-28 |
| Inspection..... page J-28 | 14. Synchronizer spring |
| 7. Synchronizer ring | 15. Clutch hub sleeve (3rd/4th) |
| Inspection..... page J-27 | Inspection..... page J-27 |
| 8. Retaining ring | 16. Synchronizer key |
| 9. Clutch hub assembly (3rd/4th) | 17. Clutch hub (3rd/4th) |
| Disassembly Note..... page J-22 | |
| Inspection..... page J-29 | |

ENGINE SPEED SENSING POWER STEERING

PREPARATION
SST

49 D032 3A0 Repair set, power steering 	For disassembly / assembly of steering gear	49 D032 306 Block, support (Part of 49 D032 3A0) 	For removal / installation of upper bearing, and installation of oil seal
49 D032 304 Installer, oil seal & bearing (Part of 49 D032 3A0) 	For removal of upper bearing and in- stallation of oil seal	49 F032 303 Handle (Part of 49 D032 3A0) 	For removal of back- up ring and oil seal
49 D032 308 Remover, backup ring & oil seal (Part of 49 D032 3A0) 	For removal of back- up ring and oil seal	49 D032 301 Installer body, oil seal & bearing (Part of 49 D032 3A0) 	For installation of oil seal and center bearing
49 D032 307 Remover, oil seal & bearing (Part of 49 D032 3A0) 	For removal of oil seal and center bearing	49 D032 302 Attachment (Part of 49 D032 3A0) 	For installation of oil seal
49 D032 303 Attachment (Part of 49 D032 3A0) 	For installation of center bearing	49 D032 312 Guide, oil seal (Part of 49 D032 30A) 	For installation of oil seal
49 D032 311 Protector body, rack (Part of 49 D032 3A0) 	For installation of oil seal	49 D032 309 Protector, rack (Part of 49 D032 3A0) 	For installation of holder
49 D032 314 Former & guide, seal ring (Part of 49 D032 3A0) 	For installation of steering rack assembly	49 D032 315 Former & guide, seal ring (Part 49 D032 3A0) 	For formation of seal ring
49 D032 305 Remover, oil seal and bearing (Part of 49 D032 3A0) 	For installation of upper bearing	49 D032 313 Former, seal ring 	For formation of seal ring

FRONT LOWER ARM

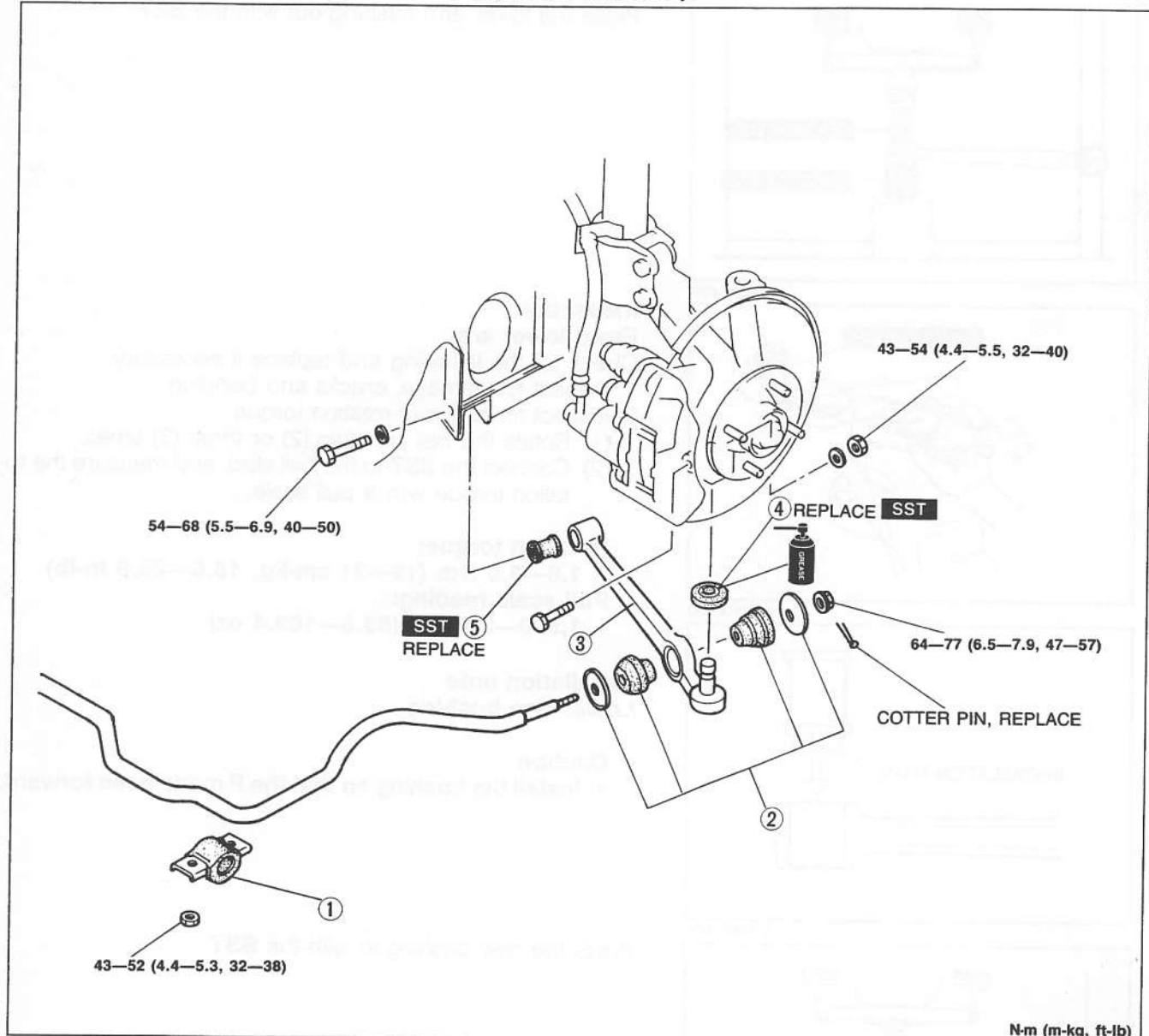
Removal / Inspection / Installation

1. Jack up the front of the vehicle and support it with safety stands.
2. Remove the wheel and tire.
3. Remove in the order shown in the figure, referring to **Removal Note**.
4. Inspect all parts and repair or replace as necessary.
5. Install in the reverse order of removal, referring to **Installation Note**.

Caution

- Loosely tighten the lower arm bolts, stabilizer plate nuts and stabilizer nut (lower arm side). Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladen.

6. Inspect the front wheel alignment and adjust it if necessary.





N·m (m·kg, ft·lb)


01A0RX-006

1. Rubber bushing assembly
2. Stabilizer washer, stabilizer bushing
Installation note page R-18
3. Front lower arm
Inspection page R-16



4. Ball joint dust boot
Removal note page R-16
Installation note page R-17
5. Lower arm bushing
Removal note page R-16
Installation note page R-16

SYMPTOM WIPERS DO NOT OPERATE IN ANY POSITION			
POSSIBLE CAUSE <ul style="list-style-type: none"> • WIPER 20A fuse is burned out • Defective windshield wiper motor • Defective windshield wiper switch • Defective wiring harness or ground 			
STEP	INSPECTION	RESULT	ACTION
1	Is WIPER 20A fuse OK?	Yes	Go to next step
		No	Repair wiring harness and replace fuse
2	Turn ignition switch ON; is there 12V at terminal-wire (L) of wiper motor connector?	Yes	Go to next step
		No	Repair wiring harness (Fuse box — Wiper motor)
3	Is there 12V at terminal-wires of wiper motor connector with switch as shown? <ul style="list-style-type: none"> • INT and LO: (L/R) 12V • HI: (L/W) 12V 	Yes	Go to next step
		No	Check wiper motor  page S-36
4	Is there 12V at terminal-wires of wiper switch connector with switch as shown? <ul style="list-style-type: none"> • INT and LO: (L/R) 12V • HI: (L/W) 12V 	Yes	Go to next step
		No	Repair wiring harness (Wiper motor — Wiper switch)
5	Disconnect the wiper switch connector; is there continuity between terminal-wire (B) to ground?	Yes	Check wiper switch  page S-37
		No	Repair wiring harness (Wiper switch — Ground)

01A0SX-021

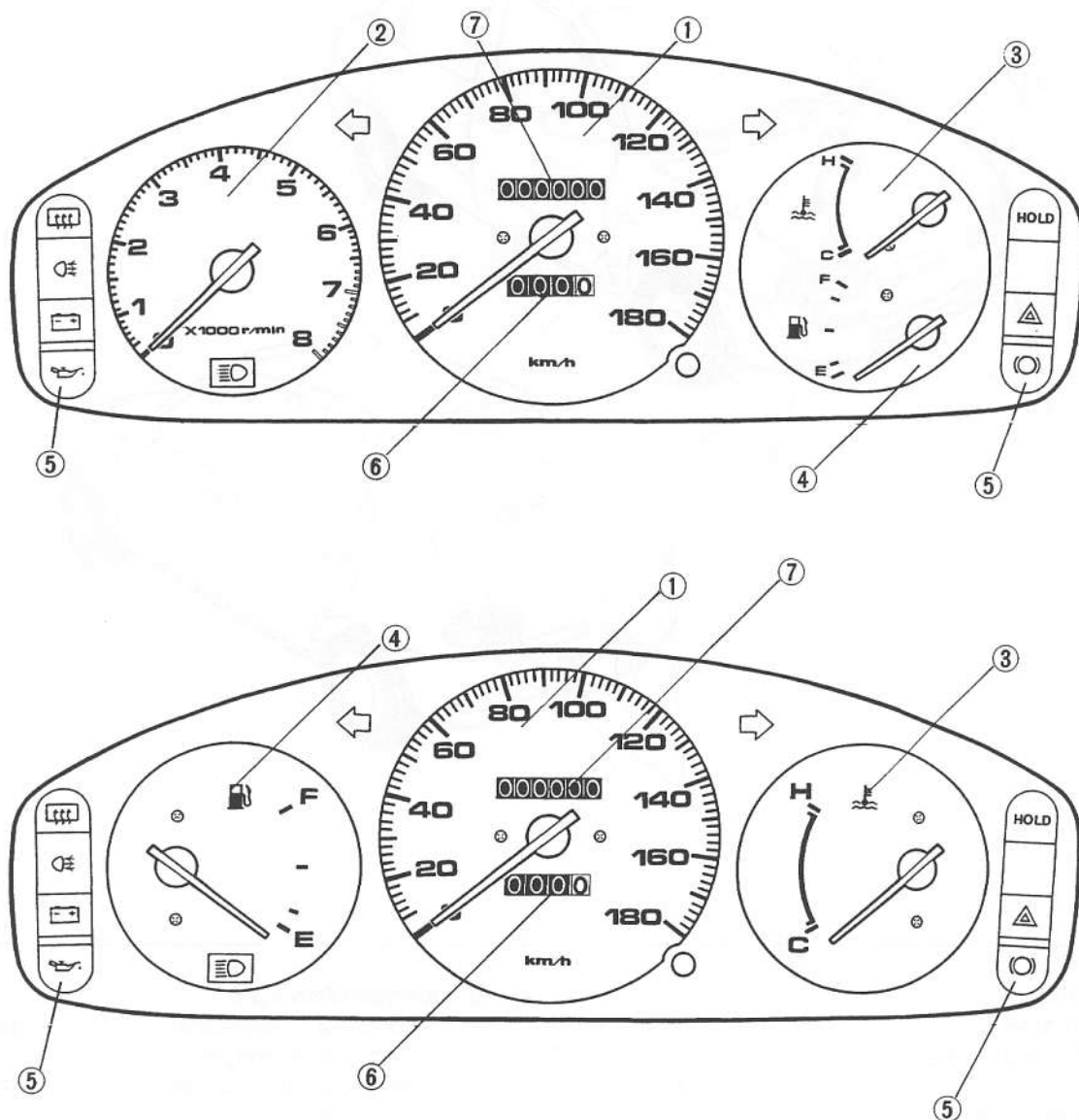
SYMPTOM WIPER PARK FUNCTION DOES NOT WORK			
POSSIBLE CAUSE <ul style="list-style-type: none"> • Defective wiper switch • Defective wiring harness • Defective ground of wiper motor 			
STEP	INSPECTION	RESULT	ACTION
6	Turn ignition switch ON; is there 12V at terminal-wire (L/Y) of wiper switch connector?	Yes	Go to next step
		No	Check wiper switch  page S-37
7	Is there 12V at terminal-wire (L/Y) of wiper motor connector?	Yes	Repair wiring harness (Wiper motor — Ground)
		No	Repair wiring harness (Wiper switch — Wiper motor)

01A0SX-022

SYMPTOM ONE TOUCH FUNCTION (MIST) DOES NOT OPERATE			
POSSIBLE CAUSE <ul style="list-style-type: none"> • Defective wiper switch 			
STEP	INSPECTION	RESULT	ACTION
8	Is wiper switch OK?  page S-37	No	Replace wiper switch  Section T

01A0SX-023

INSTRUMENT CLUSTER



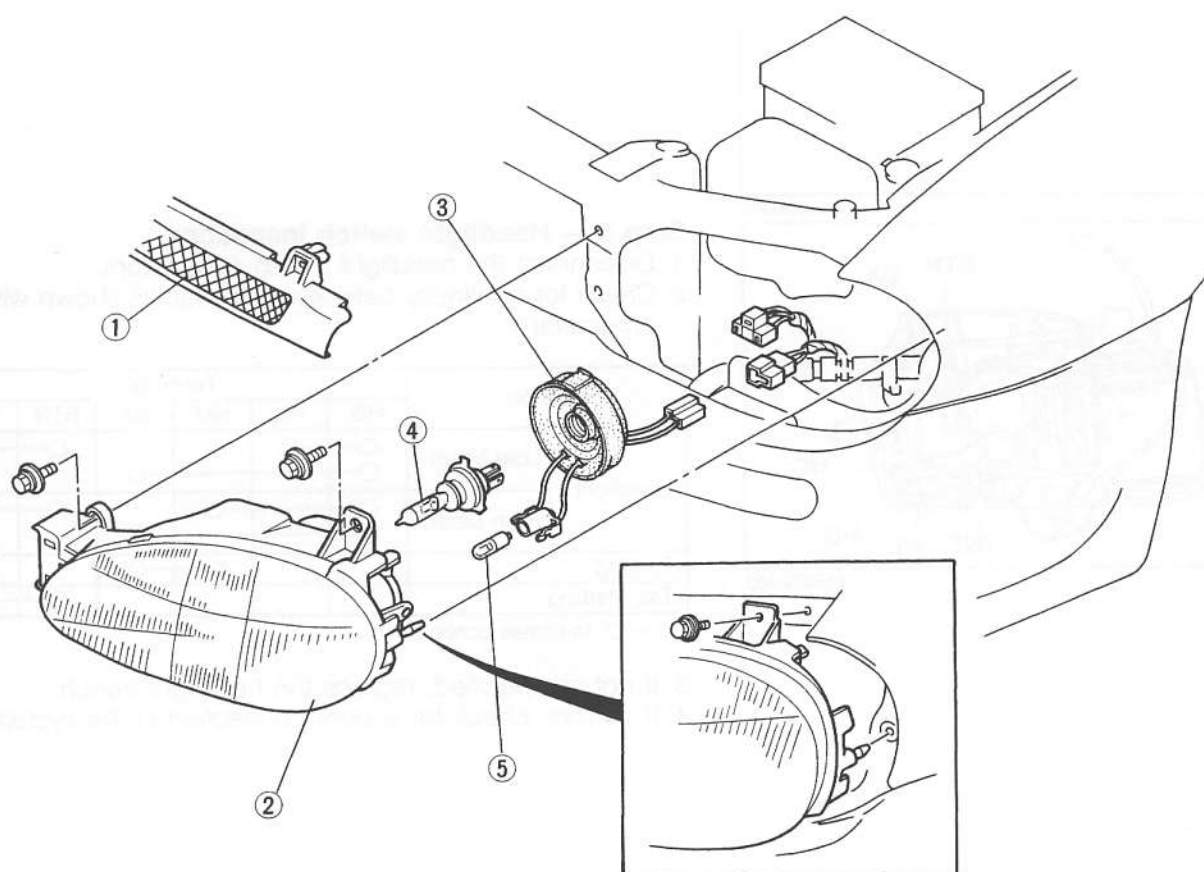
01A0TX-005

1. Speedometer
Inspection page T-37
2. Tachometer
Inspection page T-37
3. Water temperature gauge
Inspection page T-38

4. Fuel gauge
Inspection page T-37
5. Warning and indicator lamps
Replacement..... page T-47
6. Tripmeter
7. Odometer

Removal / Installation

1. Remove the headlight as shown in the figure.
2. Install the headlight in the reverse order of removal.

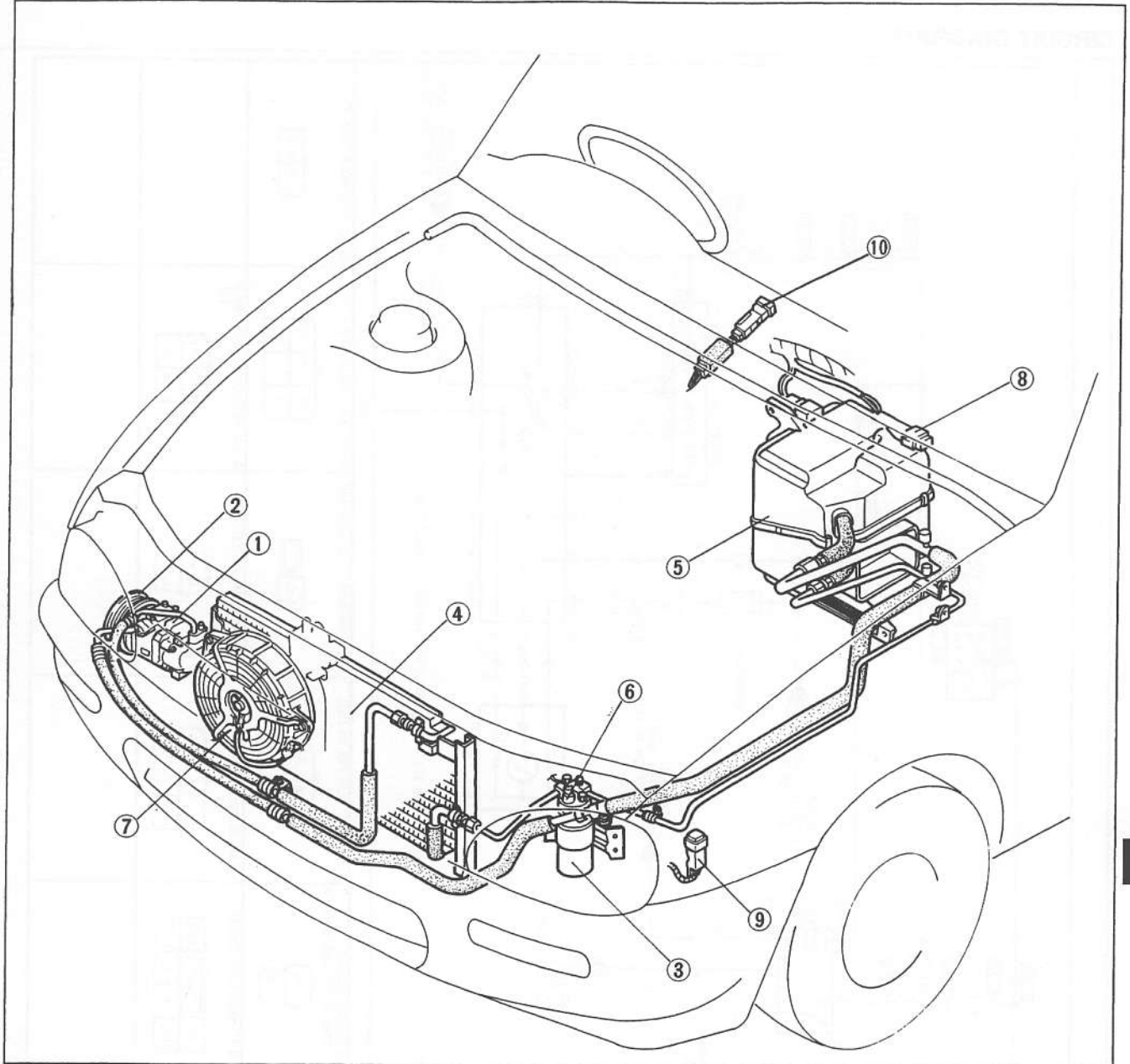


01E0TX-101

1. Radiator grille
2. Headlight unit
3. Cover

4. Headlight bulb
5. Position light bulb

AIR CONDITIONER



01A0UX-018

- | | |
|--------------------------------|-----------|
| 1. Compressor | |
| Removal / Installation..... | page U-47 |
| Disassembly / Assembly..... | page U-49 |
| Adjustment | page U-46 |
| 2. Magnetic clutch | |
| Disassembly / Assembly..... | page U-46 |
| Inspection..... | page U-46 |
| Adjustment | page U-46 |
| 3. Receiver/Drier | |
| Removal / Installation..... | page U-42 |
| 4. Condenser | |
| Removal / Installation..... | page U-41 |
| Inspection..... | page U-41 |
| 5. Cooling unit | |
| Removal / Installation..... | page U-36 |
| Disassembly / Assembly..... | page U-37 |
| Replacement | page U-37 |
| Inspection..... | page U-38 |
| 6. Refrigerant pressure switch | |
| Inspection..... | page U-43 |
| 7. Condenser fan | |
| Removal / Installation..... | page U-43 |
| Inspection..... | page U-43 |
| 8. A/C relay | |
| Inspection..... | page U-39 |
| 9. A/C sub relay | |
| Inspection..... | page U-39 |
| 10. A/C switch | |
| Inspection..... | page U-40 |