SUPPLEMENT to SERVICE MANUAL

MUSSO SPORTS

SSANGYONG MOTOR CO., LTD.
PYUNGTAEK, KOREA

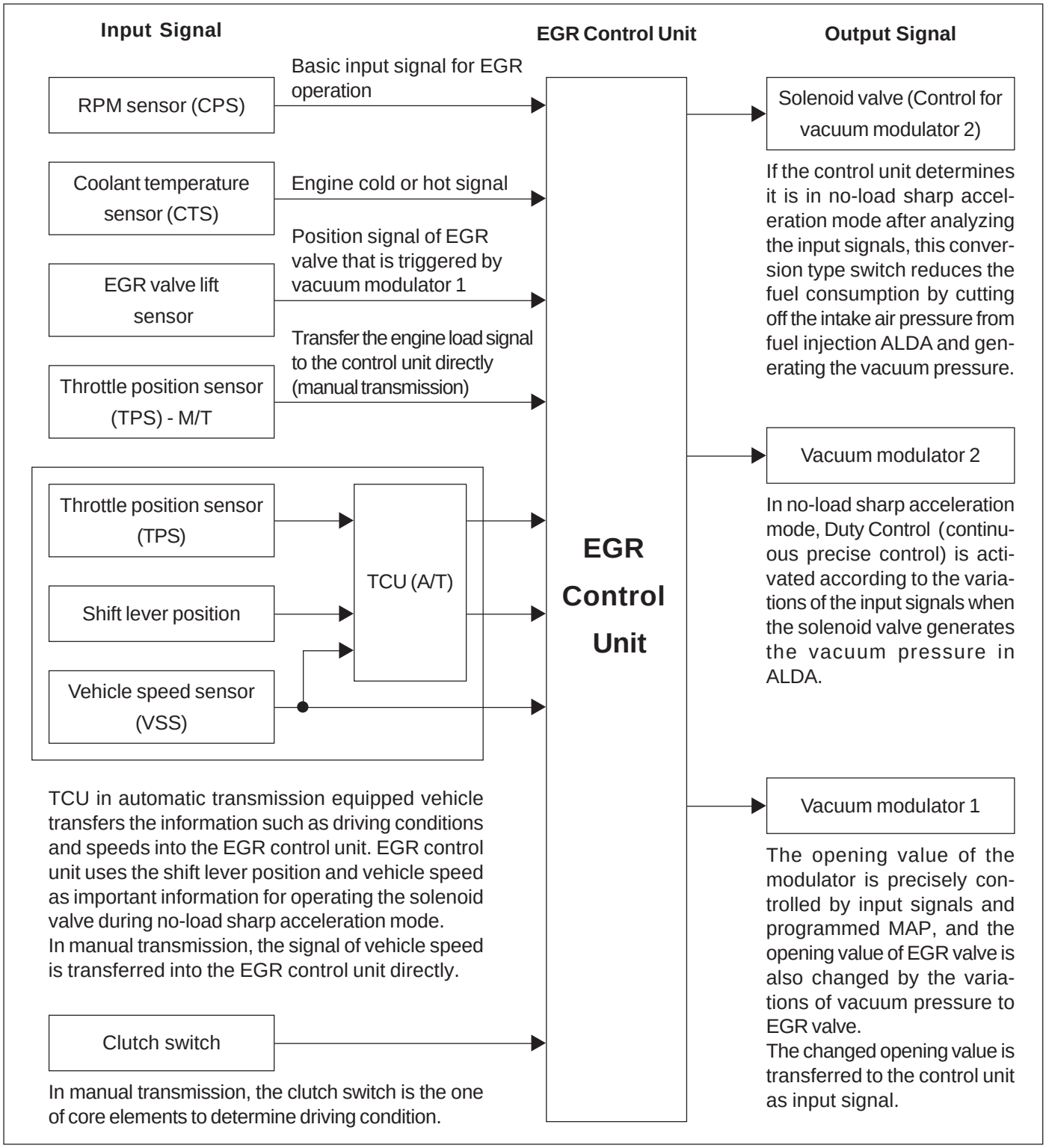
SECTION PAGE

HUBER EGR

SYSTEM DESCRIPTION

The following chart shows the relationship between the input and the output in Huber EGR control unit.

Compared to traditional system that only operates the EGR valve with RPM sensor and Micro switch, the Huber EGR control unit bring big differences that of traditional system on the functions.



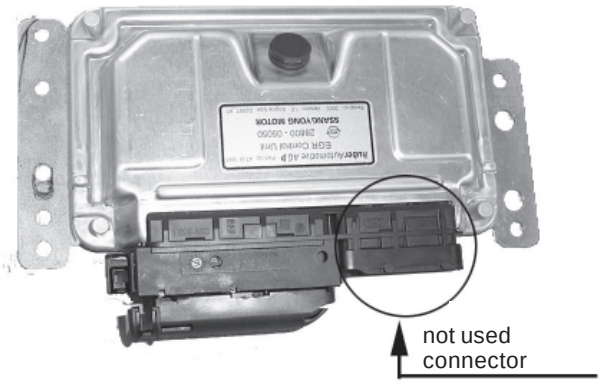
If the control unit determines it is in no-load sharp acceleration mode after analyzing the input signals, this conversion type switch reduces the fuel consumption by cutting off the intake air pressure from fuel injection ALDA and generating the vacuum pressure.

In no-load sharp acceleration mode, Duty Control (continuous precise control) is activated according to the variations of the input signals when the solenoid valve generates the vacuum pressure in ALDA.

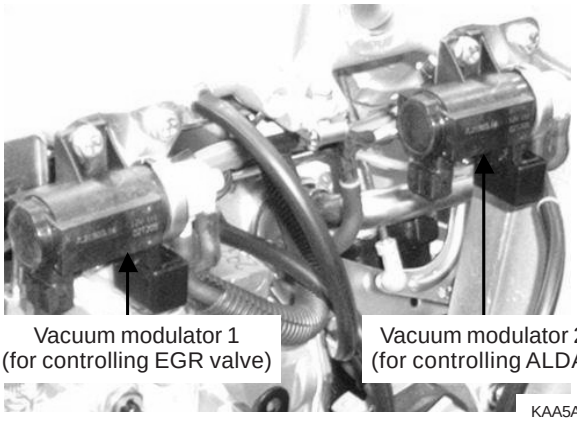
TCU in automatic transmission equipped vehicle transfers the information such as driving conditions and speeds into the EGR control unit. EGR control unit uses the shift lever position and vehicle speed as important information for operating the solenoid valve during no-load sharp acceleration mode.
In manual transmission, the signal of vehicle speed is transferred into the EGR control unit directly.

The opening value of the modulator is precisely controlled by input signals and programmed MAP, and the opening value of EGR valve is also changed by the variations of vacuum pressure to EGR valve.
The changed opening value is transferred to the control unit as input signal.

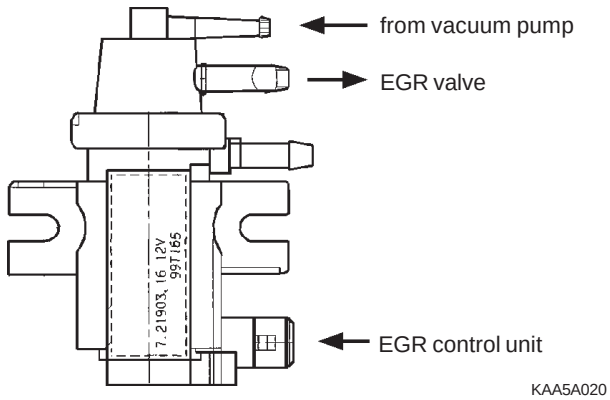
In manual transmission, the clutch switch is the one of core elements to determine driving condition.



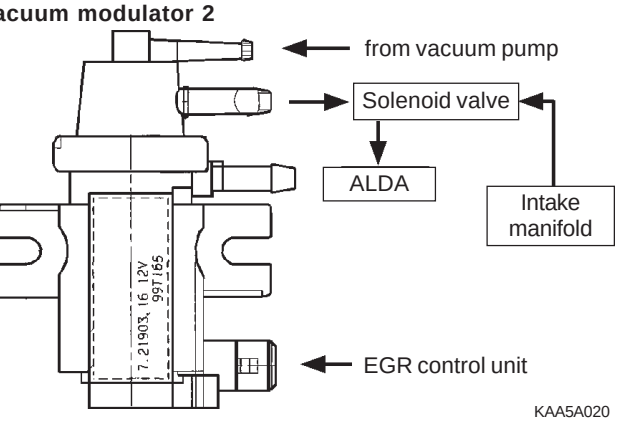
KAA5A020



KAA5A020



KAA5A020



KAA5A020

EGR COMPONENTS

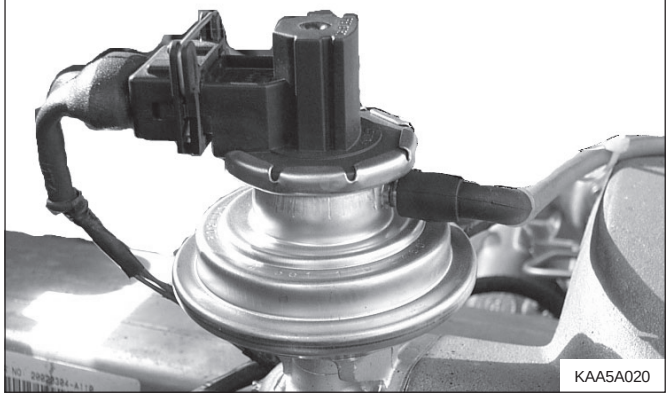
EGR Unit

1. Location: behind passenger's side panel
2. Arrangement: 81-pin connector
3. Integrated self-diagnostic function (Scan-100: not fixed)
4. Part number
   For automatic transmission: 28800-07100
   For manual transmission: 28800-07000

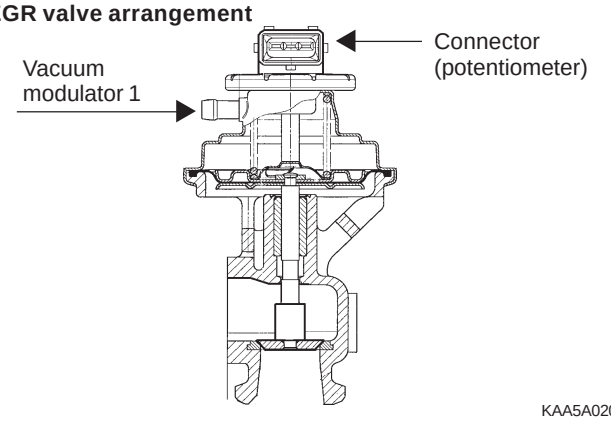
Vacuum Modulator

1. Location: in front of intake manifold
2. Continuous precise control with the signals from EGR unit (PWM-Pulse With Modulation Control)
3. Rated voltage: 12 V
4. Operating voltage: 8 ~ 16 V
5. Resistance (at 20 °C): 15.4 ± 0.7 Ω
6. Operating range of vacuum (Duty control)
   - Vacuum modulator 1: 0 ~ 600 mbar
   - Vacuum modulator 2: 300 ~ 600 mbar
7. Modulator control
   - Vacuum modulator 1: for controlling EGR valve
   - Vacuum modulator 2: for controlling no-load sharp acceleration (ALDA control)

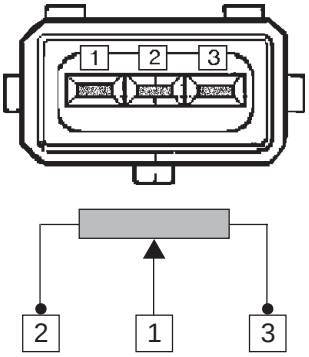
Location of EGR valve



EGR valve arrangement



Circuit of potentiometer



EGR Valve and Lift Sensor

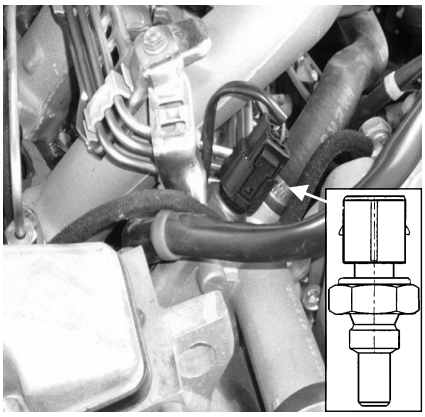
1. EGR valve: The output signals from EGR unit controls the vacuum modulator 1 through step 1 to step 16 precisely, accordingly the opening value of EGR valve will be changed.
2. Lift sensor (potentiometer): EGR unit converts the position of EGR valve into electrical signal to detect the opening value of the valve (Lift sensor). In addition to, this compensates the opening value of EGR valve by controlling the vacuum modulator 1 when there are some differences between the output signal from vacuum modulator 1 and the input value of potentiometer from EGR valve.

   If the closing or opening value EGR valve is different from the output value due to the carbon and paticle material in exhaust gas, the opening value of EGR valve is compensated by adjusted the vacuum level of vacuum modulator.

Measured EGR valve opening value

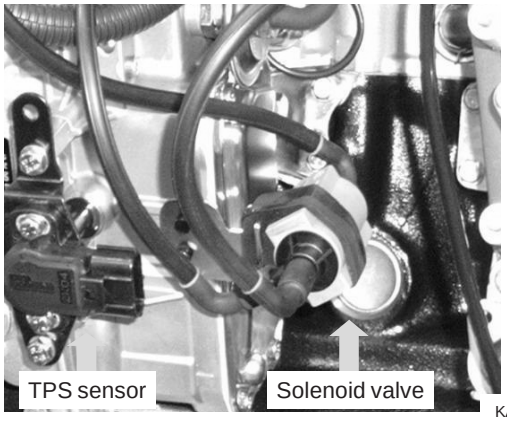
Step	Vacuum (mbar)	Valve opening value (mm)	Output voltage (V)
1	approx. -370	approx. 0.2	approx. 1.7 ~ 2.1
2	approx. -690	approx. 6.0	approx. 9.6 ~ 11.6

1. The opening value of the valve is the internal moving distance of EGR valve by vacuum pressure. The valve starts to move when the vacuum pressure reaches approximately -370 mbar. If the EGR valve is fully opened, the moving distance will be 6 mm due to -690 hpa of vacuum pressure.
2. The output voltage may vary according to the battery voltage in vehicles. These values have been converted into percentage from battery voltage in each step.
   - Step 1: 15% of battery voltage
   - Step 2: 64% of battery voltage


KAA5A040

Coolant Temperature Sensor (CTS)

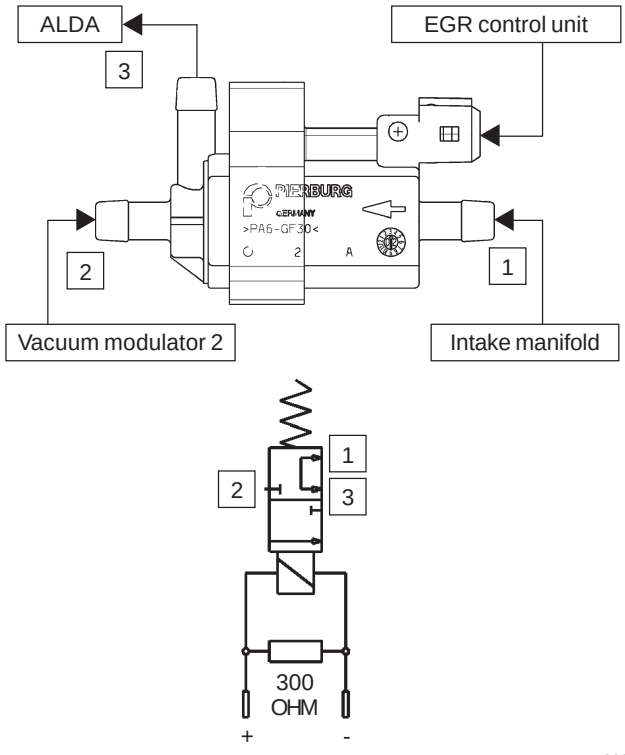
1. Location: on cylinder block
2. Coolant temperature MAP (4 Stages)
   T0: 10 ~ 24 °C
   T1: 25 ~ 40 °C
   T2: 41 ~ 61 °C
   T3: above 61 °C
3. If the EGR system is normally defective while engine is cold (or during warming up), it may be caused by incorrect input signal of the coolant temperature sensor.
4. Resistance between pin 1 and pin 4 of the connector
   20 °C: 2250 ± 159.0 Ω
   50 °C: 836 ± 41.5 Ω
   80 °C: 321 ± 15.0 Ω
   120 °C: 113 ± 7.2 Ω



KAA5A060

Solenoid Valve

1. This valve is used in no-load sharp acceleration mode.
2. Solenoid valve (Normal Open type)
   - Normal: Solenoid valve opens, then intake manifold pressure will operate ALDA.
   - No-load sharp acceleration mode: Solenoid valve closes, then vacuum pressure operate ALDA.
3. Operating voltage: approx. 12 V
4. Resistance: approx. 22.4 ± 1.4 Ω
5. Check the connections in each passage when supplying or cutting off the operating voltage.



KAA5A060

The valve passage to ALDA will be changed when the battery voltage is supplied through EGR control unit.

Changed to ALDA (1 to 3) or vacuum from intake manifold

Changed to ALDA (2 to 3) from modulator 2

(Refer to exhaust gas control mode with no-load sharp acceleration)

Throttle Position Sensor (TPS)

1. EGR unit receives TPS signal from TCU (A/T) or input signal from pin 61 of EGR unit (M/T). The load value of engine is important signal because Huber EGR system make EGR valve operate in extended range except no-load sharp acceleration mode.
2. Resistance check
   - Disconnect the TPS sensor connector from fuel injection pump and measure the entire resistance between pin 1 and pin 4.

     Specified value: 5 kΩ ± 20 %
   - Measure the resistance between pin 1 and pin 2 at no-load and full-load.

     Approx. 10 ~ 20 % of full resistance at no-load

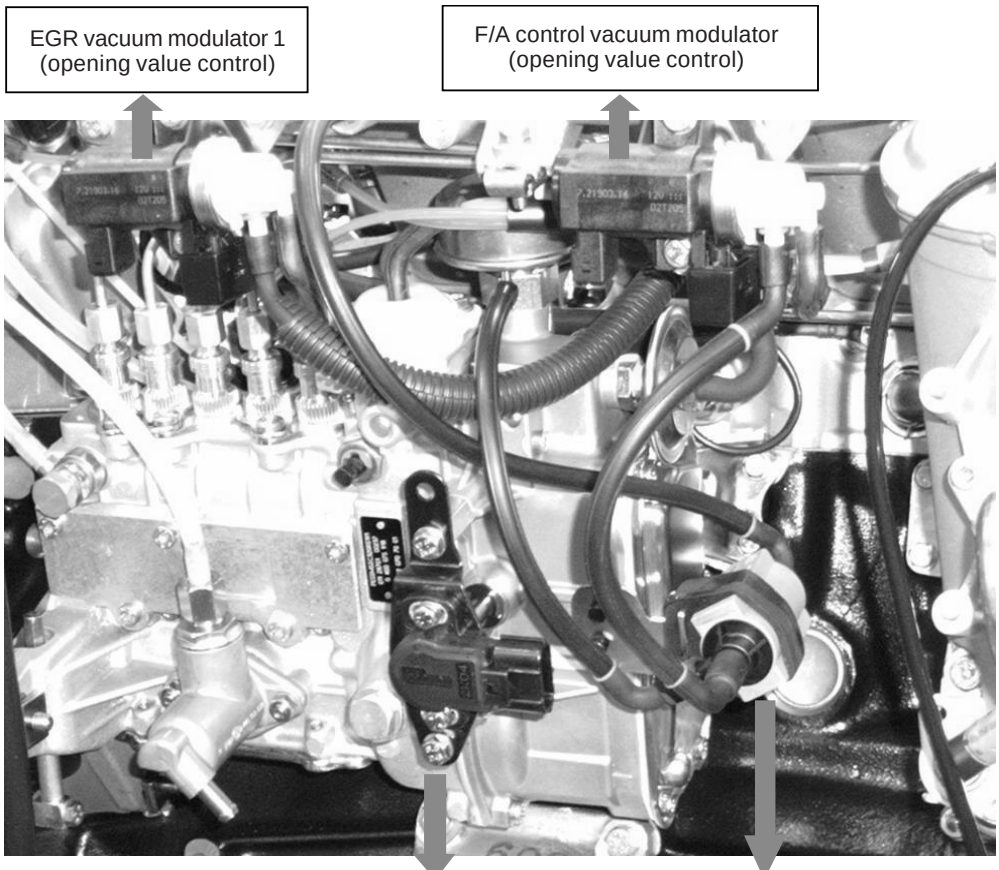
     Approx. 70 ~ 85 % of full resistance at full-load
3. Voltage check
   - The supplied voltage to TPS from EGR unit (for M/T) or TCU (for A/T) is approx. 5 V.

     0.60 ± 0.2 V at no-load

     3.85 ± 0.3 V at full-load

VACUUM LINE

Installation of modulator and vacuum line (on-vehicle)

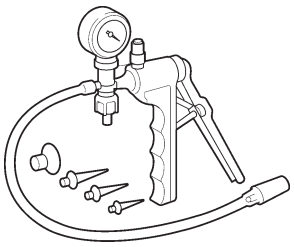
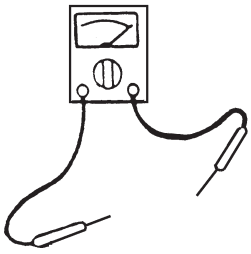


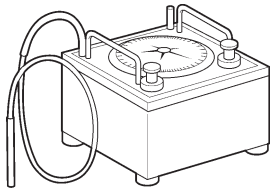
KAA5A060

MAINTENANCE AND REPAIR

VACUUM PUMP AND VACUUM LINE

This diagnosis procedure checks for vacuum leaks and actuator's operation while performing the actual control of EGR unit through vacuum lines in vacuum pump. The following special service tools should be used for this procedure.

 KAA5A2P0	**001 589 73 21 00 Manual Vacuum Pump**
 KAA5A2R0	**Multi-Tester**

 KAA5A2Q0	**201 589 13 21 00 Vacuum Tester**

VACUUM LINE TEST

Check the EGR system when the vehicle produces excessive exhaust gas.

Check the vacuum lines for leaks and blocks.

If there are not any faults, check the actuators controlled by EGR control unit.

Install the tester in position according to the vacuum circuit diagram.

To prevent personal injury, beware of moving parts of engine.

Test Step 1: EGR operating range (between vacuum pump and EGR valve)

Check whether the vacuum pressure can be generated between vacuum modulator 1 and vacuum line (vacuum pump side).

(Condition: at idling)

Remove the vacuum modulator 1 and vacuum line (to the direction of vacuum pump), then install vacuum tester.

Is the vacuum pressure of 900 mbar generated?

NO

Vacuum leaks from vacuum line

YES

Is the vacuum modulator 1 operated properly?

- Is the vacuum pressure varied between 0 and 600 mbar?
- Is the constant vacuum pressure generated in constant engine speed?

Remove the vacuum hose from outlet port (to the direction of vacuum pump) of vacuum modulator. Connect the tester and check whether vacuum pressure change or not when the engine rpm changes.

NO

Vacuum modulator 1 has a problem in power supplying system.

Check the battery voltage can be supplied to vacuum modulator 1 through EGR control unit. With the battery voltage supplied, check the vacuum pressure can be changed according to the accelerator pedal positions. If the vacuum pressure cannot be generated or changed, the vacuum modulator should be replaced.

YES

Is the vacuum pressure properly generated in the vacuum line between vacuum modulator 1 and EGR valve?

Install the tester into Inlet port of EGR valve and check whether the vacuum pressure changes or not when engine rpm changes.

NO

Replace the vacuum line between vacuum modulator 1 and EGR valve with new one.

YES

Check the EGR valve for leaks and sticking.

1. Start the engine, then remove EGR valve hose with idling. If the valve disk snaps into position, EGR valve operates properly.
2. Install the T-connector into inlet port of EGR valve, then connects the manual vacuum pump and the vacuum tester in each connection.
3. Generate -700 mbar of vacuum pressure with manual vacuum pump. If EGR will not open (stay vacuum state), EGR valve should be replaced (due to sticks of inner valve guide and valve).

Test Step 2: Exhaust gas control mode with no-load sharp acceleration (between vacuum pump and ALDA)

Before checking the generation of vacuum pressure, Check whether the boost pressure from intake manifold can be applied to ALDA or not in the range beyond no-load sharp acceleration mode.

Check whether the boost pressure can be generated between intake manifold and ALDA.
Boost pressure at idling: approx. 5 ~ 7 mbar.
While depressing the accelerator pedal slowly, does the boost pressure of 220 ~ 270 mbar generate at 4,000 ~ 4,500 rpm?

Condition:
1. At idling, monitor the changes of boost pressure while changing the accelerator pedal position slowly.
2. Remove the inlet port from ALDA on fuel injection pump, then install the pressure tester.

NO

Check the intake boost pressure by ranges
- Boost pressure line between intake manifold and solenoid valve
- Boost pressure line between ALDA and solenoid outlet valve

If the boost pressure is not within specified value, appropriate pressure line should be replaced.

Check the solenoid valve with the same method in no-load sharp acceleration mode.

YES

Check the vacuum circuit in no-load sharp acceleration mode.

Is the approx. -900 mbar of negative pressure generated between vacuum pump line and inlet port of vacuum modulator 2?

At idling, install the pressure tester into inlet port of vacuum modulator 2 and read the negative pressure (specified value: approx. -900 mbar) on tester.

YES

In vacuum modulator 2, check the vacuum circuit between inlet port and outlet port.

Is the approx. -300 ~ 650 mbar of negative pressure generated in no-load sharp acceleration mode?

Install the vacuum tester into outlet port of vacuum modulator, and check whether the negative pressure is generated or not in no-load sharp acceleration mode.

NO

Check the voltage supplying and vacuuming

Check whether the EGR control unit can supply the battery voltage to vacuum modulator 2. If can, in no-load sharp acceleration mode, check whether the negative pressure may vary within specified ranges. If there are not any vacuuming or if the negative pressure will not be varied, replace the modulator with new one.

YES

Check the vacuum circuit between outlet port of vacuum modulator 2 and inlet port of solenoid valve.

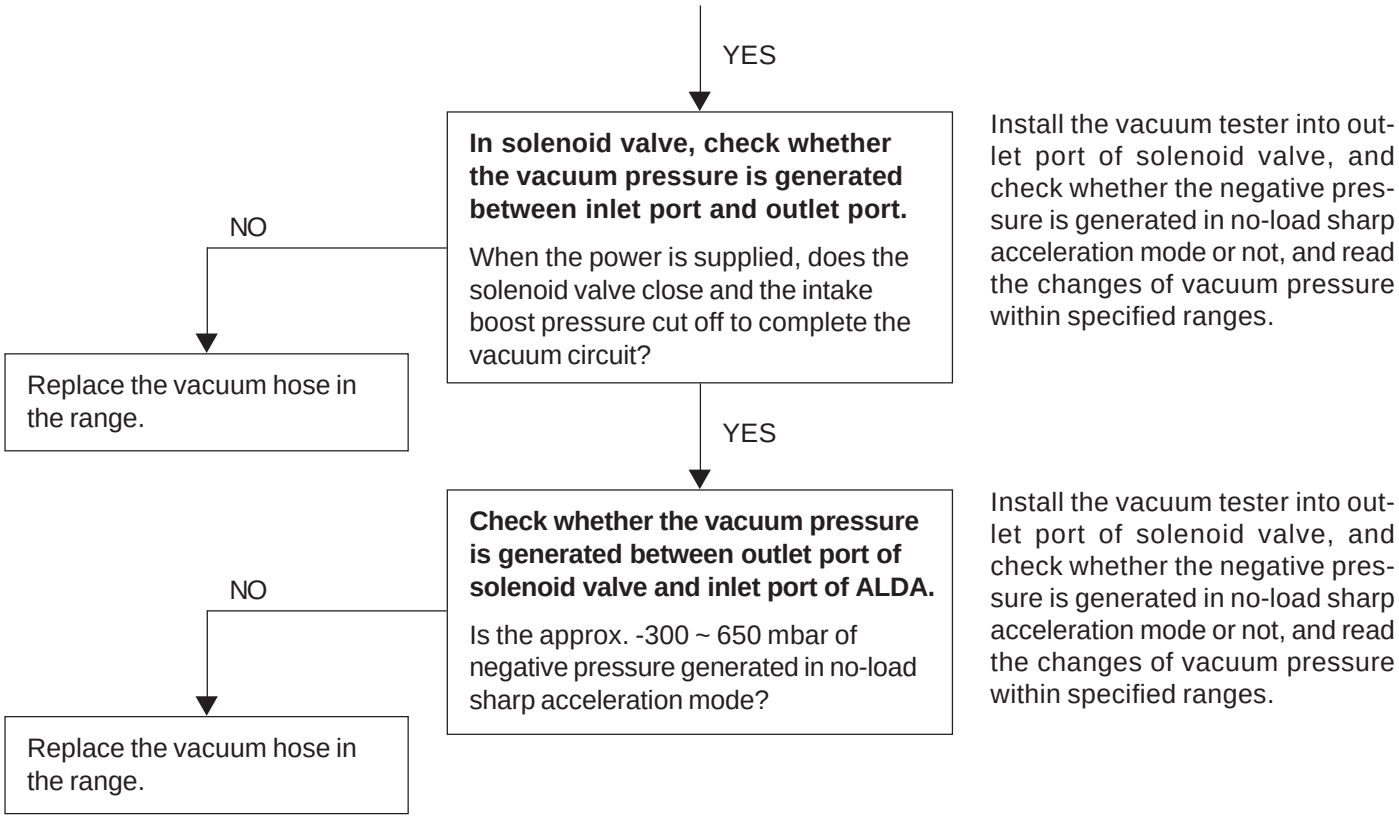
Is the approx. -300 ~ 650 mbar of negative pressure generated in no-load sharp acceleration mode?

Install the vacuum tester into inlet port of solenoid valve, and check whether the negative pressure is generated in no-load sharp acceleration mode or not, and read the changes of vacuum pressure within specified ranges.

NO

Replace the vacuum hose in the range.

YES



Install the vacuum tester into outlet port of solenoid valve, and check whether the negative pressure is generated in no-load sharp acceleration mode or not, and read the changes of vacuum pressure within specified ranges.

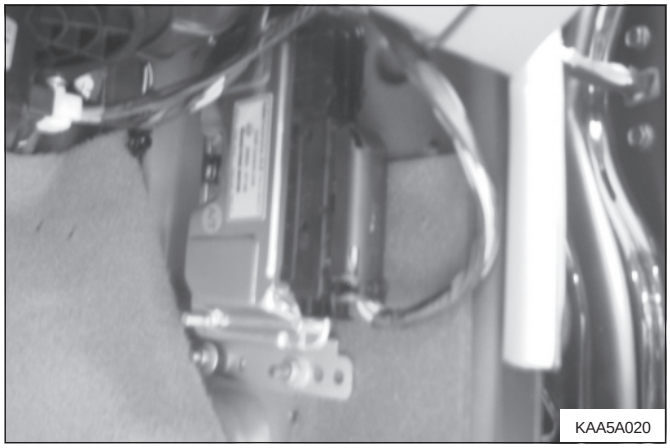
Install the vacuum tester into outlet port of solenoid valve, and check whether the negative pressure is generated in no-load sharp acceleration mode or not, and read the changes of vacuum pressure within specified ranges.

EXHAUST GAS RECIRCULATION MODULE

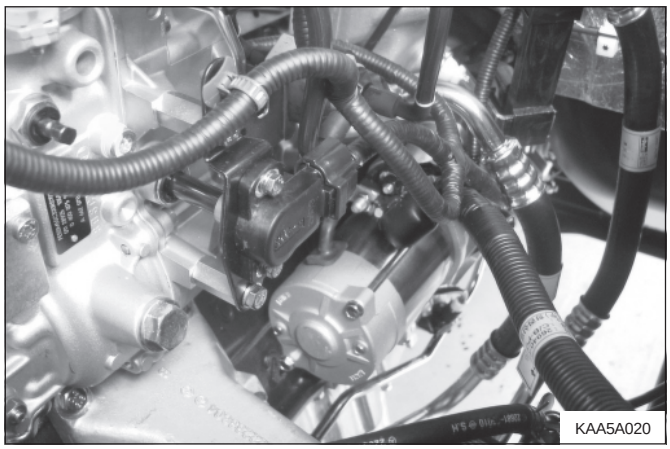
Removal and Installation Procedure

1. After releasing fixing screw of door scuff to the passenger seat , remove the door scuff.

2. After releasing fixing bolt of cowl side trim, remove cowl side trim.



3. Remove pin of connector from the EGR module.
4. After releasing the fixing nut(3ea) of EGR module, remove the the EGR module.
5. Installation should follow the removal procedure in the reverse order.



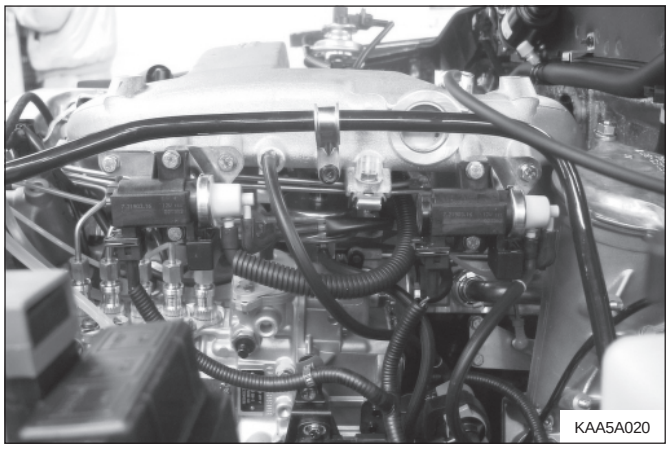
THROTTLE POSITION SENSOR

Removal Procedure

1. Disconnect the TPS connector from the TPS.
2. After releasing the fixing bolt, remove the TPS.

Installation Procedure

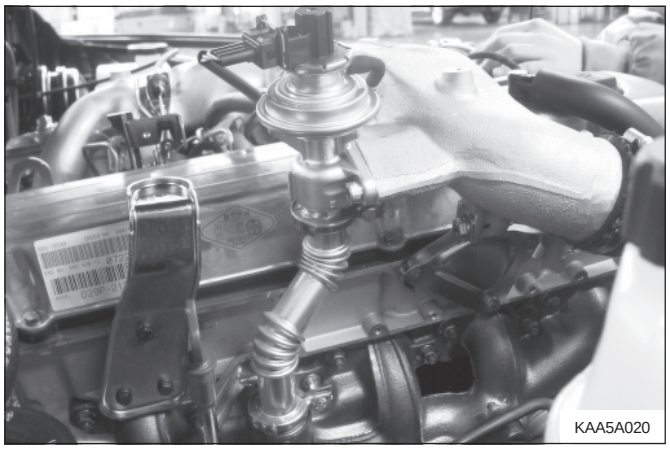
1. Install temporary fixing bolt of TPS.
2. Install connector of TPS on the TPS.
3. Check the voltage of TPS by using SCAN-100.
4. Install completely fixing bolt of TPS.



VACUUM MODULATOR 1, 2

Removal and Installation Procedure

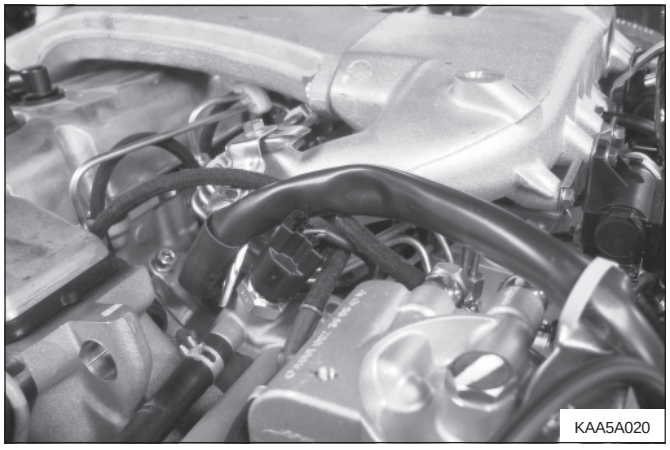
1. Disconnect vacuum hose and connector from vacuum module.
2. After releasing fixing bolt from bracket of intake manifold, and then remove vacuum modulator.
3. Installation should follow the removal procedures in the reverse order.



EGR VALVE AND LIFT SENSOR

Removal and Installation Procedure

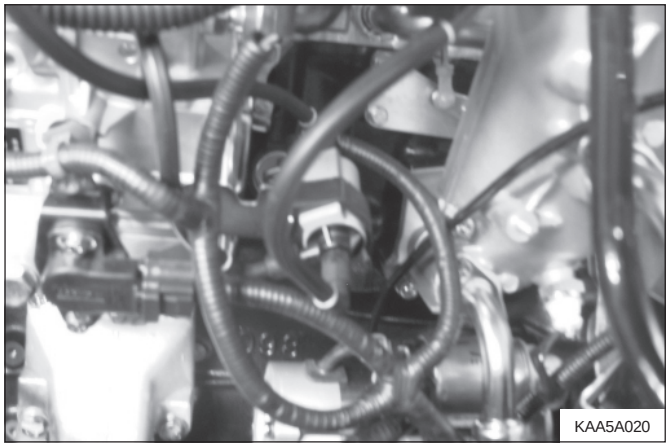
1. Disconnect vacuum hose and connector from the EGR valve.
2. After releasing the clamping bolt/nut of EGR Valve pipe and then remove the clamp.
3. After releasing fixing bolt of EGR Valve of Intake Manifold, remove the EGR Valve assembly.
4. Installation should follow the removal procedure in the reverse order.



COOLANT TEMPERATURE SENSOR

Removal and Installation Procedure

1. Disconnect the coolant temperature sensor from the coolant temperature sensor.
2. After releasing the coolant temperature sensor from cylinder block and then remove the coolant temperature sensor.
3. Installation should follow the removal procedure in the reverse order.



SOLENOID VALVE

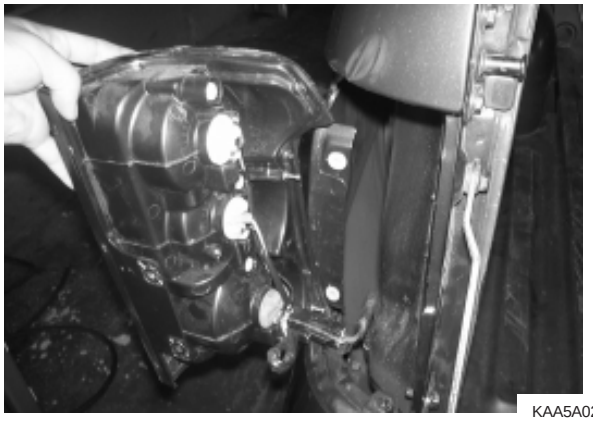
Removal and Installation Procedure

1. Disconnect vacuum hose(3ea) and connector from the solenoid valve.
2. Remove the solenoid valve from the fixing bracket of injection pump.
3. Installation should follow the removal procedure in the reverse order.

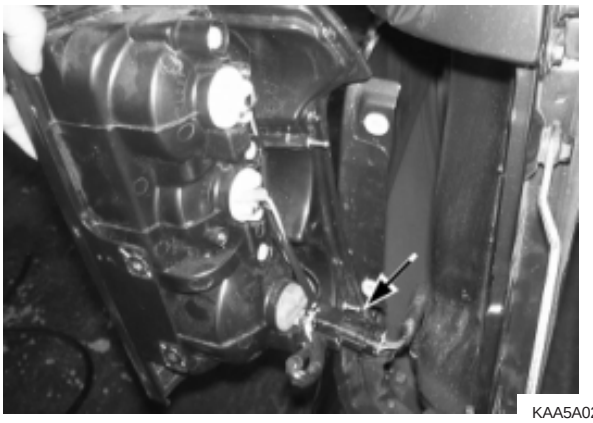

KAA5A020

Removal and Installation of Rear Combi-Lamp

1. After pulling the tailgate, release fixing bolt of the tail lamp assembly.


KAA5A020

2. Carefully remove the tail lamp assembly.


KAA5A020

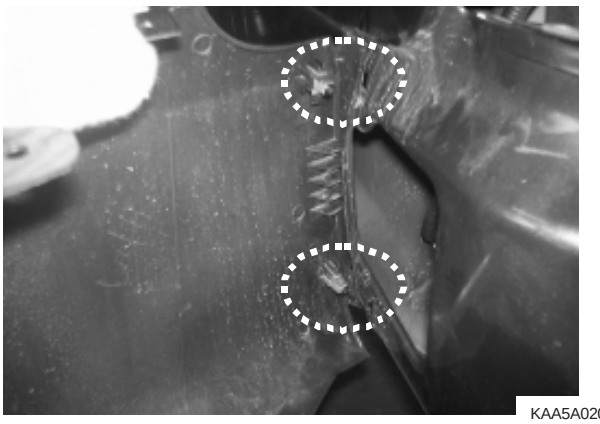
3. Remove the wiring connector of tail lamp.
4. Installation should follow the removal procedure in the reverse order.


KAA5A020

Removal and Installation of Luggage Deck

Preceding work: Removal of tail lamp assembly

1. After removing the tail lamp assembly, release upper two screw and one lower. Screw of the side bumper cover.

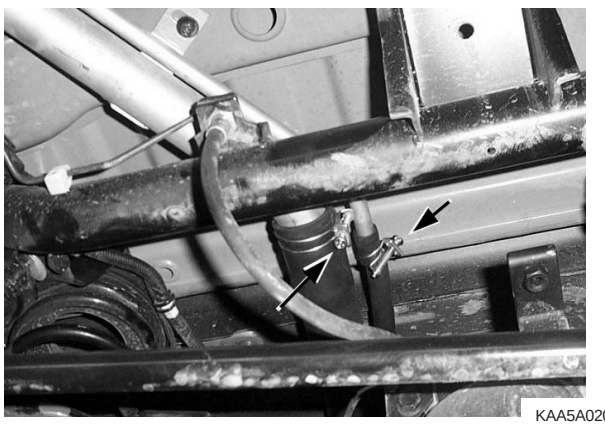

KAA5A020

2. Carefully remove the cover of bumper side.

   Note: Due to the opposite fixing section of the cover screw of bumper side is the locking fastener, so it is fragile part careful remove this one.


KAA5A020

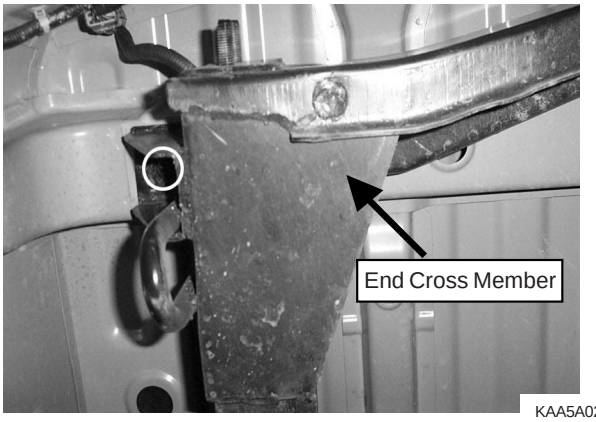
3. After releasing four fixing bolt of rear bumper, and then remove the bumper.


KAA5A020

4. Remove the wiring of tail lamp and the operation cable of fuel filler.

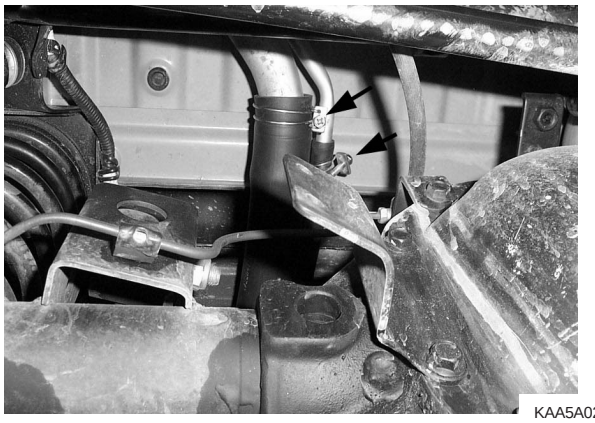

KAA5A020

5. Release the front fixing bolt mounting of luggage deck.



KAA5A020

6. Release the rear fixing bolt mounting of luggage deck.


KAA5A020

Note: In order for other materials not to enter into fuel filler and breather.

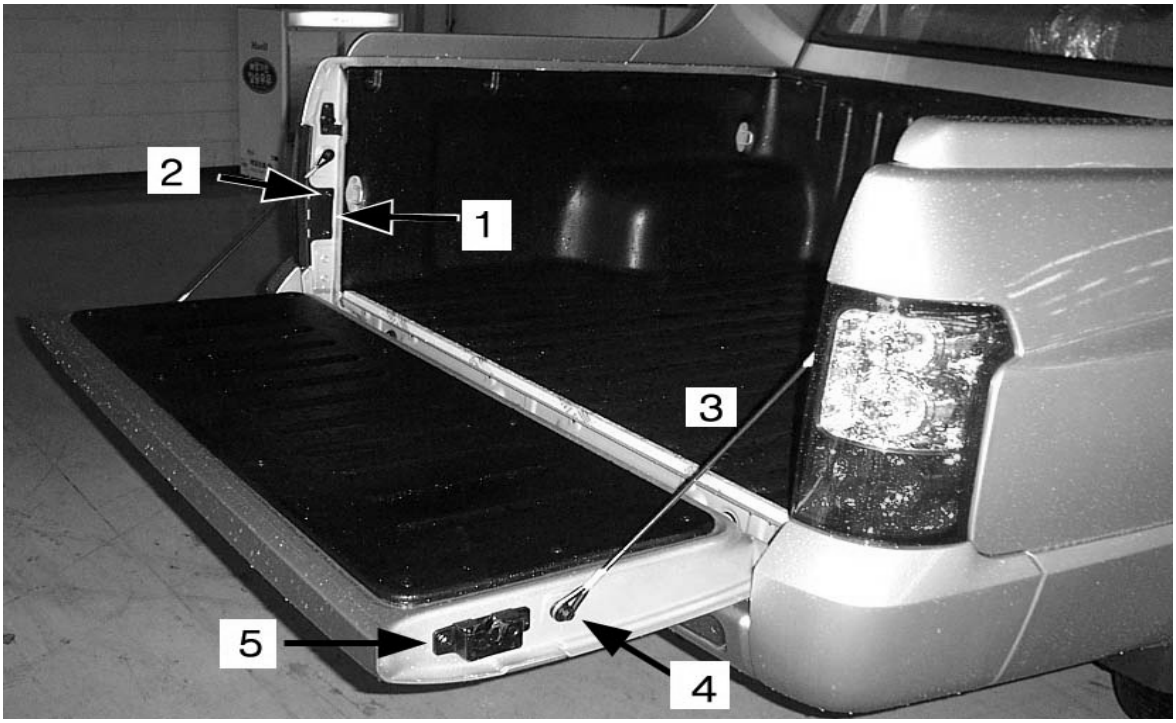

KAA5A020

7. Due to removal of luggage deck, check if damage happen on the harness and other parts, and then remove the luggage deck.
8. Install the reverse order of removal.

REMOVAL AND INSTALLATION

TAIL GATE

Preceding repair: remove trim cover of tail gate



KAA5A300

1 Hinge Assembly of Tail Gate
2 Fixing Bolt of Tail Gate Hinge
3 Stopper of Tail Gate
4 Fixing Bolt of Tail Gate Stopper
5 Latch of Tail Gate and Rod Assembly

KAA5A020

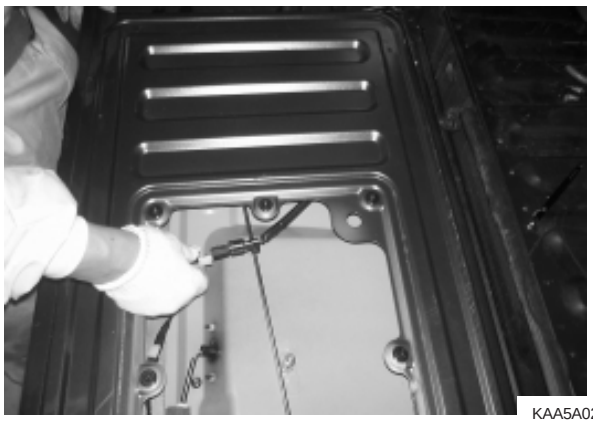
Removal

1. After pulling the tail gate, release fixing bolt of left tail gate and right tail gate.

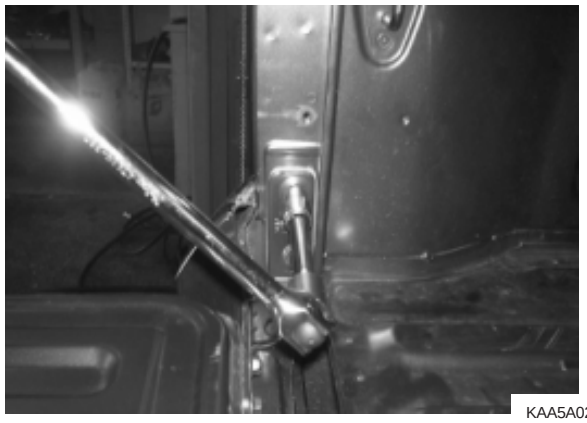
   Notice: While stopper fixing bolt of tail gate is released not released completely, put this one on the hole of installation.


KAA5A020

2. After pulling the tail gate, release fixing screw of tail gate inside and then remove pannel.


KAA5A020

3. Remove the wiring connector of tail lamp.
4. Remove the wiring and grommet which is linked with tail gate.

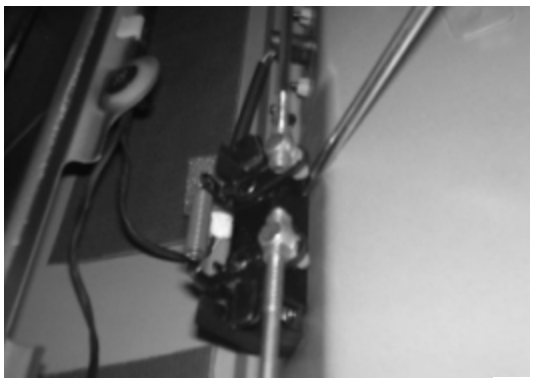

KAA5A020

5. Remove left and right hinge of tail gate.
6. Remove the assembly of tail gate.

KAA5A020

LATCH OF TAIL GATE AND ROD ASSEMBLY

1. Remove the inside pannel of tail gate.
2. After pushing the lower section linking with rod which



KAA5A020

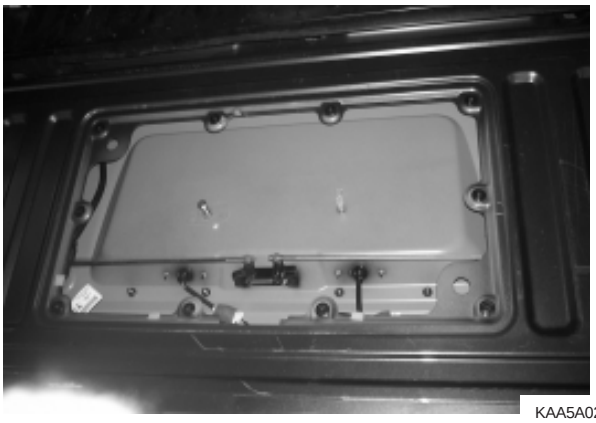
is connected with latch of tail gate, remove rod from the latch.

KAA5A020

3. Release the fixing bolt (2 EA) of latch, tail gate.

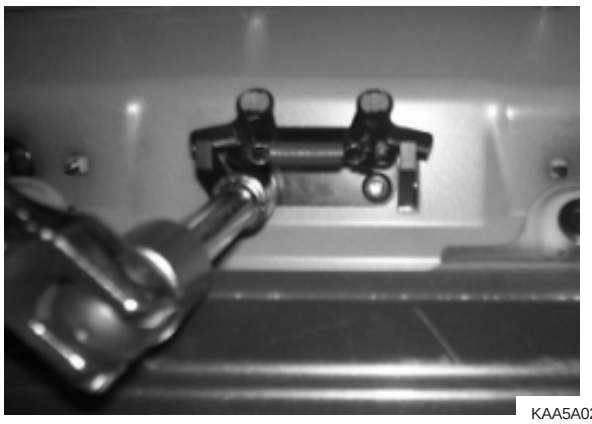
KAA5A020

4. Simultaneously, remove the latch of tail gate and rod.
5. Install the reverse order of removal.


KAA5A020

OUT SIDE HANDLE OF TAIL GATE AND LATCH ACTUATOR.

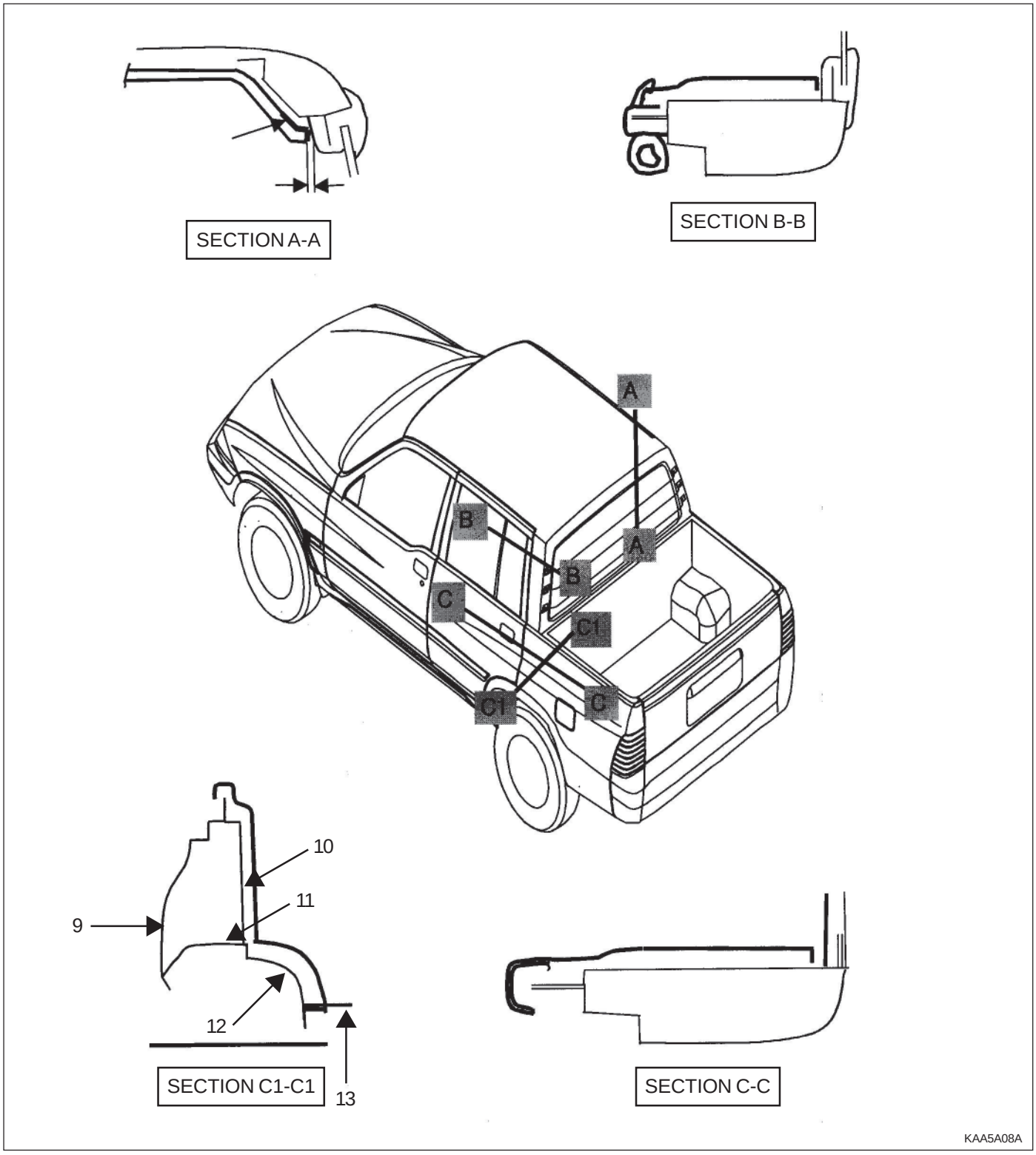
1. Remove the inside handle of tail gate.


KAA5A020

2. Remove the fixing bolt (2 EA) of latch actuator of tail gate.
3. Remove the outside handle of tail gate.

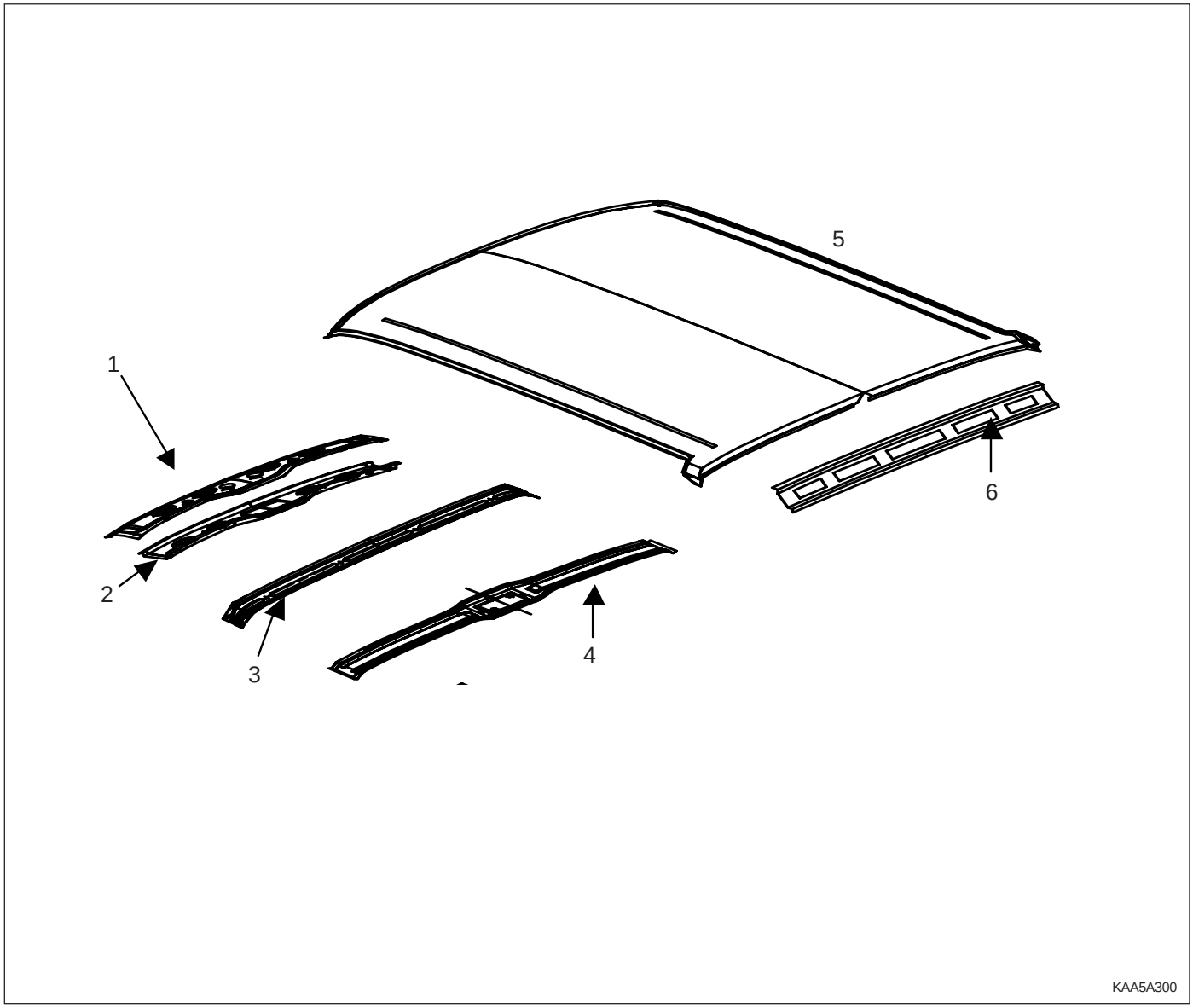
COMPONENTS LOCATOR

EXTERIOR BODY PANNEL



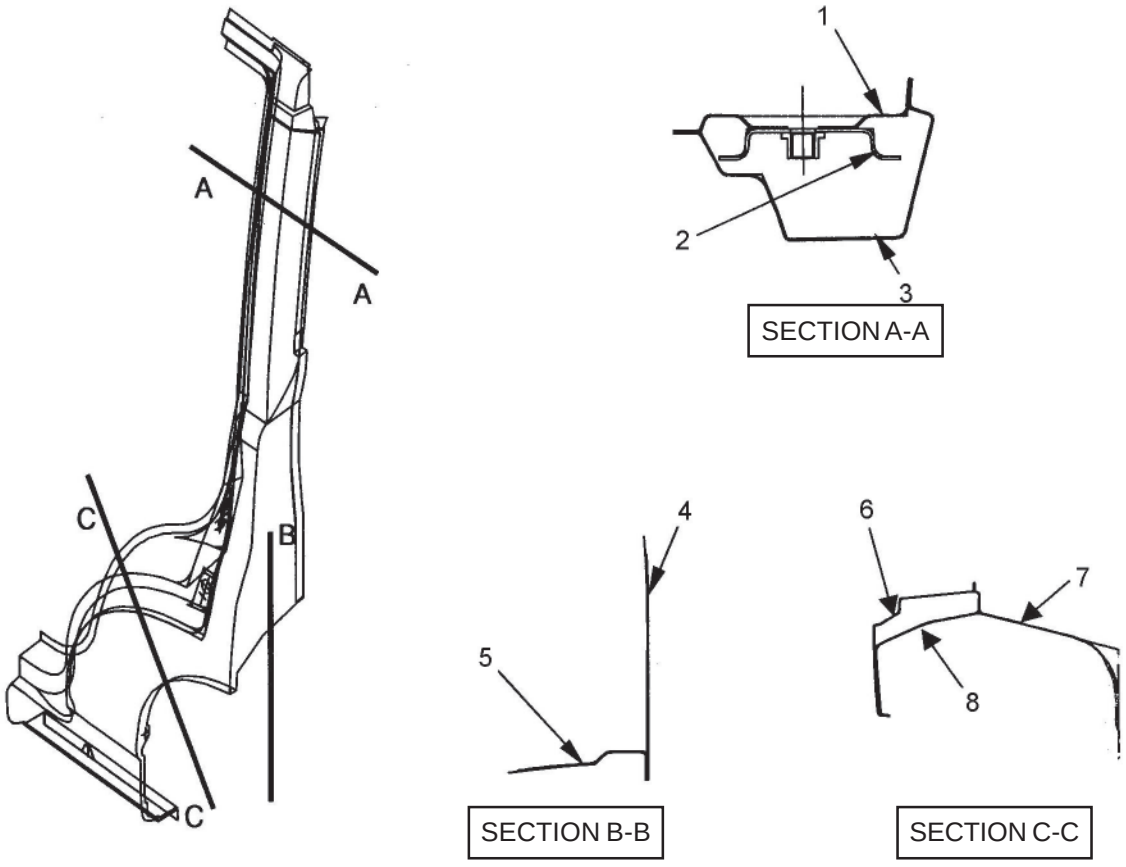
9 PNL-Deck Side OTR
10 PNL-Deck Side INR
11 RR Wheel Guard
12 PNL-Deck W/House INR
13 PNL-Deck

ROOF PANNEL



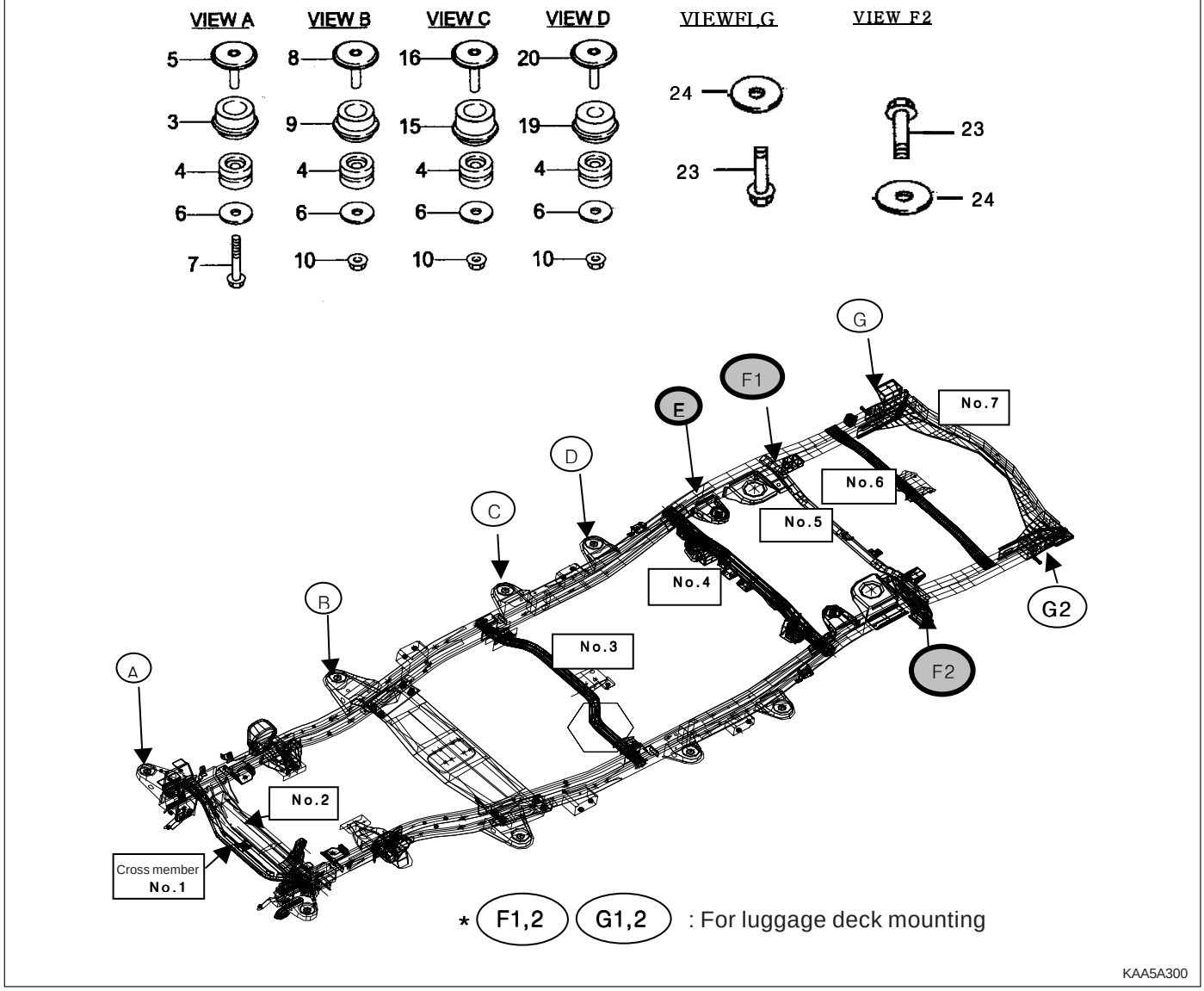
1 Front Upper Rail
2 Front Lower Rail
3 No1. Rail of Roof Center
4 No2. Rail of Roof Center
5 Roof Pannel
6 Rear Roof Rail

ROOF RAIL



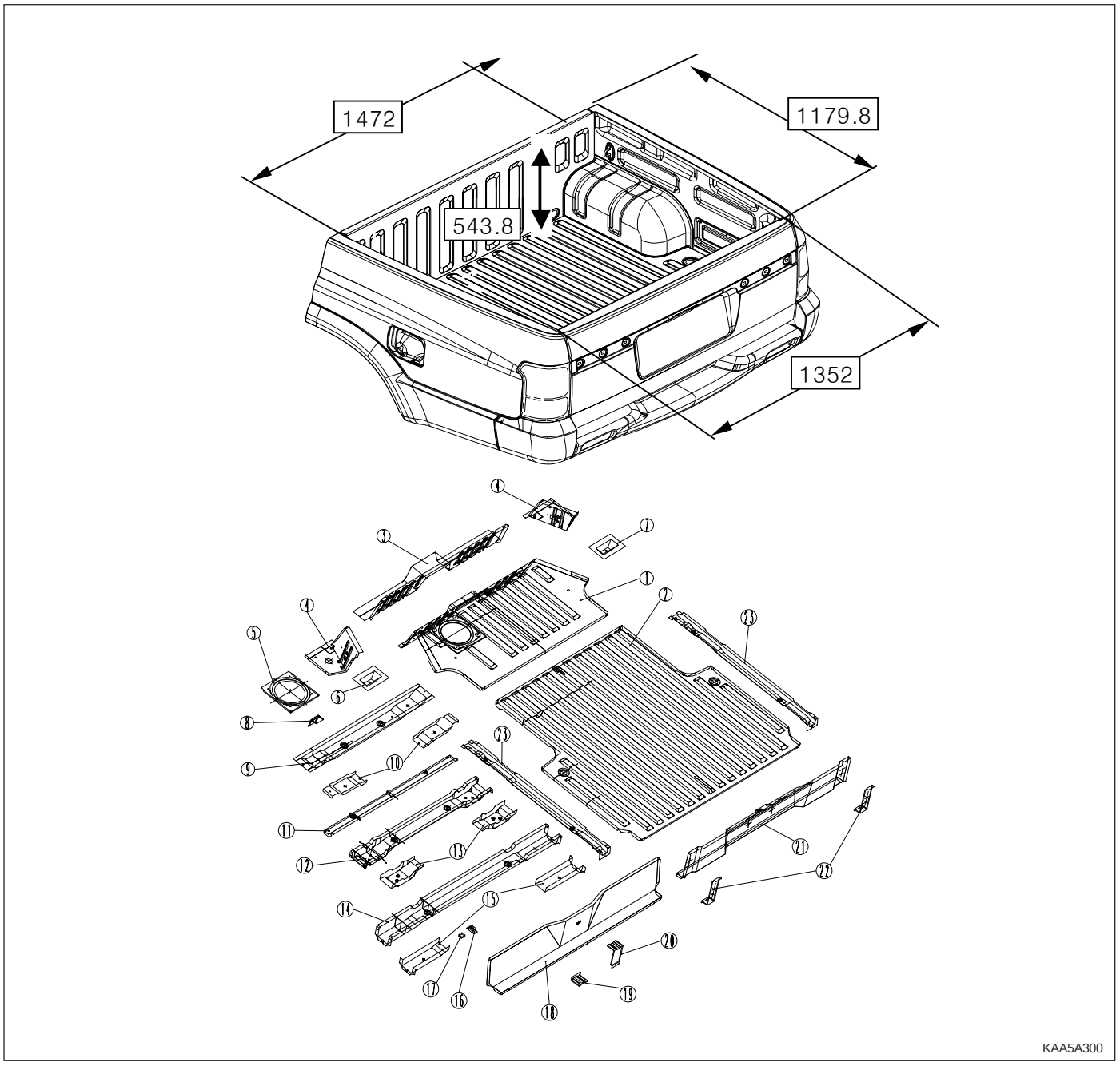
1 C-Pannel of Pillar Inner
2 Reinforce C-Pillar Outer Pannel
3 C-Pannel of Pillar Outer
4 Front Center Outer Pannel
5 Outer Pannel of Front Wheel House
6 Outer Pannel of Front Center
7 Inner Pannel of Wheel House
8 Outer Pannel of Front Wheel House
9 Side Outer of Pannel Deck
10 Side Inner Pannel Deck
11 Rear Wheel Guard
12 Pannel-Deck Wheel House Inner
13 Deck Pannel

FRAME AND UNDER BODY MOUNTINGS



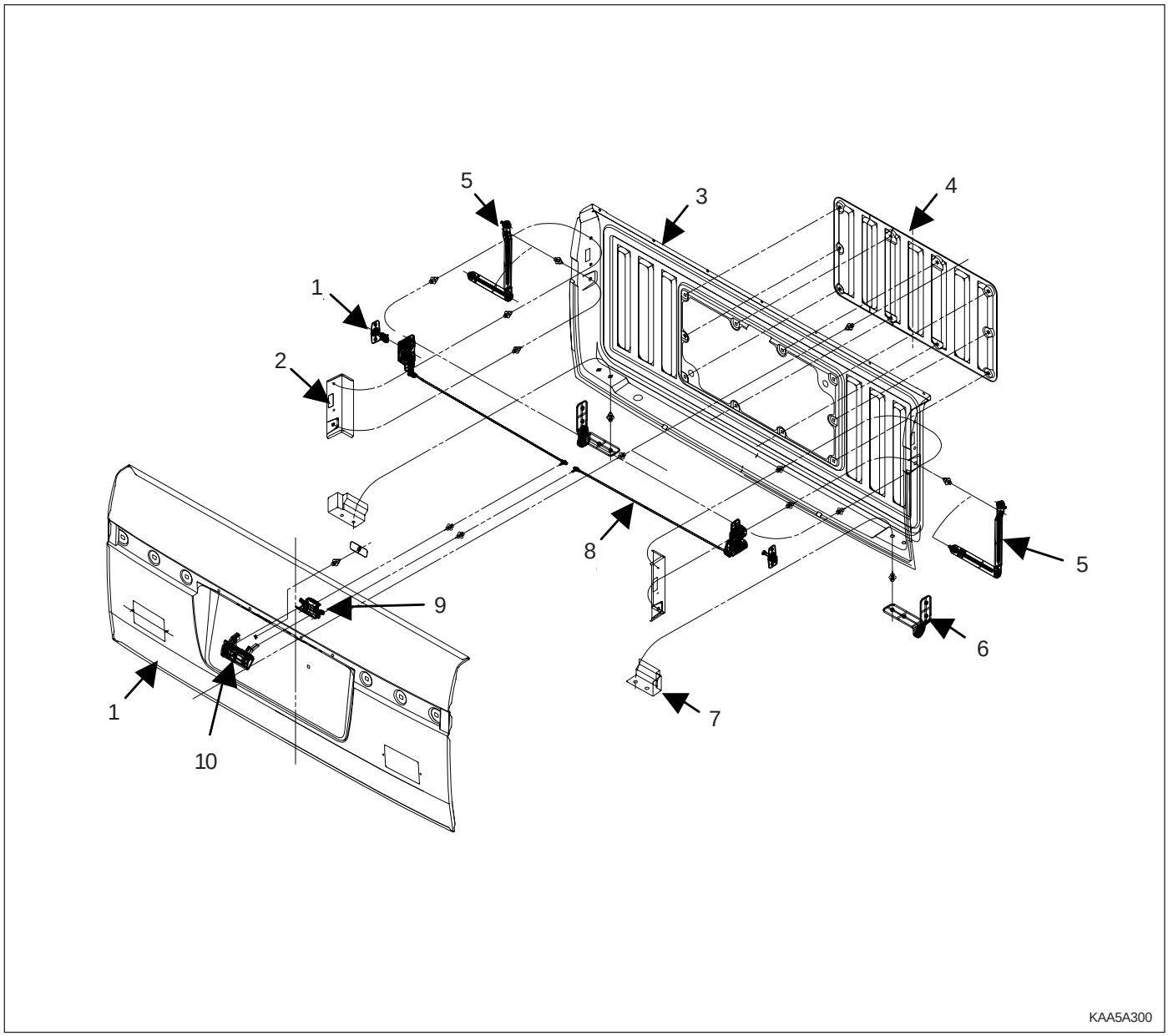
3 Body No1. Upper Insulator
4 Lower Insulator
5 Washer and Tube Assembly
6 Washer of Plain Body Mounting
7 Bolt
8 Body No2. Washer and Tube Assembly
9 Upper Insulator
15 Body No3. Upper Insulator
16 Body No1. Wwasher and Tube Assembly
19 Body No4. Upper Insulator
20 Body No4. Wwasher and Tube
23 Bolt
24 Deck Mounting Insulator

LUGGAGE DECK



1 Rear Floor Pannel
2 Deck Floor Pannel
3 Middle Pannel of Floor
4 middle Pannel of Floor Extension
5 Reinforce Fuel Sending Cover
6 Reinforce Rear Seat Mounting (LH)
7 Reinforce Rear Seat Mounting (RH)
8 Reinforce Hinge Mounting
9 Mounting Member of Body Mounting
10 Reinforce No5. Mounting
11 Deck floor No1. Member
12 Deck floor No2. Member
13 Reinforce Deck No1. Mounting
14 Deck Floor No3. Member
15 Reinforce Deck No2. Mounting
16 Nut Holder
17 Nut (M10)
18 Deck Floor No4. Member
19 Upper Bracket of Spare tire
20 Lower Bracket Spare Tire
21 Deck Back Outer Pannel
22 Reinforce Stopper Mounting
23 Deck Floor Member

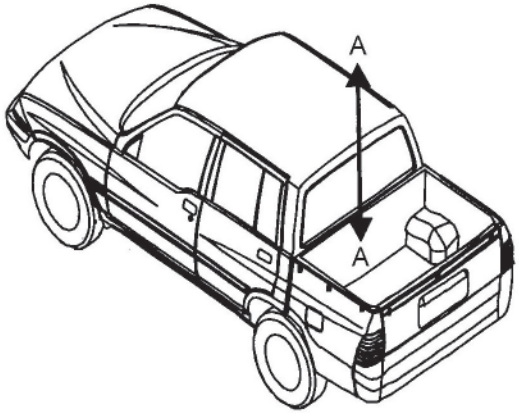
TAIL GATE

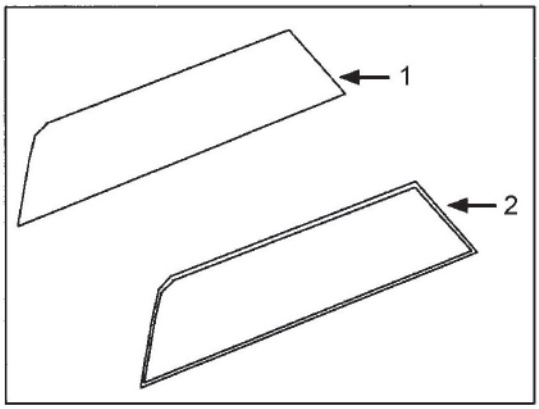


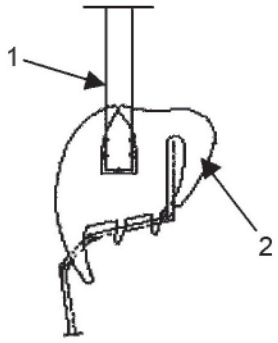
1 Tail Gate Striker Assembly
2 Tail Gate Latch Assembly
3 Tail Gate Inner Pannel
4 Tail Gate Inner Cover
5 Tail Gate Stopper Assembly
6 Tail Gate Hinge Assembly
7 Tail Gate Latch & Rod Assembly
8 Tail Gate Ccrank Assembly
9 Outside Tailgate Holder
10 Tail Gate Outer Pannel

REAR GLASS

Component Locator







SECTION A-A

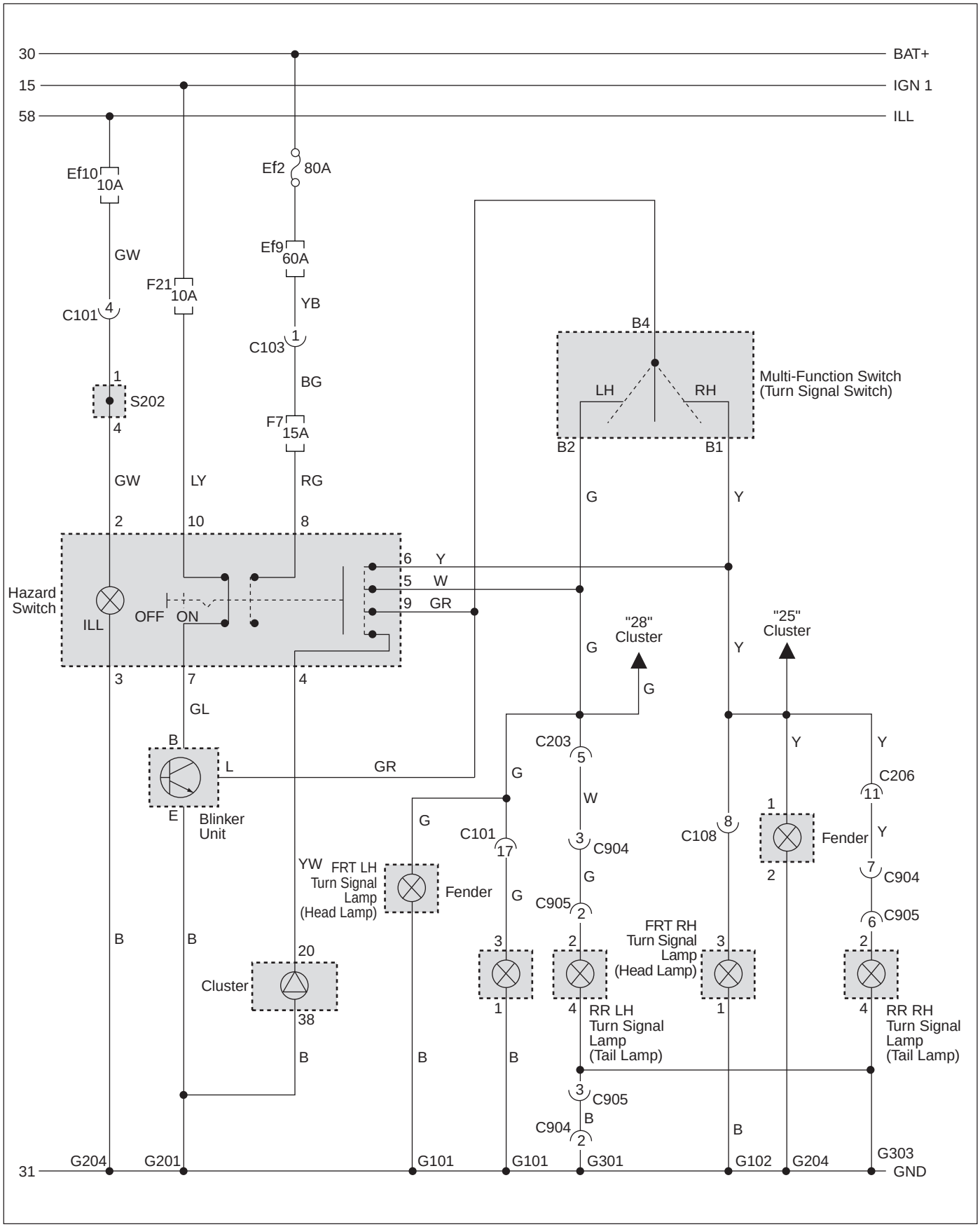
KAA5A300

1 Rear glass

2 Rear glass moulding

ELECTRICAL WIRING DIAGRAM

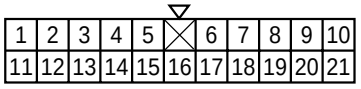
1. TURN SIGNAL LAMP, HAZARD LAMP CIRCUIT



a. CONNECTOR INFORMATION

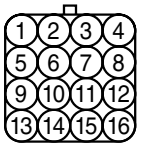
CONNECTOR(NUMBER)	CONNECTING. WIRING HARNESS	CONNECTOR POSITION
C101 (21Pin, Colorless)	Main - Engine	Inside The Engine Room Fuse Block
C103 (2Pin, White)	Main - Engine	Inside The Engine Room Fuse Block
C108 (16Pin, Black)	Engine - Main	Under The Coolant Reservoir Tank
C206 (Colorless)	Main - Floor	Inside Co-Driver Side Cowl Panel
C904 (10Pin, Black)	Floor - FRAME	Behind The Left FRAME
C905 (12Pin, Black)	FRAME - DECK	Behind The Left FRAME
S101 (Black)	Main	Inside The Engine Room Fuse Block
G101	Engine	Behind The Left Lamp
G102	Engine	Behind The Right Head Lamp
G201	Main	Right The I/P Fuse Block
G204	Main	Upper The ECM
G301	Floor	Center The Left 'B' Pillar

b. CONNECTOR IDENTIFICATION SYMBOL & PIN NUMBER POSITION

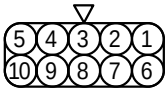


C101
W/H MAIN

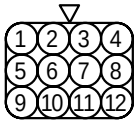
C103
W/H MAIN



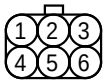
C108
W/H ENGINE



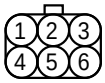
C904
W/H FLOOR



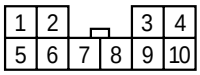
C905
W/H DECK



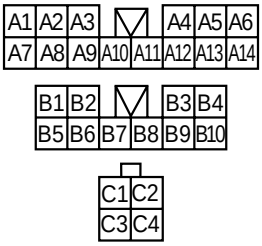
HEAD LAMP



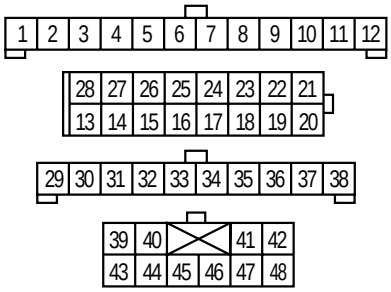
TAIL
LAMP



HAZARD
SWITCH

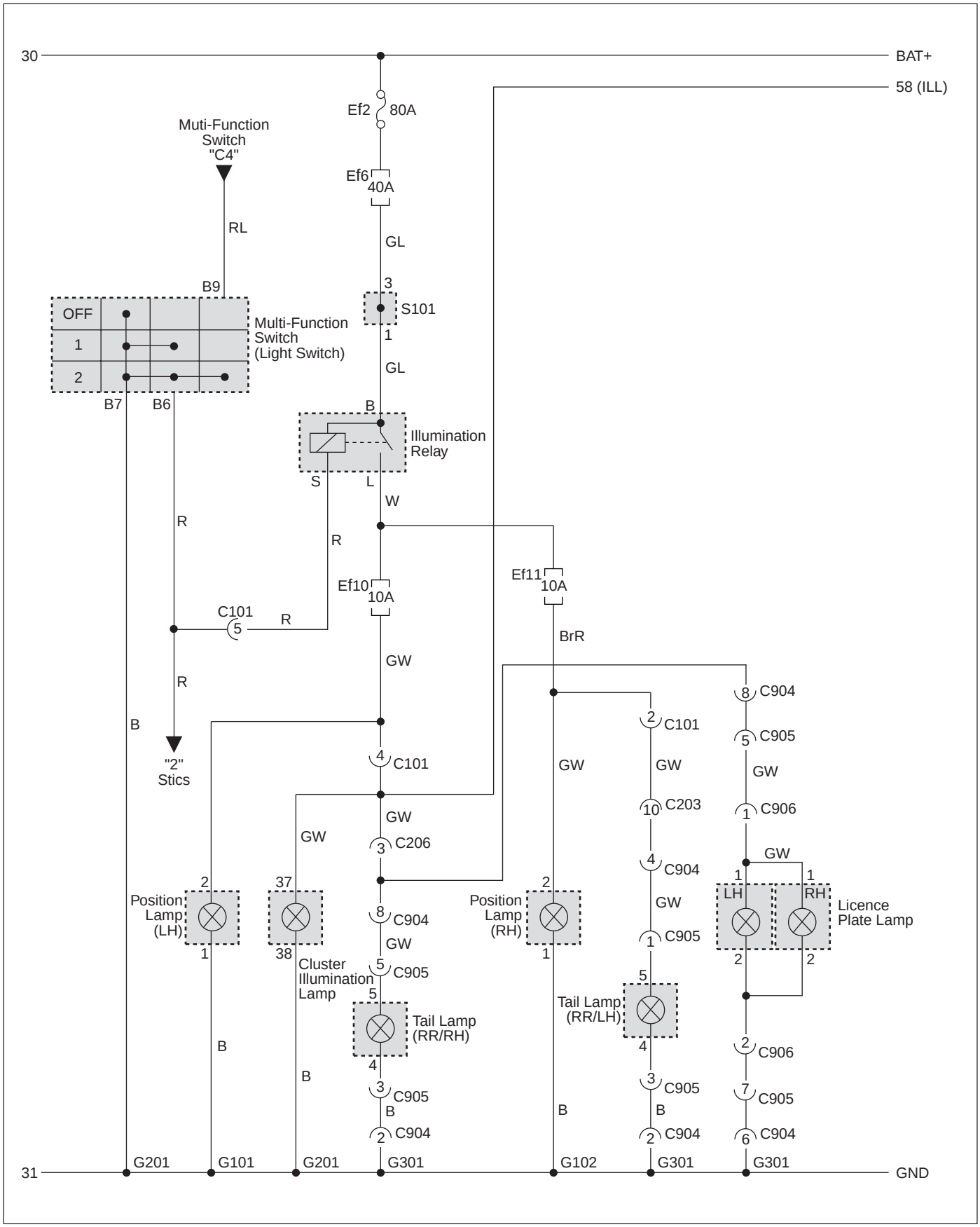


MULTI-FUNCTION
SWITCH



CLUSTER

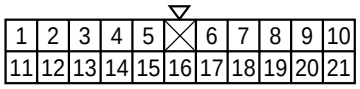
2. POSITION LAMP, TAIL LAMP, LICENCE PLATE LAMP CIRCUIT



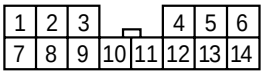
a. CONNECTOR INFORMATION

CONNECTOR(NUMBER)	CONNECTING. WIRING HARNESS	CONNECTOR POSITION
C101 (21Pin, Colorless)	Main - Engine	Inside The Engine Room Fuse Block
C206 (Colorless)	Main - Floor	Inside Co-Driver Side Cowl Panel
C904 (10Pin, Black)	Floor - FRAMME	Behind The Left FRAME
C905 (12Pin, Black)	FRAME - DECK	Behind The Left FRAME
C906 (2Pin, Black)	DECK - DECK LID	Behind The Left DECK LID
S101 (Black)	Main	Inside The Engine Room Fuse Block
G101	Engine	Behind The Left The Lamp
G102	Engine	Behind The Right Head Lamp
G201	Main	Right The I/P Fuse Block
G301	Floor	Center The Left 'B' Pillar

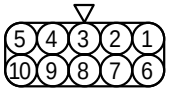
b. CONNECTOR IDENTIFICATION SYMBOL & PIN NUMBER POSITION



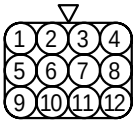
C101
W/H MAIN



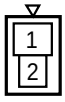
C206
W/H MAIN



C904
W/H FLOOR

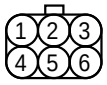


C905
W/H DECK

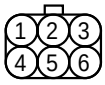


C906
W/H DECK

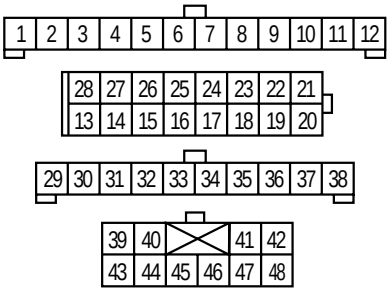
LICENCE
LAMP



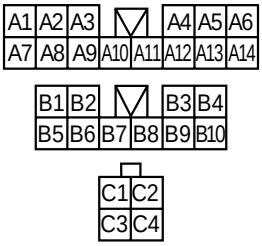
TAIL LAMP



HEAD LAMP

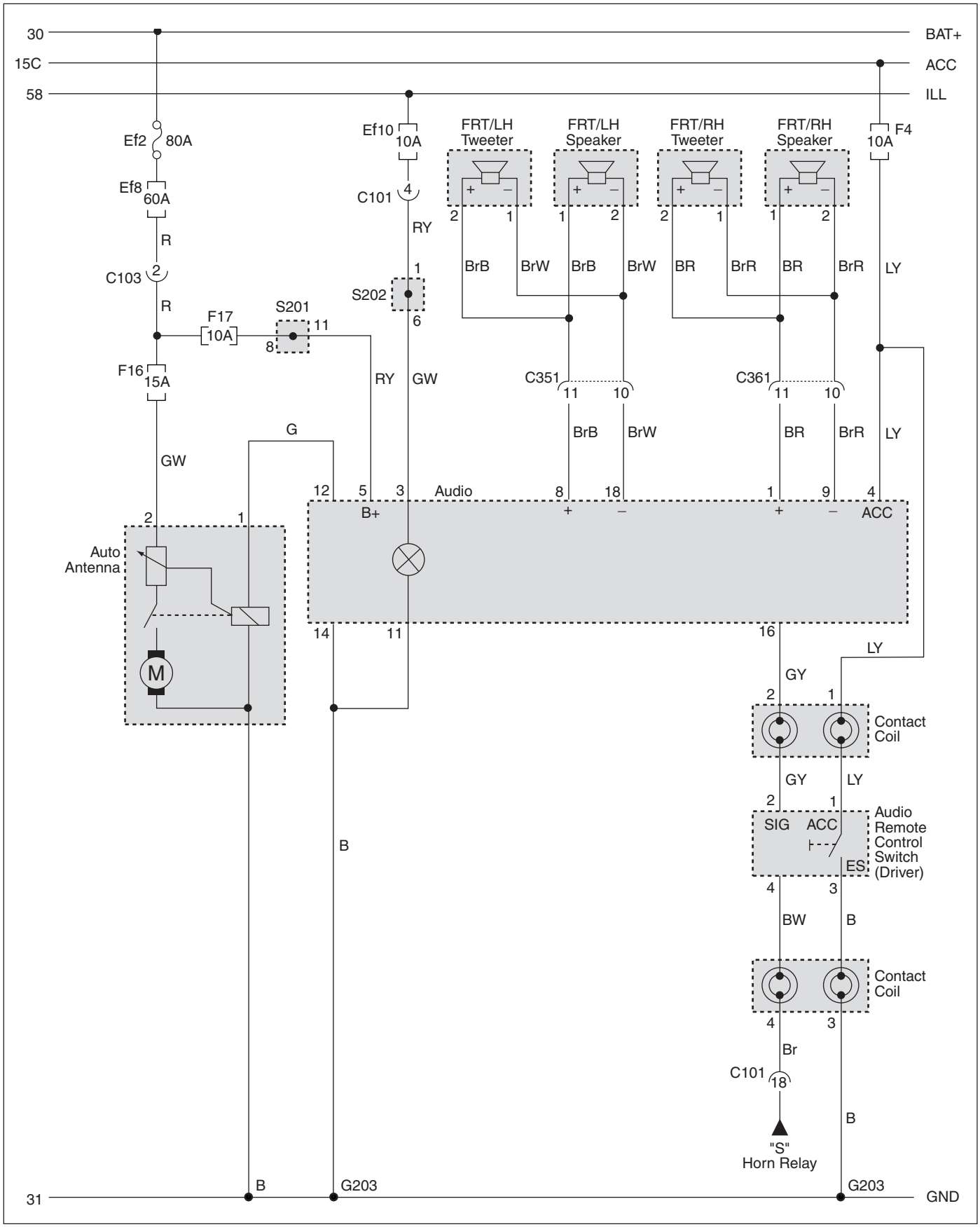


CLUSTER



MULTI-FUNCTION
SWITCH

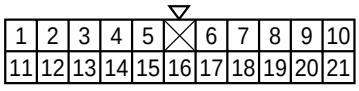
3. AUDIO CIRCUIT



a. CONNECTOR INFORMATION

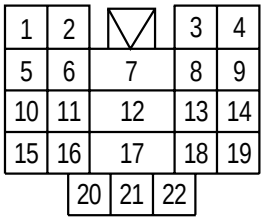
CONNECTOR(NUMBER)	CONNECTING. WIRING HARNESS	CONNECTOR POSITION
C101 (21Pin, Colorless)	Main - Engine	Inside The Engine Room Fuse Block
C103 (2Pin, White)	Main - Engine	Inside The Engine Room Fuse Block
C351 (22Pin, Blue)	Main - Driver Door	Upper The I/P Fuse Block
C361 (22Pin, White)	Main - Co-Driver Door	Inside Co-Driver Side Cowl Panel
S201 (Black)	Main	Behind The Cluster
S202 (Black)	Main	Under Right The Audio
G203	Main	Right The I/P Fuse Block

b. CONNECTOR IDENTIFICATION SYMBOL & PIN NUMBER POSITION

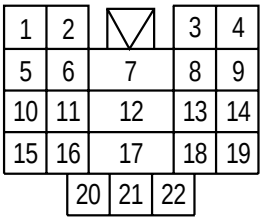


C101
W/H MAIN

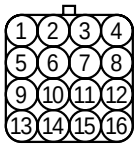
C103
W/H MAIN



C351
W/H DRIVER
DOOR

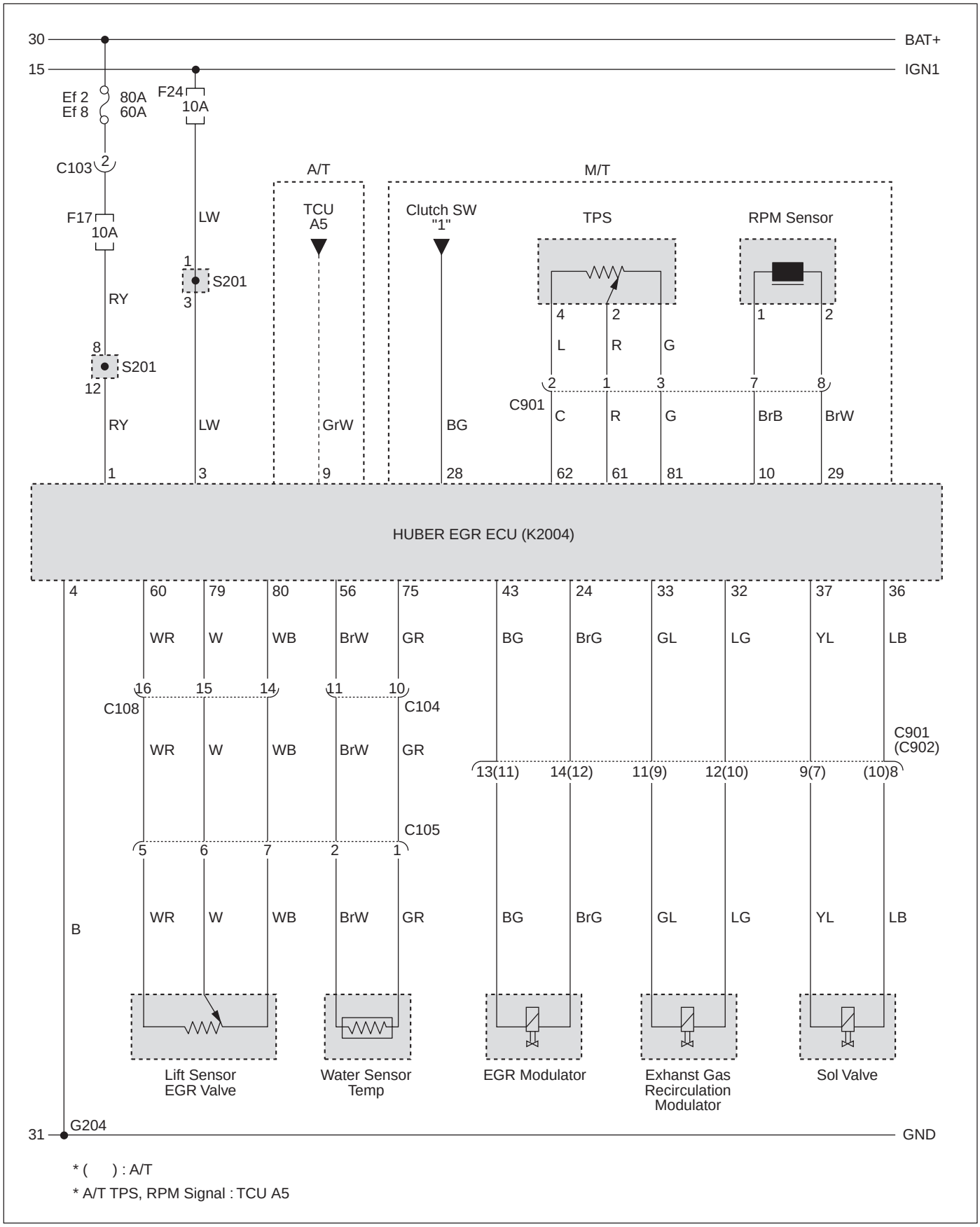


C361
W/H CO-DRIVER
DOOR



TWEETER

4. HUBER EGR CIRCUIT(MUSSO SPORT)



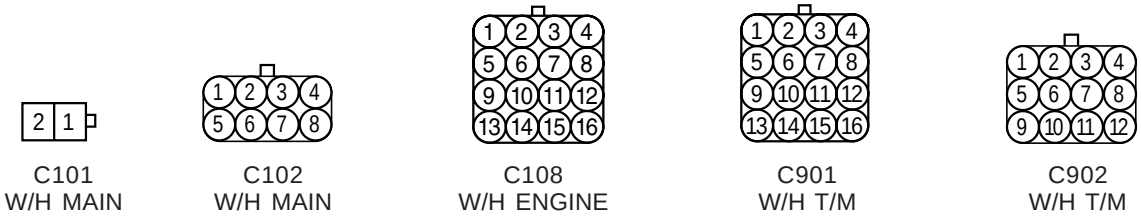
* ( ) : A/T

* A/T TPS, RPM Signal : TCU A5

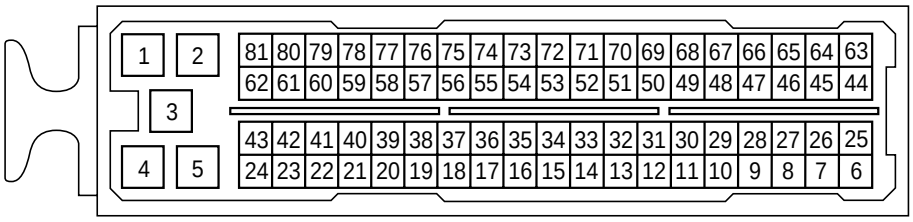
a. CONNECTOR INFORMATION

CONNECTOR(NUMBER)	CONNECTING. WIRING HARNESS	CONNECTOR POSITION
C103 (2Pin, White)	Main - Engine	Inside The Engine Room Fuse Block
C105 (8Pin, Black)	Engine - Engine	Beside Pre-Heating Unit (DSL):MUSSO SPORT
C108 (16Pin, Black)	Genertor - Engine	Under The Air Cleaner Housing (DSL, N/Turbo)
C901 (16Pin, Black)	Main - T/M	Upper The T/C(M/T)
C902 (12Pin, Black)	Main - T/M	Upper The T/C(A/T)
S201 (Black)	Main	Behind The Cluster
G204	Main	Upper The Huber EGR

b. CONNECTOR IDENTIFICATION SYMBOL & PIN NUMBER POSITION



C101 W/H MAIN | C102 W/H MAIN | C108 W/H ENGINE | C901 W/H T/M | C902 W/H T/M



HUBER EGR CONTROL UNIT

MUSSO SPORTS

SUPPLEMENT TO SERVICE MANUAL

ISSUED BY INTERNATIONAL A/S
SSANGYONG MOTOR CO., LTD.

150-3, CHILGOI-DONG, PYUNGTAEK-SI
GYEONGGI-DO, 459-711 KOREA

TELEPHONE : 82-31-610-1400
FACSIMILE : 82-31-610-3733