

GENERAL INFORMATION

Repair procedure

1. Most repair operations begin with an overview illustration. It identifies the components, shows how the parts fit together, and describes visual part inspection. However, only removal/installation procedures that need to be performed methodically have written instructions.
2. Expendable parts, tightening torques, and symbols for oil, grease, and sealant are shown in the overview illustration. In addition, symbols indicating parts requiring the use of special service tools or equivalent are also shown.
3. Procedure steps are numbered and the part that is the main point of that procedure is shown in the illustration with the corresponding number. Occasionally, there are important points or additional information concerning a procedure. Refer to this information when servicing the related part.

Procedure

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①

"Removal/Installation" Portion

②

"Inspection After Installation" Portion

↑

INSTALL THE PARTS BY PERFORMING STEPS 1—3 IN REVERSE ORDER

SHOWS SERVICE ITEM (S)

LOWER TRAILING LINK, UPPER TRAILING LINK REMOVAL/INSTALLATION

1. Jack up the rear of the vehicle and support it with safety stands.
2. Remove the undercover. (See 01-10-4 Undercover Removal)
3. Remove in the order indicated in the table.
4. Install in the reverse order of removal.
5. Inspect the rear wheel alignment and adjust it if necessary.

INDICATES RELEVANT REFERENCES THAT NEED TO BE FOLLOWED DURING INSTALLATION

SHOWS SPECIAL SERVICE TOOL (SST) FOR SERVICE OPERATION

SHOWS APPLICATION POINTS OF GREASE, ETC.

SHOWS EXPENDABLE PARTS

SHOWS TIGHTENING TORQUE SPECIFICATIONS

SHOWS DETAILS

SHOWS TIGHTENING TORQUE UNITS

N·m (kgf·m, ft·lb)

SHOWS REFERRAL NOTES FOR SERVICE

1	Split pin	7	Split pin
2	Nut	8	Nut
3	Lower trailing link ball joint (See 02-14-5 Lower Trailing Link Ball Joint Removal Note)	9	Upper trailing link ball joint (See 02-14-5 Upper Trailing Link Ball Joint Removal Note)
4	Bolt	10	Nut
5	Lower trailing link	11	Upper trailing link
6	Dust boot (lower trailing link)	12	Dust boot (upper trailing link)

SHOWS REFERRAL NOTES FOR SERVICE

Lower Trailing Link Ball Joint, Upper Trailing Link Ball Joint Removal Note

- Remove the ball joint using the SSTs.

SHOWS SPECIAL SERVICE TOOL (SST) NO.

49 T028 304 UPPER TRAILING LINK
49 T028 305 LOWER TRAILING LINK

49 T028 303

KNUCKLE

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GENERAL INFORMATION

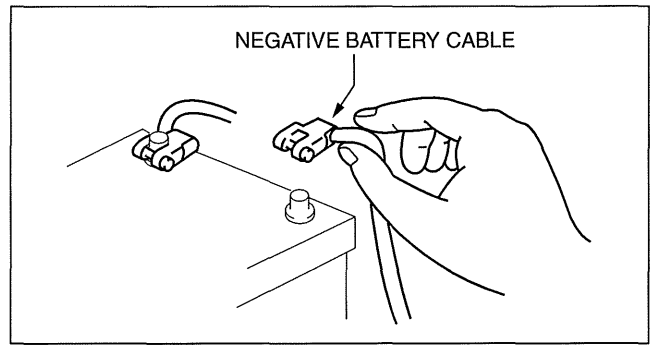
ELECTRICAL SYSTEM

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Electrical Parts

Battery cable

- Before disconnecting connectors or removing electrical parts, disconnect the negative battery cable.

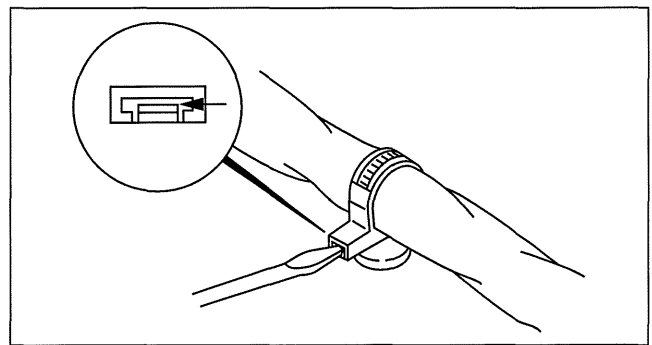


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Wiring Harness

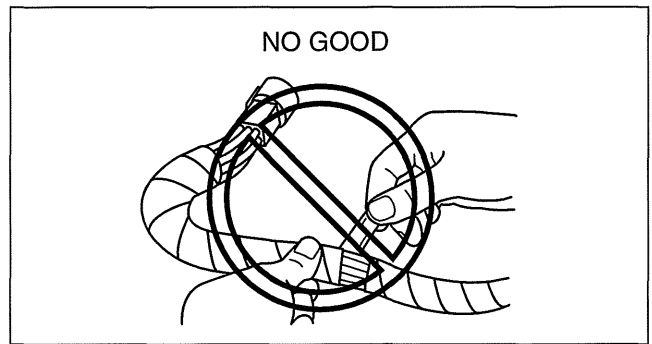
- To remove the wiring harness from the clip in the engine room, pry up the hook of the clip using a flathead screwdriver.



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Caution

- Do not remove the harness protective tape. Otherwise, the wires could rub against the body, which could result in water penetration and electrical shorting.

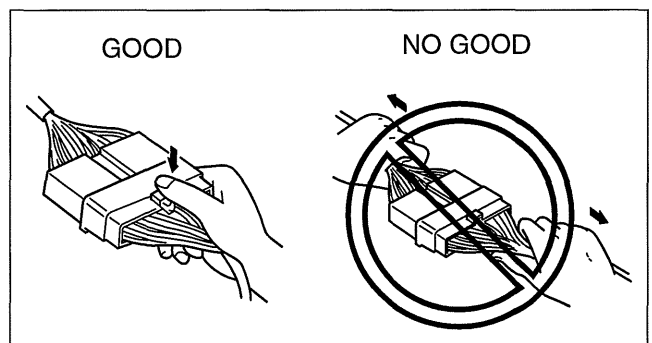


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Connectors

Disconnecting connectors

- When disconnecting connector, grasp the connectors, not the wires.



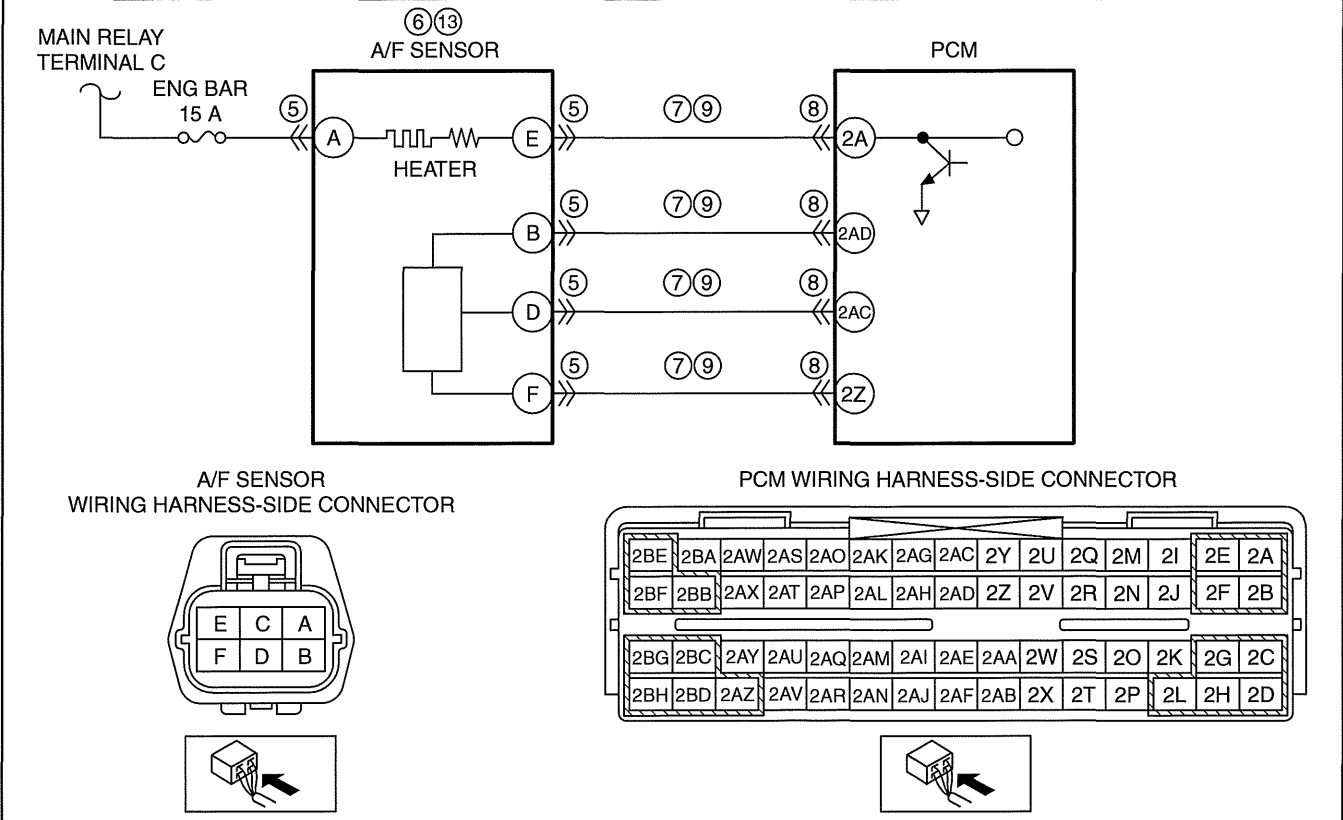
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ON-BOARD DIAGNOSTIC [LF, L5]

DTC P0134:00 [LF, L5]

id0102c8702500

<p>DTC P0134:00</p>	<p>A/F sensor circuit no activity detected</p>
<p>DETECTION CONDITION</p>	<ul style="list-style-type: none"> • The PCM monitors the element impedance A/F sensor when the following conditions are met. Under the following monitoring conditions, the element impedance more than specified value, the PCM determines that the A/F sensor is not activated. <p>MONITORING CONDITIONS</p> <ul style="list-style-type: none"> — Drive Mode 03 (EGR System, A/F sensor heater, HO2S heater, A/F sensor, HO2S and TWC Repair Verification Drive Mode) — Following conditions are met: <ul style="list-style-type: none"> • A/F sensor heater is turned on for 35 s or more • Battery voltage: 11—18 V <p>Diagnostic support note</p> <ul style="list-style-type: none"> • This is an intermittent monitor (A/F sensor, HO2S). • The MIL illuminates if the PCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. • PENDING CODE is available if the PCM detects the above malfunction condition during first drive cycle. • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. • The DTC is stored in the PCM memory.
<p>POSSIBLE CAUSE</p>	<ul style="list-style-type: none"> • A/F sensor connector or terminals malfunction • A/F sensor heater malfunction • Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> — A/F sensor terminal E—PCM terminal 2A — A/F sensor terminal B—PCM terminal 2AD — A/F sensor terminal D—PCM terminal 2AC — A/F sensor terminal F—PCM terminal 2Z • PCM connector or terminals malfunction • Open circuit in wiring harness between the following terminals: <ul style="list-style-type: none"> — A/F sensor terminal E—PCM terminal 2A — A/F sensor terminal B—PCM terminal 2AD — A/F sensor terminal D—PCM terminal 2AC — A/F sensor terminal F—PCM terminal 2Z • Leakage exhaust system • Engine malfunction <ul style="list-style-type: none"> — Leakage engine coolant — Insufficient engine compression • A/F sensor malfunction • PCM malfunction



ON-BOARD DIAGNOSTIC [LF, L5]

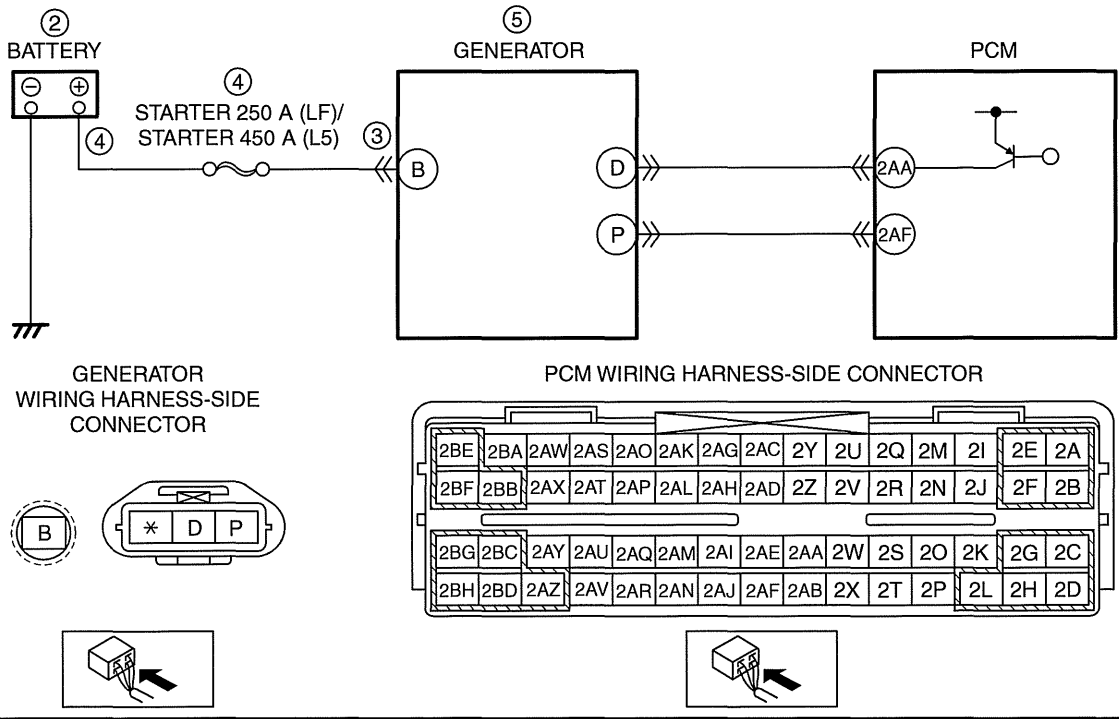
01-02A

STEP	INSPECTION		ACTION
9	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> Make sure to reconnect all disconnected connectors. Clear the DTC from the PCM memory using the M-MDS. (See 01-02A-11 AFTER REPAIR PROCEDURE [LF, L5].) Perform the KOEO/KOER self test. (See 01-02A-11 KOEO/KOER SELF TEST [LF, L5].) Is the PENDING CODE for this DTC present? 	Yes	Replace the PCM, then go to the next step. (See 01-40A-7 PCM REMOVAL/INSTALLATION [LF, L5].)
		No	Go to the next step.
10	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> Perform the "AFTER REPAIR PROCEDURE". (See 01-02A-11 AFTER REPAIR PROCEDURE [LF, L5].) Are any DTCs present? 	Yes	Go to the applicable DTC inspection. (See 01-02A-17 DTC TABLE [LF, L5].)
		No	DTC troubleshooting completed.

DTC P2502:00 [LF, L5]

id0102c8709500

DTC P2502:00	Charging system voltage problem
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM determines that the generator output voltage is above 17 V or battery voltage is below 11 V while the engine is running. <p>Diagnostic support note</p> <ul style="list-style-type: none"> This is a continuous monitor (other). The MIL does not illuminate. FREEZE FRAME DATA (Mode 2)/Snapshot data is not available. The DTC is stored in the PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Battery malfunction Poor installation of generator terminal Short to ground or open circuit in generator power supply circuit <ul style="list-style-type: none"> — Short to ground in wiring harness between generator terminal B and battery positive terminal — STARTER fuse 250 A (LF)/450 A (L5) malfunction — Open circuit in wiring harness between generator terminal B and battery positive terminal Generator malfunction PCM malfunction



ON-BOARD DIAGNOSTIC [L3 WITH TC]

DTC P0579:00 [L3 WITH TC]

id010239087000

01-02B

DTC P0579:00	Cruise control multi-function input circuit range/performance problem
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM monitors the input signal from the cruise control switch. If the input signal does not change for 120 s, the PCM determines that the cruise control switch circuit has a malfunction. <p>Diagnostic support note</p> <ul style="list-style-type: none"> This is a continuous monitor (other). The MIL does not illuminate. FREEZE FRAME DATA (Mode 2)/Snapshot data is not available. The DTC is stored in the PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Clock spring connector or terminals malfunction Clock spring malfunction Cruise control switch malfunction Short to ground in wiring harness between clock spring terminal 2L and PCM terminal 1AQ PCM connector or terminals malfunction Short to power supply in wiring harness between the following terminals: <ul style="list-style-type: none"> — Clock spring terminal 2L—PCM terminal 1AQ — Clock spring terminal 2N—PCM terminal 1W Open circuit in wiring harness between the following terminals: <ul style="list-style-type: none"> — Clock spring terminal 2L—PCM terminal 1AQ — Clock spring terminal 2N—PCM terminal 1W PCM malfunction

Diagnostic procedure

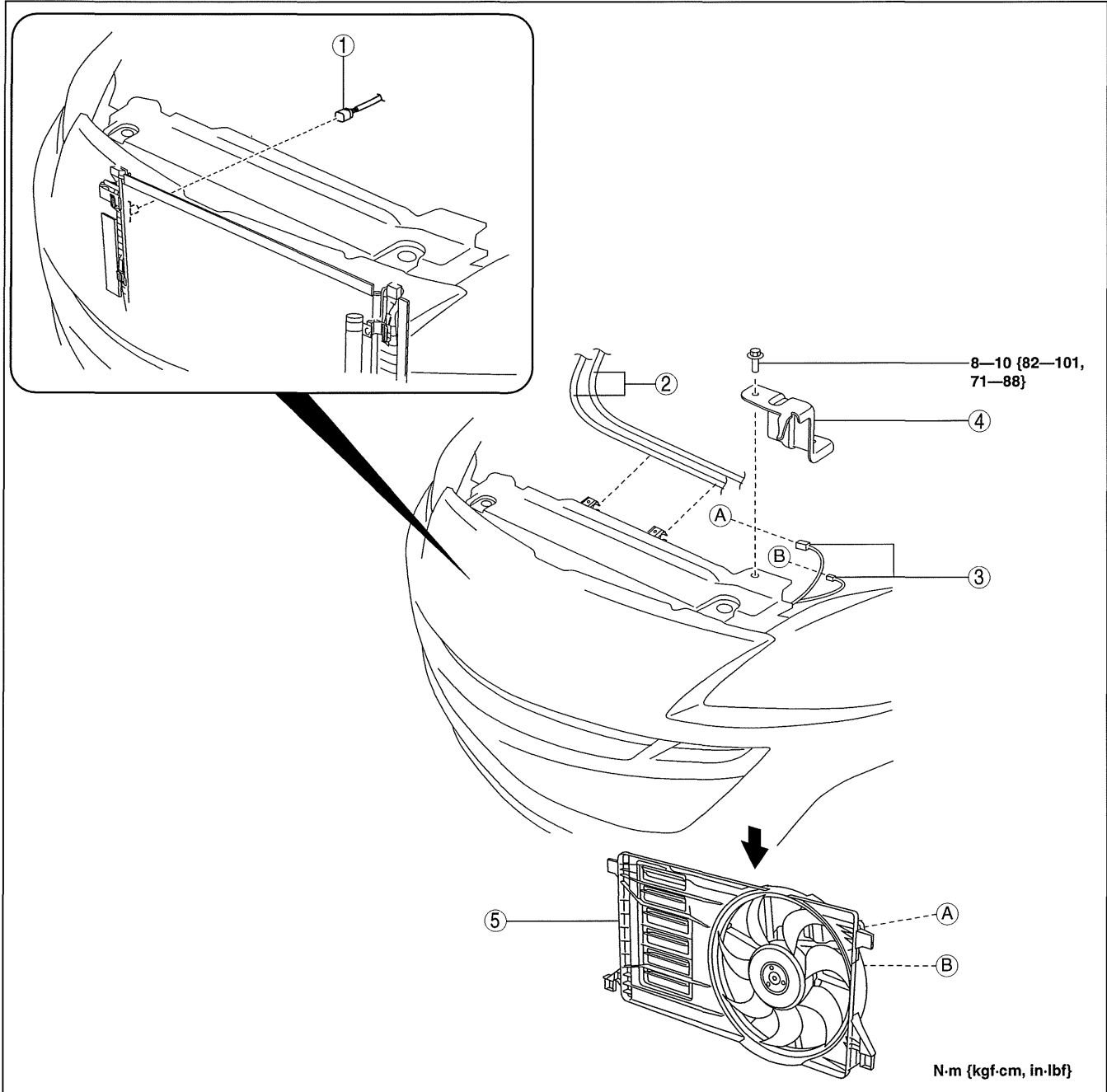
STEP	INSPECTION		ACTION
1	<p>VERIFY RELATED REPAIR INFORMATION AVAILABILITY</p> <ul style="list-style-type: none"> Verify related Service Bulletins and/or on-line repair information availability. Is any related repair information available? 	<p>Yes</p> <hr/> <p>No</p>	<p>Perform repair or diagnosis according to the available repair information.</p> <ul style="list-style-type: none"> If the vehicle is not repaired, go to the next step. <p>Go to the next step.</p>

SYMPTOM TROUBLESHOOTING [L3 WITH TC]

STEP	INSPECTION	RESULTS	ACTION
16	Inspect the fuel pressure sensor. (See 01-40B-29 FUEL PRESSURE SENSOR INSPECTION [L3 WITH TC].) Is there any malfunction?	Yes	Replace the fuel delivery pipe. (See 01-14B-25 FUEL INJECTOR REMOVAL/ INSTALLATION [L3 WITH TC].)
		No	Go to the next step.
17	Replace the high pressure fuel pump. (See 01-14B-17 HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION [L3 WITH TC].) Access the FUEL_PRES PID using the M-MDS. (See 01-02B-8 ON-BOARD DIAGNOSTIC TEST [L3 WITH TC].) Is the FUEL_PRES PID value within the specified? (See 01-40B-8 PCM INSPECTION [L3 WITH TC].)	Yes	High-pressure fuel pump or spill valve control solenoid valve (built-in high pressure fuel pump) malfunction. • Go to Step 19.
		No	Relief valve malfunction. • Replace the fuel delivery pipe. (See 01-14B-25 FUEL INJECTOR REMOVAL/ INSTALLATION [L3 WITH TC].)
18	Access the following PIDs using the M-MDS: (See 01-02B-8 ON-BOARD DIAGNOSTIC TEST [L3 WITH TC].) • ECT • O2S11 (When engine can be started) • MAF Are all PIDs normal? (See 01-40B-8 PCM INSPECTION [L3 WITH TC].)	Yes	Go to the next step.
		No	Repair or replace the malfunctioning parts according to the inspection results.
19	Perform the Purge Control System Inspection (when engine can be started). (See 01-03B-91 ENGINE CONTROL SYSTEM OPERATION INSPECTION [L3 WITH TC].) Does the purge solenoid valve work properly?	Yes	Go to the next step.
		No	Repair or replace the malfunctioning parts according to the inspection results.
20	Inspect the engine compression. (See 01-10B-12 COMPRESSION INSPECTION [L3 WITH TC].) Is the engine compression normal?	Yes	Inspect for clogging in the exhaust system. Repair or replace the malfunctioning part according to the inspection results.
		No	Repair or replace the malfunctioning parts according to the inspection results.
21	When the engine cannot be started: • Inspect the intake-air system for air leakage. When the engine can be started: • Perform the intake manifold vacuum inspection. Is air sucked in from the intake-air system?	Yes	Repair or replace the malfunctioning parts according to the inspection results.
		No	Go to the next step.
22	Access the FUEL_PRES PID using the M-MDS. (See 01-02B-8 ON-BOARD DIAGNOSTIC TEST [L3 WITH TC].) Is the FUEL_PRES PID value within the specification? (See 01-40B-8 PCM INSPECTION [L3 WITH TC].)	Yes	Access the following PIDs using the M-MDS: (See 01-02B-8 ON-BOARD DIAGNOSTIC TEST [L3 WITH TC].) (See 01-40B-8 PCM INSPECTION [L3 WITH TC].) • ECT • O2S11 • O2S12 • MAF — If normal: • Inspect the PCM ground condition. • Repair or replace the malfunctioning part according to the inspection results. — If not: • Inspect the PCM ground condition. • Repair or replace the malfunctioning part according to the inspection results.
		No	Go to the next step.
23	Is the vehicle accelerate performance normally?	Yes	Go to the next step.
		No	Go to Step 25.
24	Inspect the fuel pressure sensor. (See 01-40B-29 FUEL PRESSURE SENSOR INSPECTION [L3 WITH TC].) Is there any malfunction?	Yes	Replace the fuel delivery pipe. (See 01-14B-25 FUEL INJECTOR REMOVAL/ INSTALLATION [L3 WITH TC].)
		No	Go to the next step.

COOLING SYSTEM [LF, L5]

1. Remove the battery cover. (See 01-17A-2 BATTERY REMOVAL/INSTALLATION [LF, L5].)
2. Disconnect the negative battery cable.
3. Remove the plug hole plate. (See 01-10A-5 PLUG HOLE PLATE REMOVAL/INSTALLATION [LF, L5].)
4. Remove the air cleaner component and fresh air duct (No.1, No.2). (See 01-13A-4 INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [LF, L5].)
5. Remove the aerodynamic under cover No.2. (See 09-16-29 AERODYNAMIC UNDER COVER NO.2 REMOVAL/INSTALLATION.)
6. Remove in the order indicated in the table.
7. Install in the reverse order of removal.



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1	Connector
2	Coolant reserve tank hose
3	Connector

4	Air cleaner component bracket
5	Cooling fan component (See 01-12A-15 Cooling Fan Component Removal Note.)

IGNITION SYSTEM [LF, L5]

SPARK PLUG REMOVAL/INSTALLATION [LF, L5]

id0118a8800400

Caution

- If a spark plug that is not as specified is installed, engine performance will be deteriorated. Install only the specified spark plug when replacing.

1. Remove the battery cover. (See 01-17A-2 BATTERY REMOVAL/INSTALLATION [LF, L5].)
2. Disconnect the negative battery cable.
3. Remove the plug hole plate. (See 01-10A-5 PLUG HOLE PLATE REMOVAL/INSTALLATION [LF, L5].)
4. Remove the ignition coils. (See 01-18A-2 IGNITION COIL REMOVAL/INSTALLATION [LF, L5].)
5. Remove the spark plugs using a plug-wrench.
6. Install in the reverse order of removal.

01-18A

Tightening torque

10—14 N·m {102—142 kgf·cm, 89—123 in·lbf}

SPARK PLUG INSPECTION [LF, L5]

id0118a8800500

Specification

Spark plug type

LFG1 18 110 (ILTR5A-13G), L3Y2 18 110

Plug Gap Inspection

Caution

- To avoid possible damage to the tip, do not adjust the plug gap.
- To prevent damaging the tip, use a wire type plug gap gauge when inspecting the plug gap.

1. Measure the spark plug gap using a wire type plug gap gauge.
 - If not within the standard specification, replace the spark plug.

Spark plug gap

Standard: 1.25—1.45 mm {0.0493—0.0570 in}

New spark plug (reference): 1.25—1.35 mm {0.0493—0.0531 in}

Cleaning

Caution

- Carbon may adhere to the tip of the spark plug during vehicle delivery or repeated short distance driving during the winter time. If there is any malfunction such as rough idling or start difficulty due to carbon adhesion causing plug fouling, burn off the carbon by performing no-load racing of the engine.
- When performing the no-load racing, apply the side brake and foot brake, move the shift lever to neutral (MTX), or the selector lever to P position (ATX) to prevent an accident and serious injury.
- To avoid possible damage to the spark plug tip, do not use a wire brush for cleaning.

Note

- To avoid possible damage to the tip, use gasoline to clean the spark plugs after removing dirt.
- If the accelerator pedal is depressed continuously for a specified time, the engine speed may decrease to the idle speed. This is due to the PCM control operation, which prevents overheating, and it does not indicate a malfunction.
- Do not perform no-load racing at high engine speed continuously for **10 s or more**.

1. If there is carbon adhering to the spark plug, perform no-load racing at **4,000 rpm for 2 min, 2 times**.

SYMPTOM TROUBLESHOOTING

NO.3 WHEEL UNIT ID REGISTRATION CANNOT BE PERFORMED (TPMS WARNING LIGHT FLASHES)

id020300800900

Caution

- Activate the wheel unit ID registration mode using the M-MDS, and perform the following steps if the TPMS warning light does not turn off after driving at 25 km/h {15.5 mph} or more for 10 min or more.

3	Wheel unit ID registration cannot be performed (TPMS warning light flashes)
[TROUBLESHOOTING HINTS]	
<ul style="list-style-type: none"> • New wheel unit malfunction (caused when install to the wheel). • Any malfunction on an old wheel unit which has not been replaced. 	

02-03

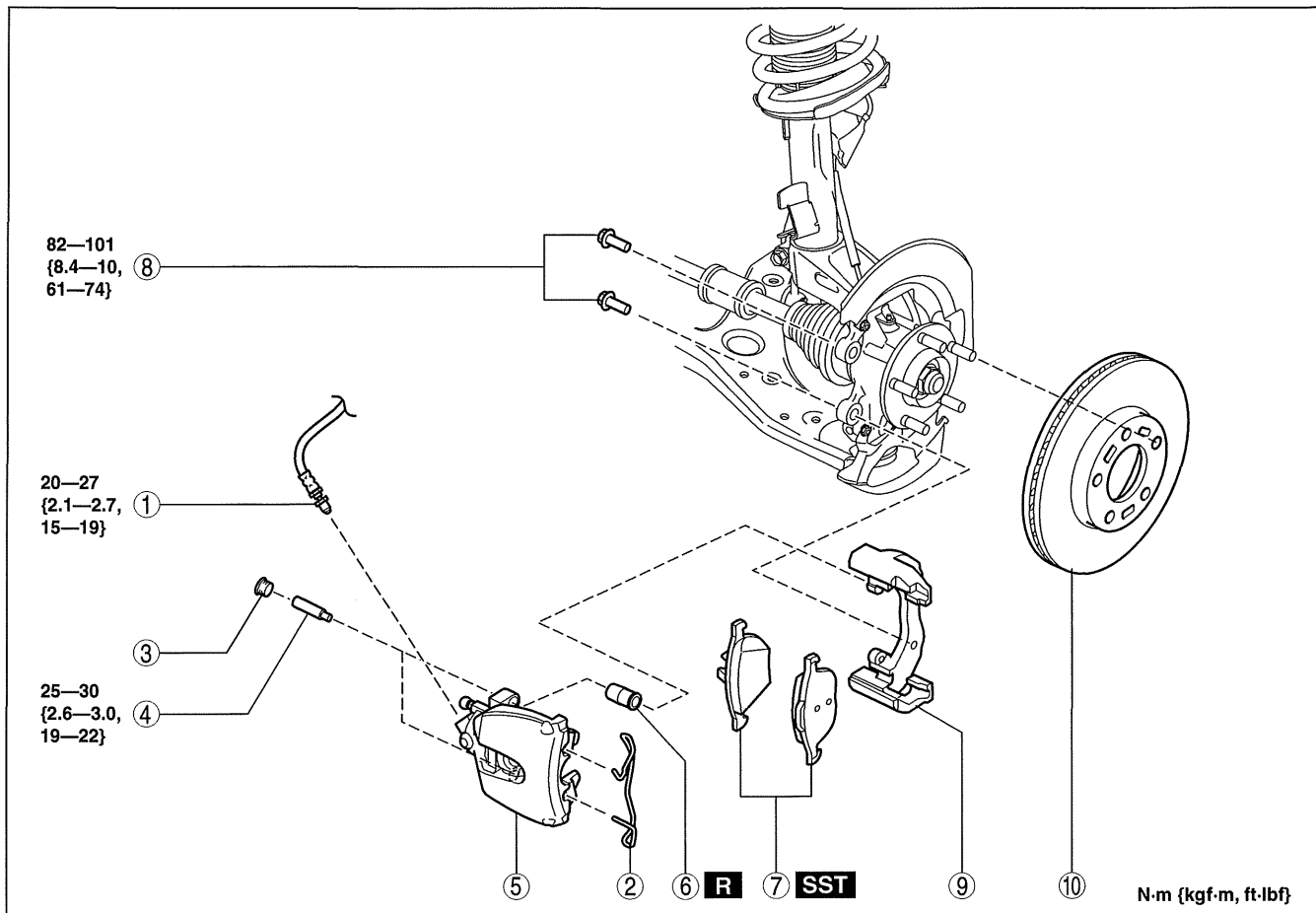
STEP	INSPECTION		ACTION
1	VERIFY REGISTRATION OF WHEEL UNIT <ul style="list-style-type: none"> • Connect the M-MDS to the DLC-2. • Display the wheel unit ID registration condition (ID and tire pressure table) using the M-MDS. (See 02-12-5 WHEEL UNIT ID REGISTRATION.) • Temporarily remove the battery and reinstall it immediately. <p>Note</p> <ul style="list-style-type: none"> • If the battery is removed, the tire pressure data for WU1_P to WU4_P stored in the instrument cluster is reset. • Tire pressure is 0 kPa {0 kgf/cm², 0 psi} when it is displayed again using the M-MDS. <ul style="list-style-type: none"> • Set the tire pressure for the four wheels separately. • Perform the "WHEEL UNIT ID REGISTRATION" using the M-MDS again. (See 02-12-5 WHEEL UNIT ID REGISTRATION.) • Can the ID be registered? 	Yes	Symptom troubleshooting completed. Adjust the tire pressure on four wheels, then return the vehicle to the customer. (See 02-12-5 TIRE PRESSURE ADJUSTMENT (WITH TPMS).)
		No	Go to the next step.
2	IDENTIFY UNREGISTERED WHEEL UNIT <ul style="list-style-type: none"> • Identify the malfunctioning wheel unit. (See 02-02-6 MALFUNCTIONING WHEEL UNIT IDENTIFICATION.) • Is the wheel unit for which the ID could not be registered a new wheel unit? 	Yes	Replace with a new wheel unit, then go to Step 4. (See 02-12-6 WHEEL UNIT REMOVAL/INSTALLATION.)
		No	Go to the next step.
3	Replace the old wheel unit, then go to the next step (any malfunction on an old wheel unit which has not been replaced). (See 02-12-6 WHEEL UNIT REMOVAL/INSTALLATION.)		
4	VERIFY REGISTRATION OF WHEEL UNIT <ul style="list-style-type: none"> • Perform the "WHEEL UNIT ID REGISTRATION" using the M-MDS. (See 02-12-5 WHEEL UNIT ID REGISTRATION.) • Can the wheel unit ID be registered? 	Yes	Symptom troubleshooting completed.
		No	Verify the symptom troubleshooting again and return to Step 1 if the malfunction recurs.

CONVENTIONAL BRAKE SYSTEM

FRONT BRAKE (DISC) REMOVAL/INSTALLATION [LF, L5]

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1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. After installation, pump the brake pedal a few times and verify that the brakes do not drag.



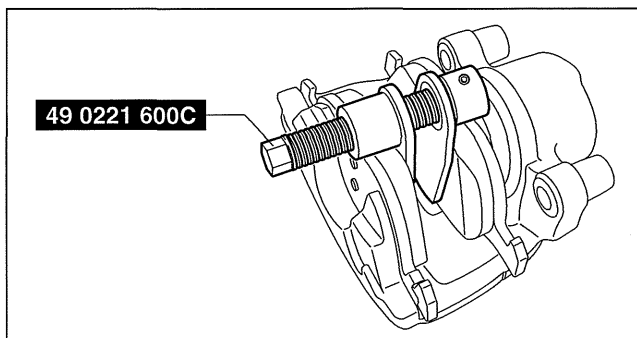
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1	Brake hose (See 04-11-23 Brake Hose Installation Note.)
2	Retaining clip (See 04-11-23 Retaining Clip Installation Note.)
3	Cap
4	Bolt
5	Caliper

6	Boot
7	Disc pad (See 04-11-22 Disc Pad Installation Note.)
8	Bolt
9	Mounting support
10	Disc plate

Disc Pad Installation Note

1. Clean the exposed area of the piston.
2. Push the piston in using the **SST**.
3. Install the disc pad (outer side) to the mounting support.
4. Install the disc pad (inner side) to the caliper.



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SYMPTOM TROUBLESHOOTING [FS5A-EL]

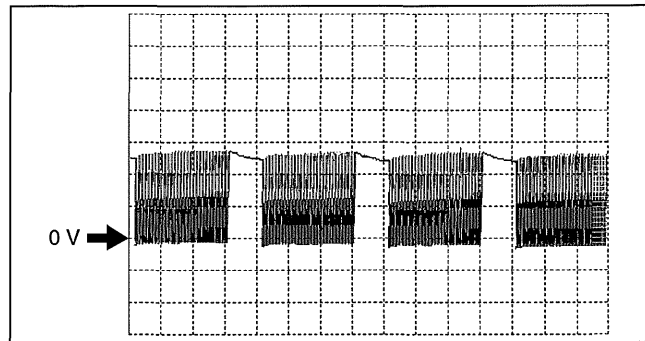
No.	Troubleshooting Item	Description	Reference
8	Does not shift to 5GR	<ul style="list-style-type: none"> Vehicle does not upshift from 4GR to 5GR even though vehicle speed is increased. Vehicle does not shift to 5GR even though accelerator pedal is released in D range at 60 km/h {37 mph}. 	(See 05-03-16 NO.8 DOES NOT SHIFT TO 5GR [FS5A-EL].)
9	Abnormal shifting	<ul style="list-style-type: none"> Shifts incorrectly (incorrect shift pattern). 	(See 05-03-17 NO.9 ABNORMAL SHIFTING [FS5A-EL].)
10	Frequent shifting	<ul style="list-style-type: none"> Downshifting occurs suddenly even when accelerator pedal is depressed slightly in D range. 	(See 05-03-18 NO.10 FREQUENT SHIFTING [FS5A-EL].)
11	Shift point is high or low	<ul style="list-style-type: none"> Shift point considerably different from automatic shift diagram. Shift delays when accelerating. Shift occurs suddenly when accelerating and engine speed does not increase. 	(See 05-03-18 NO.11 SHIFT POINT IS HIGH OR LOW [FS5A-EL].)
12	Torque converter clutch (TCC) non-operation	<ul style="list-style-type: none"> TCC does not operate when vehicle reaches TCC operation range. 	(See 05-03-19 NO.12 TORQUE CONVERTER CLUTCH (TCC) NON-OPERATION [FS5A-EL].)
13	No kickdown	<ul style="list-style-type: none"> Does not downshift when accelerator pedal is fully depressed within kickdown range. 	(See 05-03-20 NO.13 NO KICKDOWN [FS5A-EL].)
14	Engine flares up or slips when upshifting or downshifting	<ul style="list-style-type: none"> When accelerator pedal is depressed, engine speed increases normally but vehicle speed increases slowly. When accelerator pedal is depressed while driving, engine speed increases but vehicle speed does not. 	(See 05-03-21 NO.14 ENGINE FLARES UP OR SLIPS WHEN UPSHIFTING OR DOWNSHIFTING [FS5A-EL].)
15	Engine flares up or slips when accelerating vehicle	<ul style="list-style-type: none"> Engine flares up when accelerator pedal is depressed for upshifting. Engine flares up suddenly when accelerator pedal is depressed for downshifting. 	(See 05-03-22 NO.15 ENGINE FLARES UP OR SLIPS WHEN ACCELERATING VEHICLE [FS5A-EL].)
16	Judder upon torque converter clutch (TCC) operation	<ul style="list-style-type: none"> Vehicle jolts when TCC is engaged. 	(See 05-03-22 NO.16 JUDDER UPON TORQUE CONVERTER CLUTCH (TCC) OPERATION [FS5A-EL].)
17	Excessive shift shock from N to D or N to R position/range	<ul style="list-style-type: none"> Strong shock is felt when shifting from N to D or N to R position/range at idle. 	(See 05-03-24 NO.17 EXCESSIVE SHIFT SHOCK FROM N TO D OR N TO R POSITION/RANGE [FS5A-EL].)
18	Excessive shift shock is felt when upshifting and downshifting	<ul style="list-style-type: none"> Excessive shift shock is felt when depressing accelerator pedal to accelerate at upshifting. During cruising, excessive shift shock is felt when depressing accelerator pedal at downshifting. 	(See 05-03-25 NO.18 EXCESSIVE SHIFT SHOCK IS FELT WHEN UPSHIFTING AND DOWNSHIFTING [FS5A-EL].)
19	Excessive shift shock on torque converter clutch (TCC)	<ul style="list-style-type: none"> Strong shock is felt when TCC is engaged. 	(See 05-03-26 NO.19 EXCESSIVE SHIFT SHOCK ON TORQUE CONVERTER CLUTCH (TCC) [FS5A-EL].)
20	Noise occurs at idle when vehicle is stopped in all positions/ranges	<ul style="list-style-type: none"> Transaxle is noisy in all positions and ranges when vehicle idling. 	(See 05-03-26 NO.20 NOISE OCCURS AT IDLE WHEN VEHICLE IS STOPPED IN ALL POSITIONS/RANGES [FS5A-EL].)
21	Noise occurs at idle when vehicle is stopped in D, M ranges, or in R position	<ul style="list-style-type: none"> Transaxle is noisy in driving ranges when vehicle is idling. 	(See 05-03-27 NO.21 NOISE OCCURS AT IDLE WHEN VEHICLE IS STOPPED IN D, M RANGES, OR IN R POSITION [FS5A-EL].)

05-03

AUTOMATIC TRANSAXLE [FS5A-EL]

Shift solenoid C

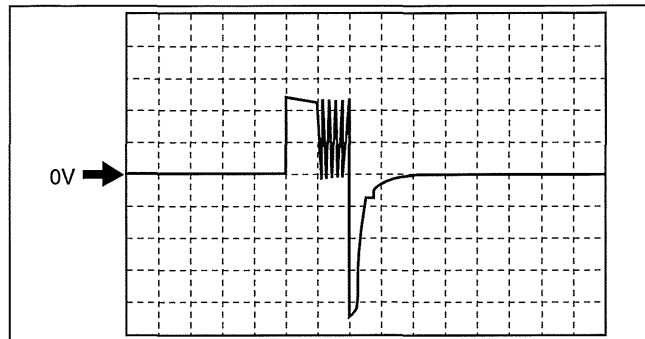
- TCM terminals
AL (+)—body GND (-)
- Oscilloscope setting
5 V/DIV (Y), 5 ms/DIV (X), DC range
- Test Condition
D range 1GR



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Pressure control solenoid B

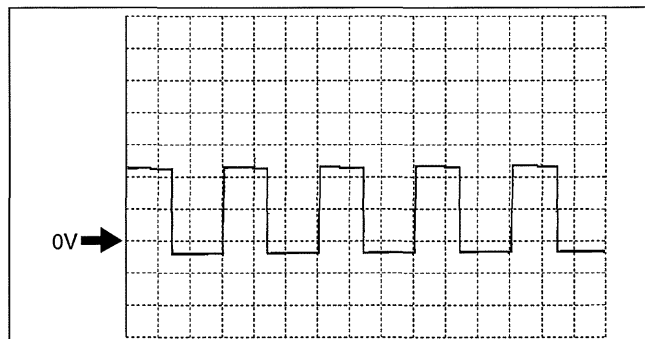
- TCM terminals
AM (+)—body GND (-)
- Oscilloscope setting
5 V/DIV (Y), 5 ms/DIV (X), DC range
- Test Condition
Shifting from 4GR to 5GR or from 5GR to 4GR



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Pressure control solenoid A (+)

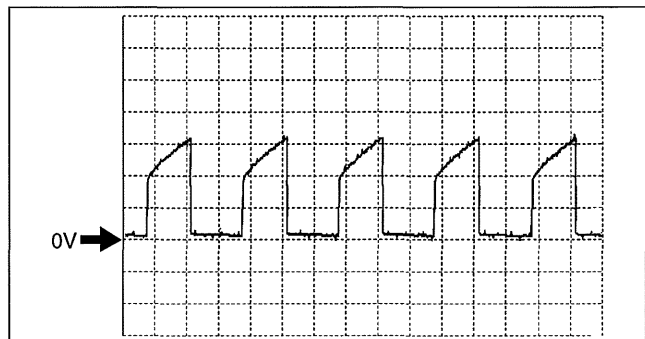
- TCM terminals
AD (+)—body GND (-)
- Oscilloscope setting
5 V/DIV (Y), 1 ms/DIV (X), DC range
- Test Condition
The following conditions are met:
 - Ignition switch ON (engine off)
 - P position
 - Accelerator pedal fully depressed



aaajjw00001014

Pressure control solenoid A (-)

- TCM terminals
AE (+)—body GND (-)
- Oscilloscope setting
200 mV/DIV (Y), 1 ms/DIV (X), DC range
- Test Condition
The following conditions are met:
 - Ignition switch ON (engine off)
 - P position
 - Accelerator pedal fully depressed



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SYMPTOM TROUBLESHOOTING [FULL-AUTO AIR CONDITIONER]

STEP	INSPECTION	ACTION
16	VISUALLY INSPECT REFRIGERANT LINE <ul style="list-style-type: none"> Is a system hose crushed? 	Yes Replace the O-ring of the leaking area. Replace the crushed system hose. (See 07-11-24 REFRIGERANT LINE REMOVAL/INSTALLATION.) After performing the following servicing, go to Step 24. <ul style="list-style-type: none"> Adjust the compressor oil to the specified level. After discharging, charge with new refrigerant to the specified level.
		No Replace the O-ring of the leaking area. After performing the following servicing, go to Step 24. <ul style="list-style-type: none"> Adjust the compressor oil to the specified level. After discharging, charge with new refrigerant to the specified level.
17	CHECK TO SEE WHETHER MALFUNCTION IS IN CONDENSER AND EXPANSION VALVE OR ELSEWHERE <ul style="list-style-type: none"> Do the results of the refrigerant pressure inspection in Step 4 indicate vacuum on the low pressure side and extremely low pressure on the high pressure side? 	Yes Go to the next step.
		No Go to Step 21.
18	CHECK TO SEE WHETHER MALFUNCTION IS IN EXPANSION VALVE AND RECEIVER/DRIER OR ELSEWHERE <ul style="list-style-type: none"> Is there is no refrigerant pressure on the low pressure side, or is it normal? 	Yes Replace the condenser. (See 07-11-20 CONDENSER REMOVAL/INSTALLATION.) After performing the following servicing, go to Step 24. <ul style="list-style-type: none"> Adjust the compressor oil to the specified level. After discharging, charge with new refrigerant to the specified level.
		No Go to the next step.
19	CHECK TO SEE WHETHER MALFUNCTION IS IN CONDENSER OR EXPANSION VALVE <ul style="list-style-type: none"> Verify the condition of the outlet hose on the condenser high pressure side. Is there condensation in the hose? 	Yes Replace the condenser. (See 07-11-20 CONDENSER REMOVAL/INSTALLATION.) After performing the following servicing, go to Step 24. <ul style="list-style-type: none"> Adjust the compressor oil to the specified level. After discharging, charge with new refrigerant to the specified level.
		No Go to the next step.
20	INSPECT EXPANSION VALVE <ul style="list-style-type: none"> Remove the expansion valve and verify its condition. Is there refrigerant leakage or valve clogging? 	Yes If there is foreign matter clogging the valve, remove the foreign matter.If there is refrigerant leakage or clogging, replace the expansion valve.Perform discharge, charge with new refrigerant, and then go to Step 24.
		No Install the expansion valve, then go to Step 23.
21	CHECK TO SEE WHETHER MALFUNCTION IS IN A/C COMPRESSOR OR ELSEWHERE <ul style="list-style-type: none"> Do the results of the refrigerant pressure inspection in Step 4 indicate low pressure on the high pressure side and high pressure on the low pressure side? 	Yes Replace the A/C compressor, then go to Step 24. (See 07-11-18 A/C COMPRESSOR REMOVAL/INSTALLATION.)
		No Go to the next step.
22	INSPECT EVAPORATIVE TEMPERATURE SENSOR <ul style="list-style-type: none"> Inspect the evaporator temperature sensor. (See 07-11-10 A/C UNIT DISASSEMBLY/ASSEMBLY.) Is it normal? 	Yes Verify the evaporator temperature sensor position. (See 07-11-10 A/C UNIT DISASSEMBLY/ASSEMBLY.) Then go to Step 24.
		No Replace the evaporator temperature sensor, then go to Step 24. (See 07-11-10 A/C UNIT DISASSEMBLY/ASSEMBLY.)
23	INSPECT AIR MIX DOOR RELATED PART INSTALLATION <ul style="list-style-type: none"> Remove the A/C unit. (See 07-11-4 A/C UNIT REMOVAL/INSTALLATION.) Are the air mix link, air mix crank, and air mix rod of the A/C unit correctly and securely installed to their positions? 	Yes Go to the next step.
		No Repair or install the links, cranks and rods securely in the proper position, then go to the next step. (See 07-11-10 A/C UNIT DISASSEMBLY/ASSEMBLY.)

07-03A

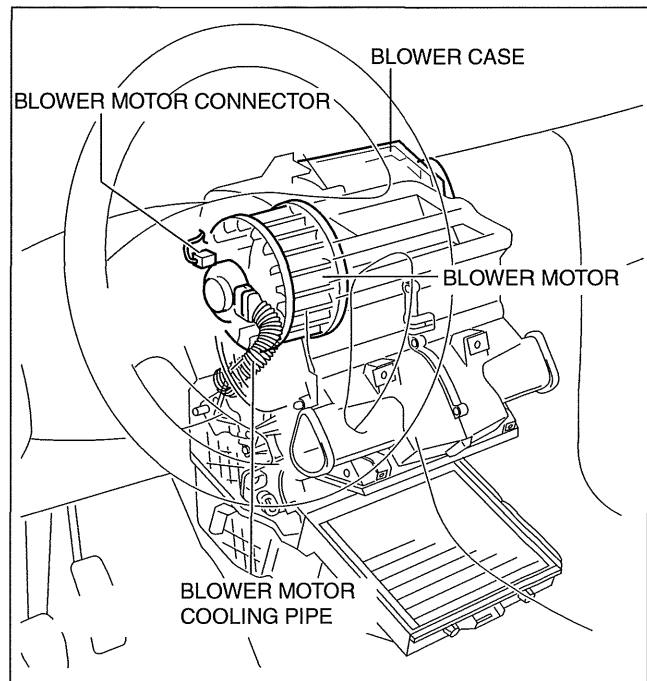
CONTROL SYSTEM [MANUAL AIR CONDITIONER]

BLOWER MOTOR REMOVAL [MANUAL AIR CONDITIONER]

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Note

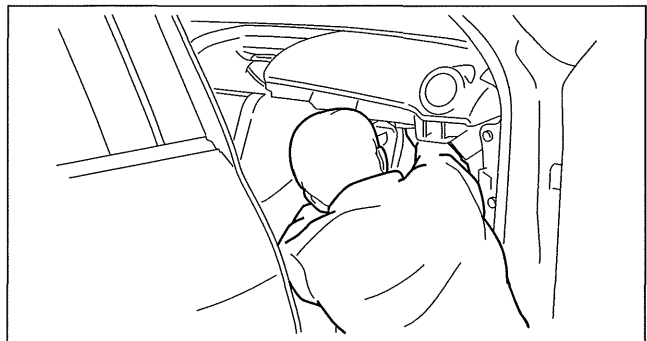
- The blower motor is located on the A/C unit as shown in the figure.



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- Perform the work from the front passenger side in the posture shown in the figure.

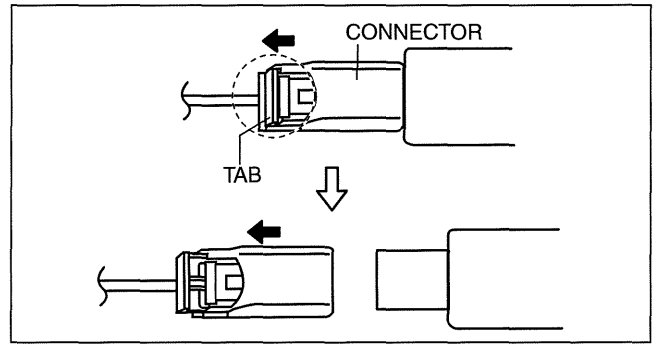
1. Set the air intake mode to FRESH.
2. Disconnect the negative battery cable.
3. Remove the following parts:
 - (1) Front scuff plate (See 09-17-67 FRONT SCUFF PLATE REMOVAL/INSTALLATION.)
 - (2) Front side trim (See 09-17-53 FRONT SIDE TRIM REMOVAL/INSTALLATION.)
 - (3) Upper panel (See 09-17-40 UPPER PANEL REMOVAL/INSTALLATION.)
 - (4) Shift lever knob (MTX) (See 05-16-2 MANUAL TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION.)
 - (5) Selector lever knob (ATX) (See 05-18-2 AUTOMATIC TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION.)
 - (6) Shift panel (See 09-17-42 SHIFT PANEL REMOVAL/INSTALLATION.)
 - (7) Side wall (See 09-17-37 SIDE WALL REMOVAL/INSTALLATION.)
 - (8) Console (See 09-17-45 CONSOLE REMOVAL/INSTALLATION.)
 - (9) Dashboard under cover (See 09-17-39 DASHBOARD UNDER COVER REMOVAL/INSTALLATION.)
 - (10)Glove compartment (See 09-17-33 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
 - (11)Hood release lever (See 09-14-15 HOOD LATCH AND RELEASE LEVER REMOVAL/INSTALLATION.)
 - (12)Lower panel (See 09-17-27 LOWER PANEL REMOVAL/INSTALLATION.)
 - (13)Shower duct (See 07-11-4 A/C UNIT REMOVAL/INSTALLATION.)
 - (14)Accelerator pedal (See 01-13A-8 ACCELERATOR PEDAL REMOVAL/INSTALLATION [LF, L5].) (See 01-13B-14 ACCELERATOR PEDAL REMOVAL/INSTALLATION [L3 WITH TC].)
4. Disconnect the air intake actuator connector. (See 07-40B-3 AIR INTAKE ACTUATOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].)
5. Detach the harness clip from the blower case.



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AIR BAG SYSTEM

6. Disconnect the connector from the side air bag sensor No.2 by pressing the connector tab in the direction of the arrow.
7. Install in the reverse order of removal.
8. Switch the ignition to ON.
9. Verify that the air bag system warning light illuminates for **approx. 6 s** and goes out.
 - If the air bag system warning light does not operate normally, refer to the on-board diagnostic system (air bag system) and perform inspection of the system. (See 08-02-4 FLOWCHART.)

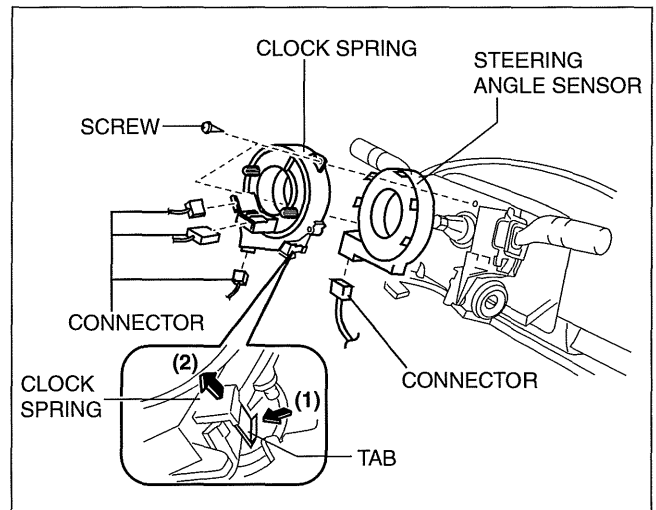


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CLOCK SPRING REMOVAL/INSTALLATION

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1. Disconnect the negative battery cable.
2. Remove the driver-side air bag module. (See 08-10-7 DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION.)
3. Remove the steering wheel. (See 06-14-8 STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION [WITHOUT ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)(See 06-14-11 STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION [WITH ADVANCED KEYLESS ENTRY AND PUSH BUTTON START SYSTEM].)
4. Remove the column cover.
5. Remove the connectors.
6. Remove the tab direction of the arrow shown in the figure.
7. Remove the screws.
8. Remove the clock spring.
9. Remove the steering angle sensor (See 08-10-21 Steering Angle Sensor Removal Note.)
10. Install in the reverse order of removal.
11. Verify that the air bag system warning light illuminates for **approx. 6 s** and goes out.
 - If the air bag system warning light does not operate in the manner described above, there are malfunctions in the system. Inspect the system using the on-board diagnostic.



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08-10

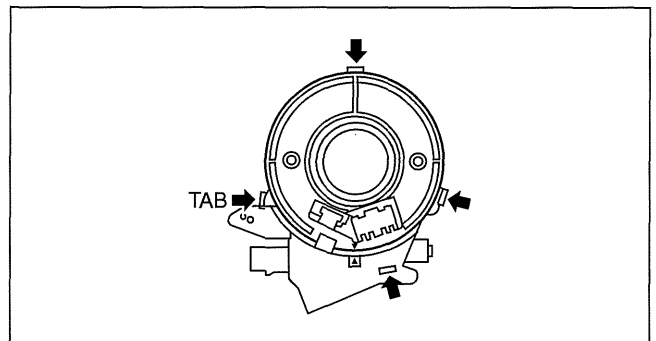
Clock Spring Installation Note

Caution

- If the clock spring is not adjusted, the spring wire in the clock spring will break due to overtension when the steering wheel is turned. Always adjust the clock spring after installing it.
- Adjust the clock spring after installing it. (See 08-10-22 CLOCK SPRING ADJUSTMENT.)

Steering Angle Sensor Removal Note

- Remove the tab shown in the figure and remove the steering angle sensor.



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