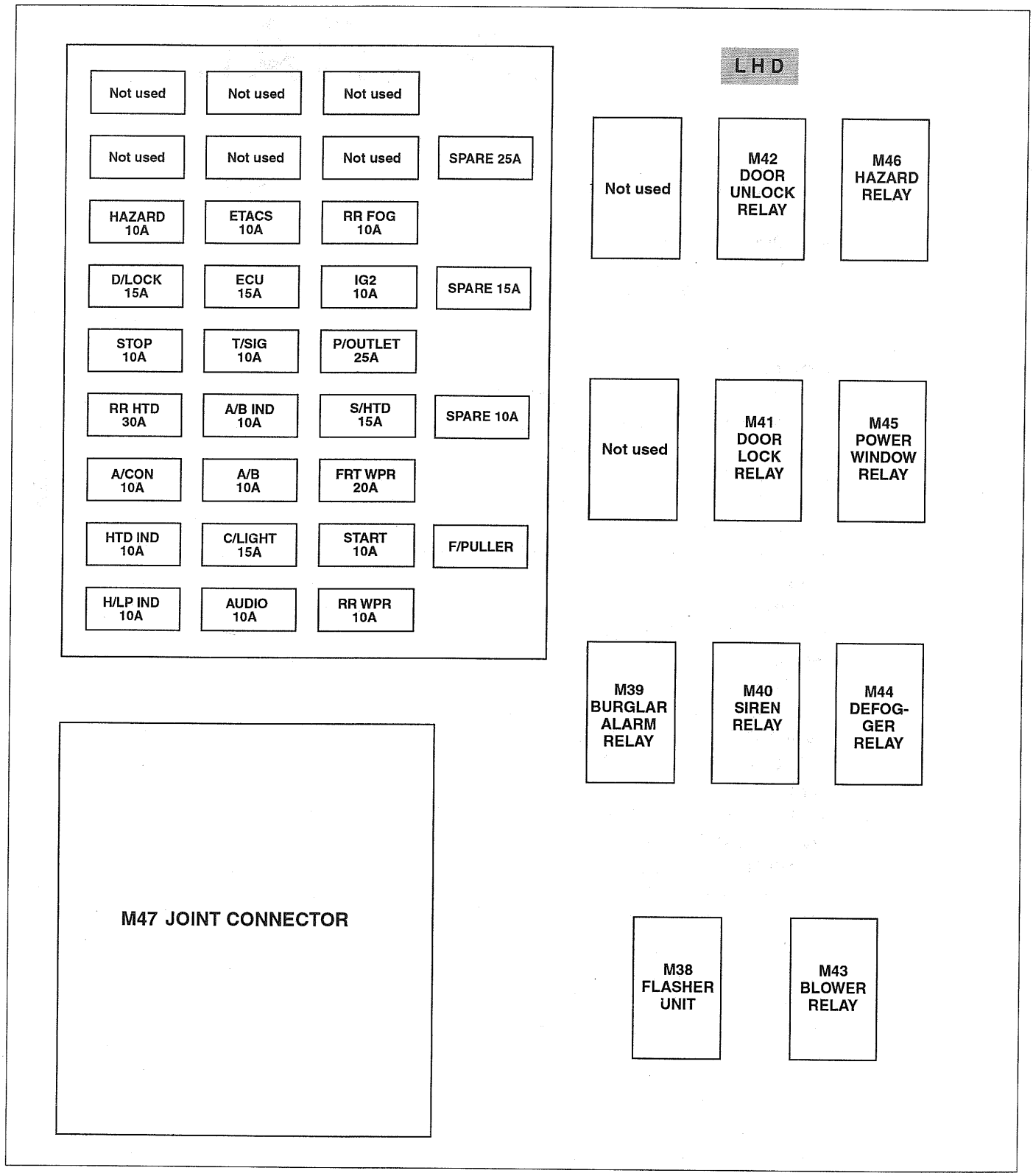
SCHEMATIC DIAGRAMS

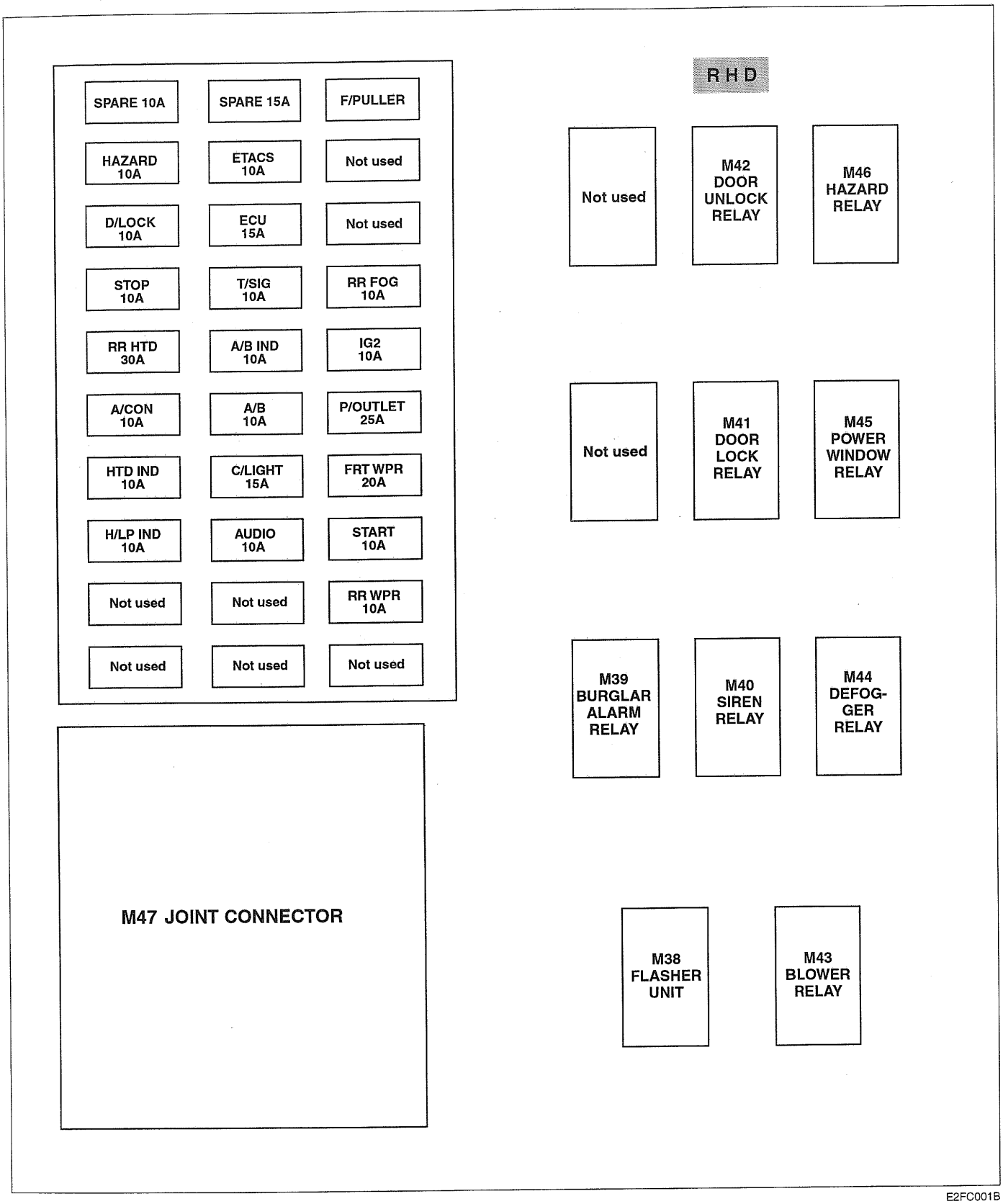
FUSE AND RELAY INFORMATION E2FC0010

I/P-BOX (LHD)



E2FC001A

I/P-BOX (RHD)



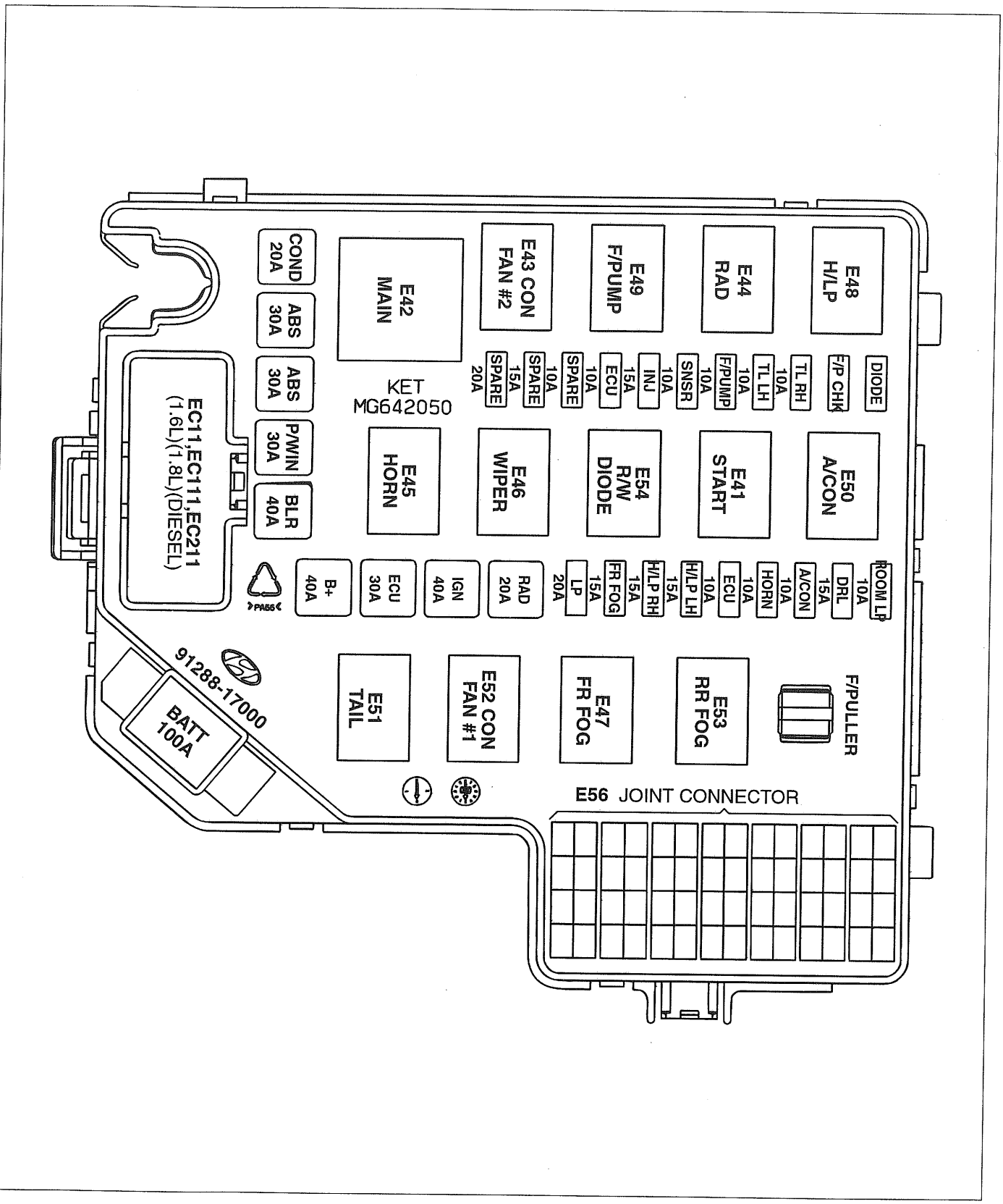
E2FC001B

CIRCUIT

FUSE	Amperages (A)	Circuit Protected
H/LP IND	10A	Head lamp indicator
HTD IND	10A	Defogger relay, Left(Right) outside mirror motor, Rear Window motor
A/CON	10A	A/C Switch
RR HTD	30A	Defogger relay
STOP	10A	Stop lamp switch, Power window relay
D/LOCK	15A	Door lock(unlock) relay, ETACM, Sunroof relay
HAZARD	10A	Burglar alarm relay, Hazard relay
AUDIO	10A	Audio
C/LIGHT	15A	Cigarette lighter
A/B	10A	SRS control module
A/B IND	10A	SRS IND.
T/SIG	10A	Hazard switch, Seat belt timer, Instrument cluster, ABS control module, Pre-excitation resistor, Washer motor
ECU	15A	ECM, Vehicle speed sensor, TCM, Ignition coil
ETACS	10A	ETACM, A/T Shift lever
RR WPR	10A	Rear wiper motor, Rear wiper relay
START	10A	Start relay
FRT WPR	20A	Wiper relay, Washer motor, Wiper & Defogger timer
S/HTD	15A	Left (Right) front seat warmer switch
P/OUTLET	25A	Front (Rear) power outlet
IG2	10A	ETACM, Power window relay, Defogger relay, Sunroof relay Head lamp relay, Blower relay
RR FOG	10A	Outside mirror switch, Rear fog lamp relay

MEMO

E/R-BOX



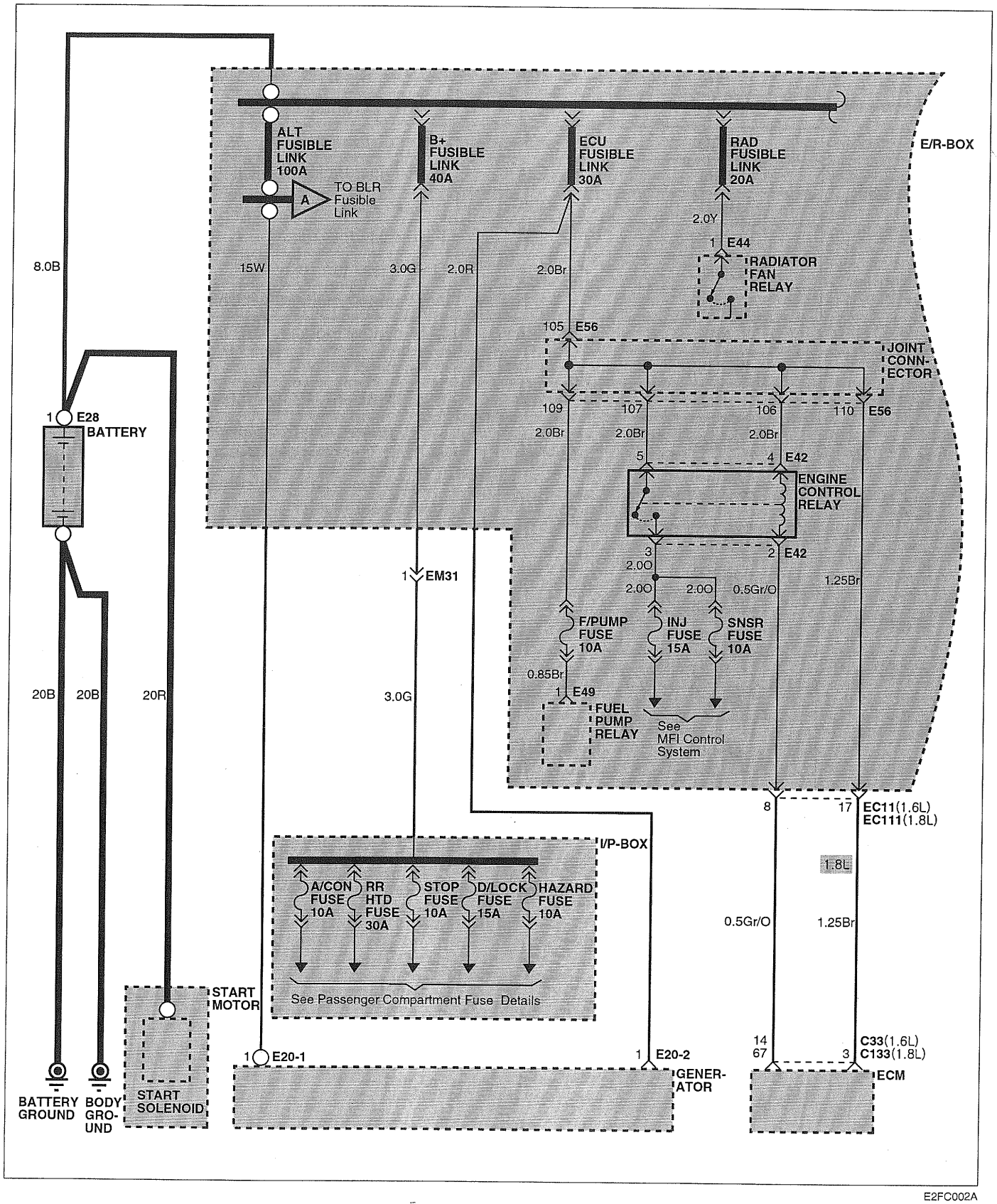
E2FC001C

CIRCUIT

Description		Amperage (A)	Circuit protected
Fusible Link	ALT	100A	Generator
	B+	40A	(A/CON, RR HTD, STOP, D/LOCK, HAZARD) Fuse
	ECU	30A	Generator, Engine control relay, ECM
	RAD	20A	Radiator fan relay
	IGN	40A	Start relay, Ignition switch
	BLR	40A	Blower relay
	P/WIN	30A	Power window relay
	COND	20A	Condenser fan relay #1
	ABS	30A	ABS control module, ABS bleeding connector
	ABS	30A	ABS control module, ABS bleeding connector
Fuse	F/PUMP	10A	Fuel pump relay
	INJ	15A	Injector #1, #2, #3, #4, Ignition coil #1, #2
	SNSR	10A	CMP sensor, Oxygen sensor, CKP sensor, Knock sensor, Throttle position sensor
	ROOM LP	10A	Audio, Room lamp, Overhead console lamp, Instrument cluster
	DRL	15A	DRL control module
	HORN	10A	Horn relay
	A/CON	10A	A/C relay
	FR FOG	15A	Front fog lamp relay
	ECU	10A	ECM, TCM
	LP	20A	Tail lamp relay
	TL LH	10A	Left rear combi lamp, Left position lamp, Left License lamp
	TL RH	10A	Right rear combi lamp, Right position lamp, Right License lamp
	H/LP LH	15A	Left head lamp
	H/LP RH	15A	Right head lamp, (H/LP IND)Fuse

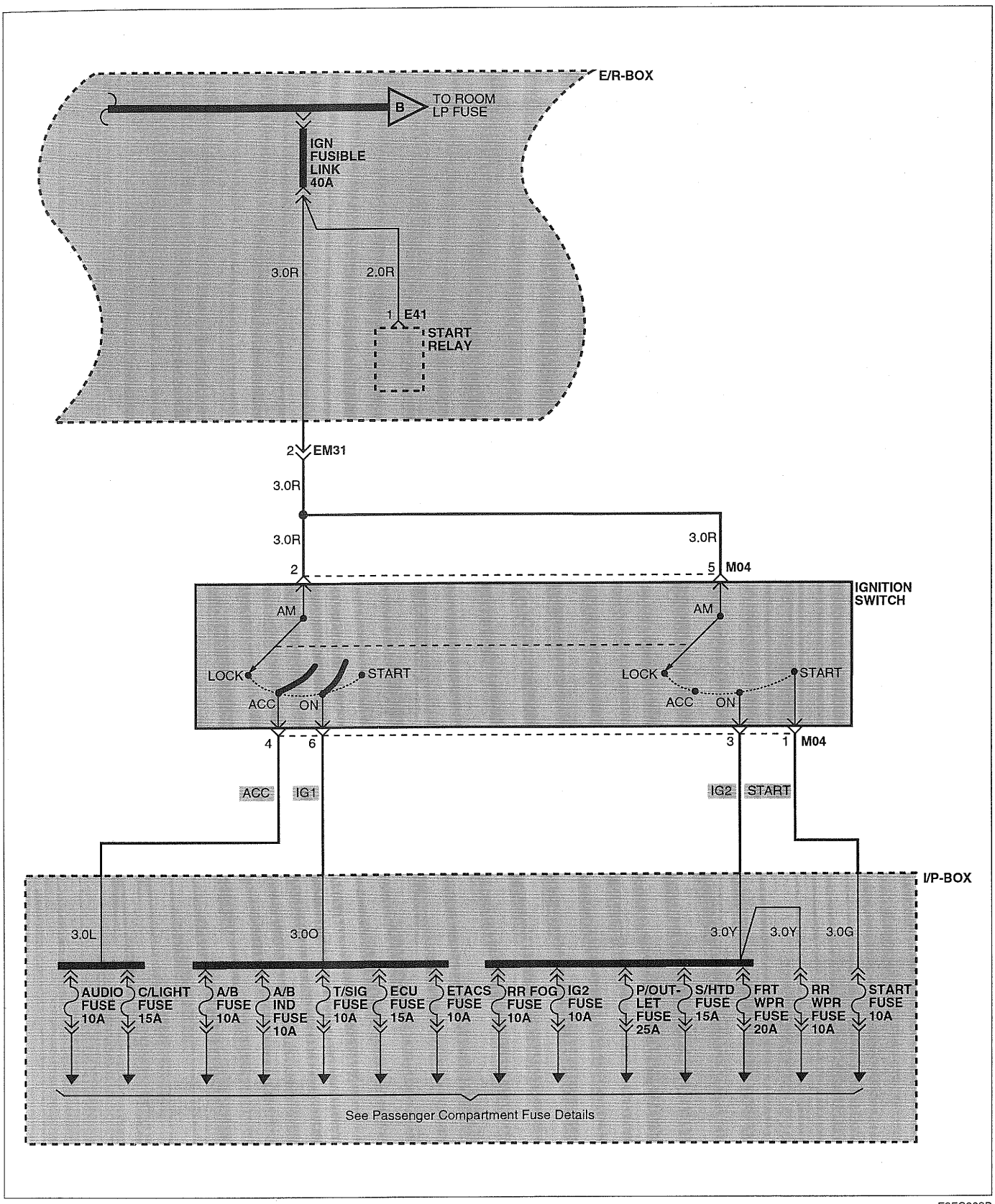
POWER DISTRIBUTION E2FC0020

POWER DISTRIBUTION (1)



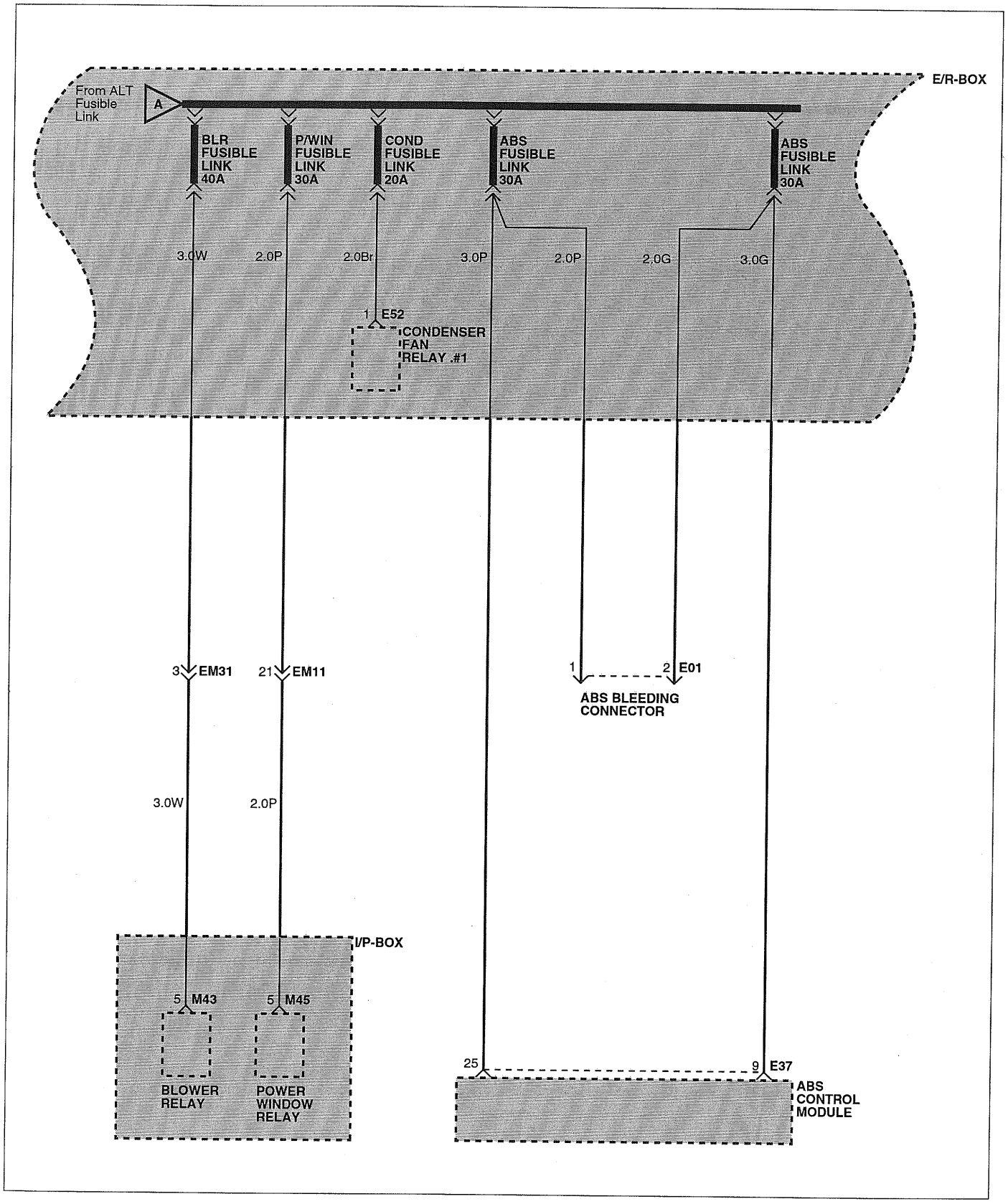
E2FC002A

POWER DISTRIBUTION (2)



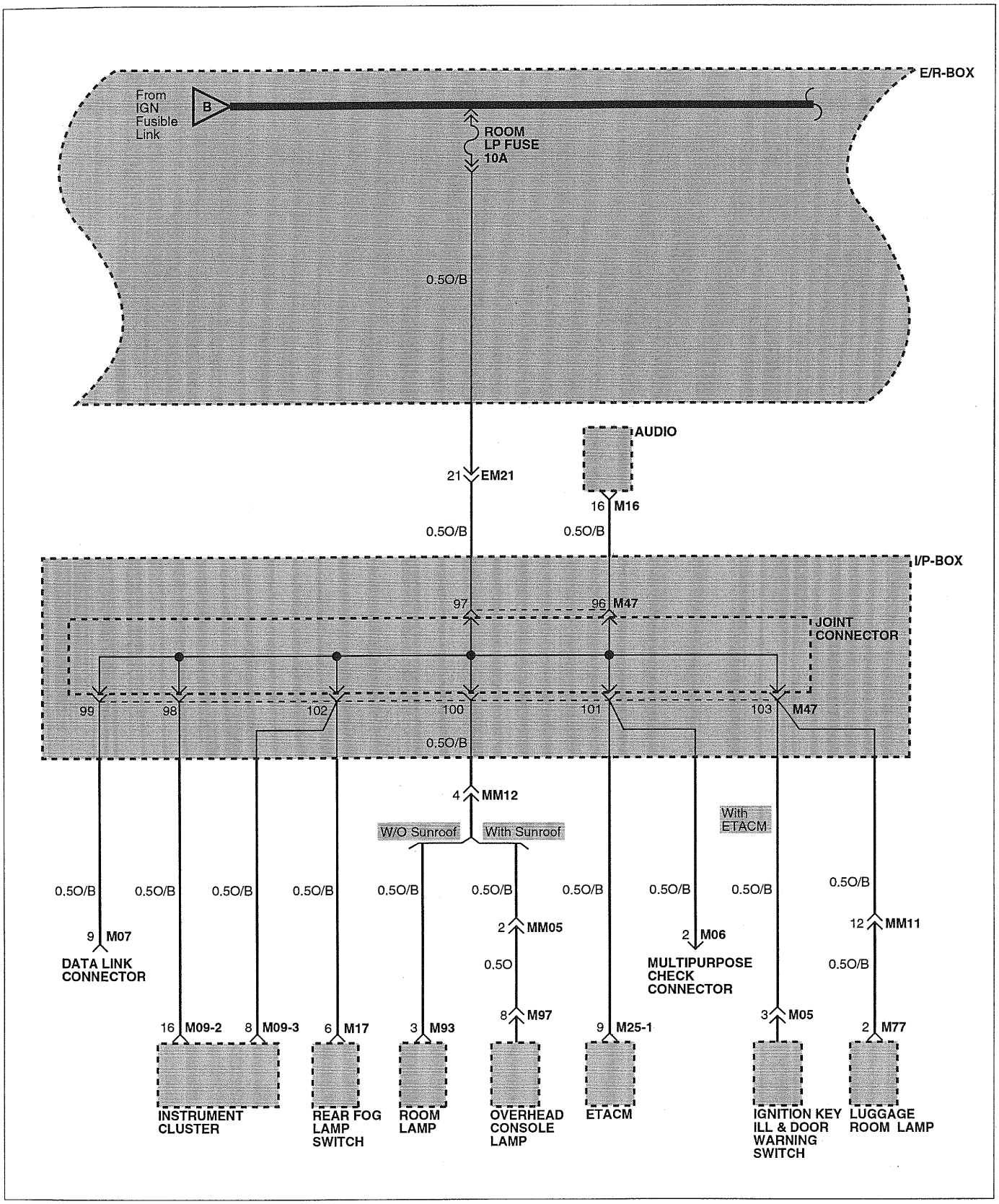
E2FC002B

POWER DISTRIBUTION (3)



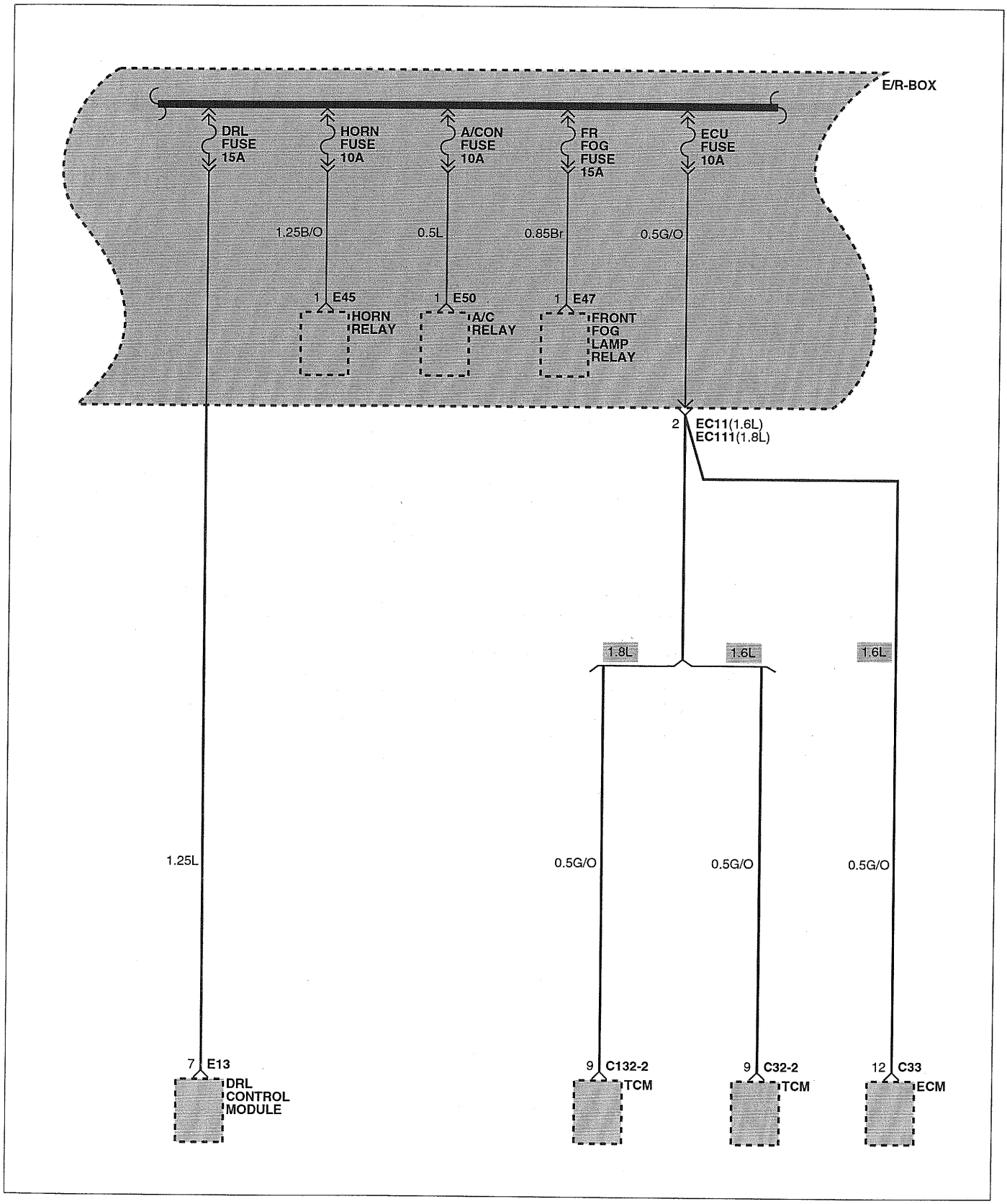
E2FC002C

POWER DISTRIBUTION (4)



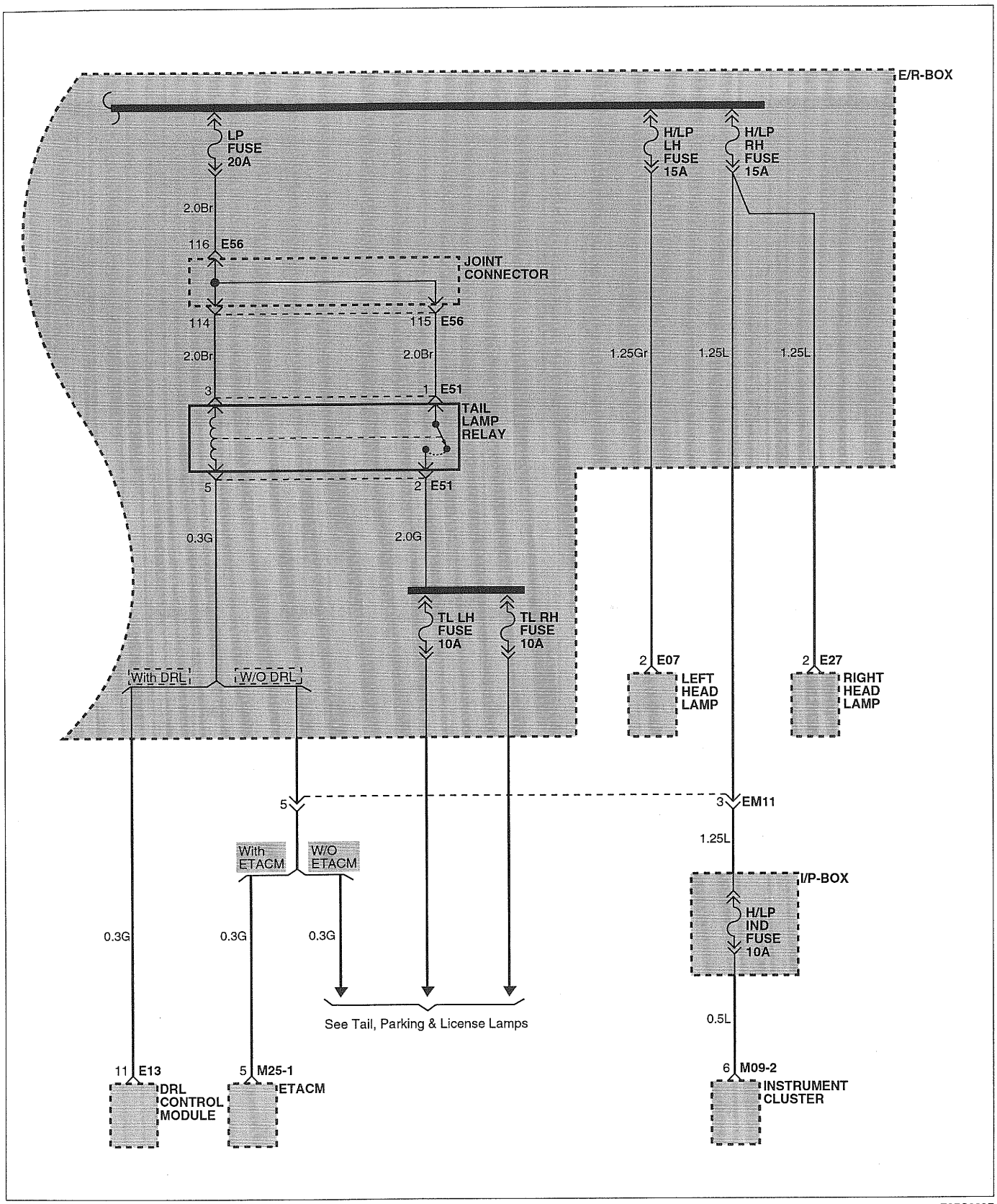
E2FC002D

POWER DISTRIBUTION (5)



E2FC002E

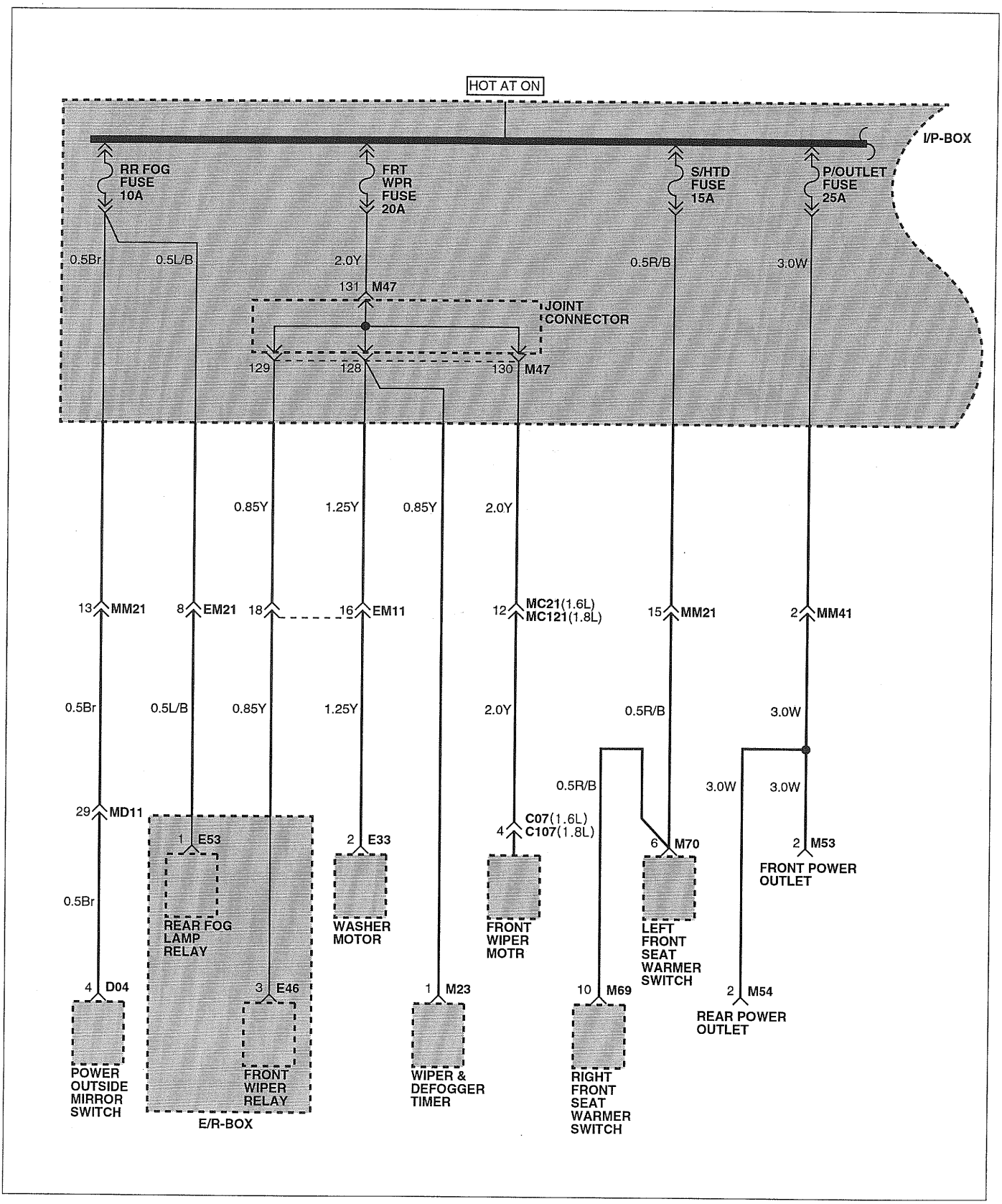
POWER DISTRIBUTION (6)



E2FC002F

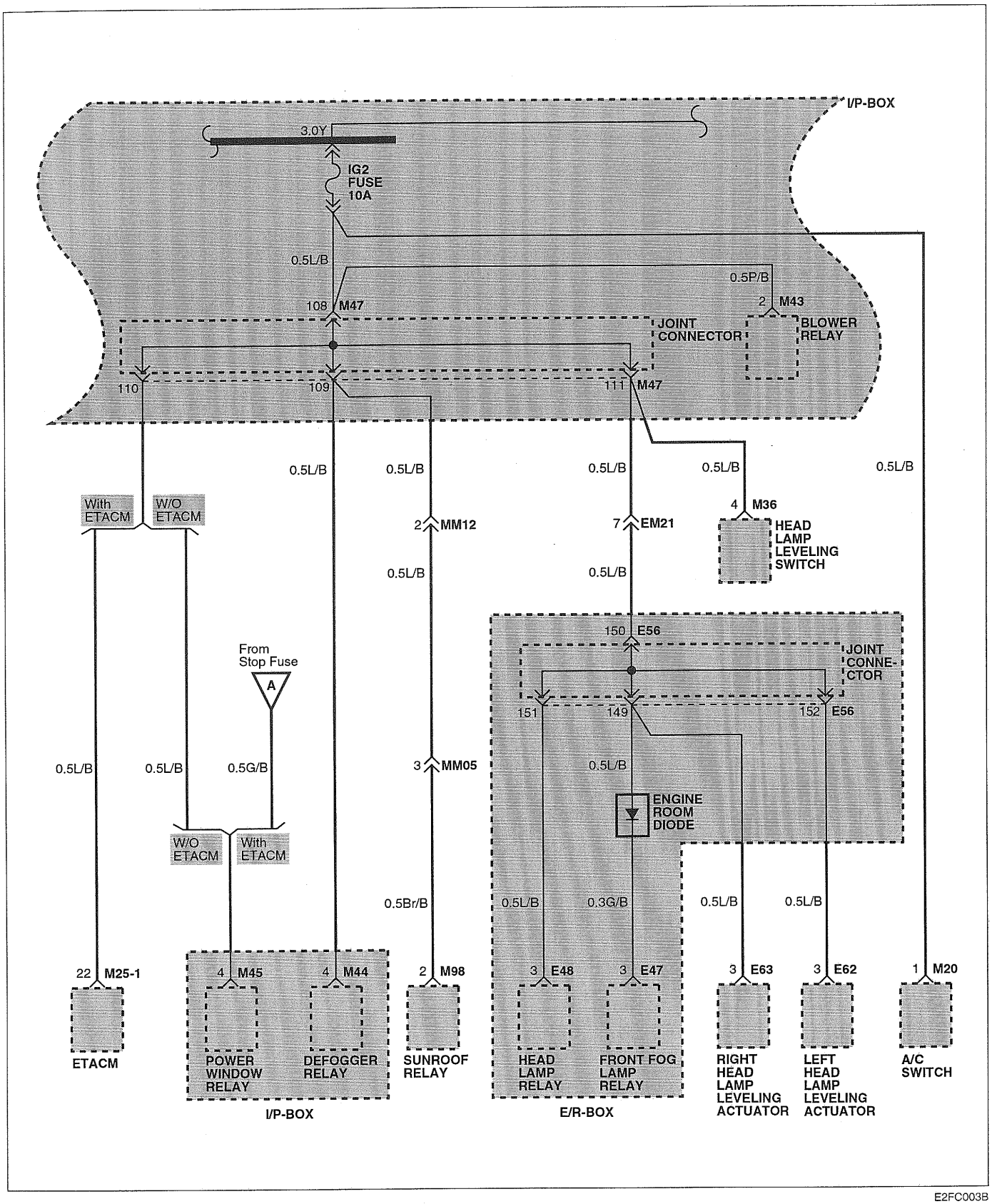
PASSENGER COMPARTMENT FUSE DETAILS E2FC0030

PASSENGER COMPARTMENT FUSE DETAILS (1)



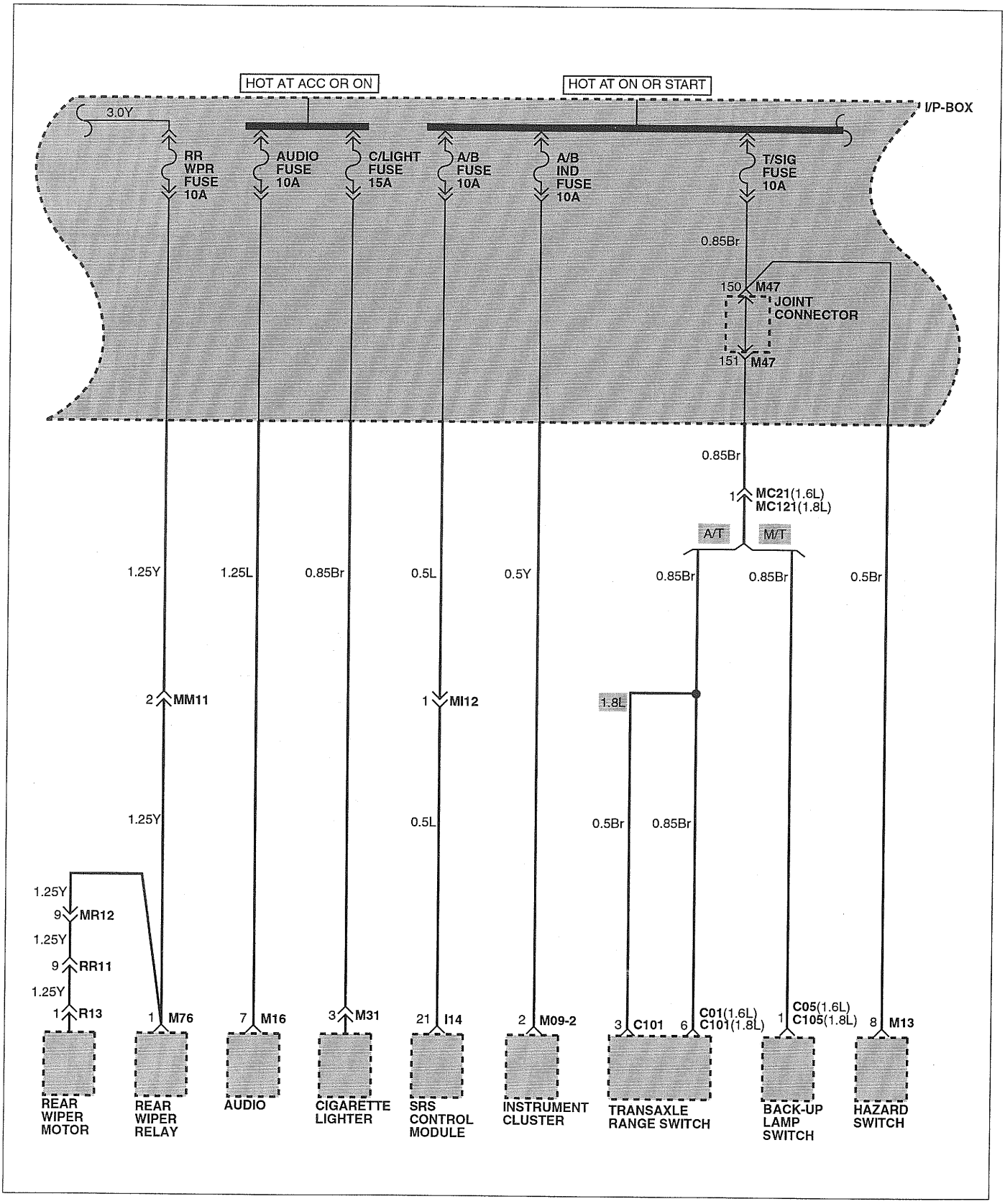
E2FC003A

PASSENGER COMPARTMENT FUSE DETAILS (2)



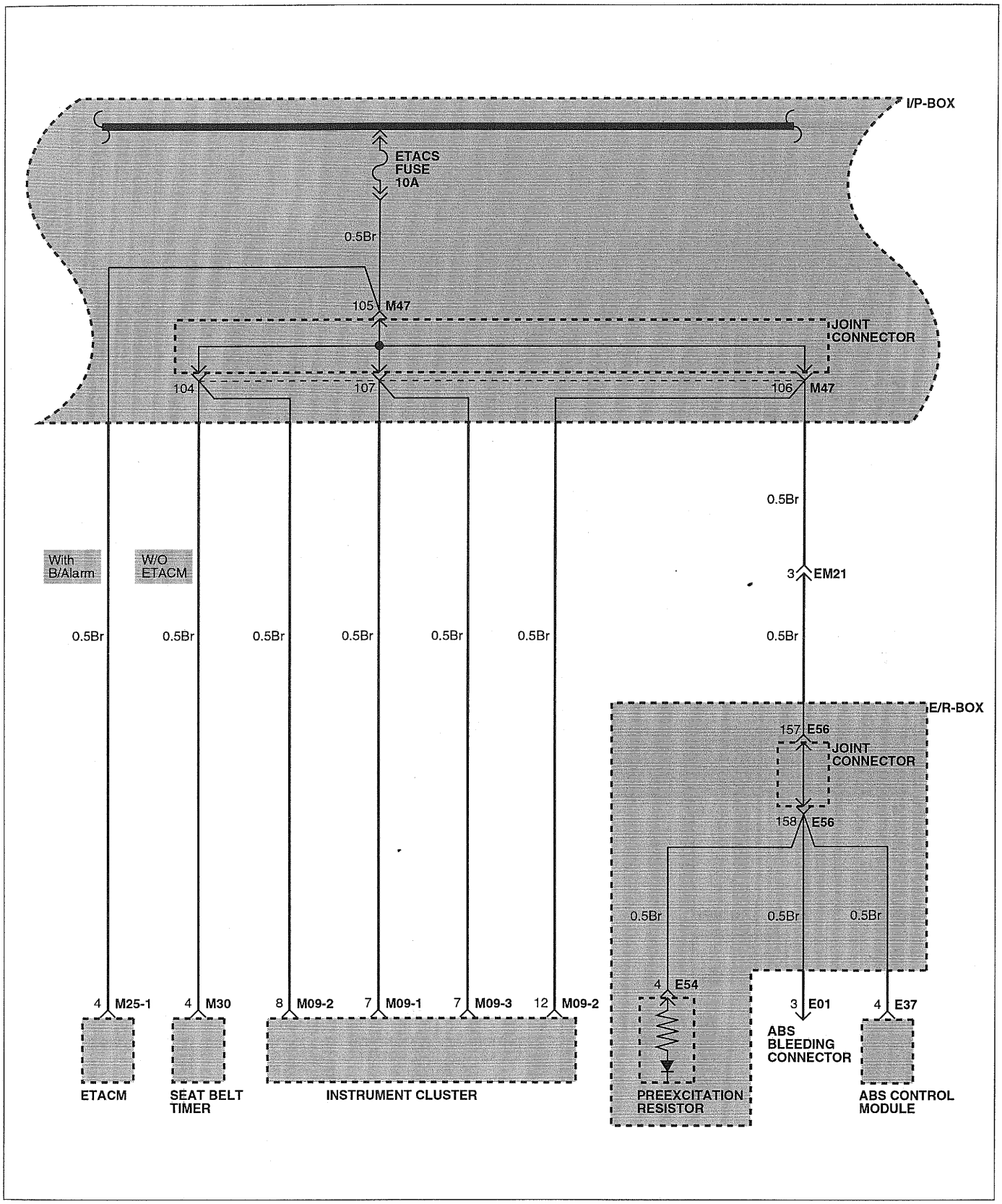
E2FC003B

PASSENGER COMPARTMENT FUSE DETAILS (3)



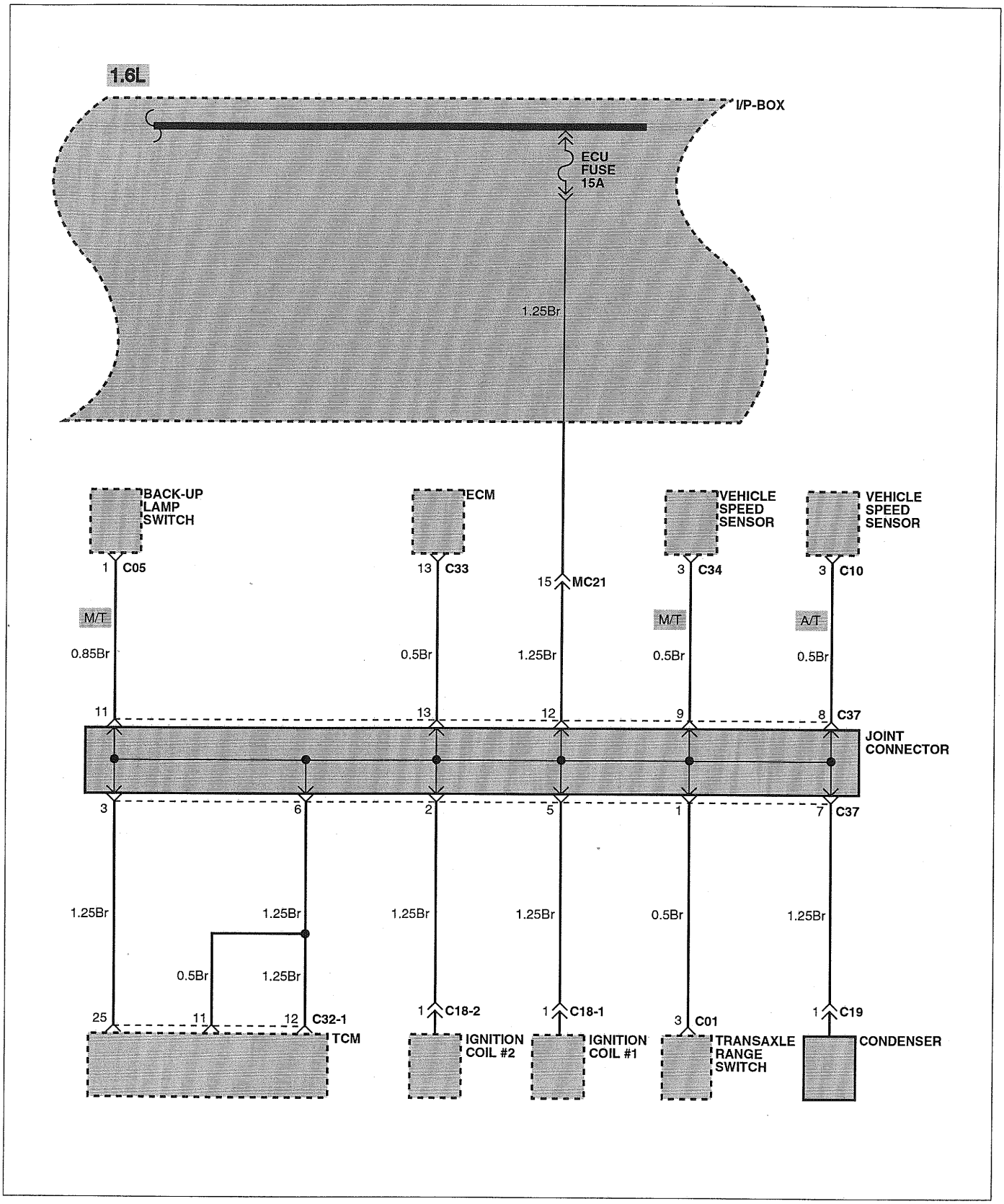
E2FC003C

PASSENGER COMPARTMENT FUSE DETAILS (4)



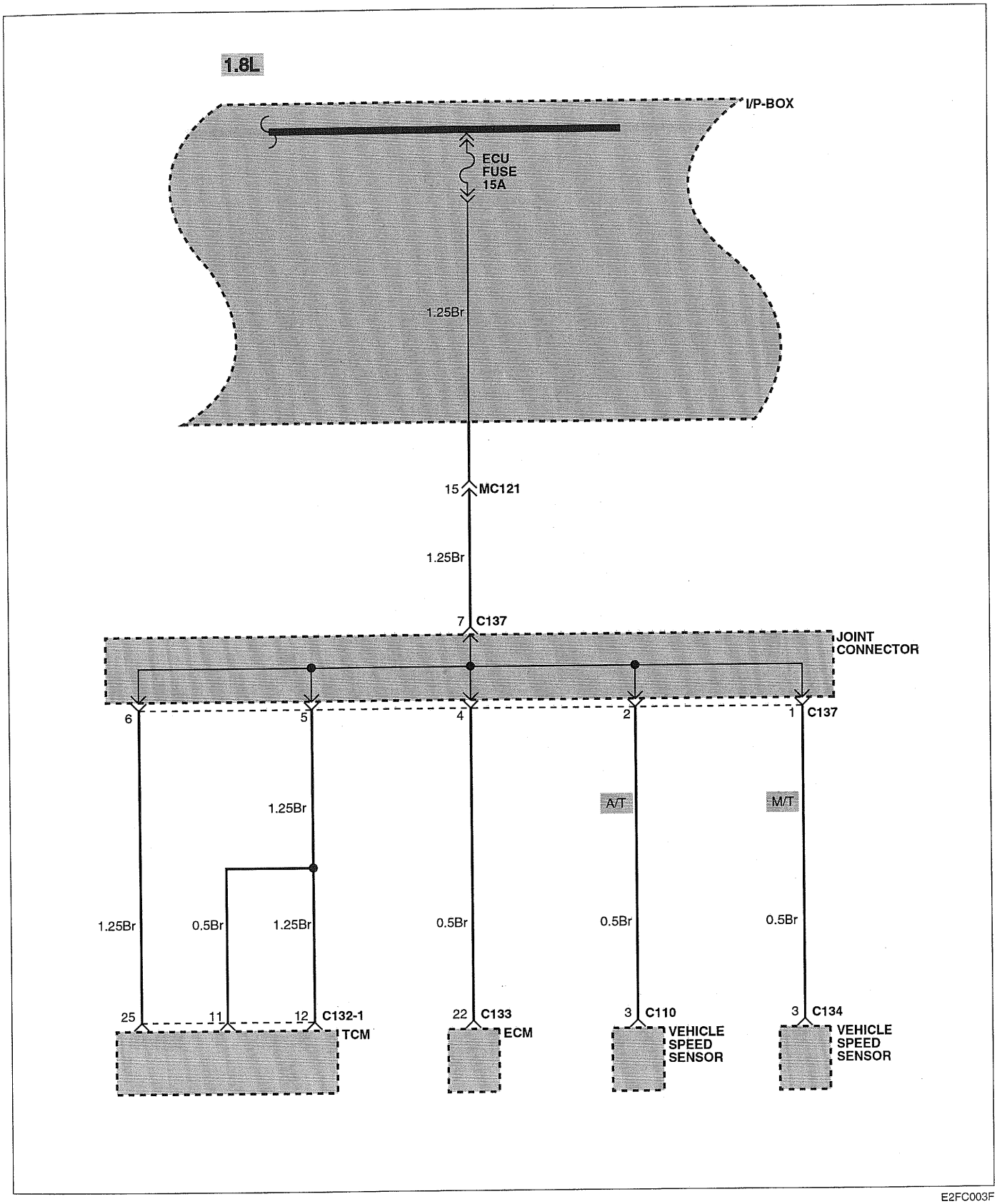
E2FC003D

PASSENGER COMPARTMENT FUSE DETAILS (5)



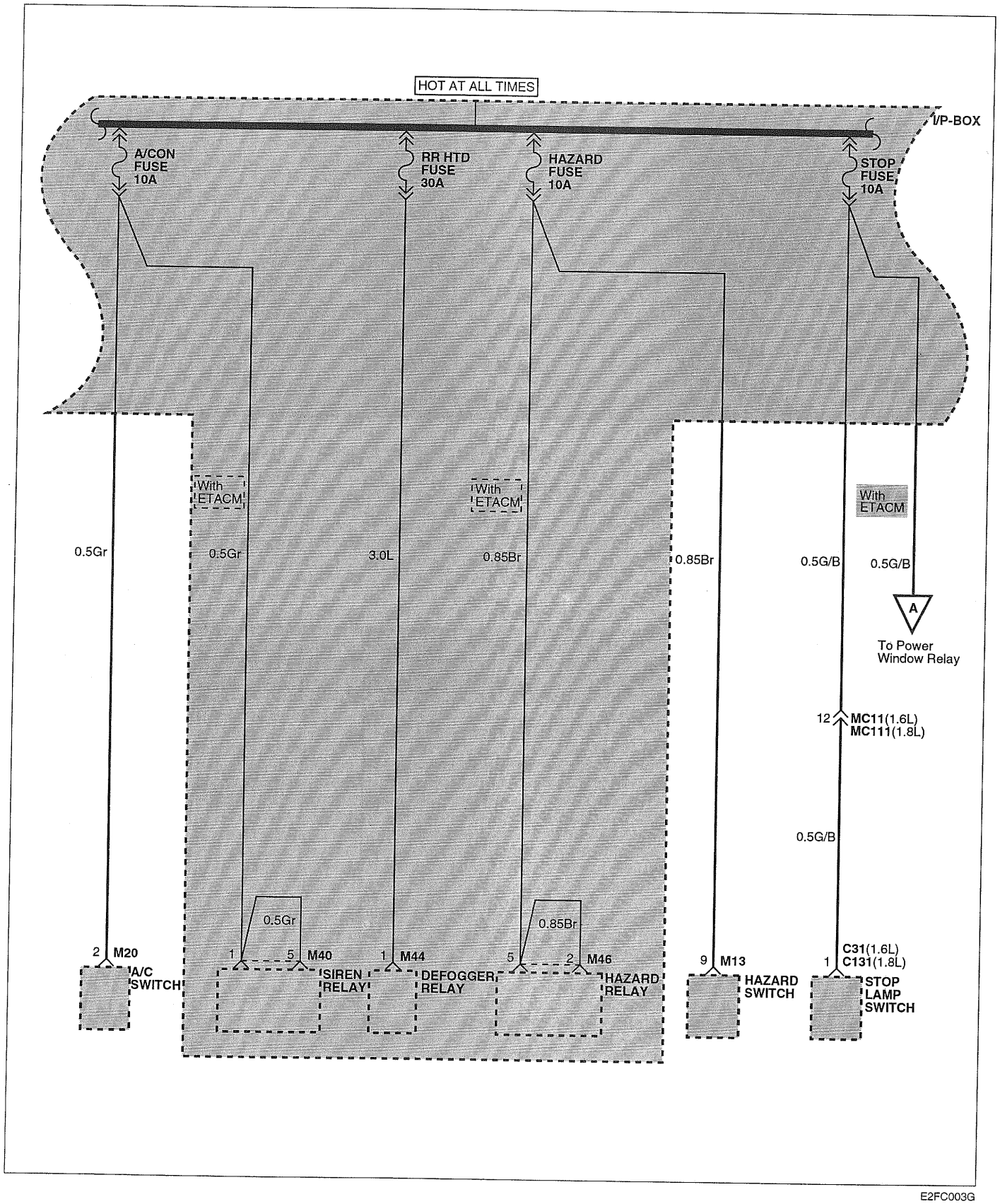
E2FC003E

PASSENGER COMPARTMENT FUSE DETAILS (6)



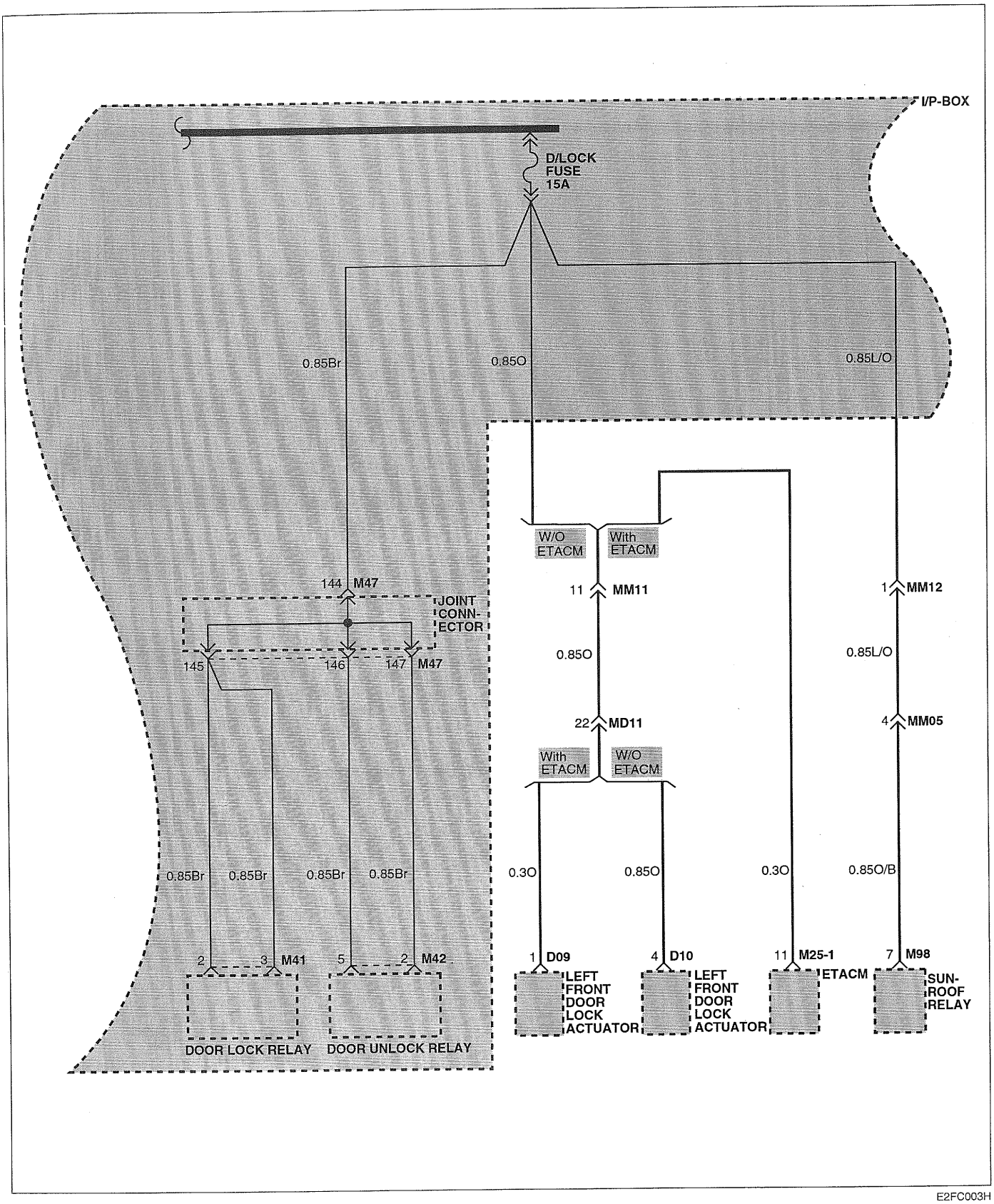
E2FC003F

PASSENGER COMPARTMENT FUSE DETAILS (7)



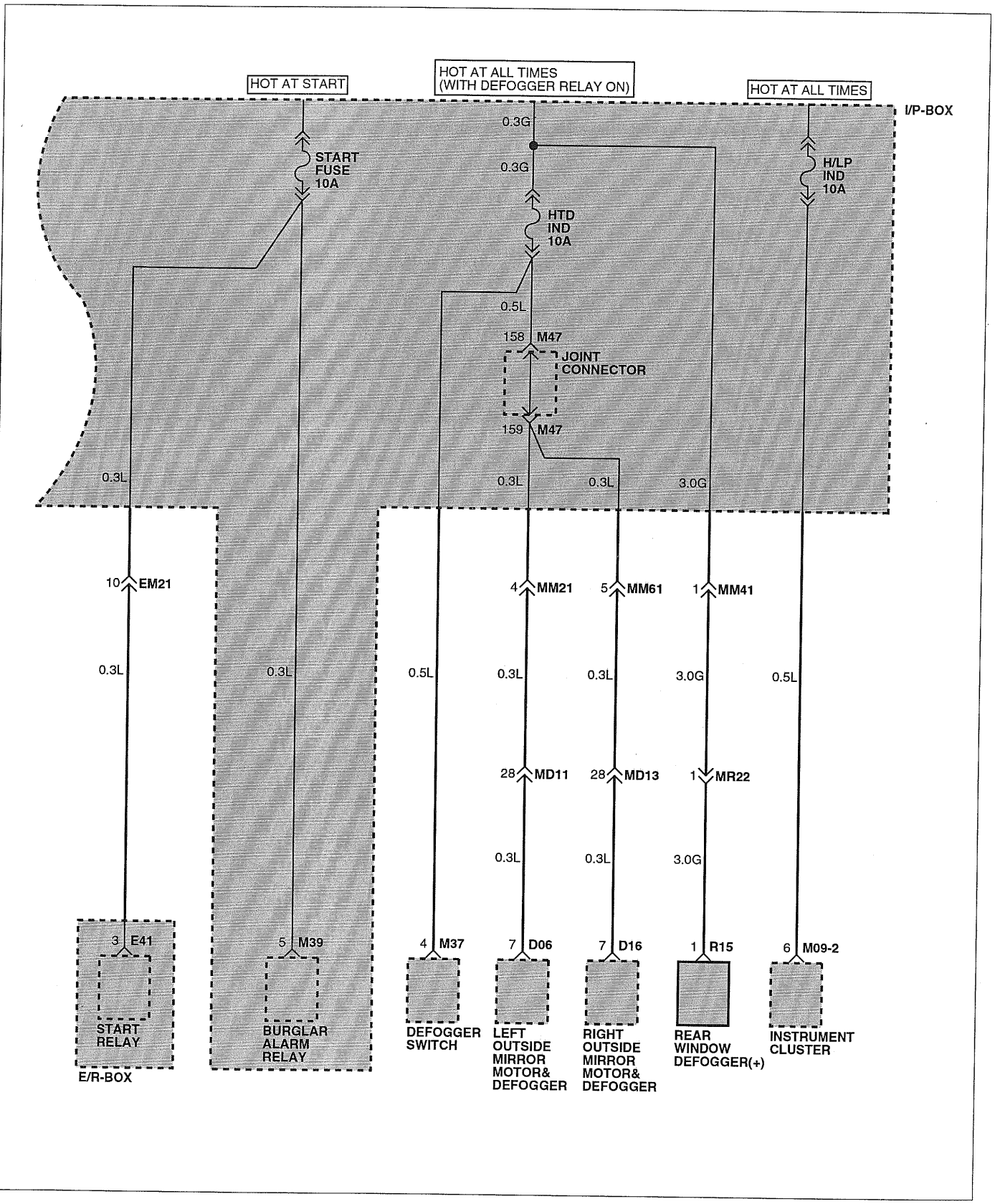
E2FC003G

PASSENGER COMPARTMENT FUSE DETAILS (8)



E2FC003H

PASSENGER COMPARTMENT FUSE DETAILS (9)

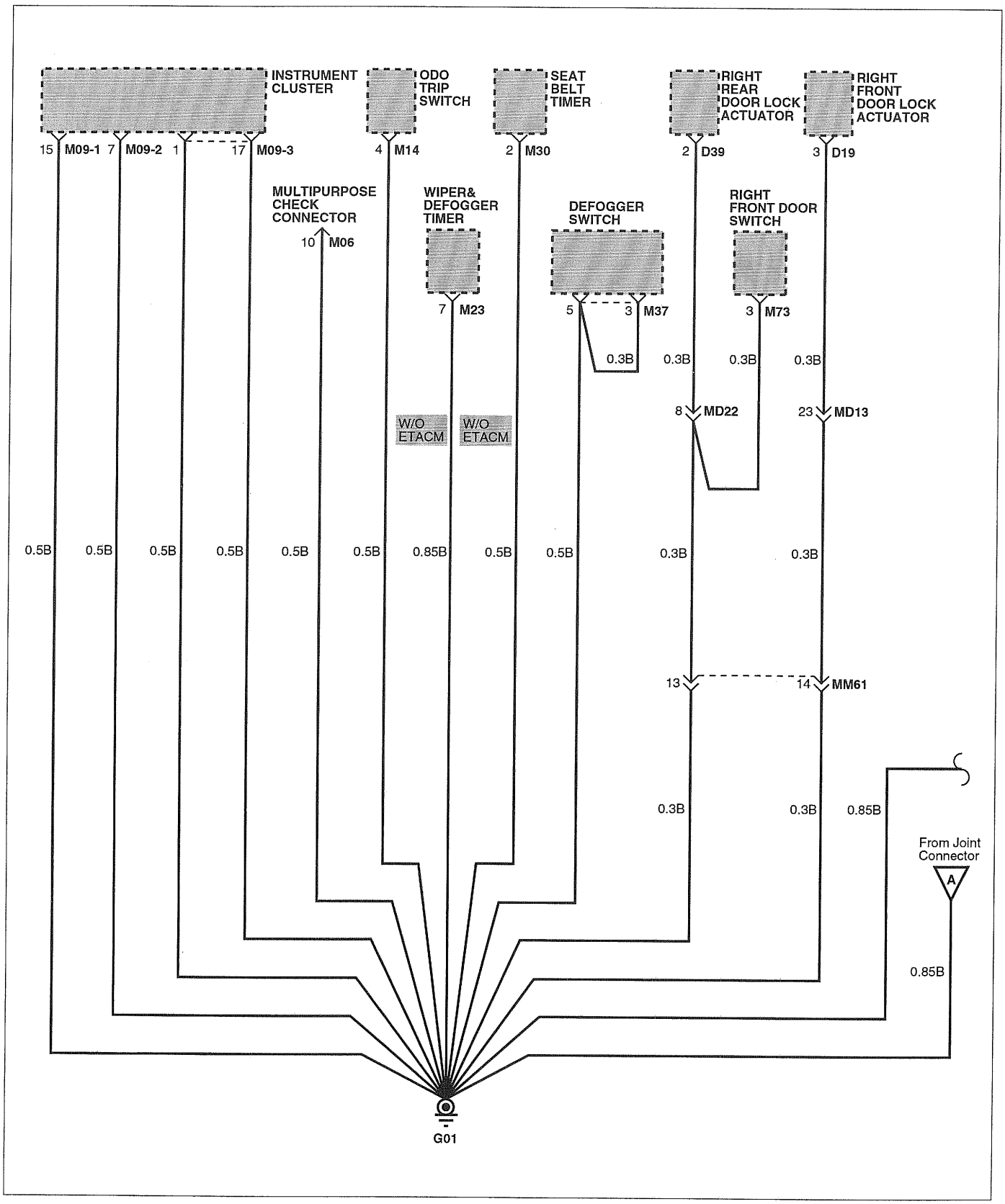


E2FC003I

MEMO

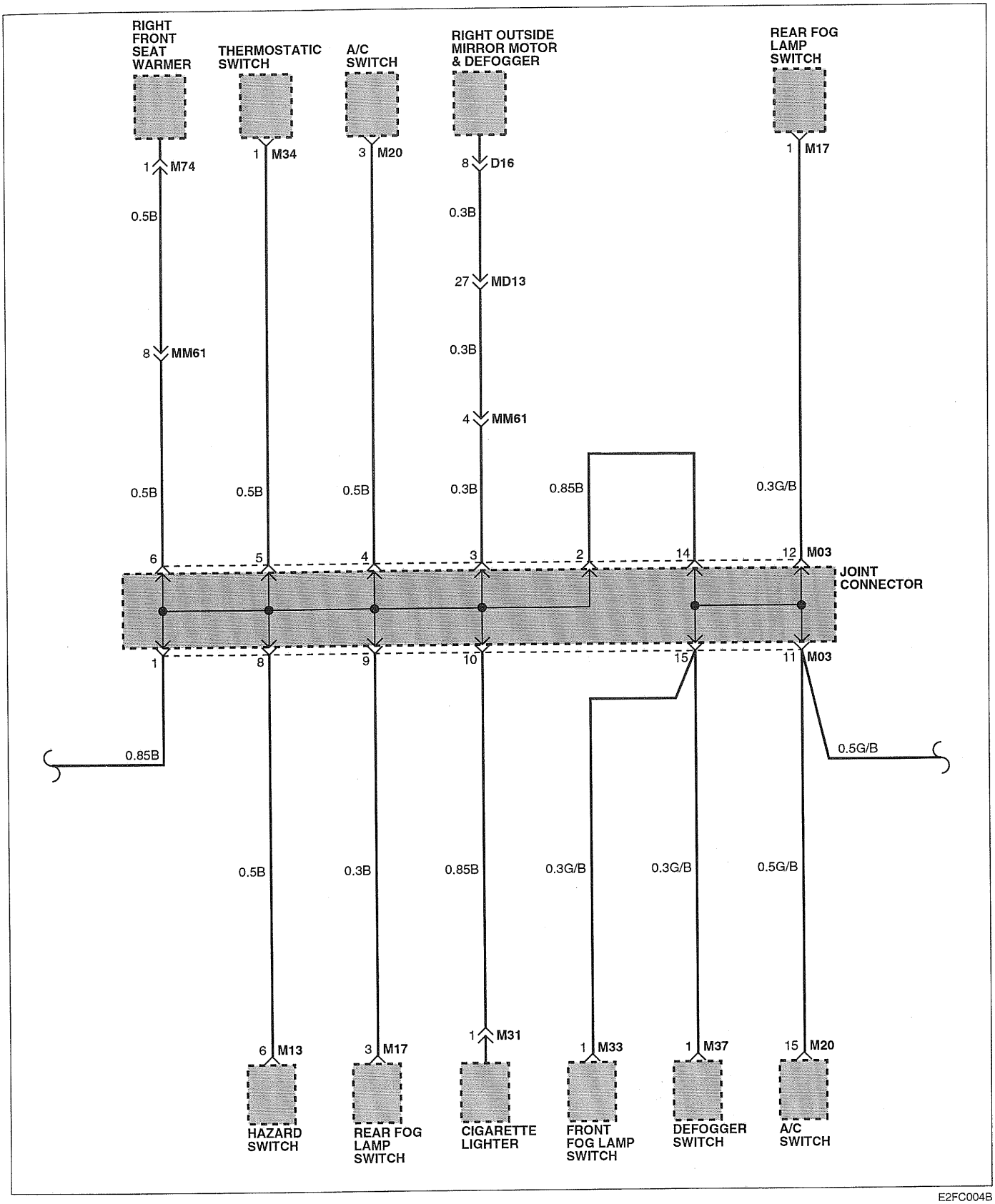
GROUND DISTRIBUTION E2FC0040

GROUND DISTRIBUTION (1)



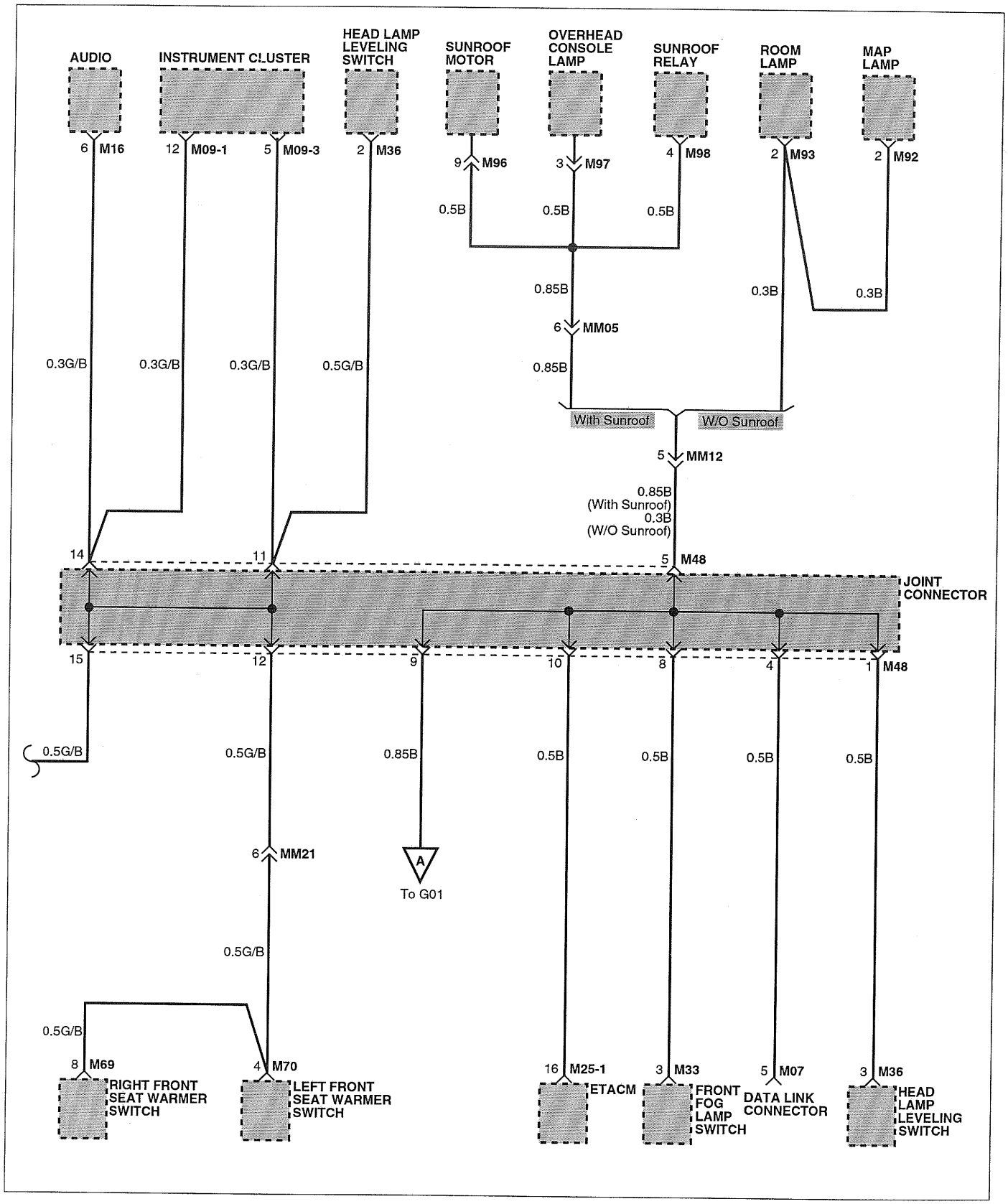
E2FC004A

GROUND DISTRIBUTION (2)



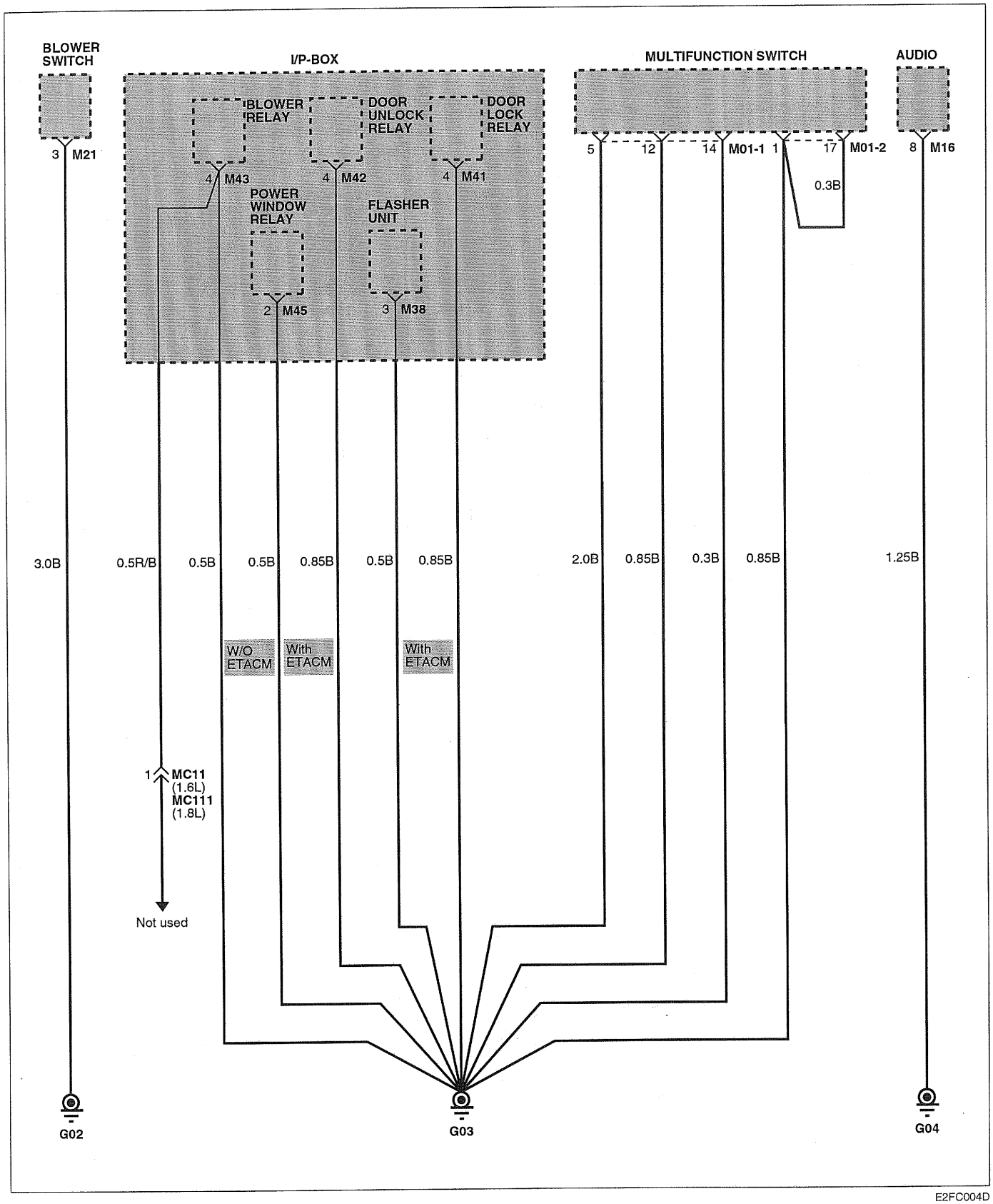
E2FC004B

GROUND DISTRIBUTION (3)



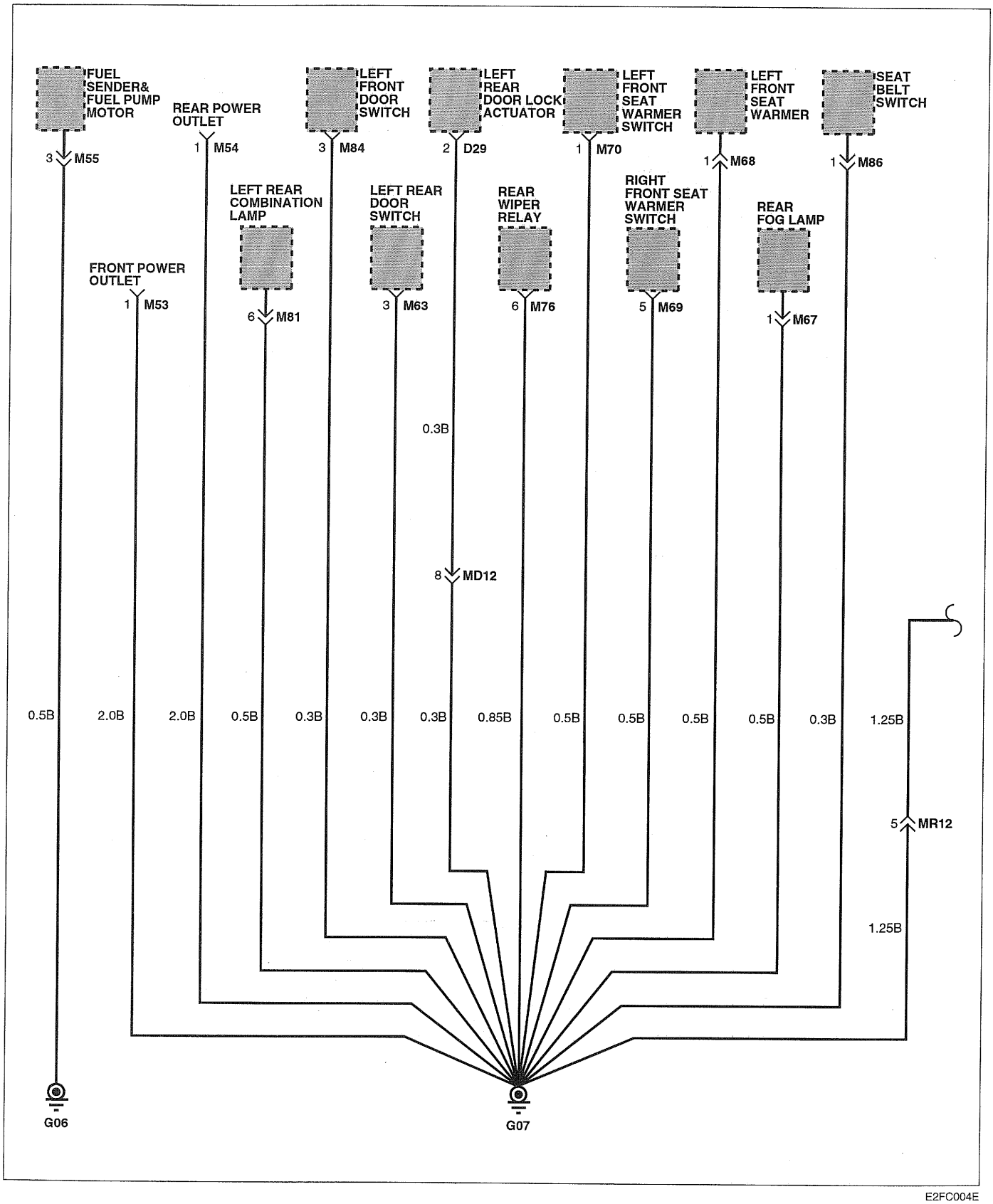
E2FC004C

GROUND DISTRIBUTION (4)



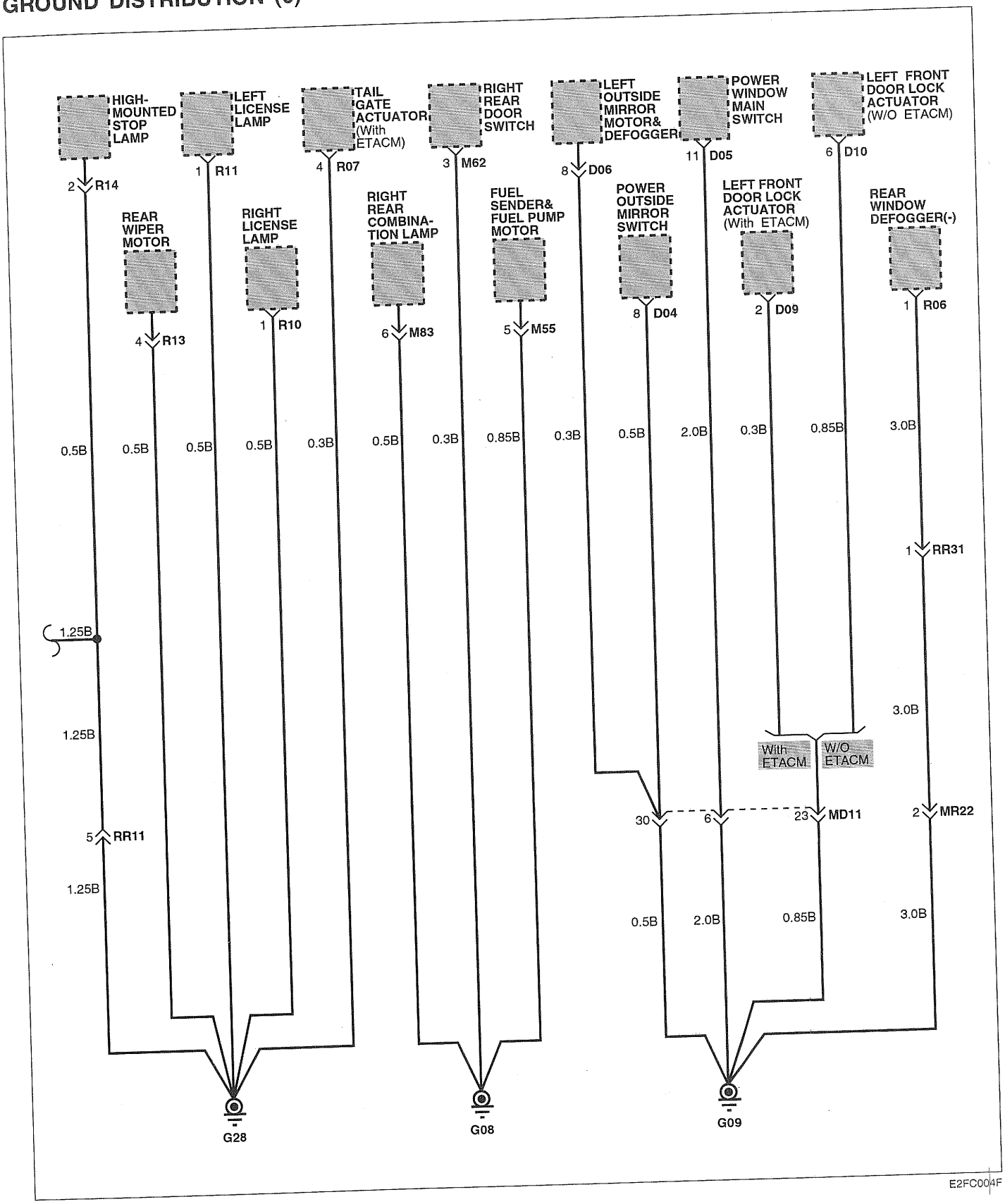
E2FC004D

GROUND DISTRIBUTION (5)

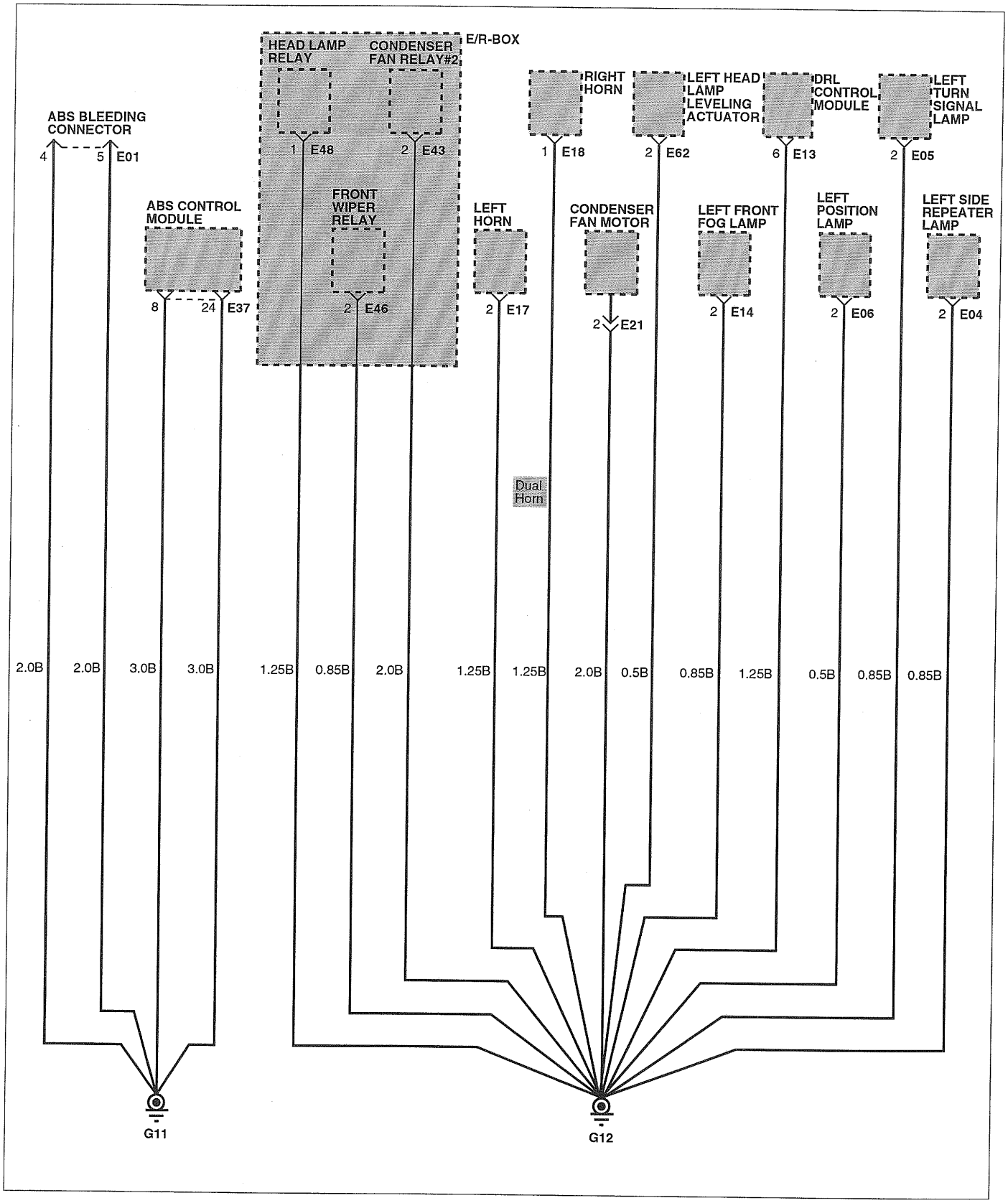


E2FC004E

GROUND DISTRIBUTION (6)



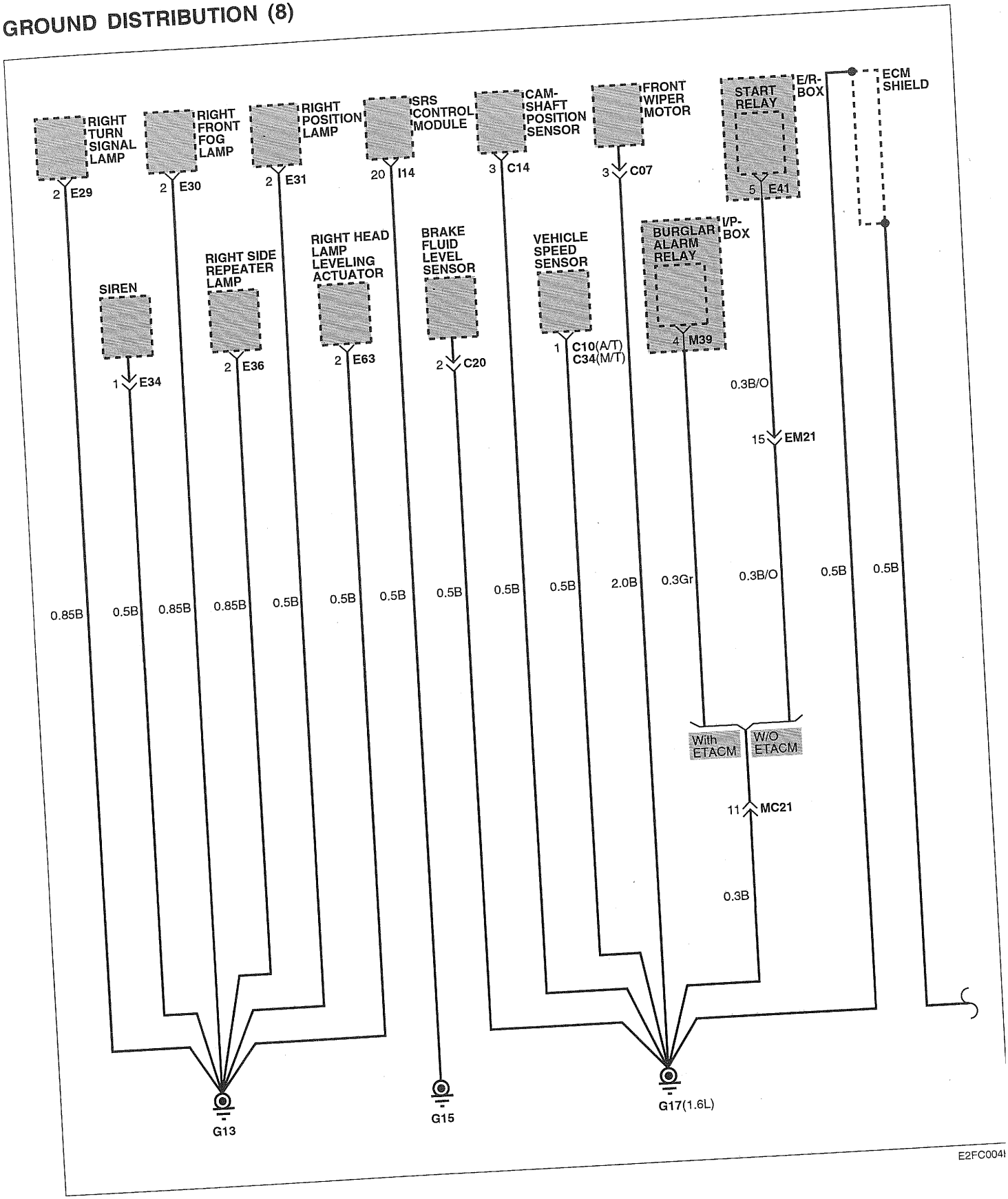
GROUND DISTRIBUTION (7)



E2FC004G

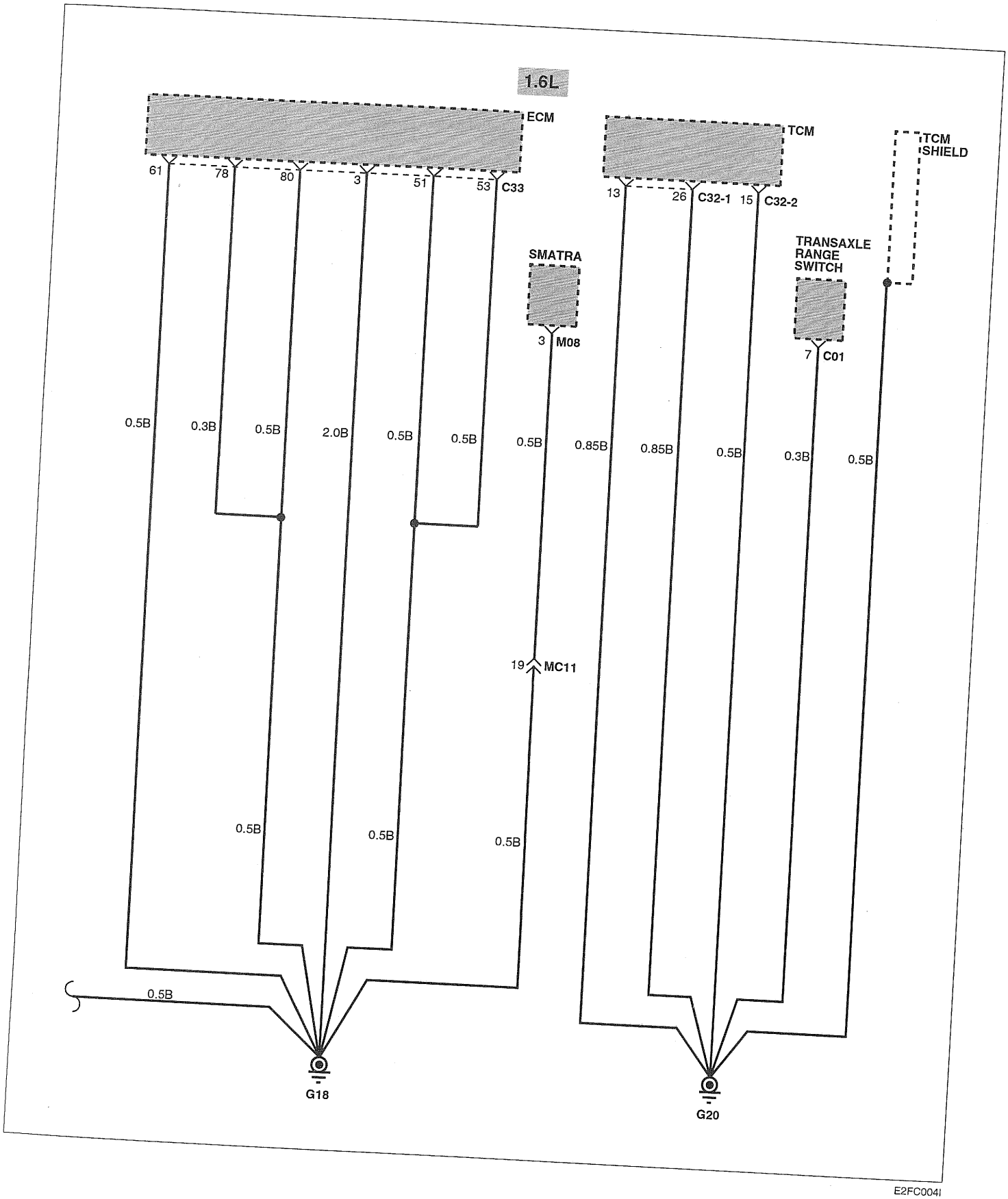
GROUND DISTRIBUTION

GROUND DISTRIBUTION (8)

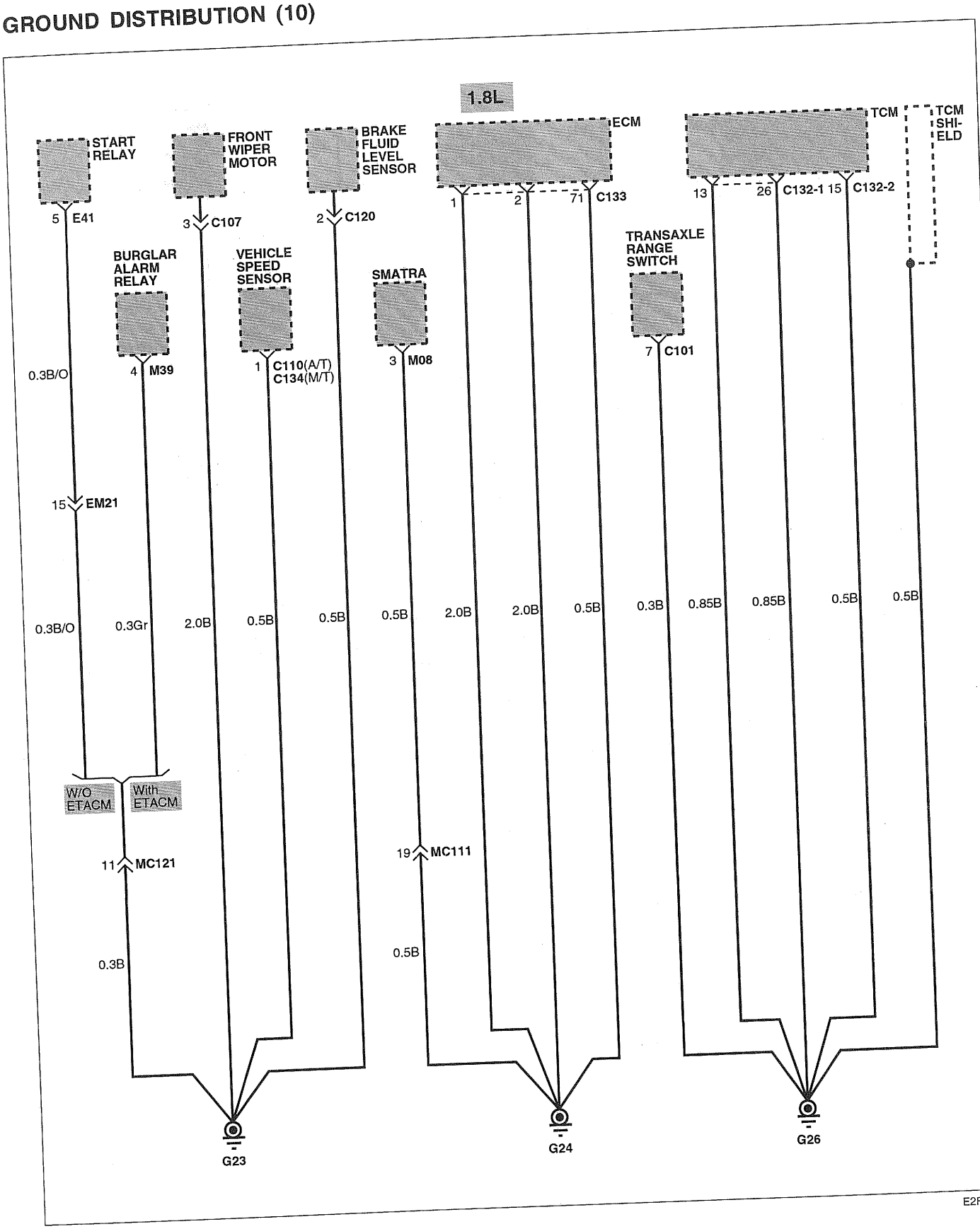


E2FC004

GROUND DISTRIBUTION (9)

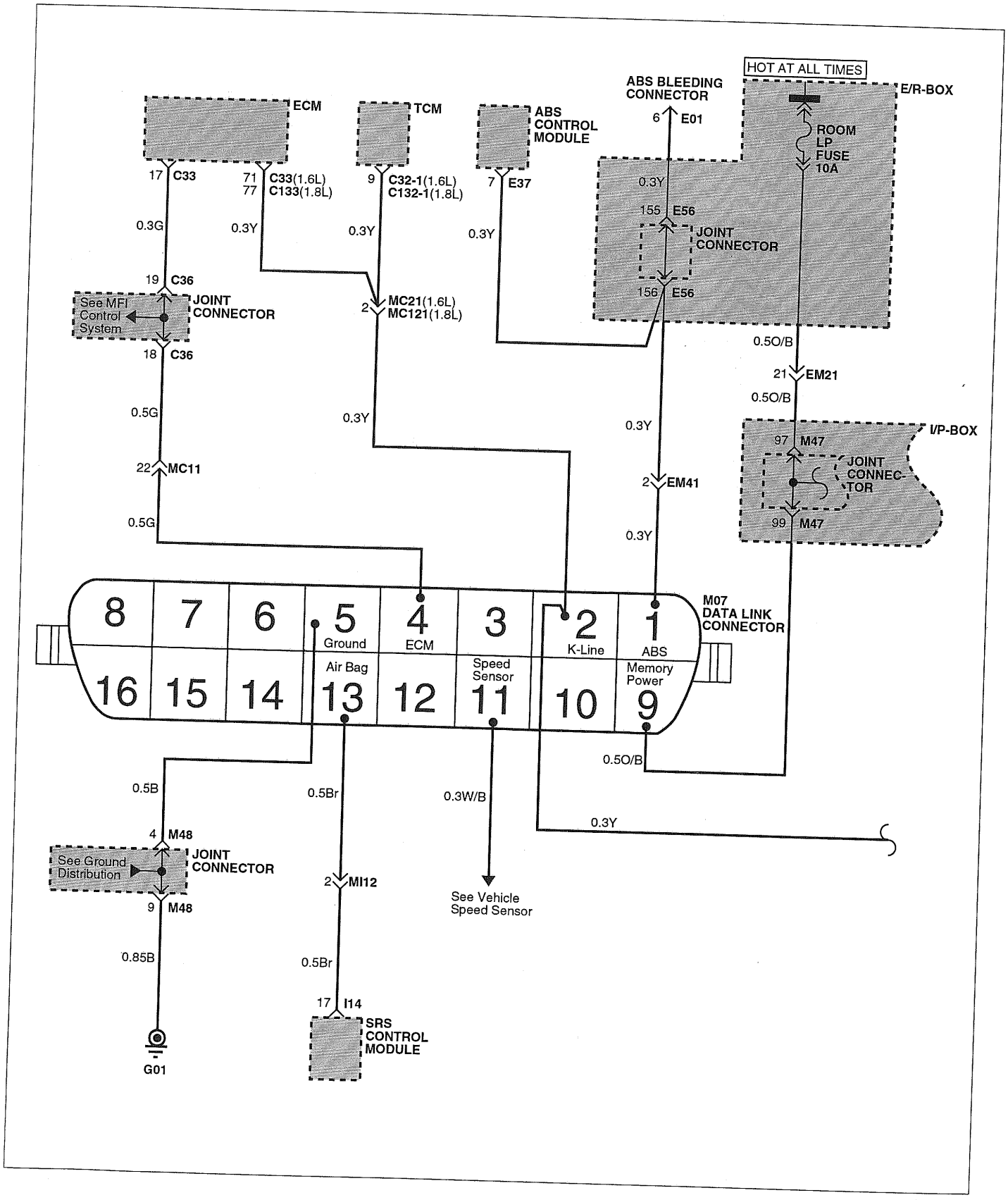


GROUND DISTRIBUTION (10)



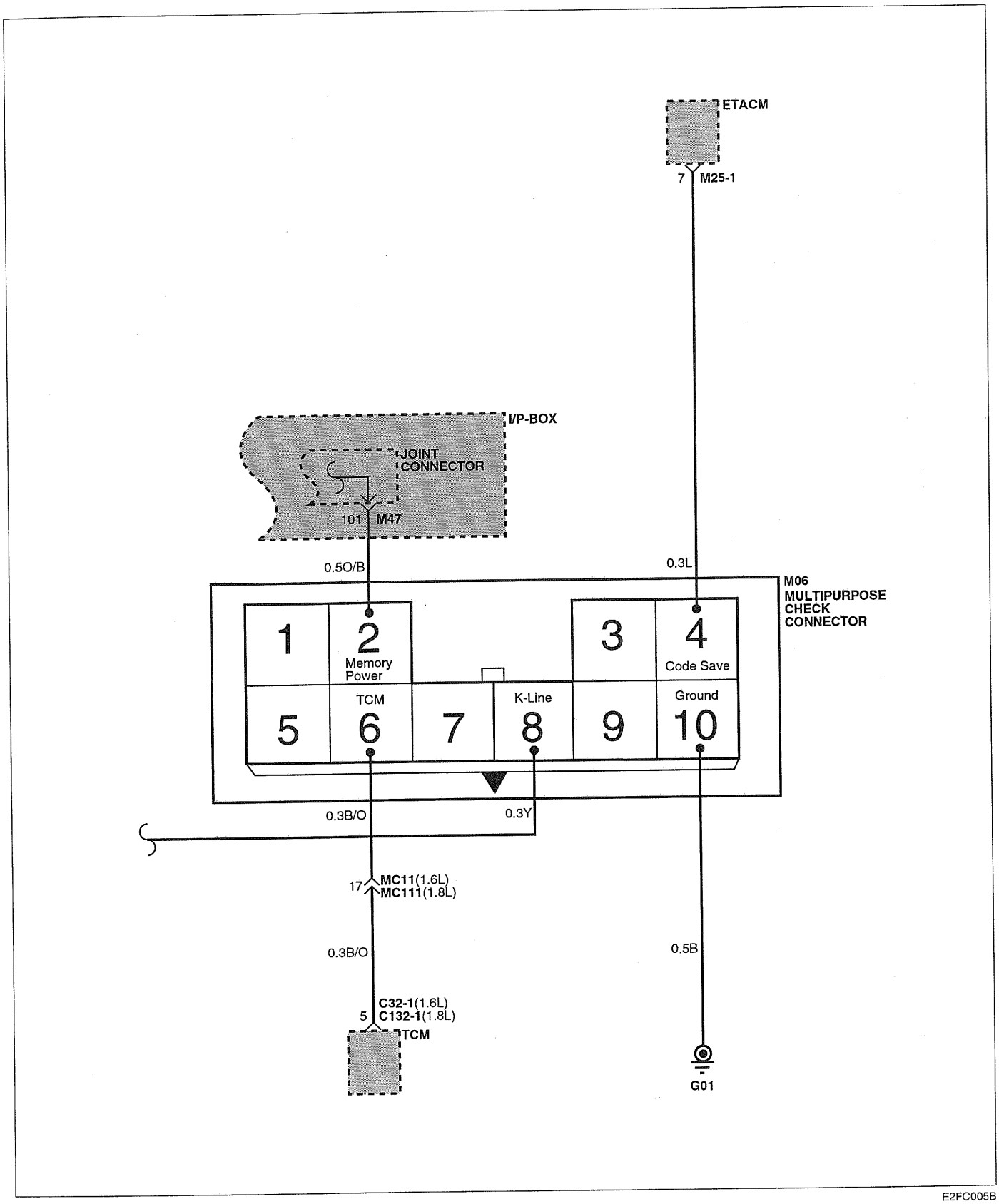
DATA LINK DETAILS E2FC0050

DATA LINK DETAILS (1)



E2FC005A

DATA LINK DETAILS (2)



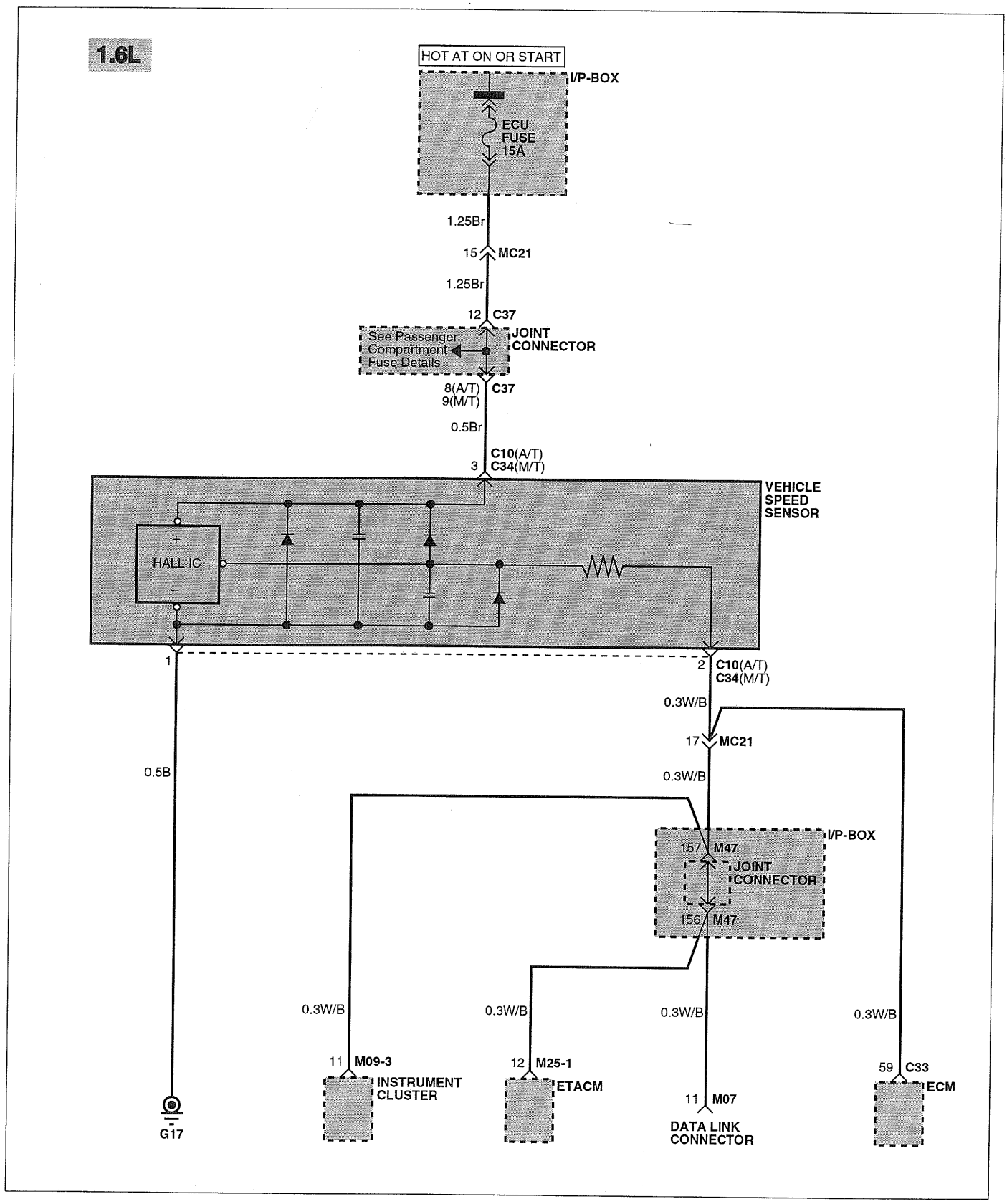
E2FC005B

COMPONENT LOCATION INDEX

MEMO

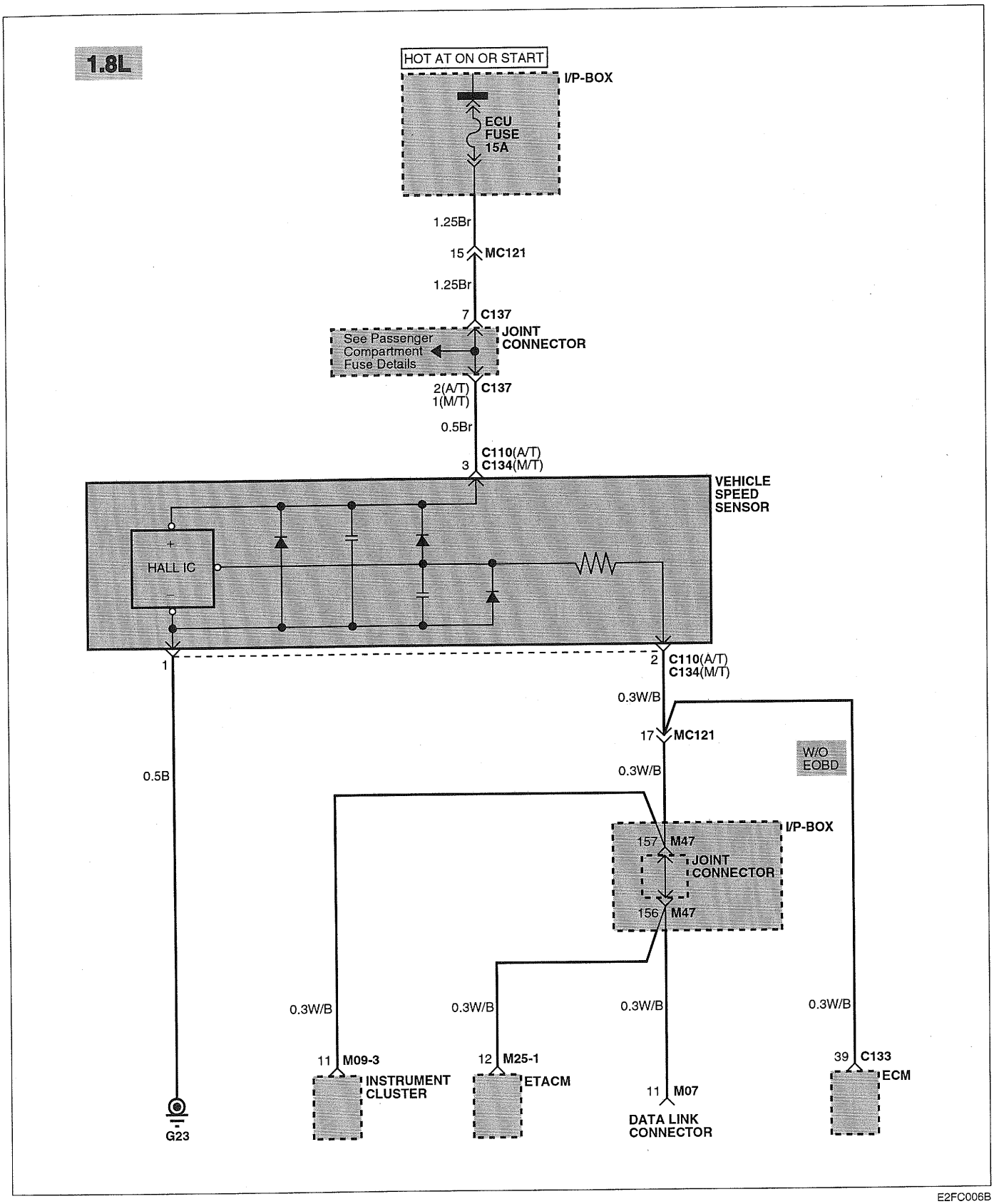
VEHICLE SPEED SENSOR E2FC0060

VEHICLE SPEED SENSOR (1)



E2FC006A

VEHICLE SPEED SENSOR (2)



E2FC006B

COMPONENT LOCATION INDEX

Components		Location reference-page
C10	Vehicle speed sensor (A/T, 1.6L)	CL-17
C33	ECM (1.6L)	CL-18
C34	Vehicle speed sensor (M/T, 1.6L)	CL-19
C37	Joint connector	CL-19
C110	Vehicle speed sensor (A/T, 1.8L)	CL-20
C133	ECM (1.8L)	CL-22
C134	Vehicle speed sensor (M/T, 1.8L)	CL-22
C137	Joint connector	CL-22
M07	Data link connector	CL-2
M09-3	Instrument cluster	CL-2
M25-1	ETACM	CL-4
M47	Joint connector	CL-5
Connectors		
MC21		CL-8
MC121		CL-8
Grounds		
G17		CL-30
G23		CL-31

Circuit Description

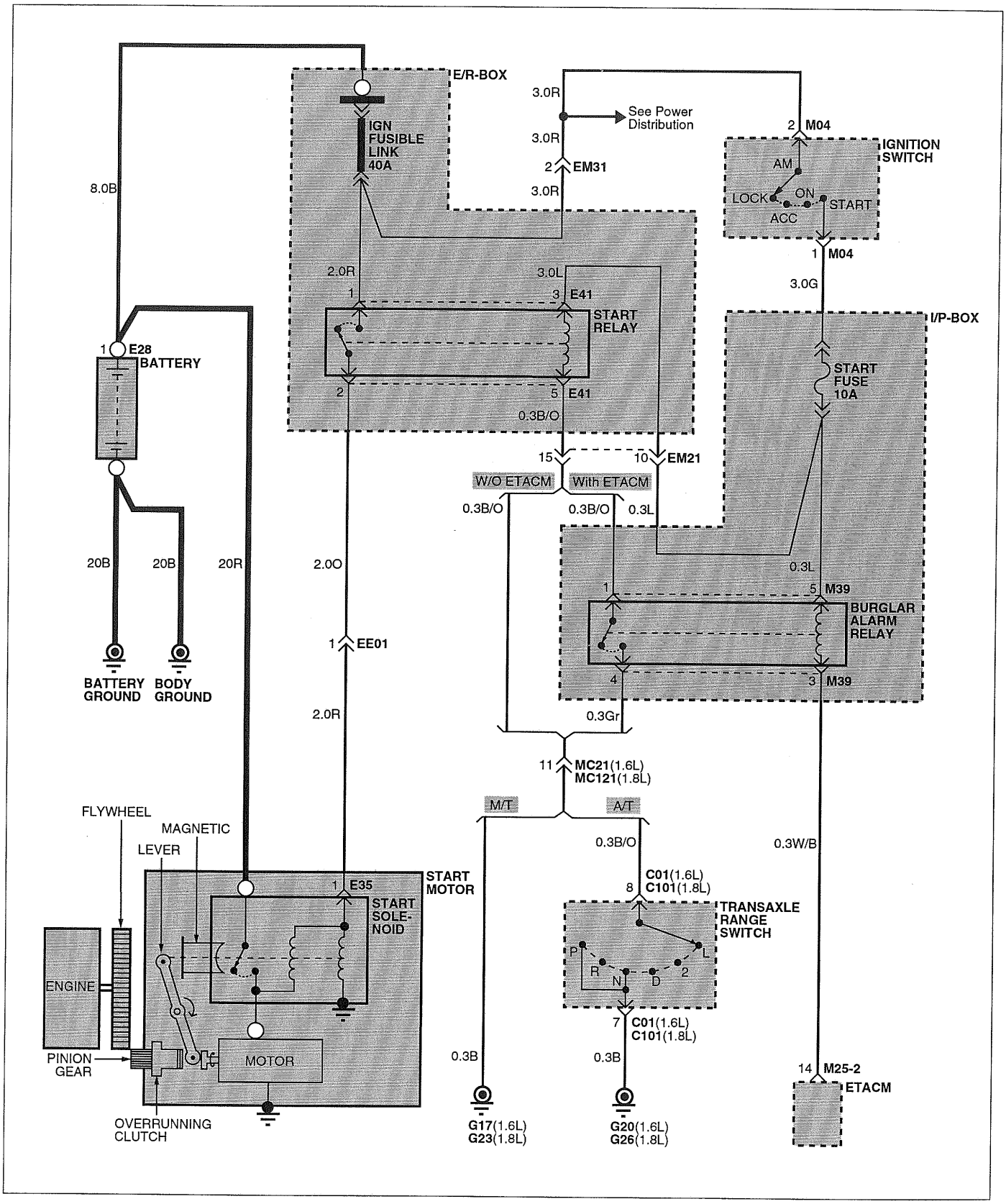
The vehicle speed sensor, located on the speedometer driven gear in the transaxle, generates pulse signals that indicate the vehicle's speed and provides signals to the control modules to calcaulate the vehicle speed.

The vehicle speed sensor (VSS) intermittently grounds the circuits. The number of pulses per minute increase/decrease with the speed of the car.

MEMO

STARTING SYSTEM E2FC0080

STARTING SYSTEM (1)



E2FC008A

COMPONENT LOCATION INDEX

Components		Location reference-page
C01	Transaxle range switch (1.6L)	CL-16
C101	Transaxle range switch (1.8L)	CL-19
E35	Start solenoid	CL-12
E41	Start relay	CL-13
M04	Ignition switch	CL-2
M25-2	ETACM	CL-4
M39	Burglar alarm relay	CL-5
Connector		
EE01		CL-14
EM21		CL-14
EM31		CL-14
MC21		CL-8
MC121		CL-8
Grounds		
G17		CL-30
G20		CL-31
G23		CL-31
G26		CL-31

Circuit Description

A/T

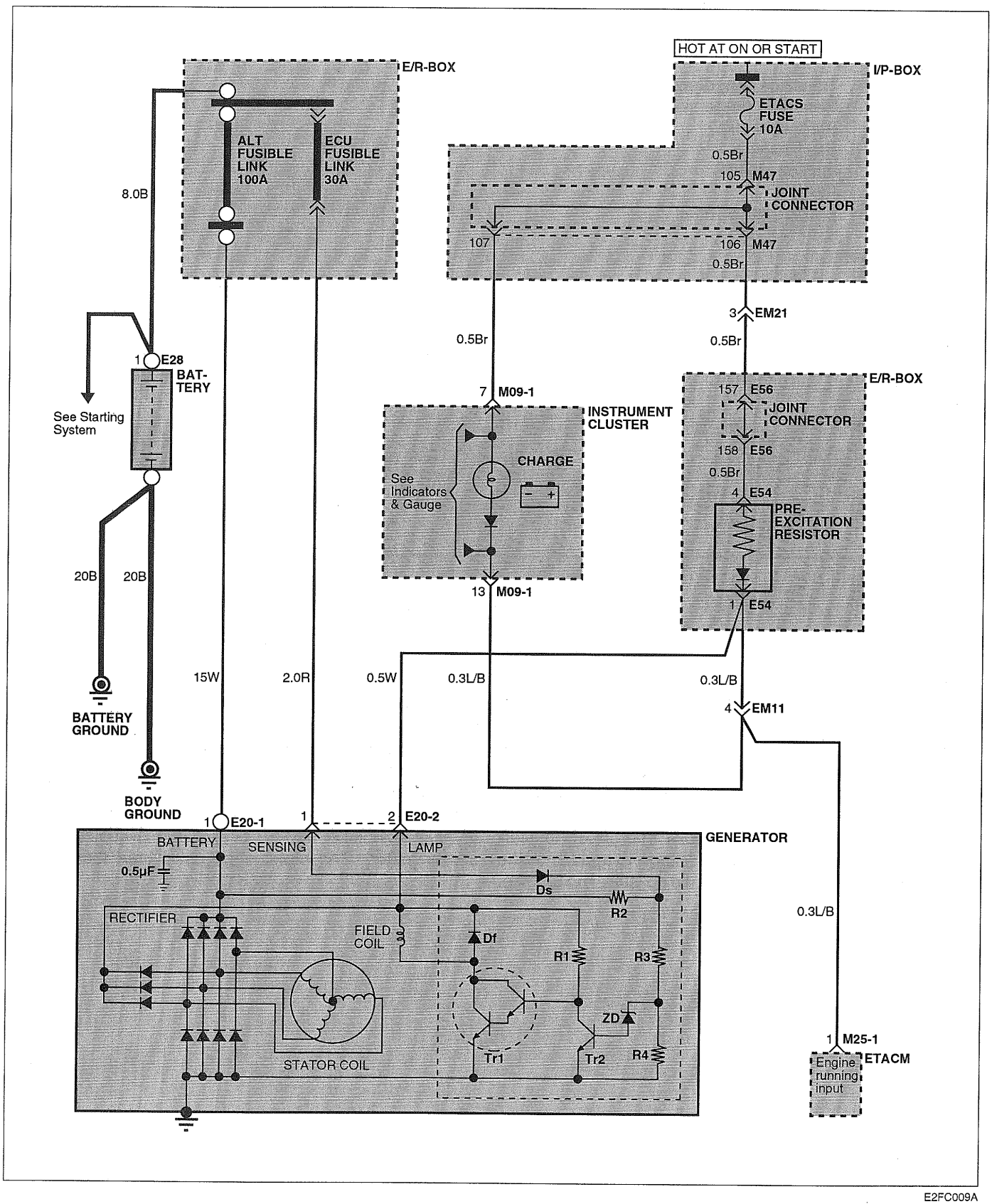
Battery voltage is applied at all times from the positive battery terminal to the ignition switch and the normally open start relay contacts. When the ignition switch is turned to START, transaxle range switch is in the P/N position and the burglar alarm relay contact closed (controlled by ETACM), battery voltage is applied to the starter relay coils. The starter relay coils energize, the start relay contacts close and battery voltage is applied to the starter motor. The motor engages to start the engine.

M/T

Battery voltage is applied at all times from the positive battery terminal to the ignition switch and the normally open start relay contacts. When the ignition switch is turned to START and the burglar alarm relay contact closed (controlled by ETACM), battery voltage is applied to the starter relay coils. The starter relay coils energize, the start relay contacts close, and battery voltage is applied to the starter motor. The motor engages to start the engine.

CHARGING SYSTEM E2FC0090

CHARGING SYSTEM (1)



E2FC009A

COMPONENT LOCTION INDEX

Components		Location reference-page
E20-1	Generator	CL-11
E20-2	Generator	CL-11
E28	Battery (+) terminal	CL-12
E54	Pre-excitation resistor	CL-13
E56	Joint connector	CL-13
M09-1	Instrument cluster	CL-2
M25-1	ETACM	CL-4
M47	Joint connector	CL-5
Connectors		
EM11		CL-14
EM21		CL-14

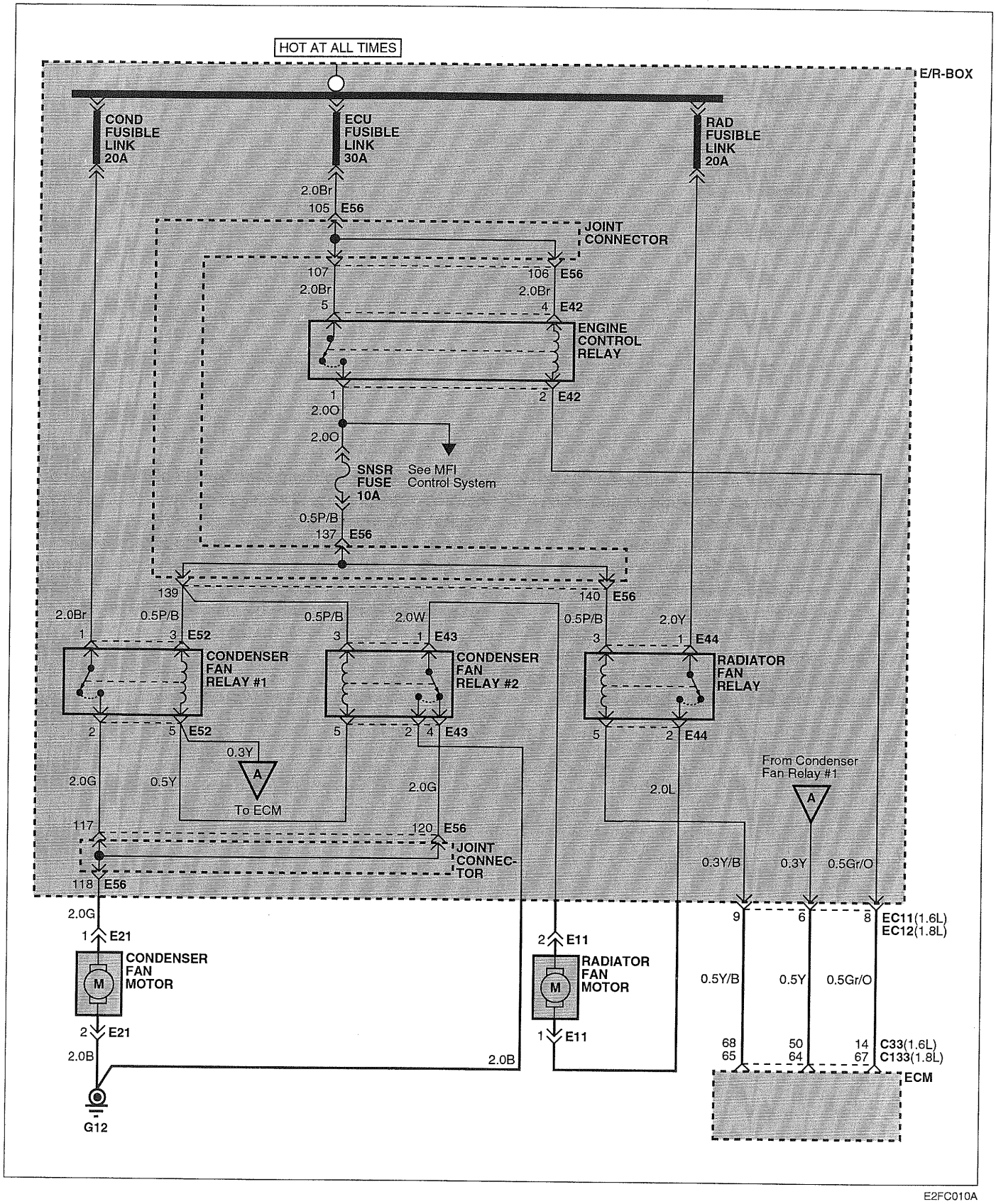
Circuit Description

The generator produces AC voltage in its windings as it is belt-driven by the engine. The rectifier converts this AC voltage into DC voltage.
The voltage regulator, a device built-in to the generator frame, controls the generator's output to meet electrical system requirements, and also controls the charge warning lamp.
ETACS fuse supplies battery voltage to the charge warning indicator. With the engine not running and the ignition switch in ON, terminal L of the regulator is grounded internally and the indicator lights up.

A small amount of current provided by both the charge warning lamp and the pre-excitation resistor is used to "excite" the magnetic field windings to start the charging process. With the engine running and the generator charging, terminal L voltage rises and the indicator goes out. If the generator fails to charge, terminal L remains below battery voltage and the indicator remains lit.

COOLING SYSTEM E2FC0100

COOLING SYSTEM (1)



E2FC010A

COMPONENT LOCATION INDEX

Components		Location reference-page
C33	ECM (1.6L)	CL-18
C133	ECM (1.8L)	CL-22
E11	Radiator fan motor	CL-10
E21	Condenser fan motor	CL-11
E42	Engine control relay	CL-13
E43	Condenser fan relay #2	CL-13
E44	Radiator fan relay	CL-13
E52	Condenser fan relay #1	CL-13
E56	Joint connector	CL-13
Connectors		
EC11		CL-14
Grounds		
G12		CL-30

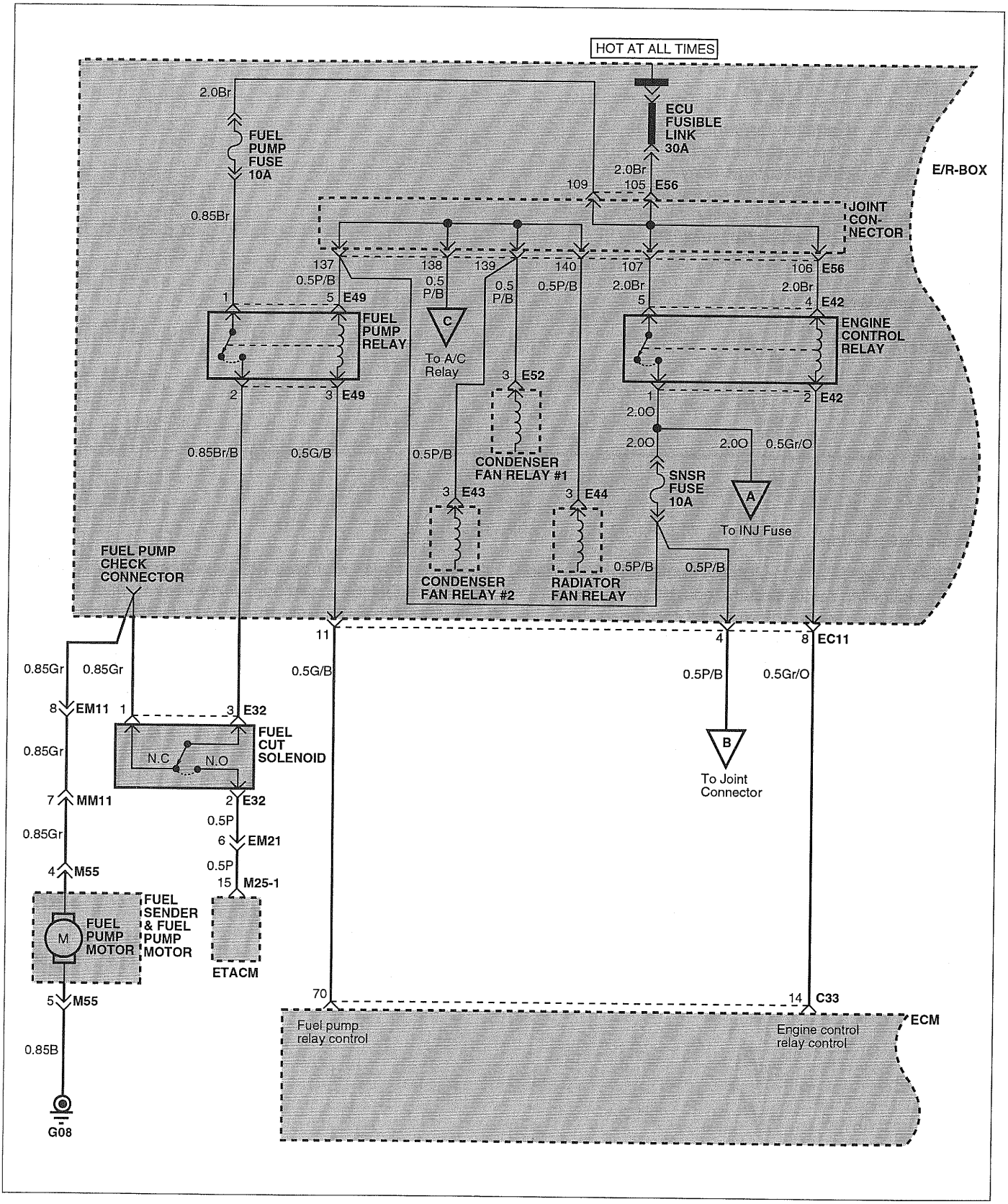
Circuit Description

The ECM (Engine Control Module) controls the operation of the radiator fan motor and the condenser fan motor through relay (radiator fan relay and condenser fan relays) control. The ECM monitors coolant temperature through engine coolant temperature sensor.

The module also monitors A/C operation through the A/C switch ON input and the A/C pressure switch input . Using these input signals, the module controls the coil of the appropriate relays (condenser fan relays and radiator fan relay) to provide optimal cooling fan operation.

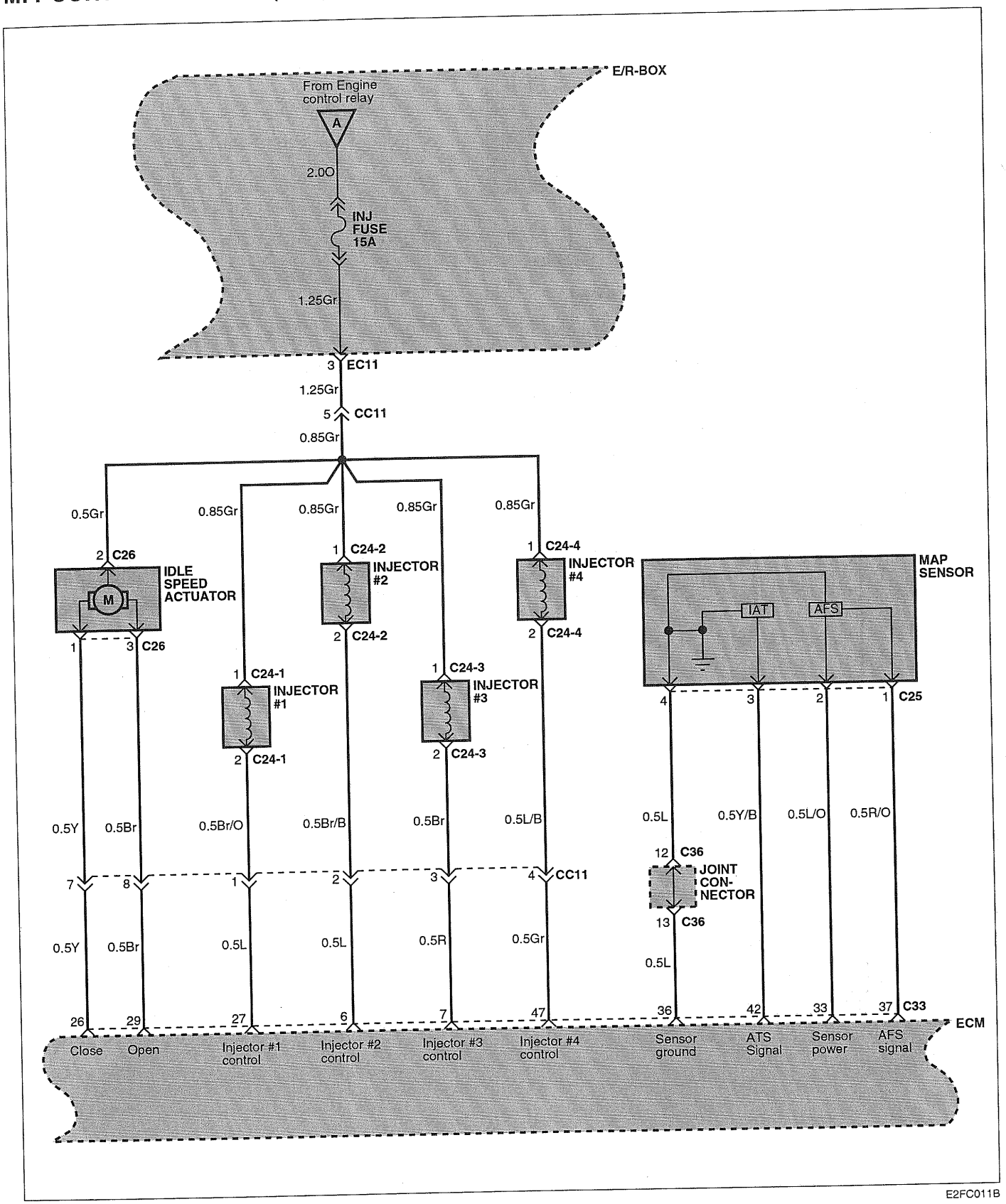
MFI CONTROL SYSTEM (1.6L) E2FC0110

MFI CONTROL SYSTEM (1.6L) (1)



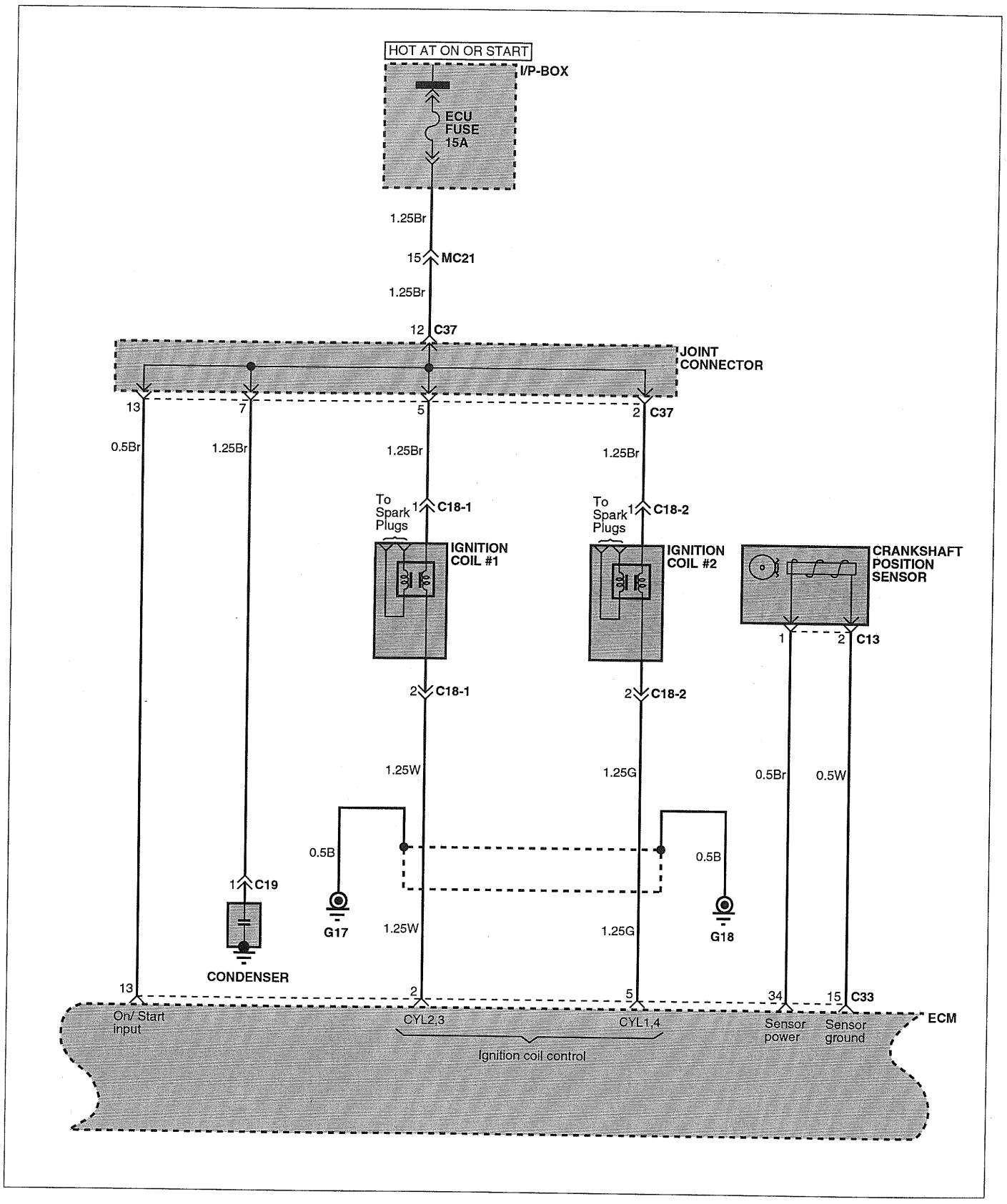
E2FC011A

MFI CONTROL SYSTEM (1.6L) (2)



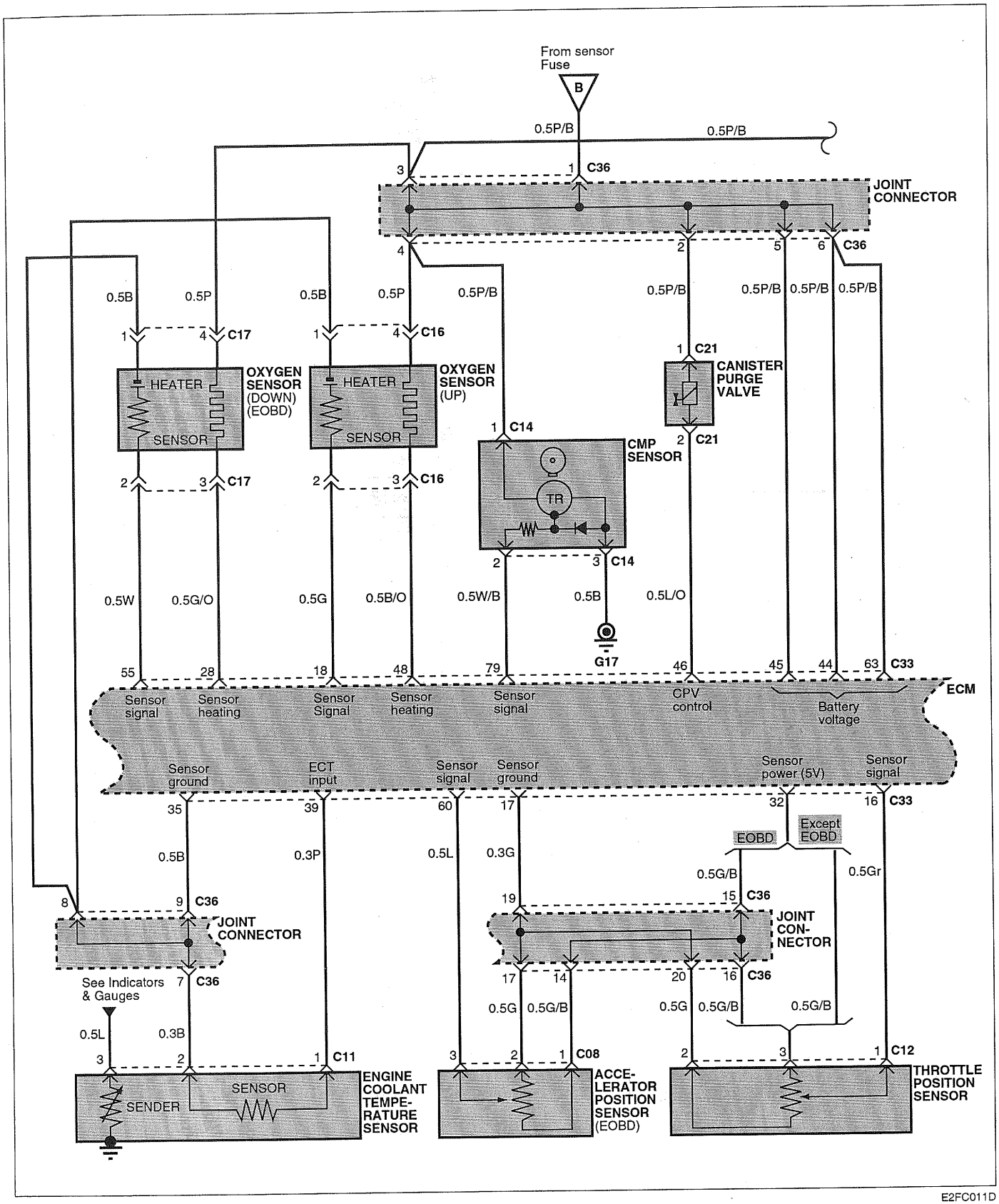
E2FC011B

MFI CONTROL SYSTEM (1.6L) (3)



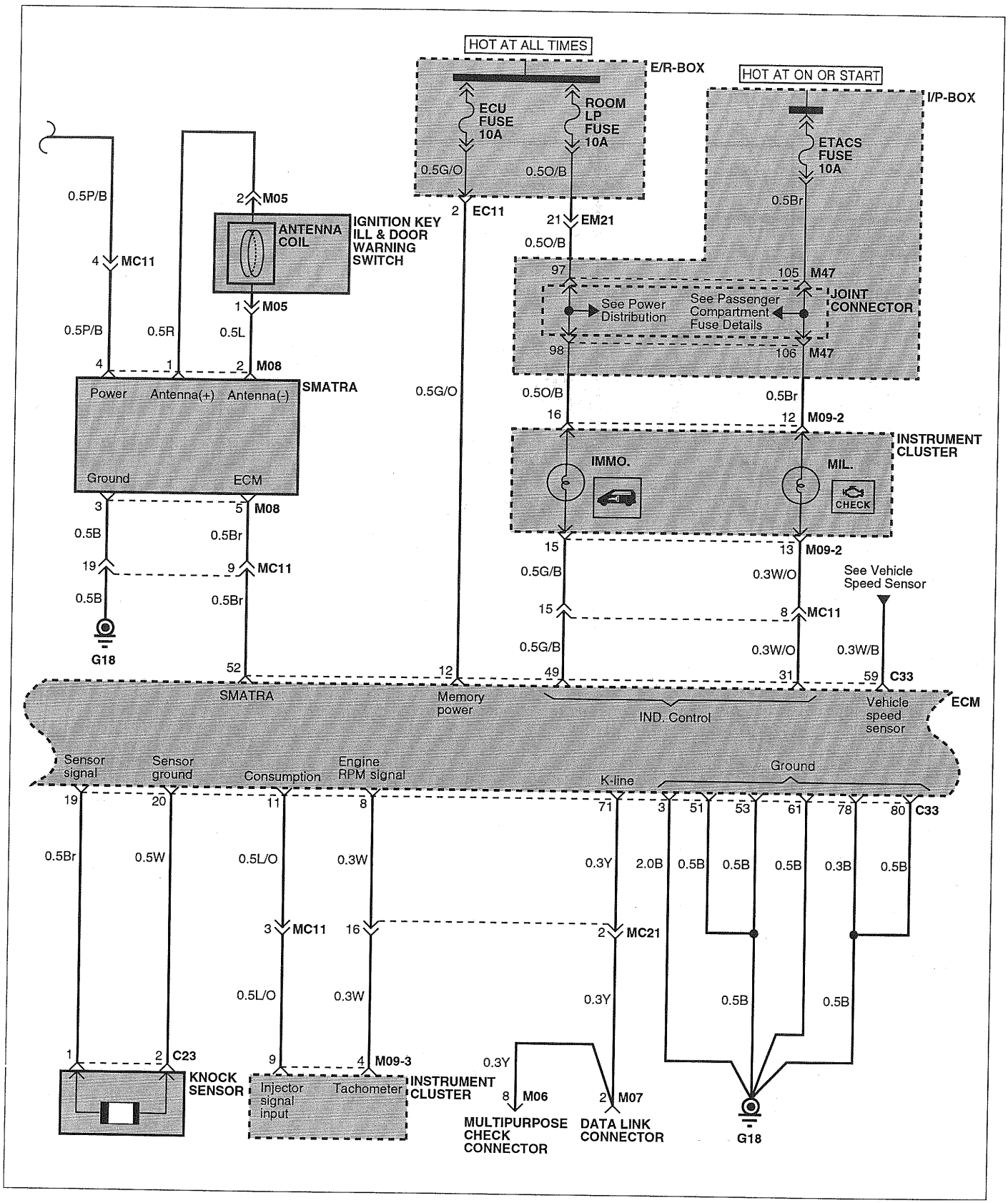
E2FC011C

MFI CONTROL SYSTEM (1.6L) (4)



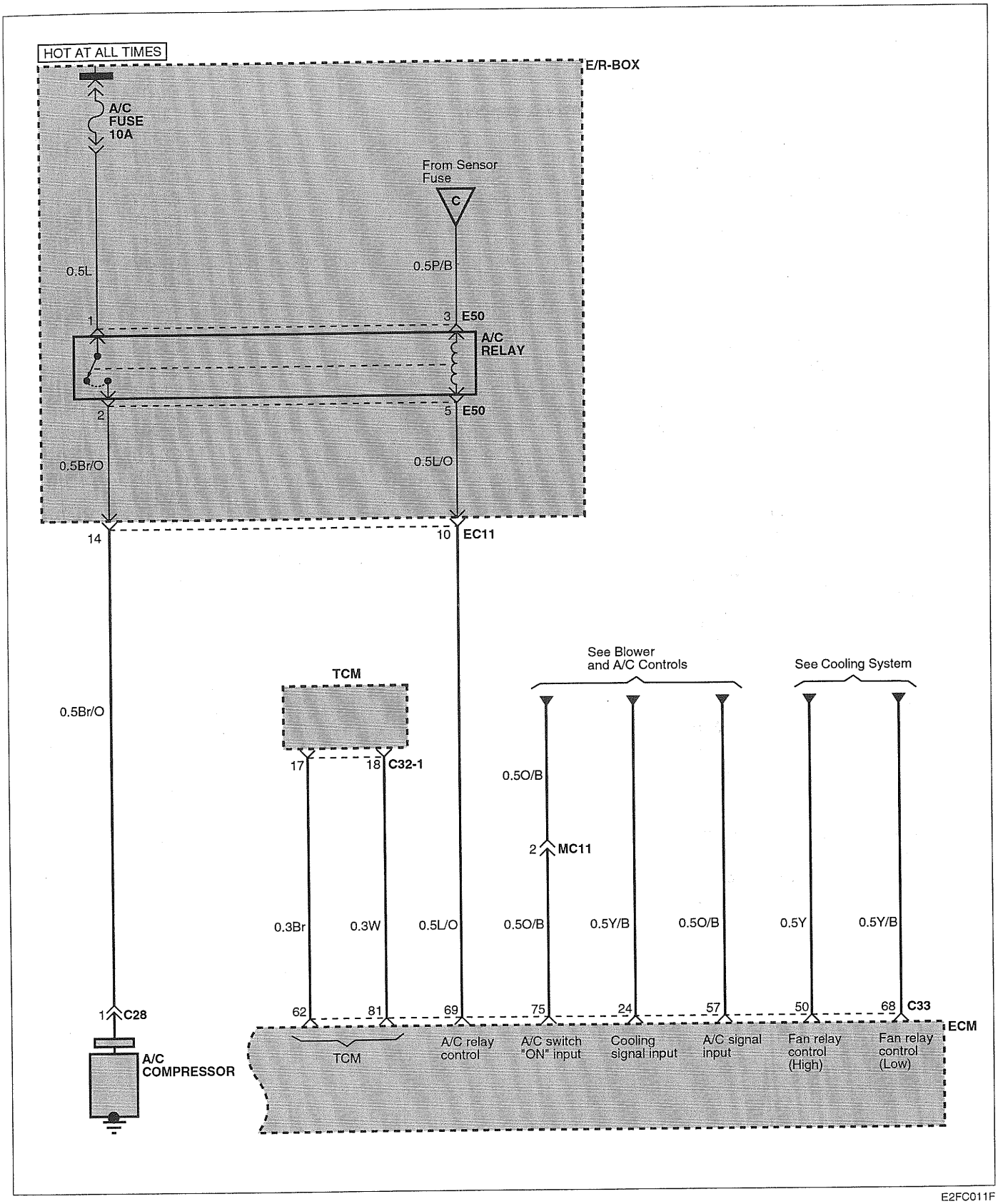
E2FC011D

MFI CONTROL SYSTEM (1.6L) (5)



E2FC011E

MFI CONTROL SYSTEM (1.6L) (6)



E2FC011F

COMPONENT LOCATION INDEX

Components		Location reference-page
C08	Accelerator position sensor	CL-16
C11	Engine coolant temperature sensor & sender	CL-17
C12	Throttle position sensor	CL-17
C13	Crankshaft position sensor	CL-17
C14	Camshaft position sensor	CL-17
C16	Oxygen sensor (up)	CL-17
C18-1	Ignition coil #1	CL-17
C18-2	Ignition coil #2	CL-17
C19	Condenser	CL-17
C21	Canister purge valve	CL-17
C23	Knock sensor	CL-18
C24-1	Injector #1	CL-18
C24-2	Injector #2	CL-18
C24-3	Injector #3	CL-18
C24-4	Injector #4	CL-18
C25	Manifold absolute pressure sensor	CL-18
C26	Idle speed control actuator	CL-18
C28	A/C compressure	CL-18
C32-1	TCM	CL-18
C33	ECM	CL-18
C36	Joint connector	CL-19
C37	Joint connector	CL-19
E32	Fuel cut solenoid	CL-12
E42	Engine control relay	CL-13
E43	Condenser fan relay #2	CL-13
E44	Radiator fan relay	CL-13
E49	Fuel pump relay	CL-13
E50	A/C relay	CL-13
E52	Condenser fan relay #1	CL-13
E56	Joint connector	CL-13
M05	Ignition key ill & door warning switch	CL-2
M06	Multipurpose check connector	CL-2
M07	Data link connector	CL-2
M09-1	Instrument cluster	CL-2
M09-2	Instrument cluster	CL-2
M09-3	Instrument cluster	CL-2
M25-1	ETACM	CL-4
M55	Fuel sender & fuel pump motor	CL-6

COMPONENT LOCATION INDEX

Connectors	Location reference-page
CC11	CL-26
EC11	CL-14
EM11	CL-14
EM21	CL-14
MC11	CL-8
MC21	CL-8
MM11	CL-9
Grounds	
G08	CL-29
G17	CL-30
G18	CL-30

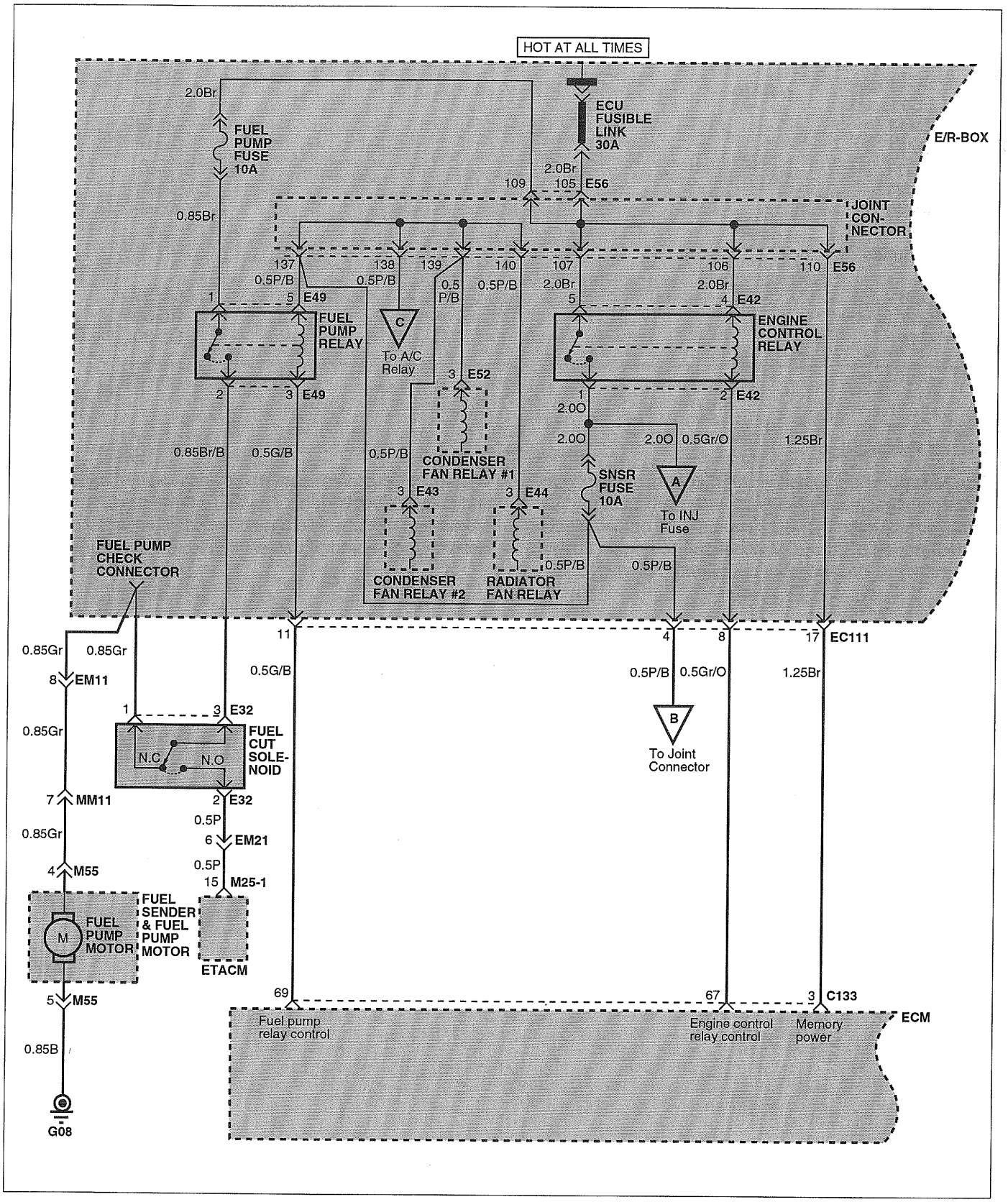
Circuit Description

The Multiport Fuel Injection (MFI) control system is an electronic fuel metering system with fuel injectors near inlet ports of each cylinder. The amount of fuel injection is determined by the ECM according to engine speed and intake air-flow quantity measured by sensors.

The emission control system includes oxygen sensors and catalytic converters. The MFI's three major functions are air-fuel mixture, idle speed and ignition timing control. Refer to the shop manual, section FL for details.

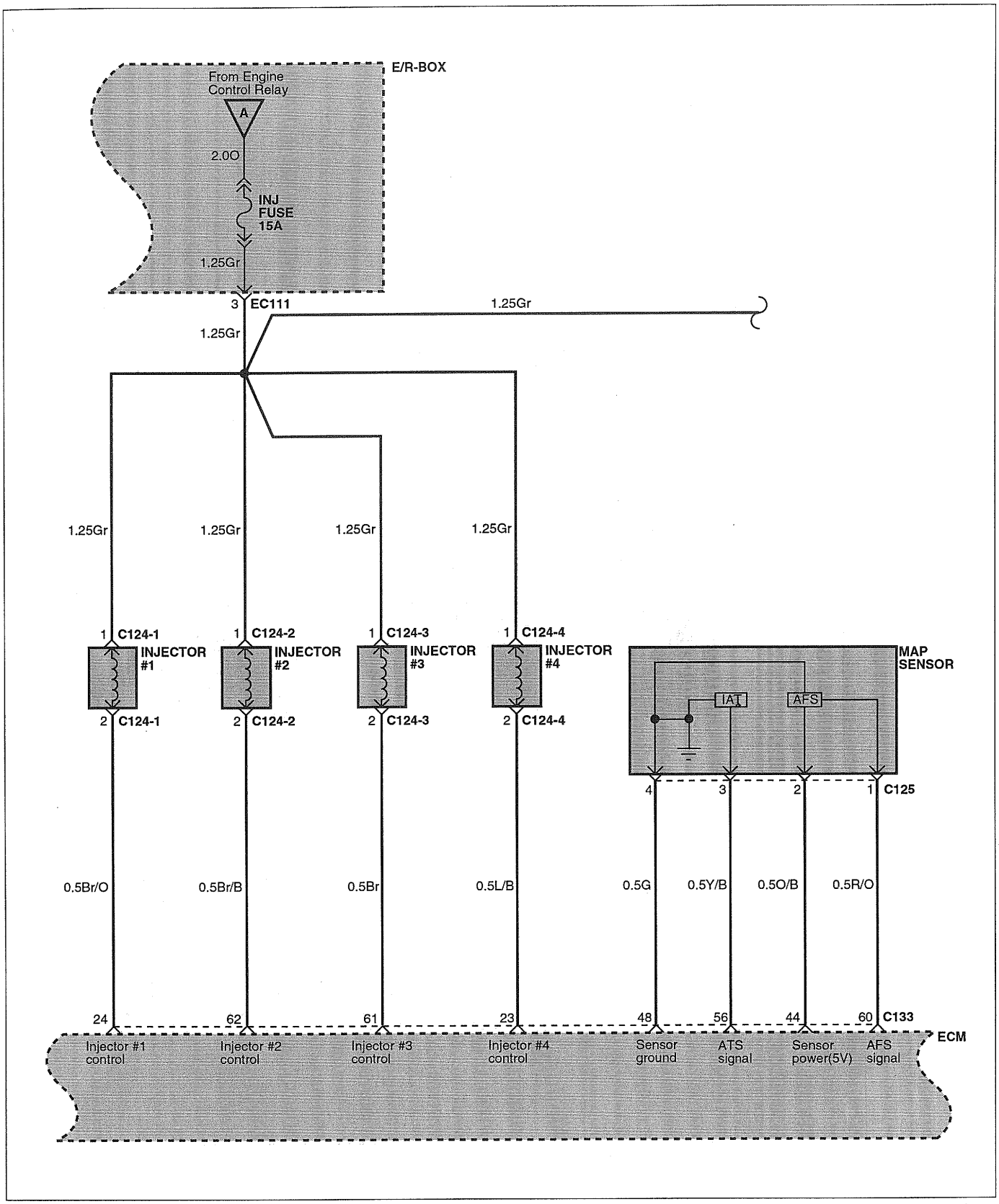
MFI CONTROL SYSTEM (1.8L) E2FC0120

MFI CONTROL SYSTEM (1.8L) (1)



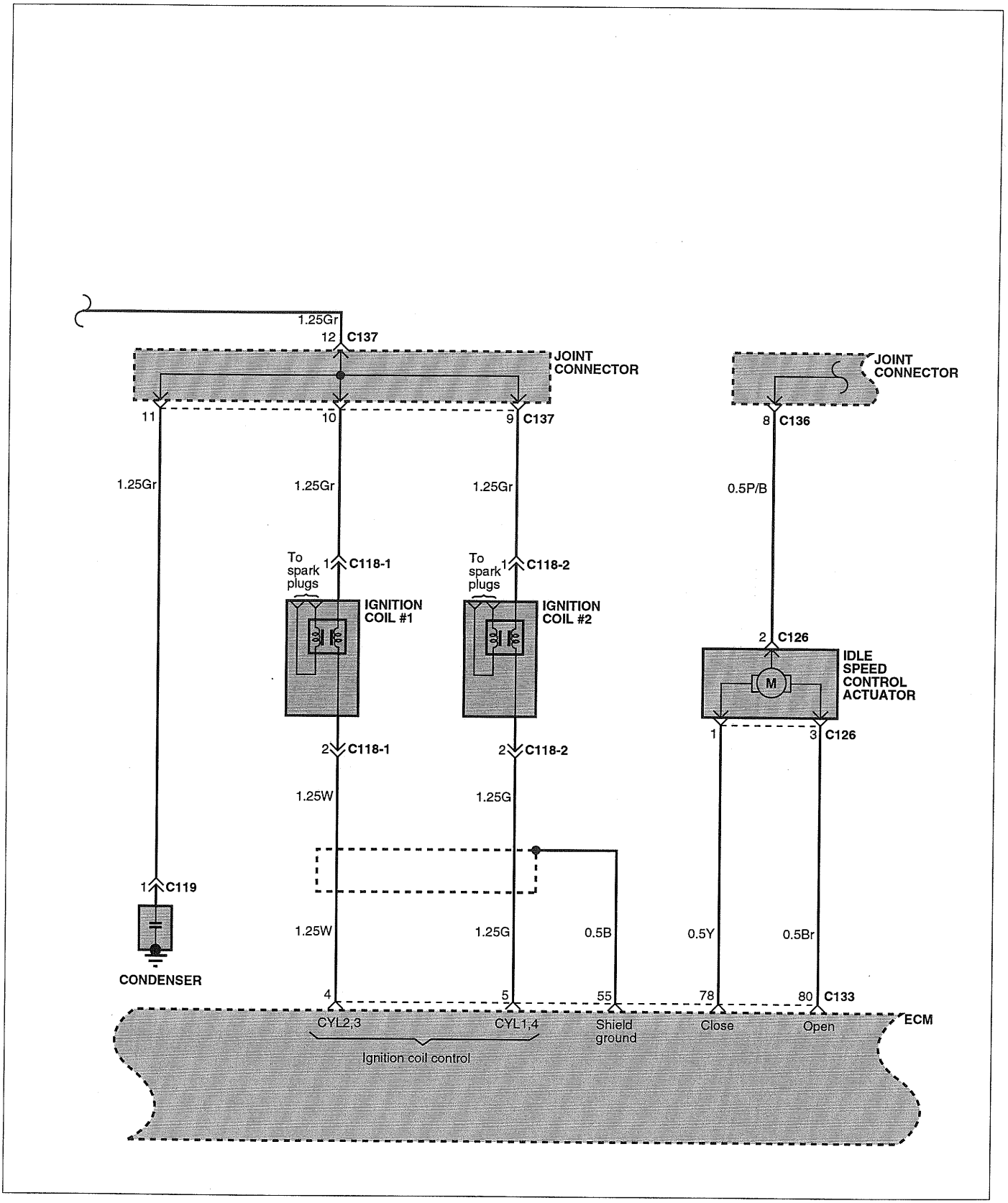
E2FC012A

MFI CONTROL SYSTEM (1.8L) (2)



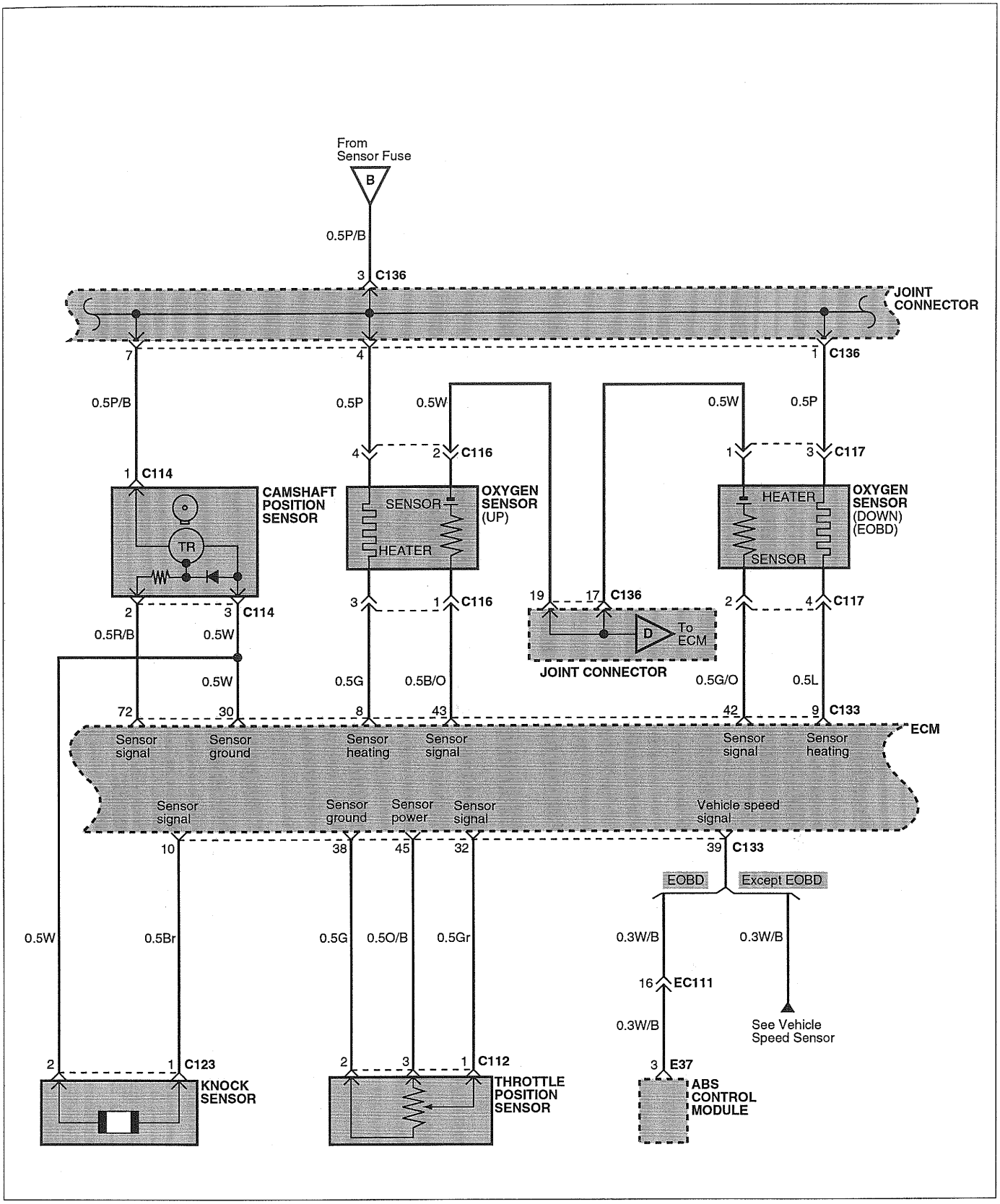
E2FC012B

MFI CONTROL SYSTEM (1.8L) (3)



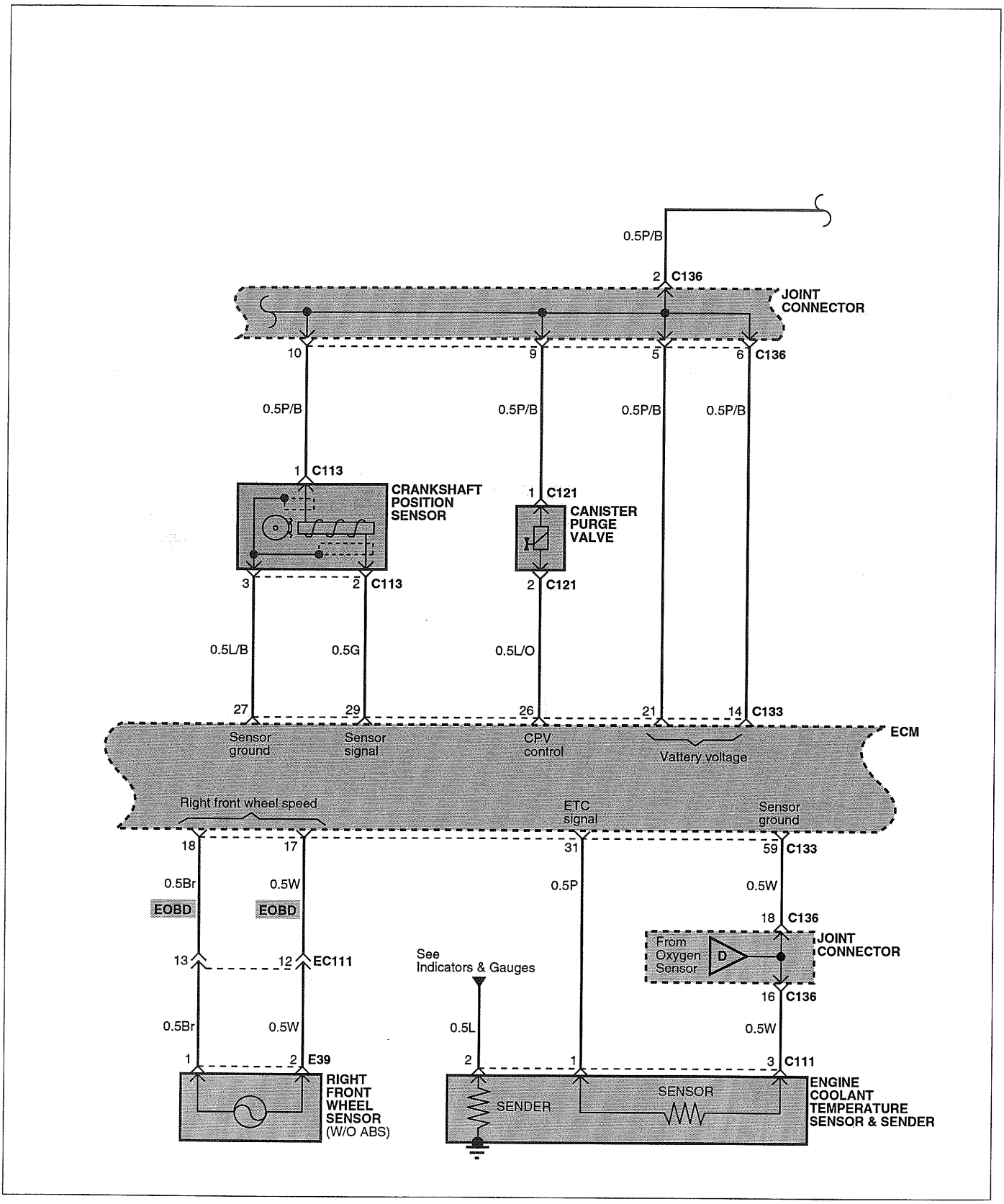
E2FC012C

MFI CONTROL SYSTEM (1.8L) (4)



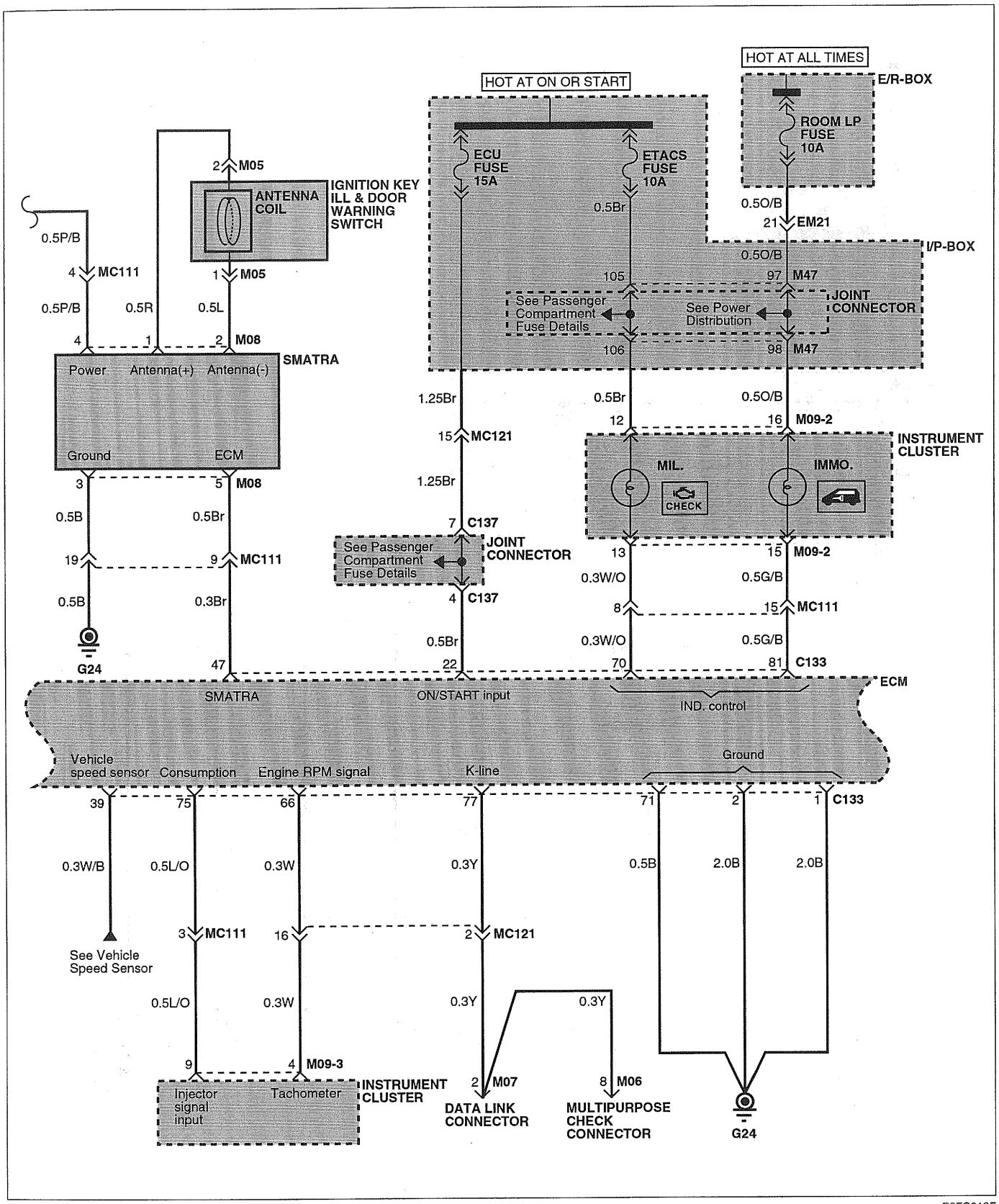
E2FC012D

MFI CONTROL SYSTEM (1.8L) (5)



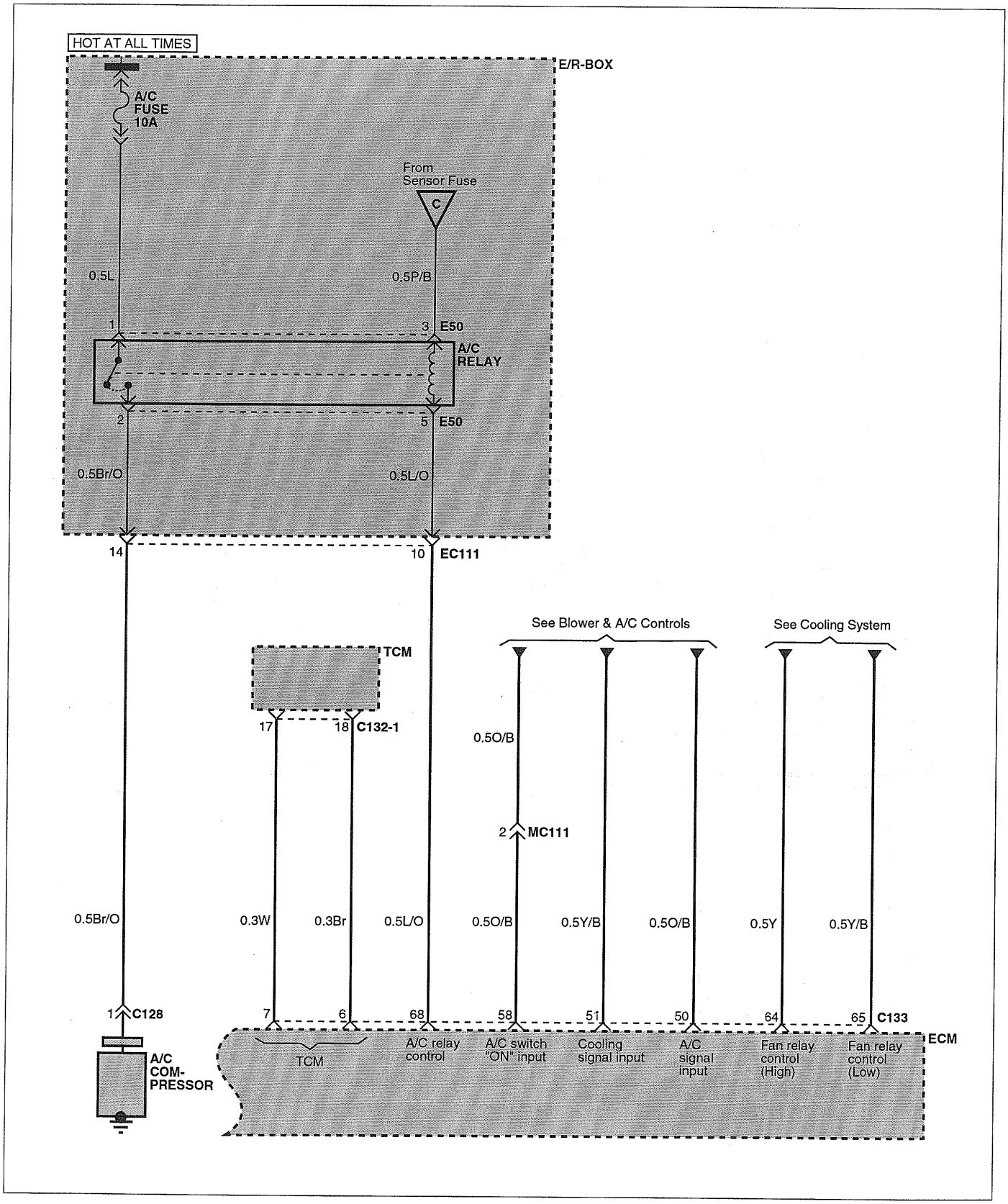
E2FC012E

MFI CONTROL SYSTEM (1.8L) (6)



E2FC012F

MFI CONTROL SYSTEM (1.8L) (7)



E2FC012G

COMPONENT LOCATION INDEX

Components		Location reference-page
C111	Engine coolant temperature sensor & sender	CL-20
C112	Throttle position sensor	CL-20
C113	Crankshaft position sensor	CL-20
C114	Camshaft position sensor	CL-20
C116	Oxygen sensor (up)	CL-20
C118-1	Ignition coil #1	CL-21
C118-2	Ignition coil #2	CL-21
C119	Condenser	CL-21
C121	Canister purge valve	CL-21
C123	Knock sensor	CL-21
C124-1	Injector #1	CL-21
C124-2	Injector #2	CL-21
C124-3	Injector #3	CL-21
C124-4	Injector #4	CL-21
C125	Manifold absolute pressure sensor	CL-21
C126	Idle speed control actuator	CL-21
C128	A/C compressure	CL-21
C132-1	TCM	CL-21
C133	ECM	CL-22
C136	Joint connector	CL-22
C137	Joint connector	CL-22
E32	Fuel cut solenoid	CL-12
E37	ABS control module	CL-13
E39	Right front wheel sensor (W/O ABS)	CL-13
E42	Engine control relay	CL-13
E43	Condenser fan relay #2	CL-13
E44	Radiator fan relay	CL-13
E49	Fuel pump relay	CL-13
E50	A/C relay	CL-13
E52	Condenser fan relay #1	CL-13
E56	Joint connector	CL-13
M07	Data link connector	CL-2
M09-2	Instrument cluster	CL-2
M09-3	Instrument cluster	CL-2
M25-1	ETACM	CL-4
M47	Joint connector	CL-5
M55	Fuel sender & fuel pump motor	CL-6

COMPONDENT LOCATION INDEX

Connectors	Location reference-page
EM11	CL-14
EM21	CL-14
MC111	CL-8
MC121	CL-8
MM11	CL-9
Grounds	
G08	CL-29
G24	CL-31

Circuit Description

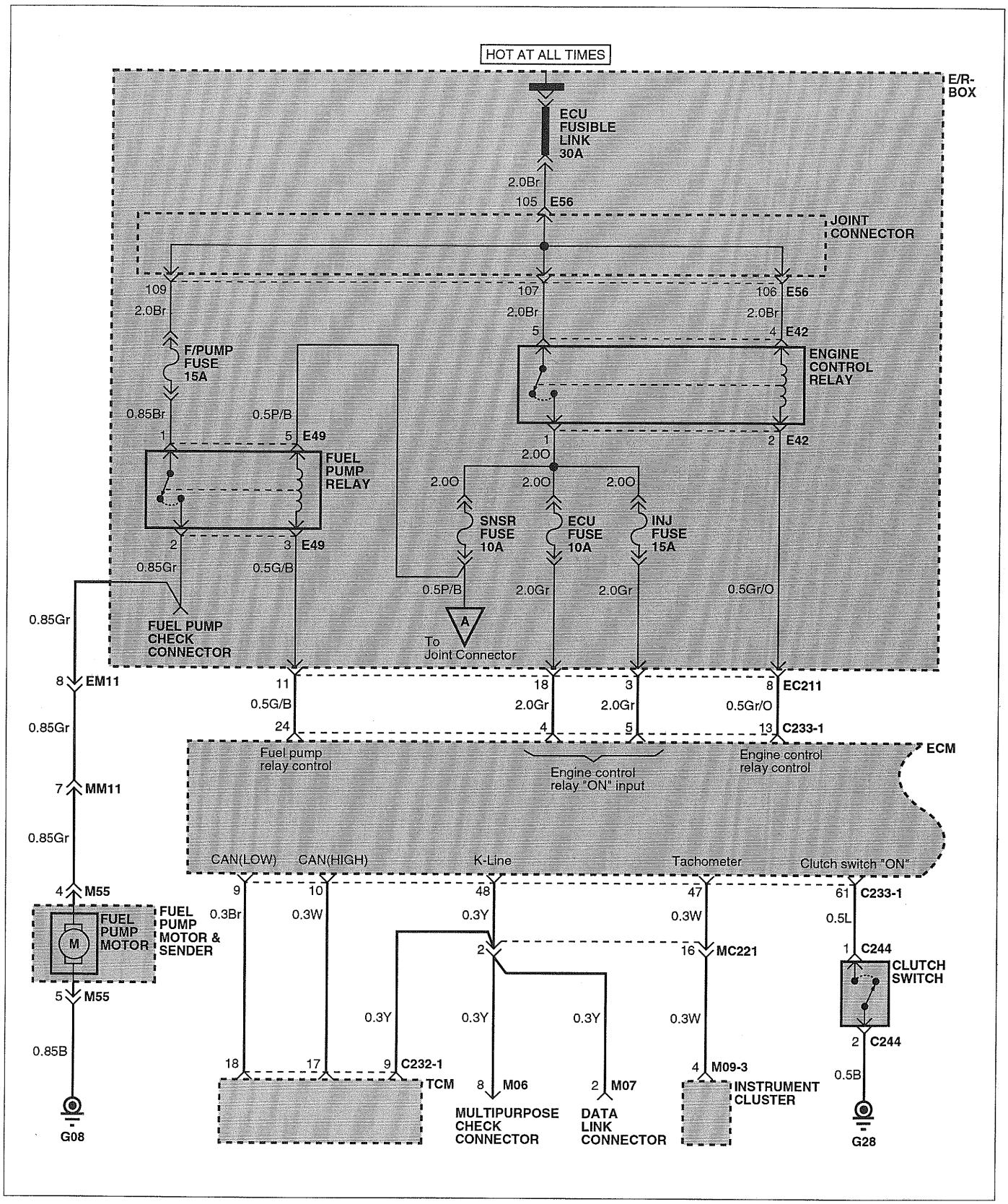
The Multiport Fuel Injection (MFI) control system is an electronic fuel metering system with fuel injectors near inlet ports of each cylinder. The amount of fuel injection is determined by the ECM according to engine speed and intake air-flow quantity measured by sensors.

The emission control system includes oxygen sensors and catalytic converters. The MFI's three major functions are air-fuel mixture, idle speed and ignition timing control. Refer to the shop manual, section FL for details.

MEMO

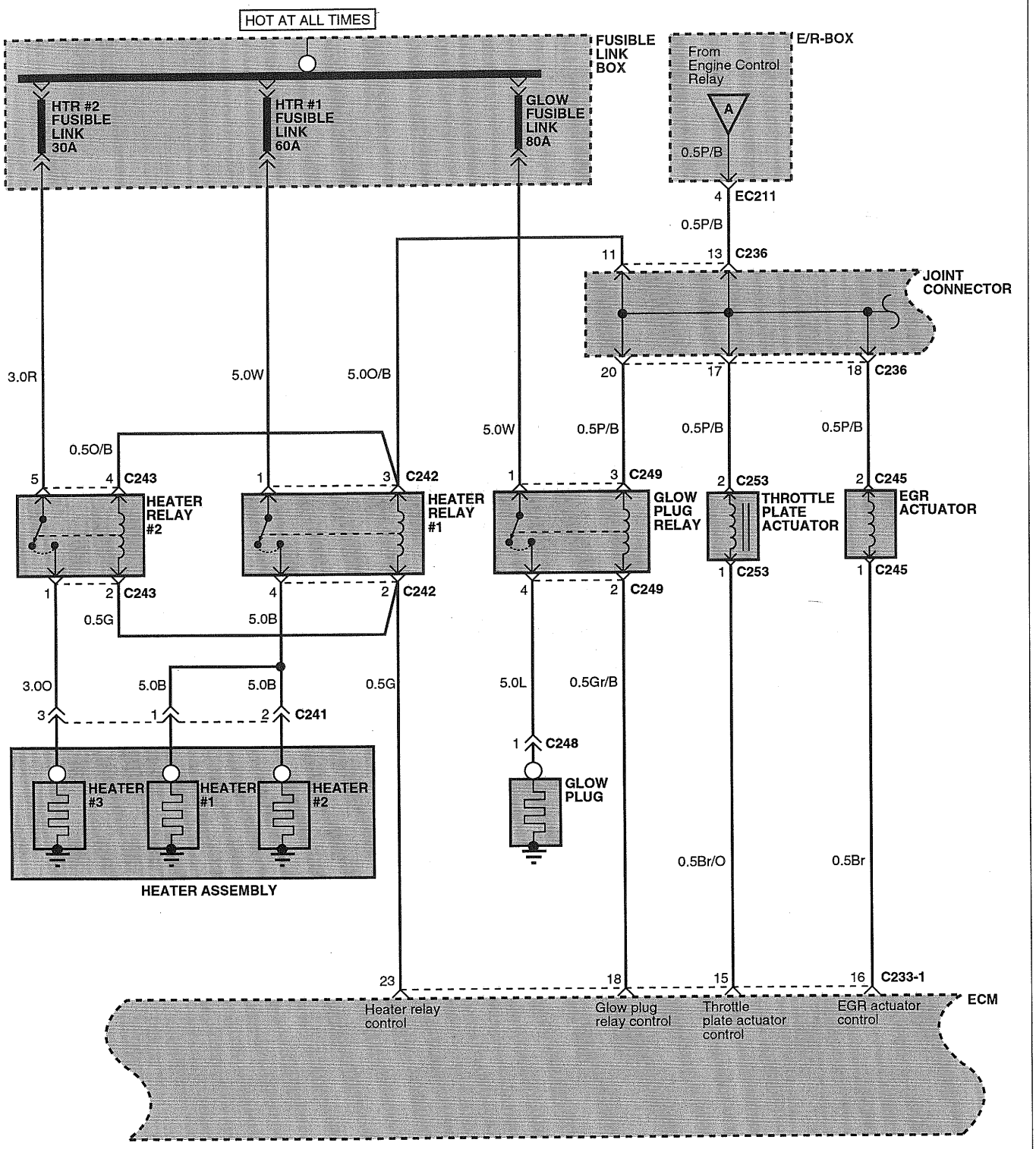
MFI CONTROL SYSTEM (DIESEL) E2FC0130

MFI CONTROL SYSTEM (DIESEL) (1)



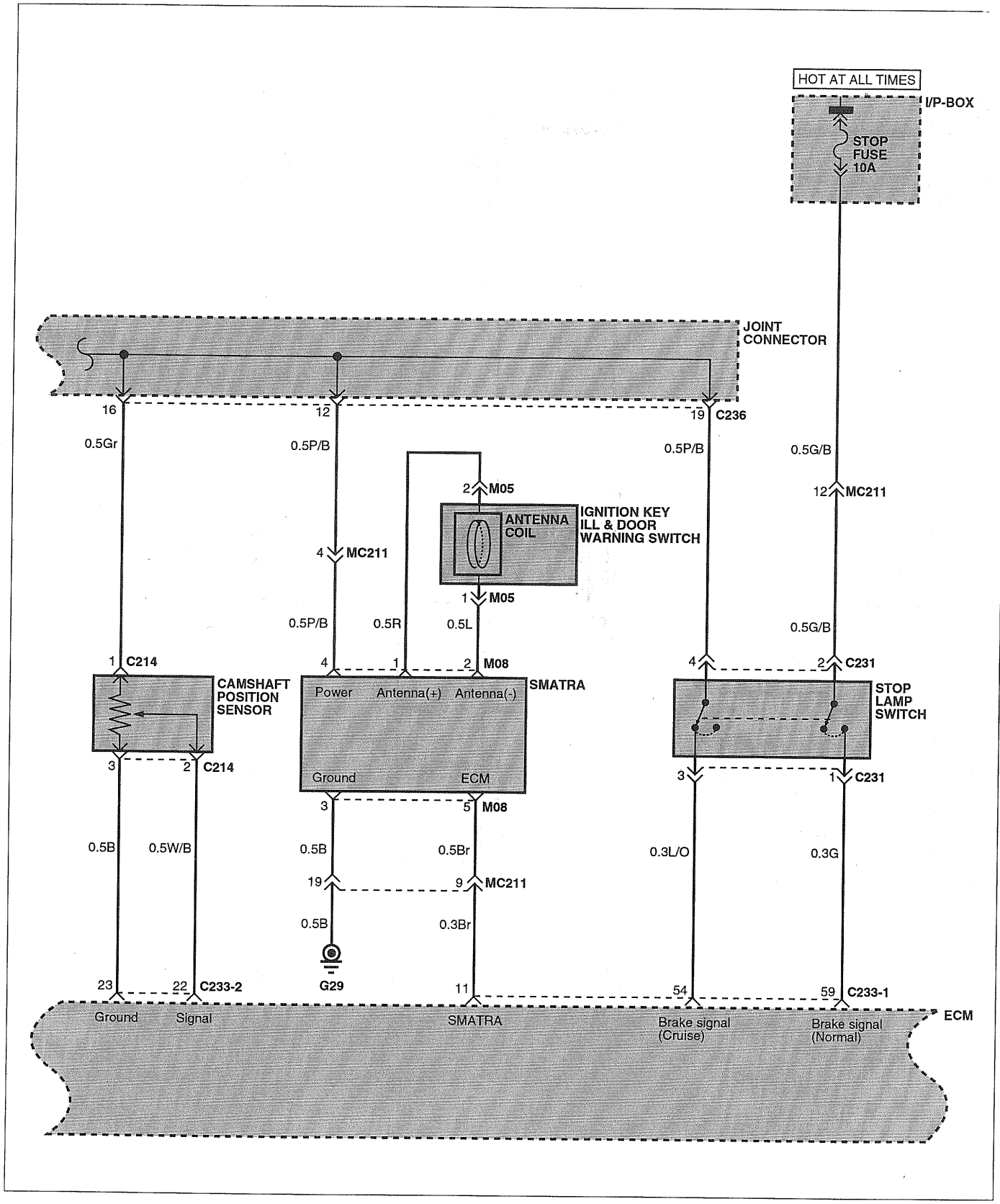
E2FC013A

CONTROL SYSTEM (DIESEL) (2)



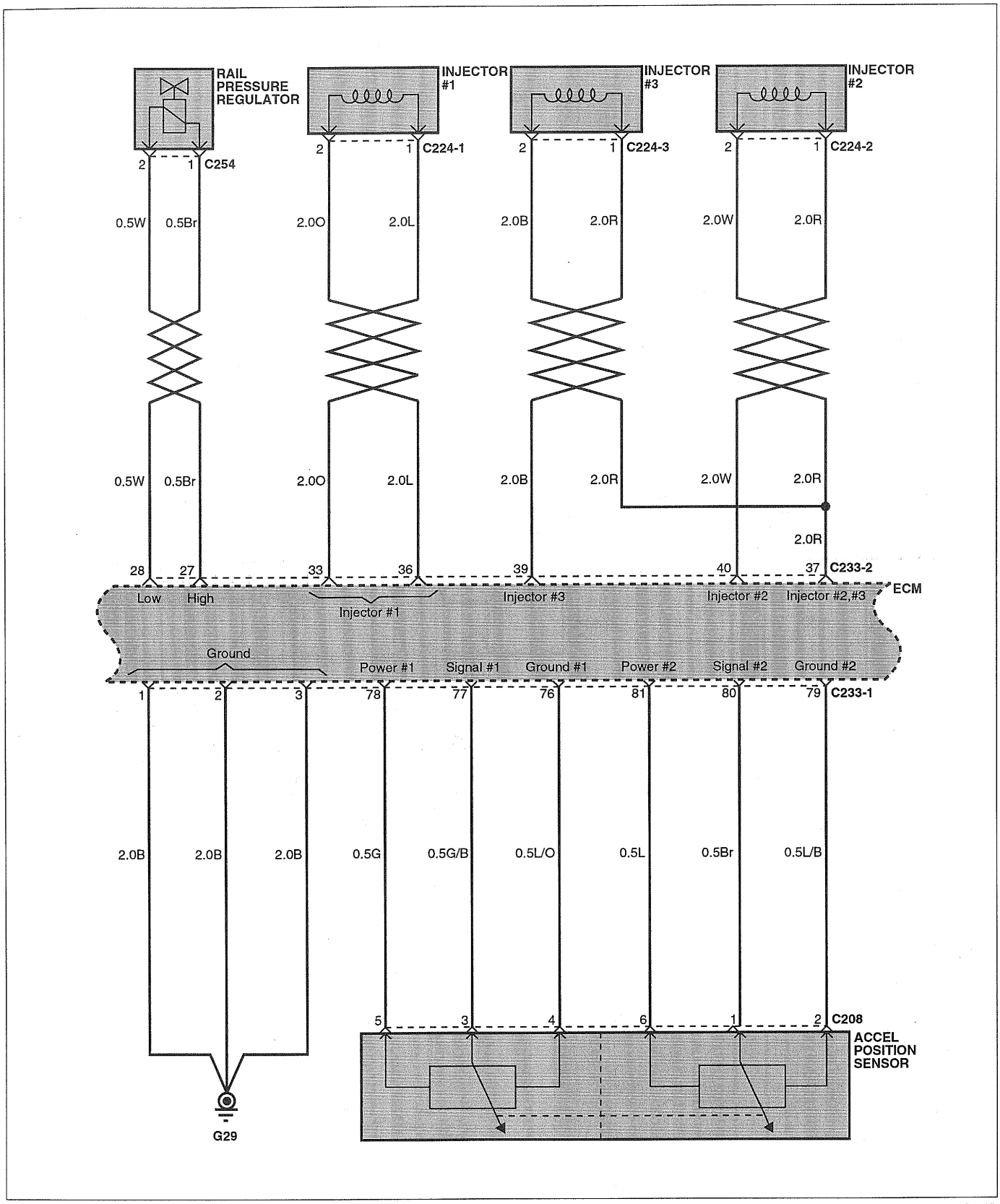
E2FC013B

MFI CONTROL SYSTEM (DIESEL) (3)



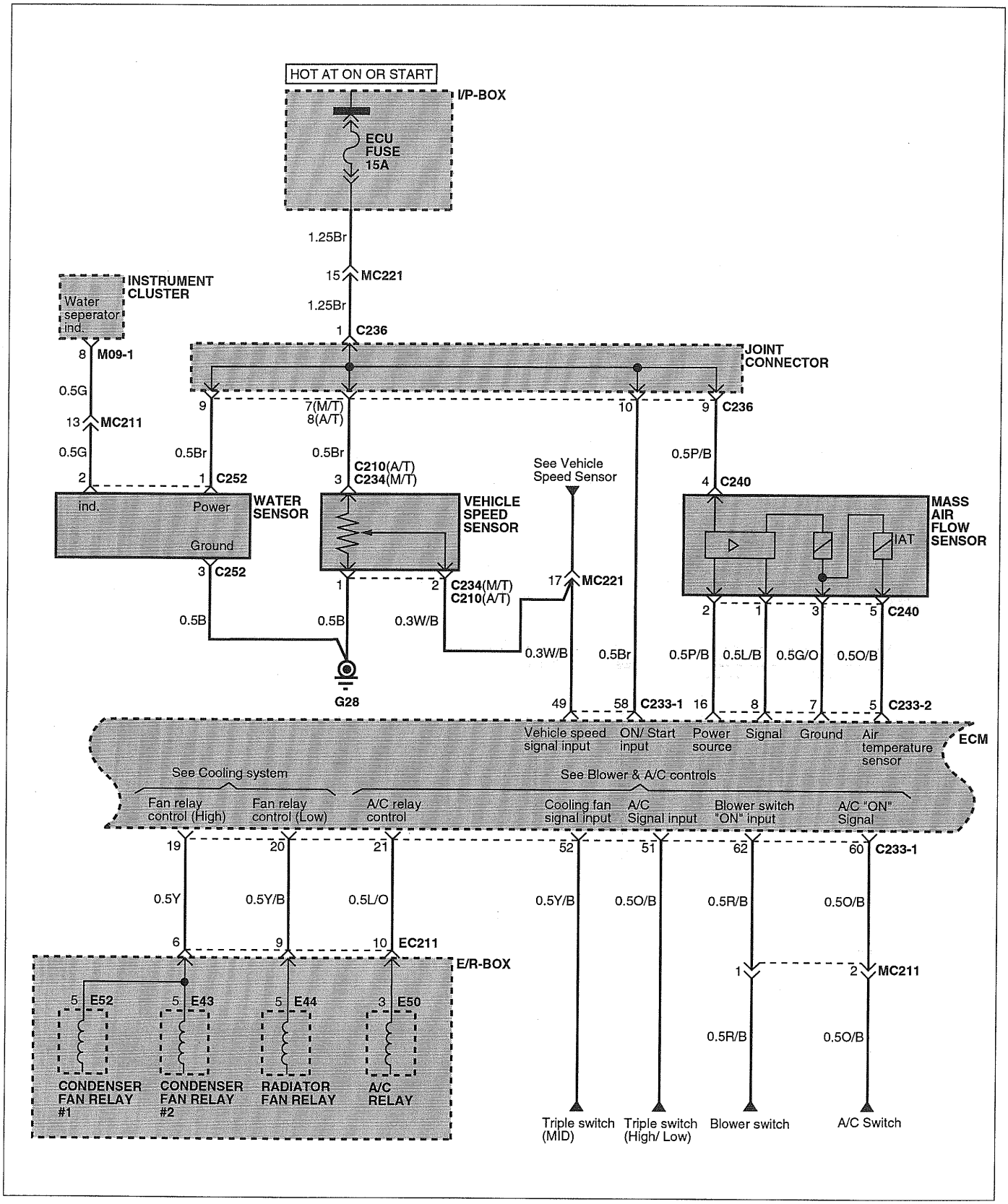
E2FC013C

MFI CONTROL SYSTEM (DIESEL) (4)



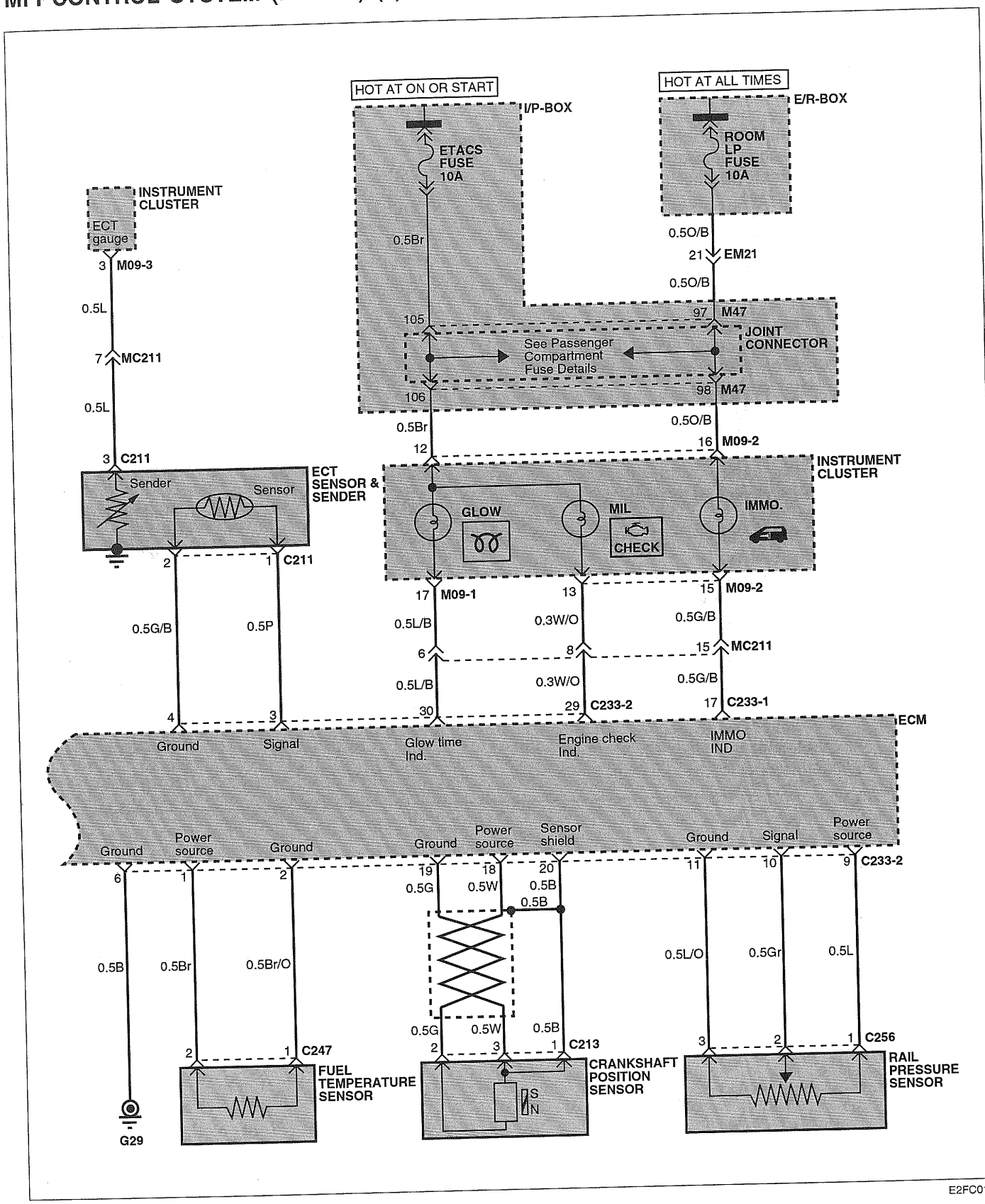
E2FC013D

MFI CONTROL SYSTEM (DIESEL) (5)



E2FC013E

MFI CONTROL SYSTEM (DIESEL) (6)



E2FC013F

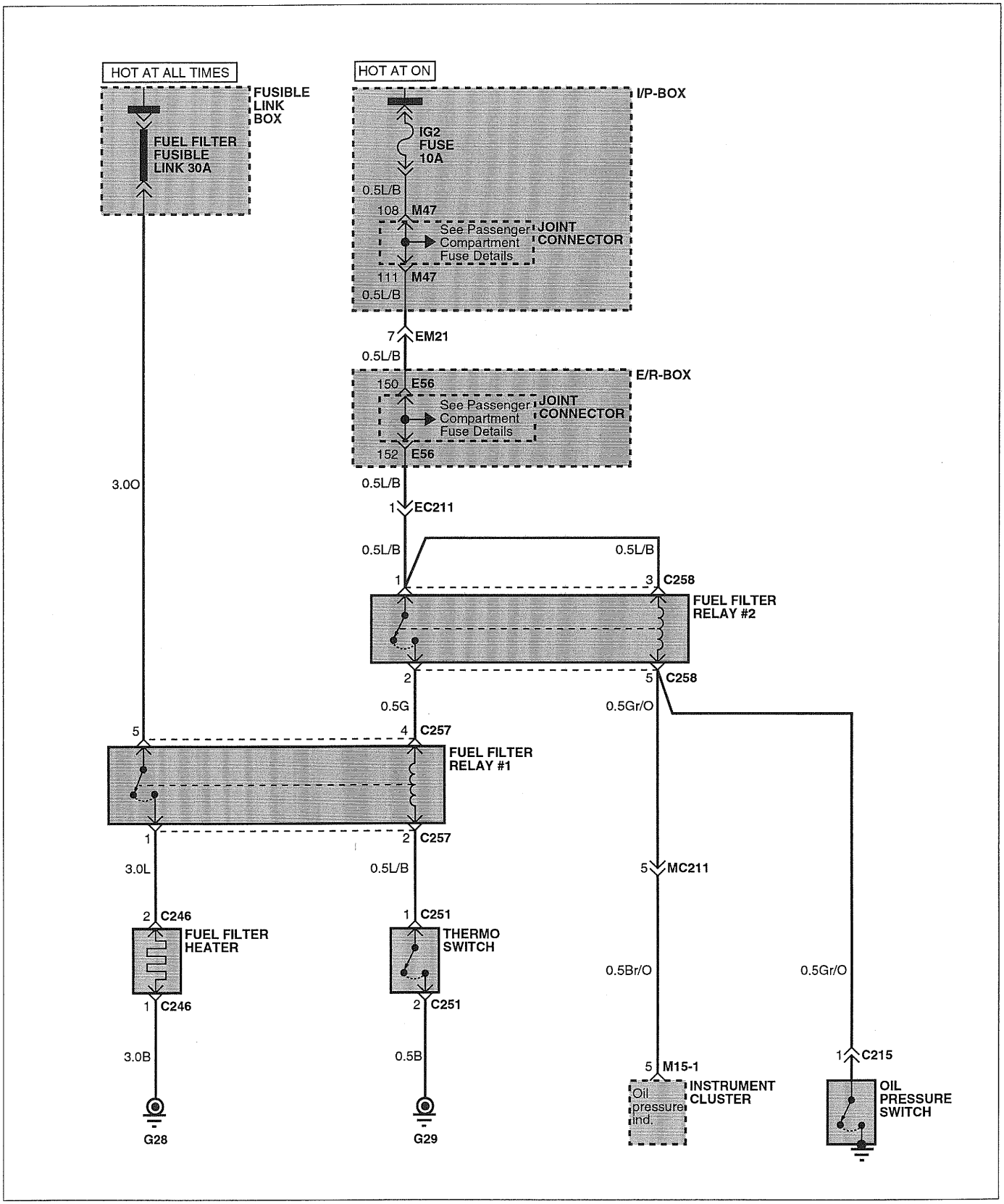
COMPONENT LOCATION INDEX

Components

COMPONDENT LOCATION INDEX

FUEL FILTER HEATING SYSTEM (DIESEL) E2FC0140

FUEL FILTER HEATING SYSTEM (DIESEL) (1)



E2FC014A

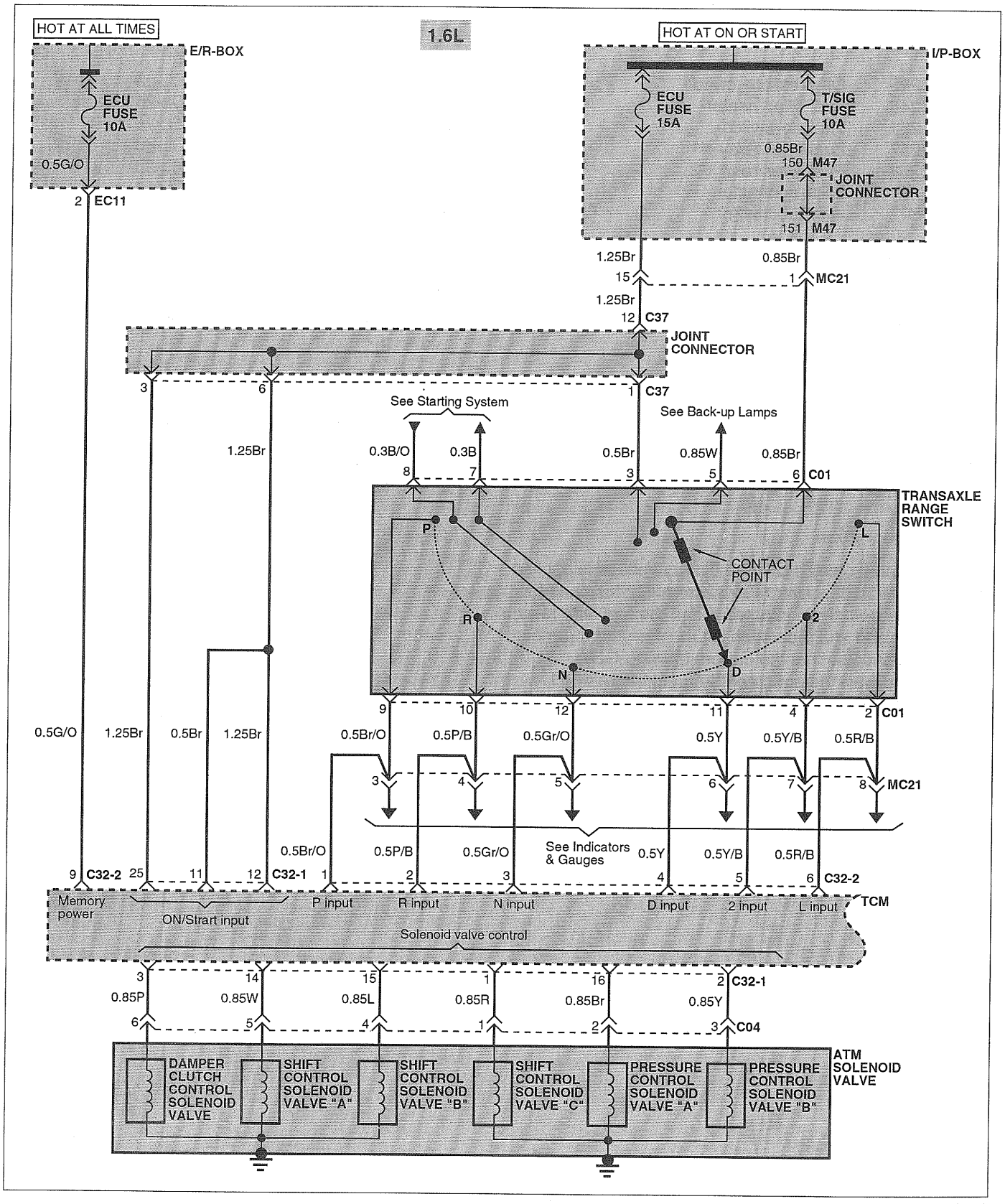
LOCATION INDEX

Circuit Description

With the ignition switch ON, the battery voltage is applied to the coil of the fuel filter relay #2 from IG2 fuse and the oil pressure switch is contacted. Then the fuel filter relay #2 is energized and the switch is ON when the thermo switch is closed so that the current flows to G28.
In the same way, the switch of the fuel filter relay #1 is closed and the fuel filter heater works.

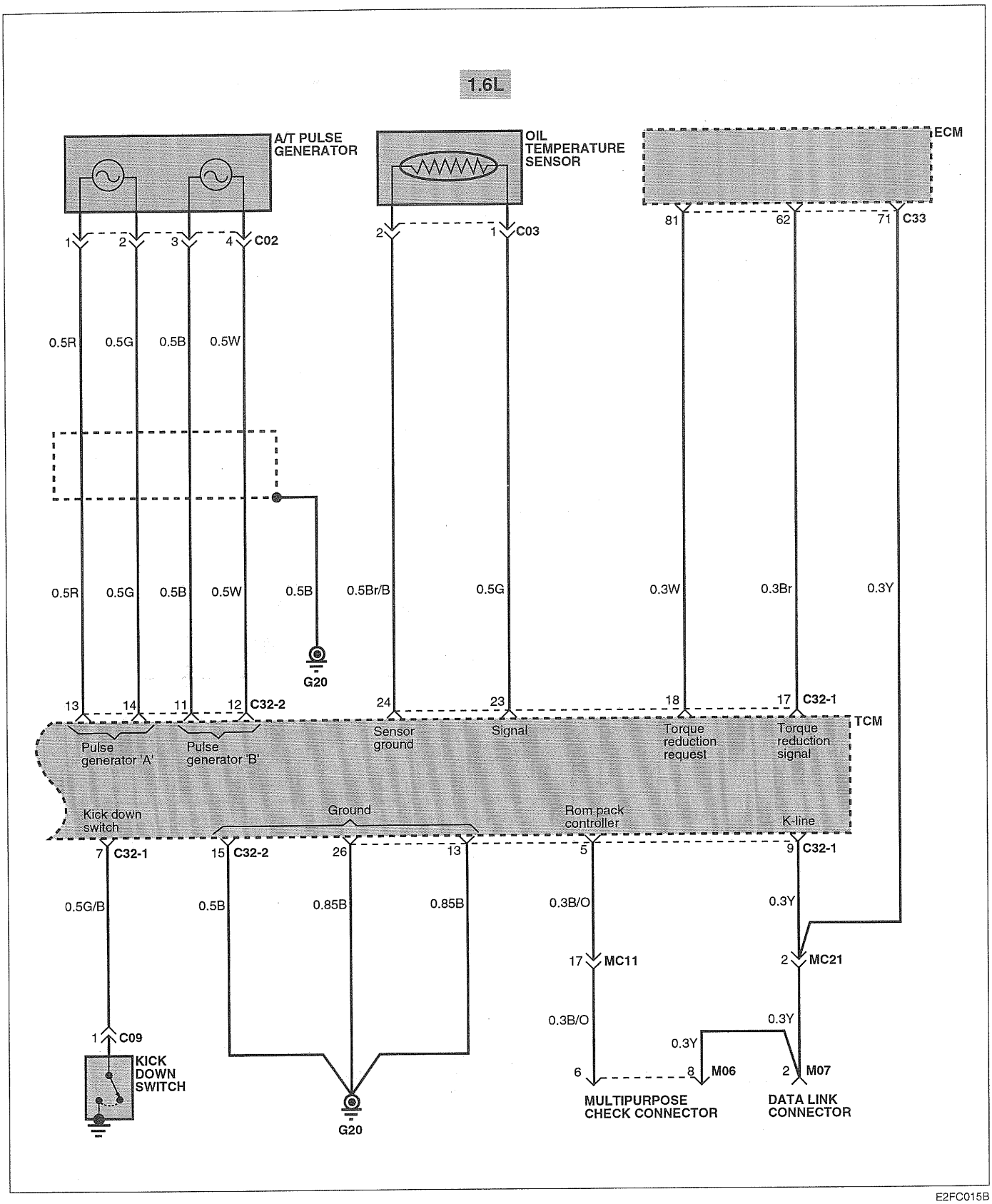
AUTOMATIC TRANSAXLE CONTROL SYSTEM E2FC0150

AUTOMATIC TRANSAXLE CONTROL SYSTEM (1)



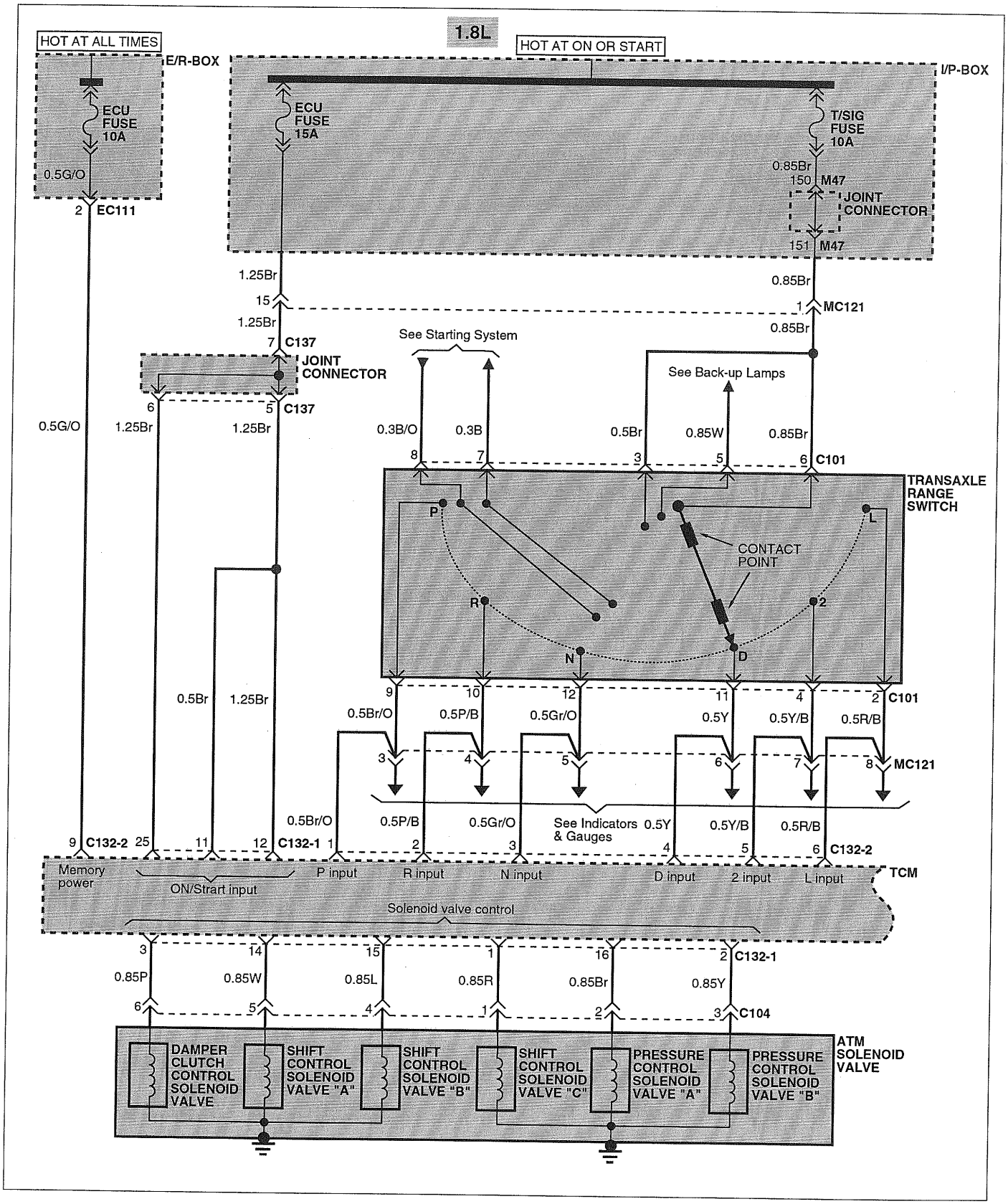
E2FC015A

AUTOMATIC TRANSAXLE CONTROL SYSTEM (2)



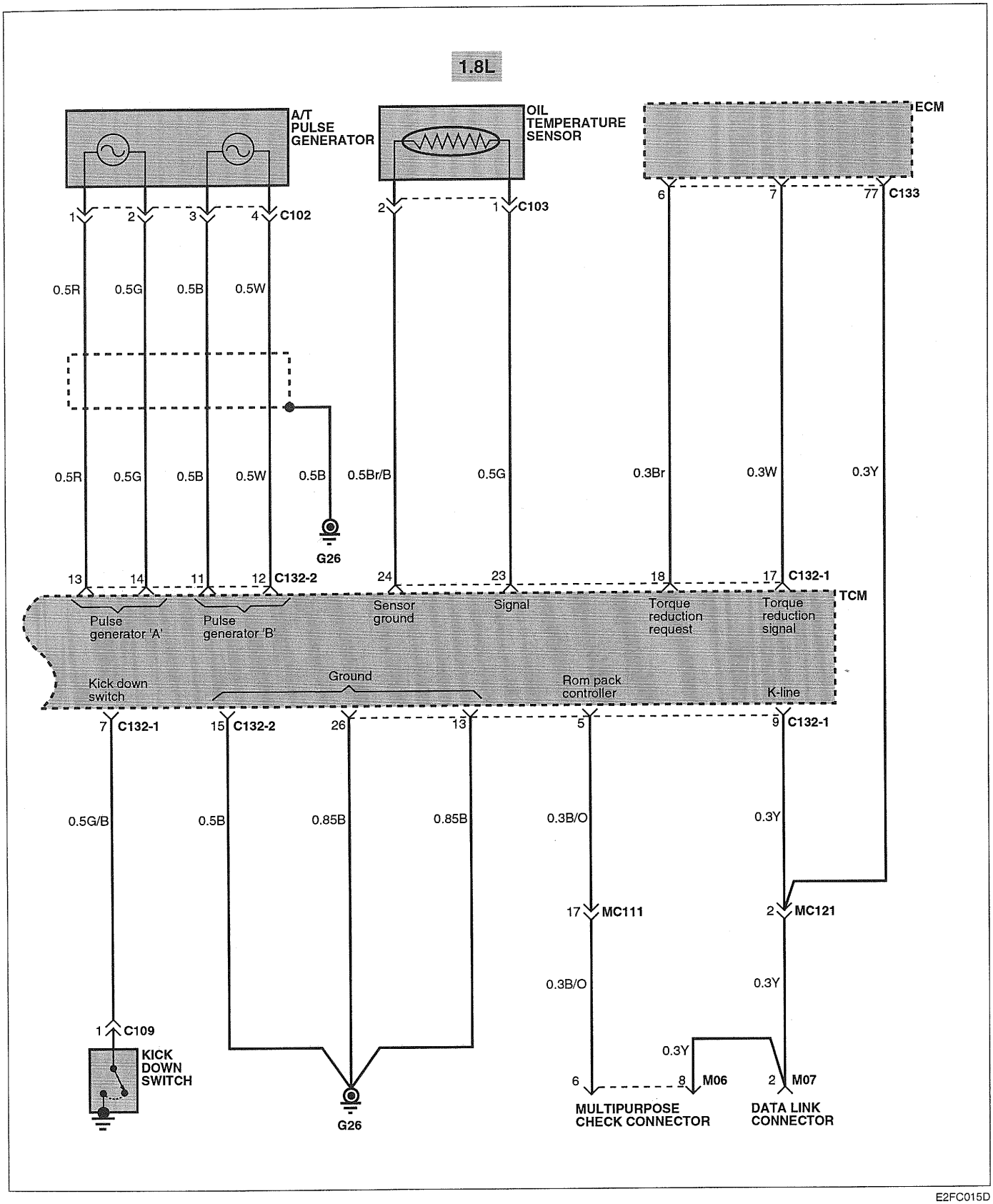
E2FC015B

AUTOMATIC TRANSAXLE CONTROL SYSTEM (3)



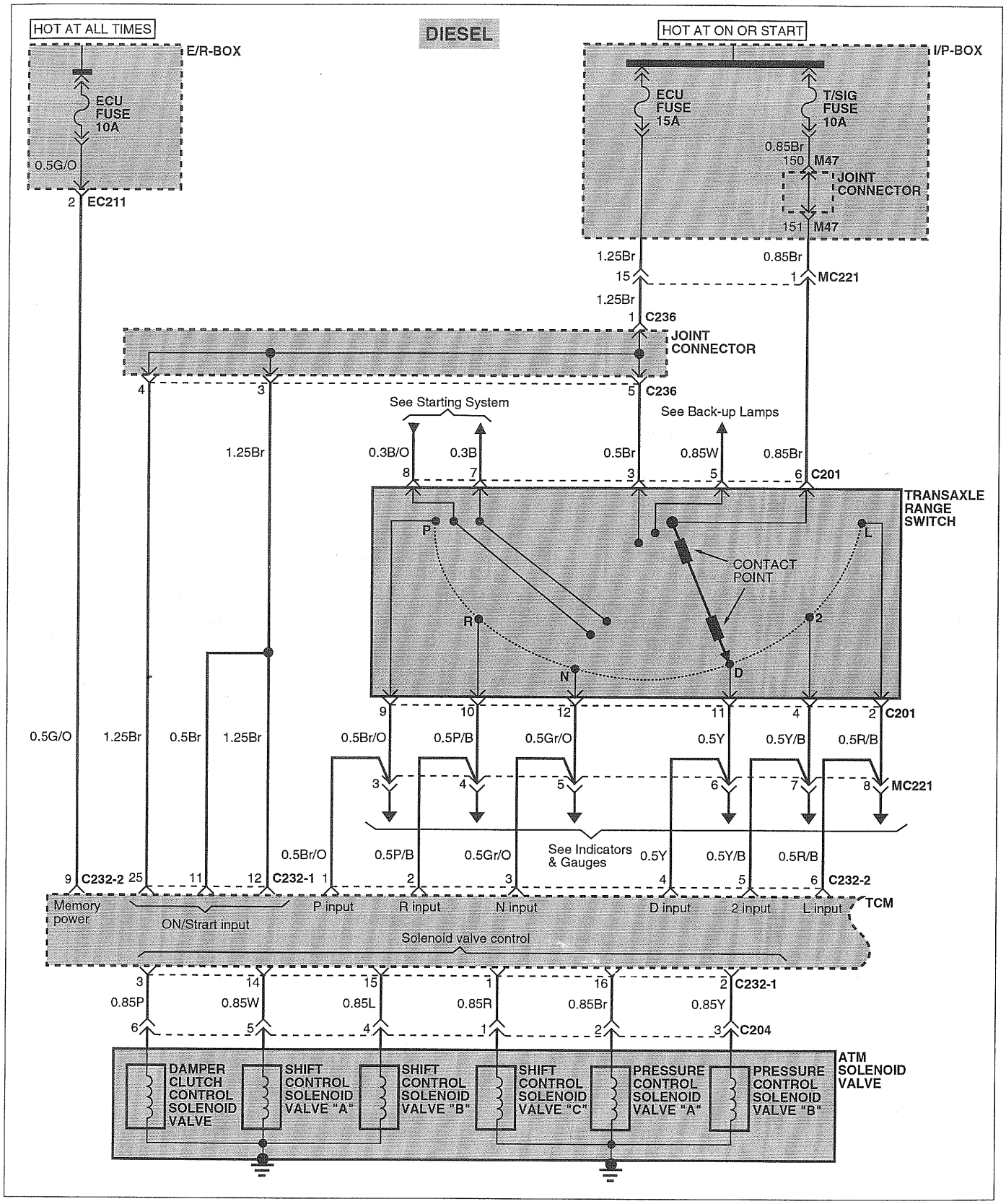
E2FC015C

AUTOMATIC TRANSAXLE CONTROL SYSTEM (4)



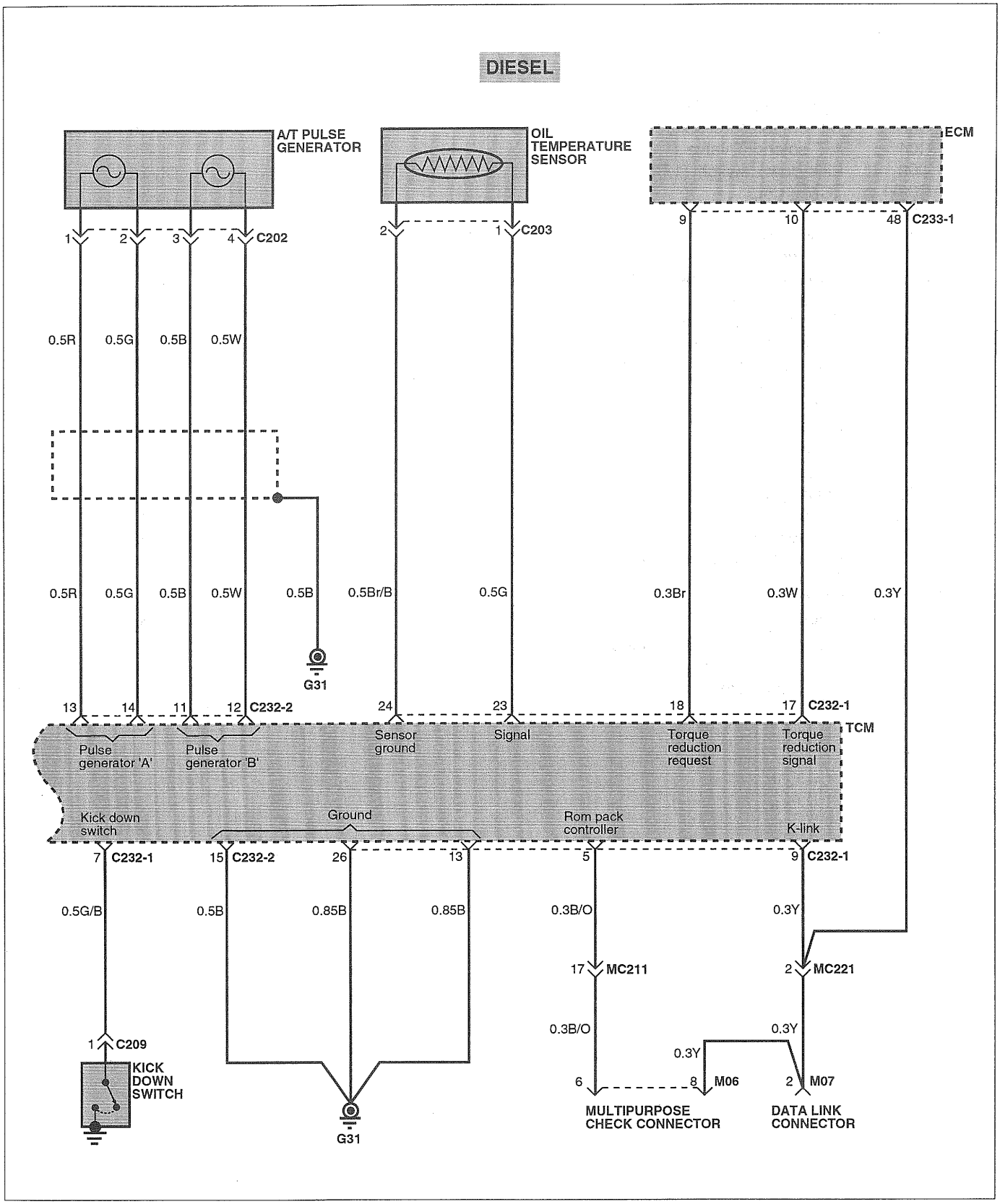
E2FC015D

AUTOMATIC TRANSAXLE CONTROL SYSTEM (5)



E2FC015E

AUTOMATIC TRANSAXLE CONTROL SYSTEM (6)



E2FC015F

COMPONENT LOCATION INDEX

Components

COMPONENT LOCATION INDEX

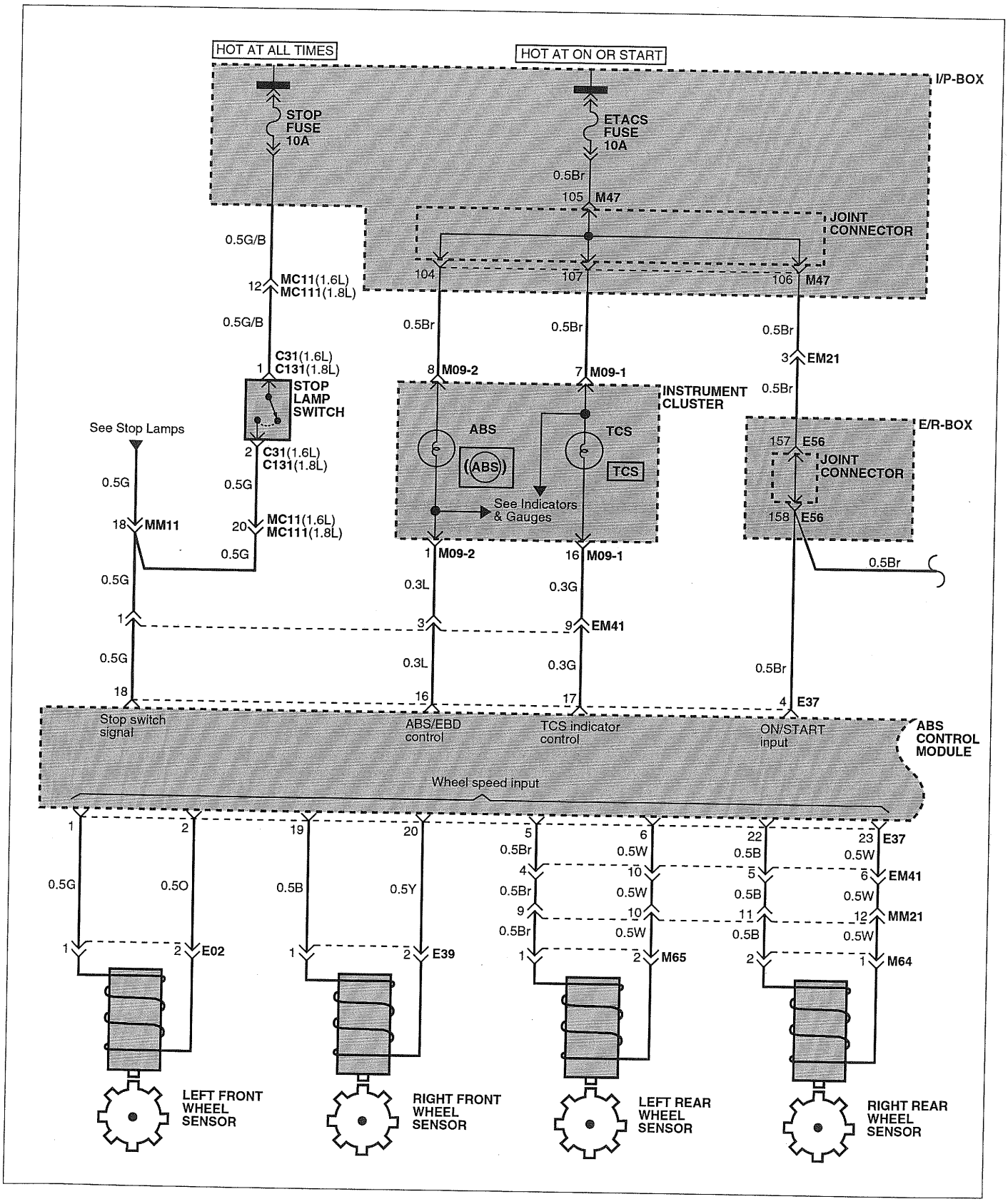
Circuit Description

The transaxle control module provides precise gear shift timing and torque converter lock up by controlling the operation of the automatic transaxle solenoid valves (the Damper clutch control solenoid valve, the shift control solenoid valve A, B and C , and the pressure control solenoid valve A and B).

The transaxle control module operates these solenoid valves based on input signals from various sensors (for instance, pulse generators and oil temperature sensor). The transaxle control module has a built-in self diagnostic feature.
Refer to the shop manual, section ATM, for details.

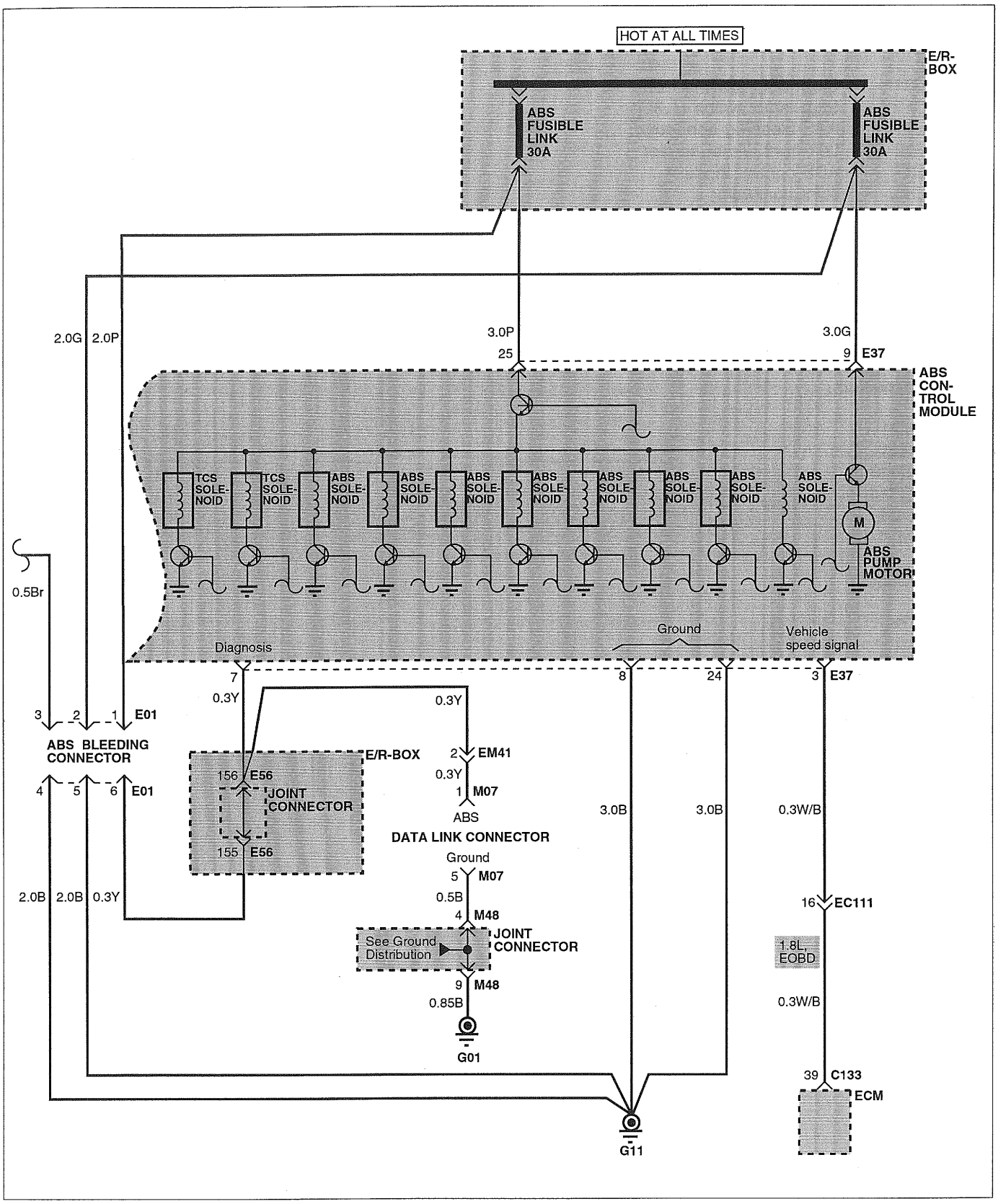
ANTI-LOCK BRAKE SYSTEM/ TRACTION CONTROL SYSTEM E2FC0160

ANTI-LOCK BRAKE SYSTEM/ TRACTION CONTROL SYSTEM (1)



E2FC016A

ANTI-LOCK BRAKE SYSTEM/ TRACTION CONTROL SYSTEM (2)



E2FC016B

COMPONENT LOCATION INDEX

Circuit Description

TCS

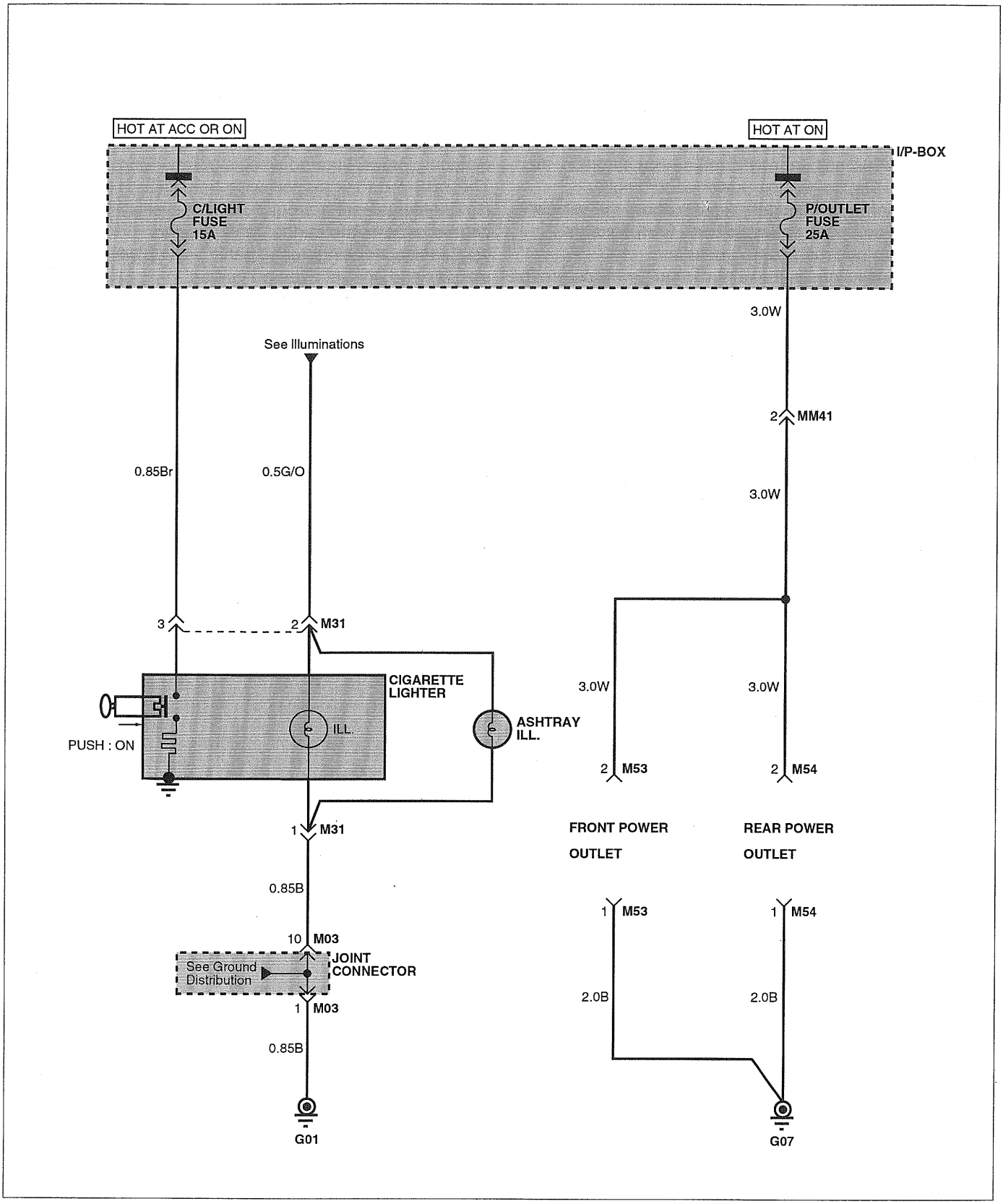
The Traction Control System (TCS)is a variable system designed to enhance traction during acceleration and cornering. It does so by determining the optimum amount of wheel spin for any given driving situation, then suppressing surplus engine power accordingly.
The ABS control module gets signals about the vehicle's speed, direction and road conditions from sensors at the wheels and the steering column.
Based on these signals, the control module will determine the optimum amount of wheel spin. Because the system is variable, the control module may determine, depending on the driving conditions, that some wheel spin is beneficial (thus enhancing straight-line acceleration), or that no wheel spin is beneficial (thus enhancing cornering). For any given driving situation, the control module will determine the amount of wheel spin best suited to the driver's needs. The system is automatically ready whenever the engine is started, but can be manually canceled with the TCS switch.
The TCS provides the following benefits:
(1) When the drive wheel speed exceeds the vehicle speed by a given amount, the ABS control module judges that the drive wheels are slipping and it sends traction control signals to reduce engine power.
(2) Based on the wheel speed sensor signals, the control module detects the condition of the road and then sends signals to improve acceleration efficiency and grip efficiency.

ABS

The Anti-Lock Brake System (ABS) control module controls the hydraulic brake pressure of all four wheels during sudden braking and braking on hazardous road surfaces, preventing the wheels from locking.
The ABS provides the following benefits:
(1) Enables steering around obstacles with a greater degree of certainty during panic braking.
(2) Enables stopping during panic braking while allowing stability and control even on curves.
In case a malfunction occurs in the ABS system, the system will operate as a normal brake system (fail-safe mode).
A diagnosis function and fail-safe system have been included for serviceability.

CIGARETTE LIGHTER (POWER OUTLET) E2FC0180

CIGARETTE LIGHTER (POWER OUTLET) (1)



E2FC018A

COMPONENT LOCATION INDEX

Components		Location reference-page
M03	Joint connector	CL-2
M31	Cigarette lighter	CL-4
M53	Front power outlet	CL-5
M54	Rear power outlet	CL-5
Connectors		
MM41		CL-9
Grounds		
G01		CL-29
G07		CL-29

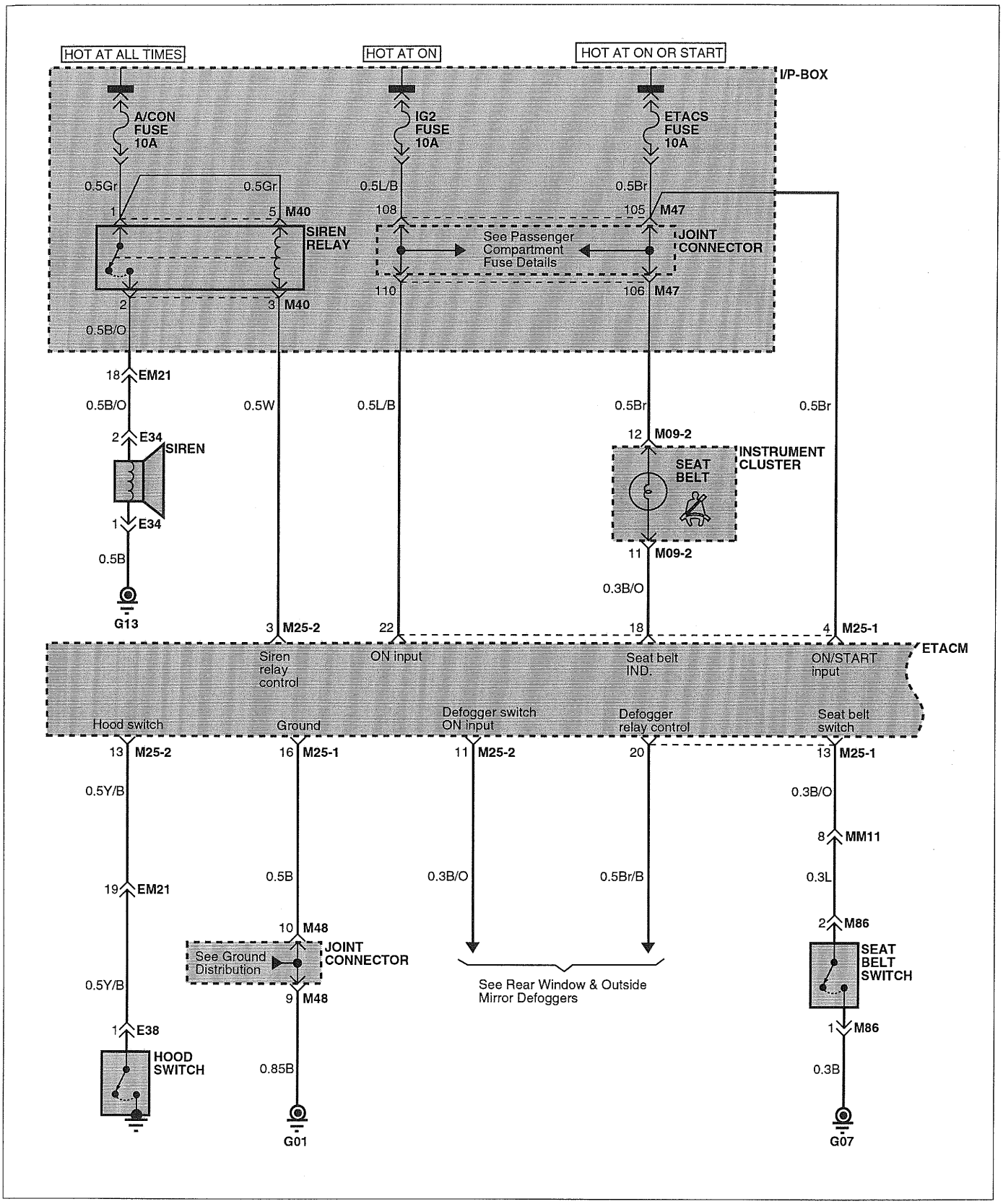
Circuit Description

With the ignition switch in ACC or ON, battery voltage is applied from C/LIGHT fuse to the cigarette lighter. When you depress (push) the lighter, the lighter element completes the circuit to ground.

When the element becomes sufficiently heated, it is spring- released and the circuit opens.

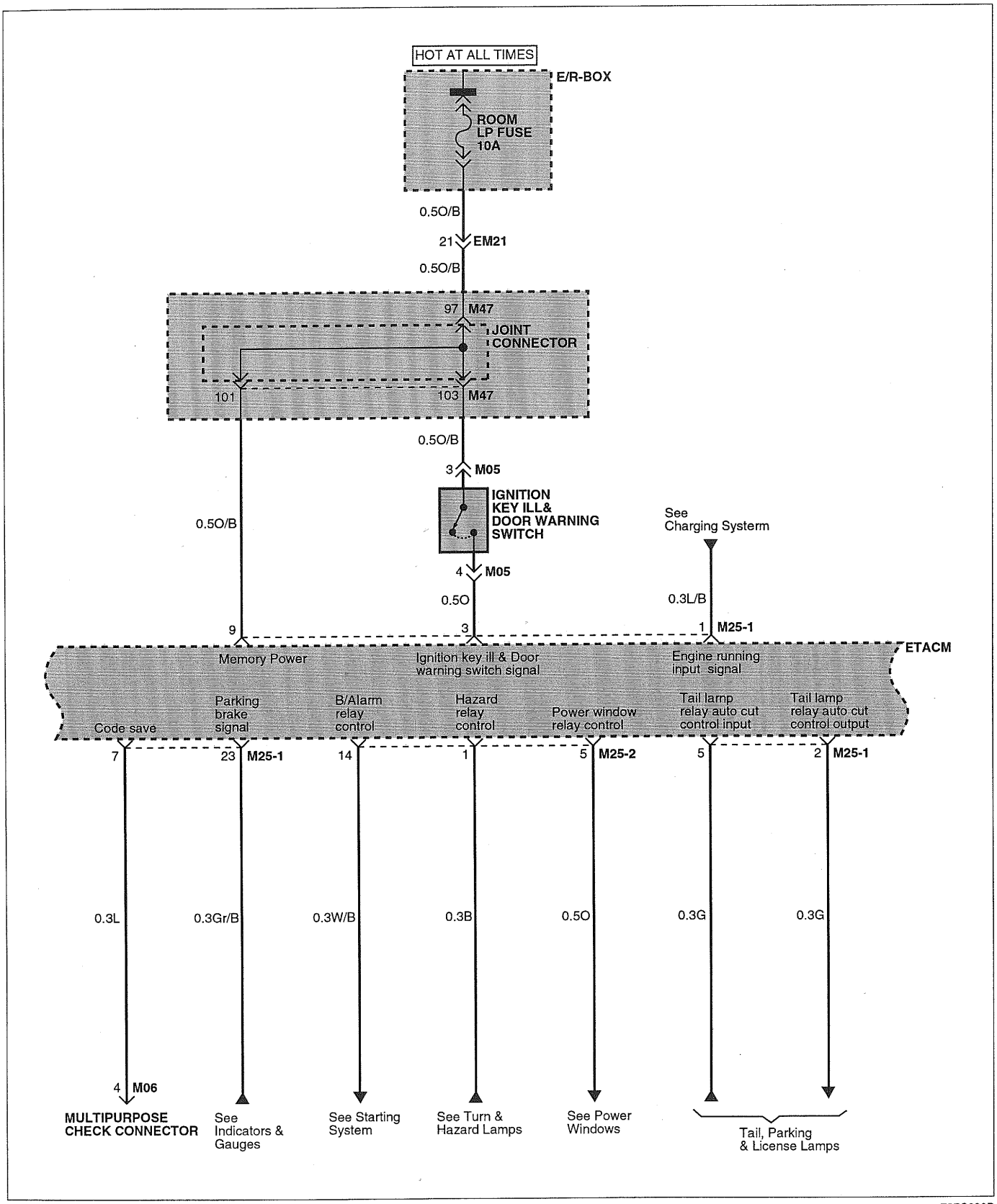
ETACS(ELECTRONIC TIME & ALARM CONTROL SYSTEM) E2FC0200

ETACS(ELECTRONIC TIME & ALARM CONTROL SYSTEM) (1)



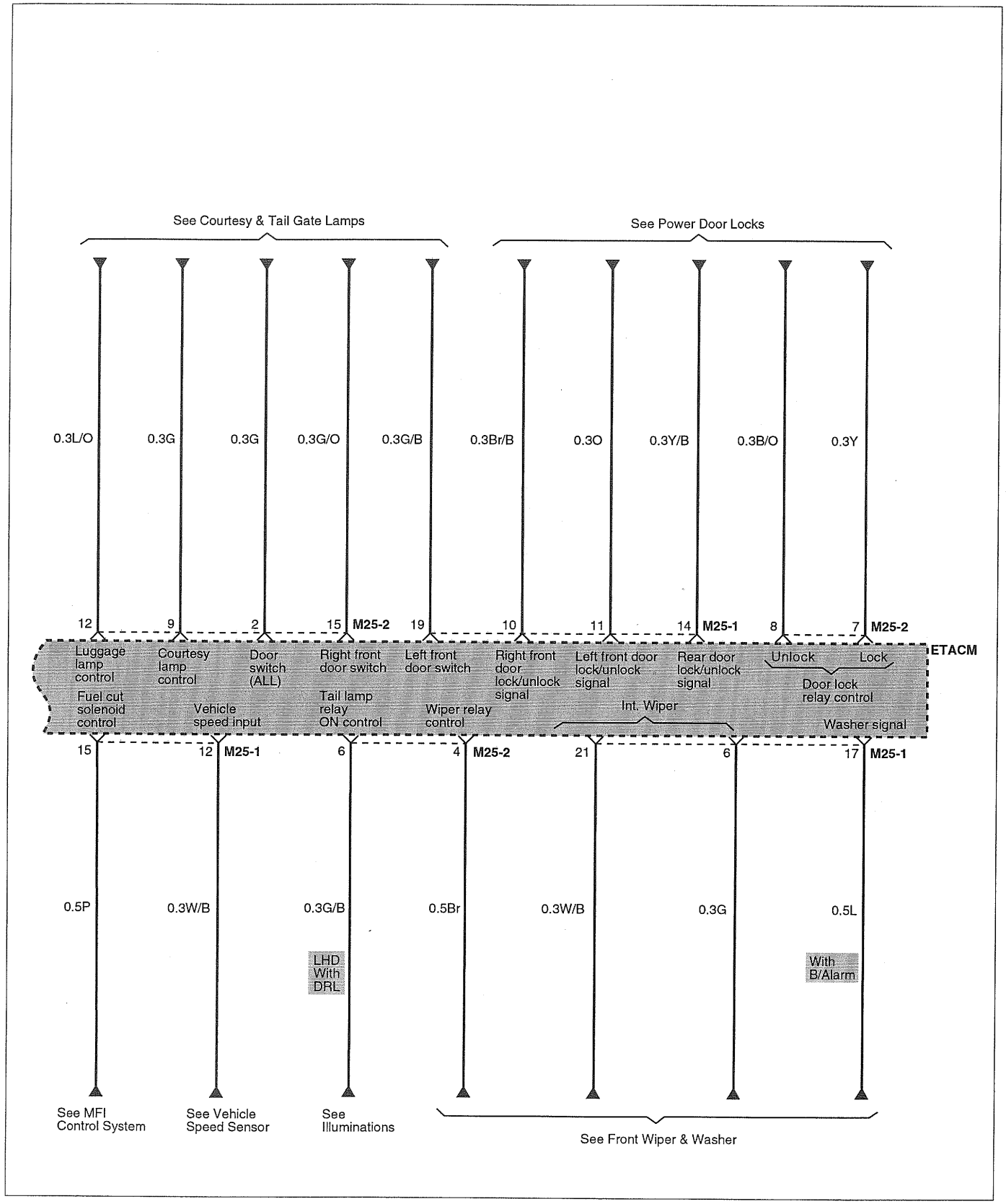
E2FC020A

ETACS(ELECTRONIC TIME & ALARM CONTROL SYSTEM) (2)



E2FC020B

ETACS(ELECTRONIC TIME & ALARM CONTROL SYSTEM) (3)



E2FC020C

COMPONENT LOCATION INDEX

Components		Location reference-page
E34	Siren	CL-12
E38	Hood switch	CL-13
M05	Ignition key ill & Door warning switch	CL-2
M06	Multipurpose check connector	CL-2
M09-2	Instrument cluster	CL-2
M25-1	ETACM	CL-4
M25-2	ETACM	CL-4
M40	Siren relay	CL-5
M47	Joint connector	CL-5
M48	Joint connector	CL-5
M86	Seat belt switch	CL-7
Connectors		
EM21		CL-14
MM41		CL-9
Grounds		
G01		CL-29
G07		CL-29
G13		CL-30

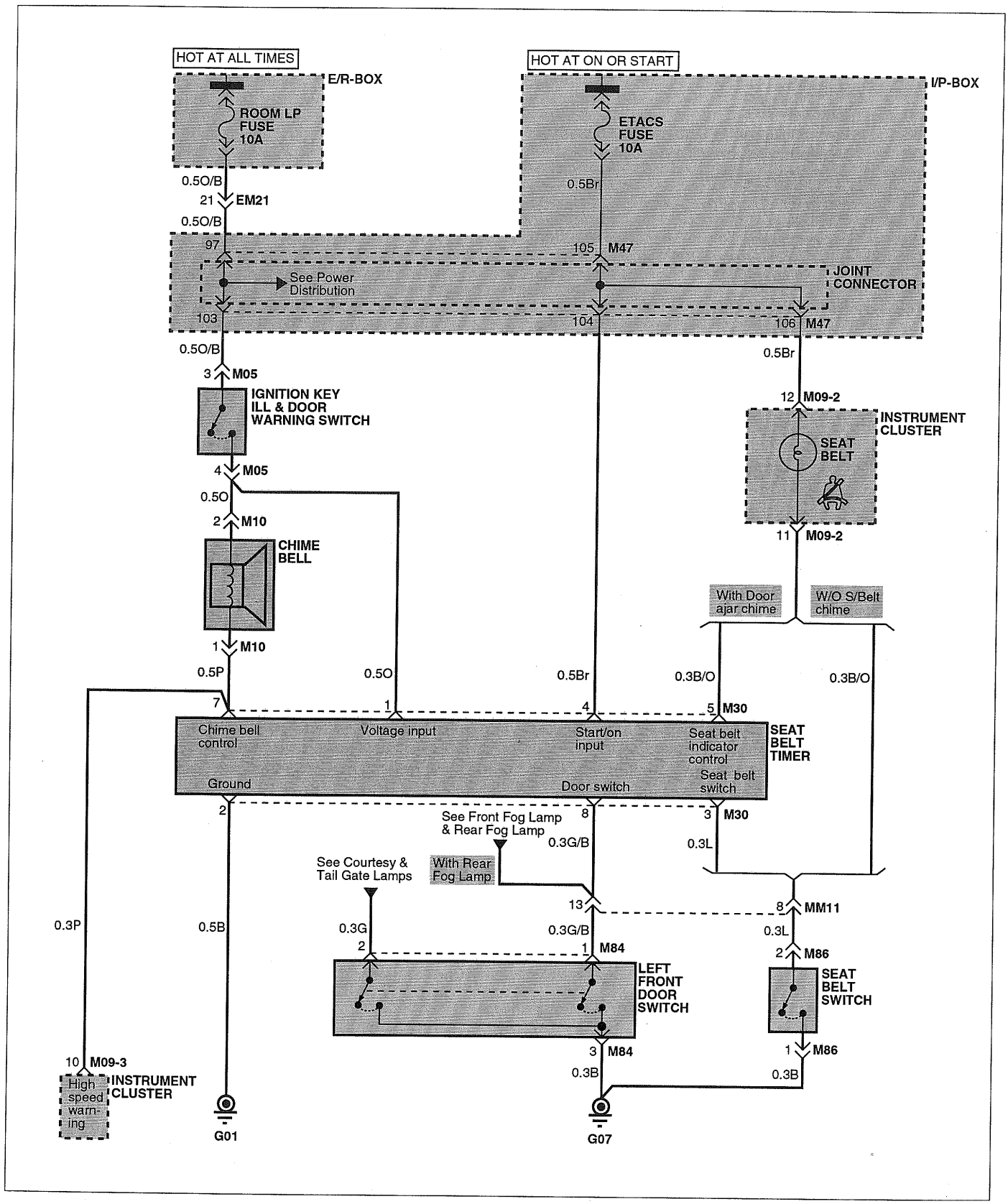
Circuit Description

The Electronic Time and Alarm Control Module (ETACM) controls the front wiper & washer, siren, power door lock, courtesy and luggage room lamps, rear window defogger & outside mirror defogger, B/Alarm, delay out room lamp, door warning, seat belt warning, ignition key hole illumination, door key hole illumination, and so on.

The module receives battery voltage at all times from ROOM LP fuse. IG2 fuse, ETACS fuse supplies battery voltage to the module with the ignition switch in ON, ON or START. For details on the use of the various inputs and outputs, refer to the shop Manual, section BE for details.

SEAT BELT WARNING & CHIME (WITHOUT ETACM) E2FC0210

SEAT BELT WARNING & CHIME (WITHOUT ETACM) (1)

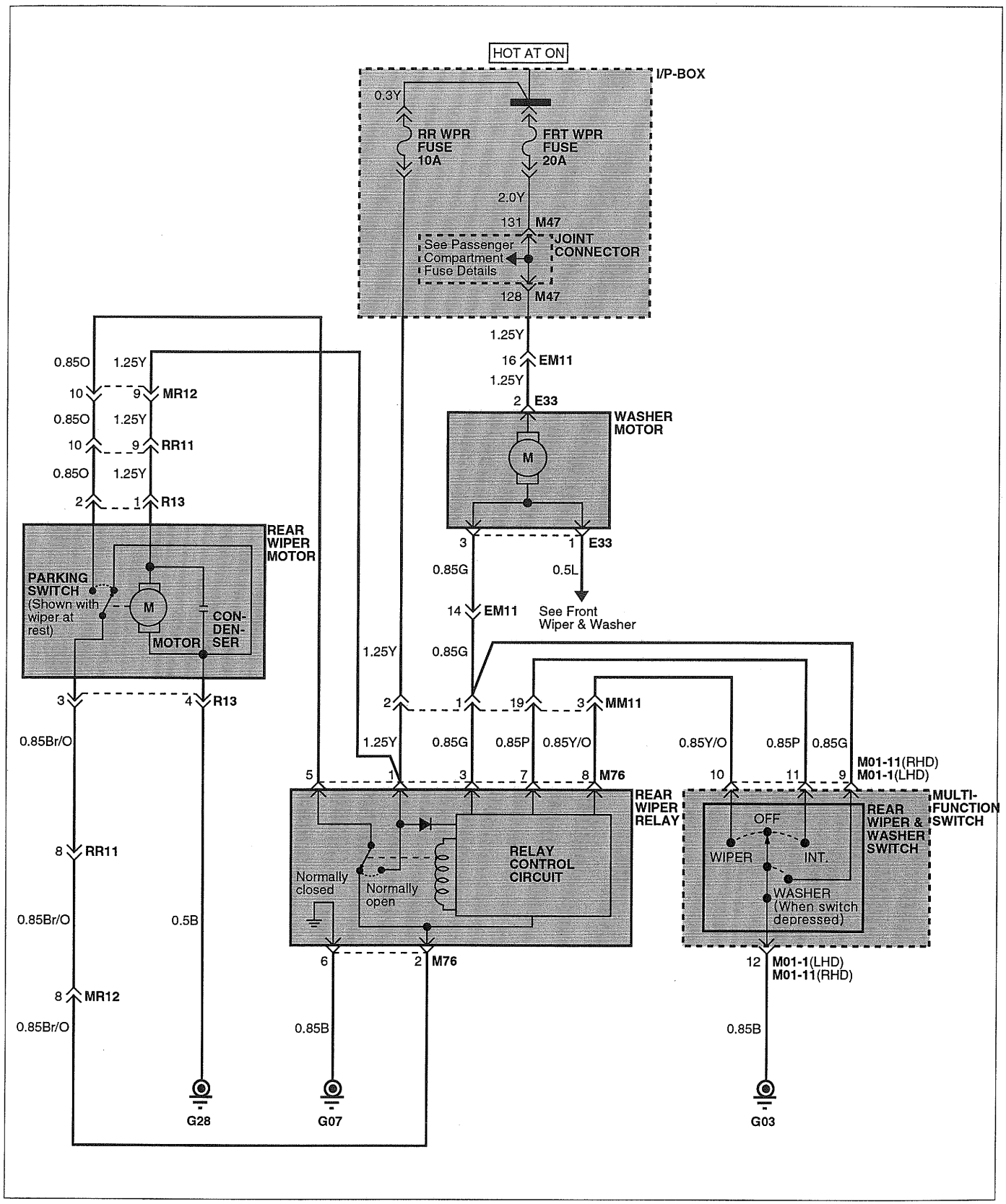


E2FC021A

MEMO

REAR WIPER & WASHER E2FC0230

REAR WIPER & WASHER (1)



E2FC023A

COMPONENT LOCATION INDEX

Components		Location reference-page
E33	Washer motor	CL-12
M01-1	Multifunction switch	CL-2
M47	Joint connector	CL-5
M76	Rear wiper relay	CL-7
R13	Rear wiper motor	CL-28
Connectors		
EM11		CL-14
MM11		CL-9
MR12		CL-9
RR11		CL-28
Grounds		
G03		CL-29
G07		CL-29
G28		CL-31

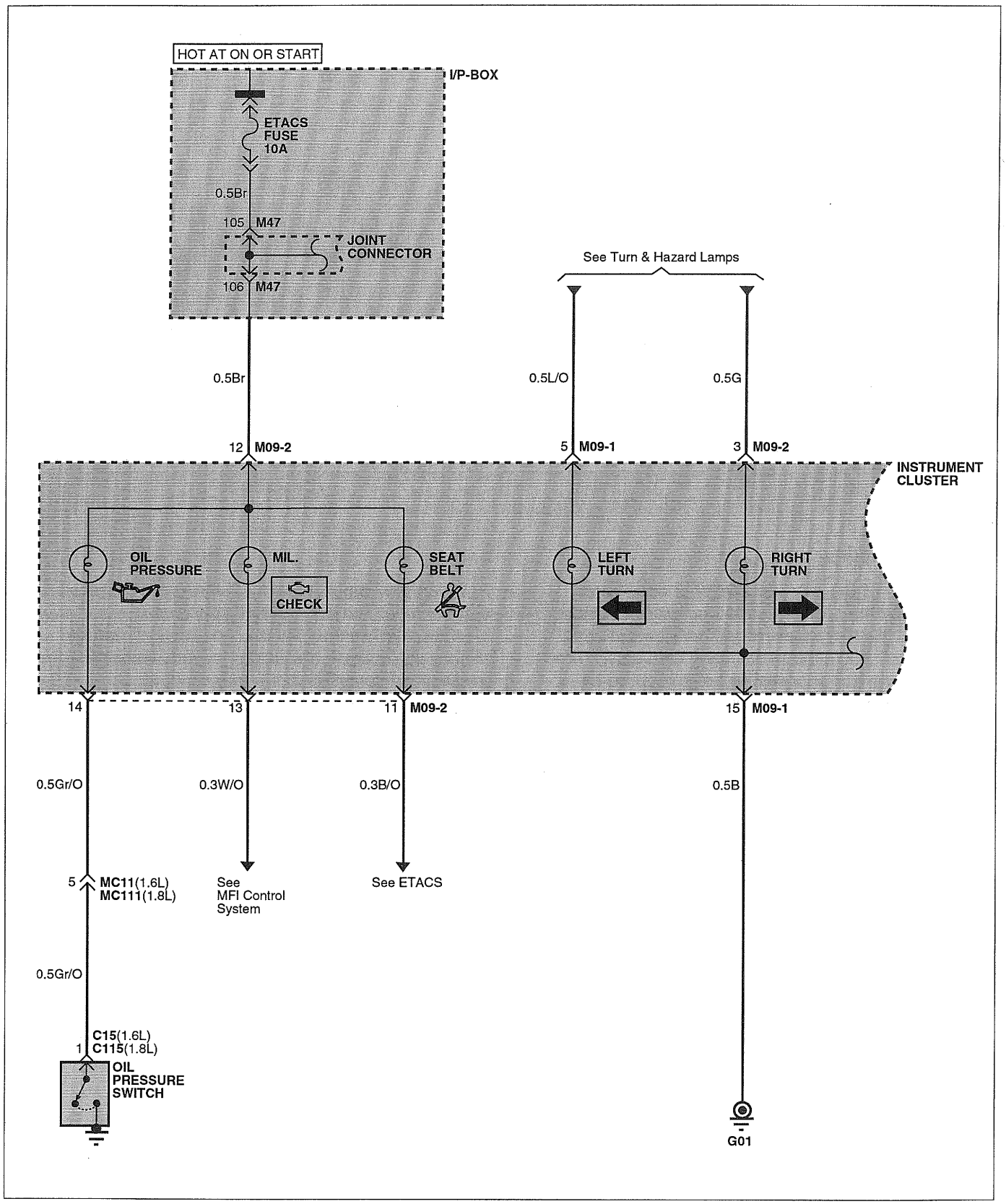
Circuit Description

All functions of the rear wiper/washer circuit are controlled by the position of the rear wiper & washer switch and the rear wiper relay (has it own internal control circuit and controls the relay contracts). The rear window wiper and washer are turned on by depressing the button. Washer fluid is sprayed on the glass as long as the button is depressed.

1. When the "wiper" switch is depressed, the rear window wiper starts to operate continuously.
2. When the "washer" switch is depressed, the rear window wiper wipes the window several times after the washer fluid sprays onto the rear window.

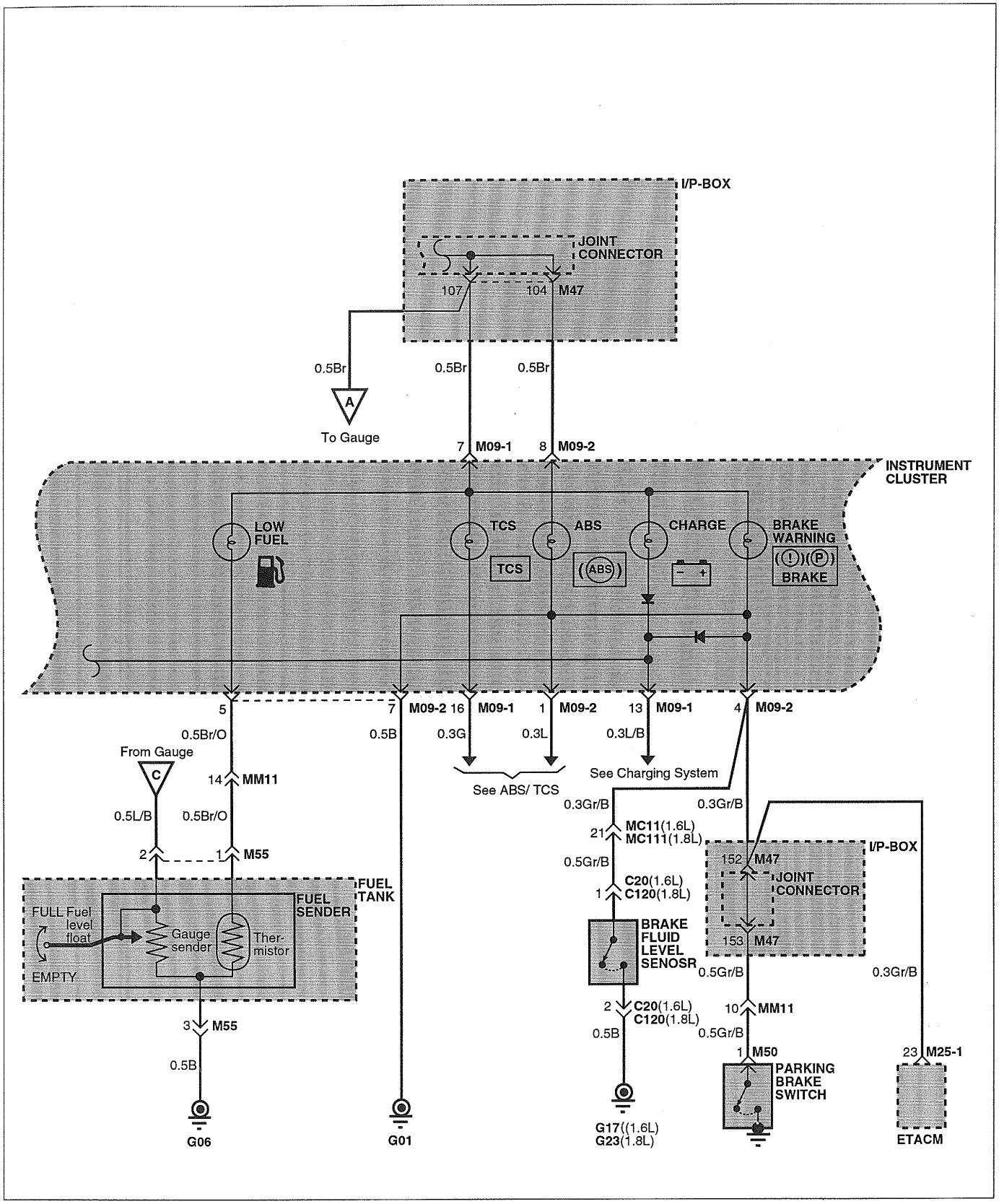
INDICATORS & GAUGES E2FC0250

INDICATORS & GAUGES (1)



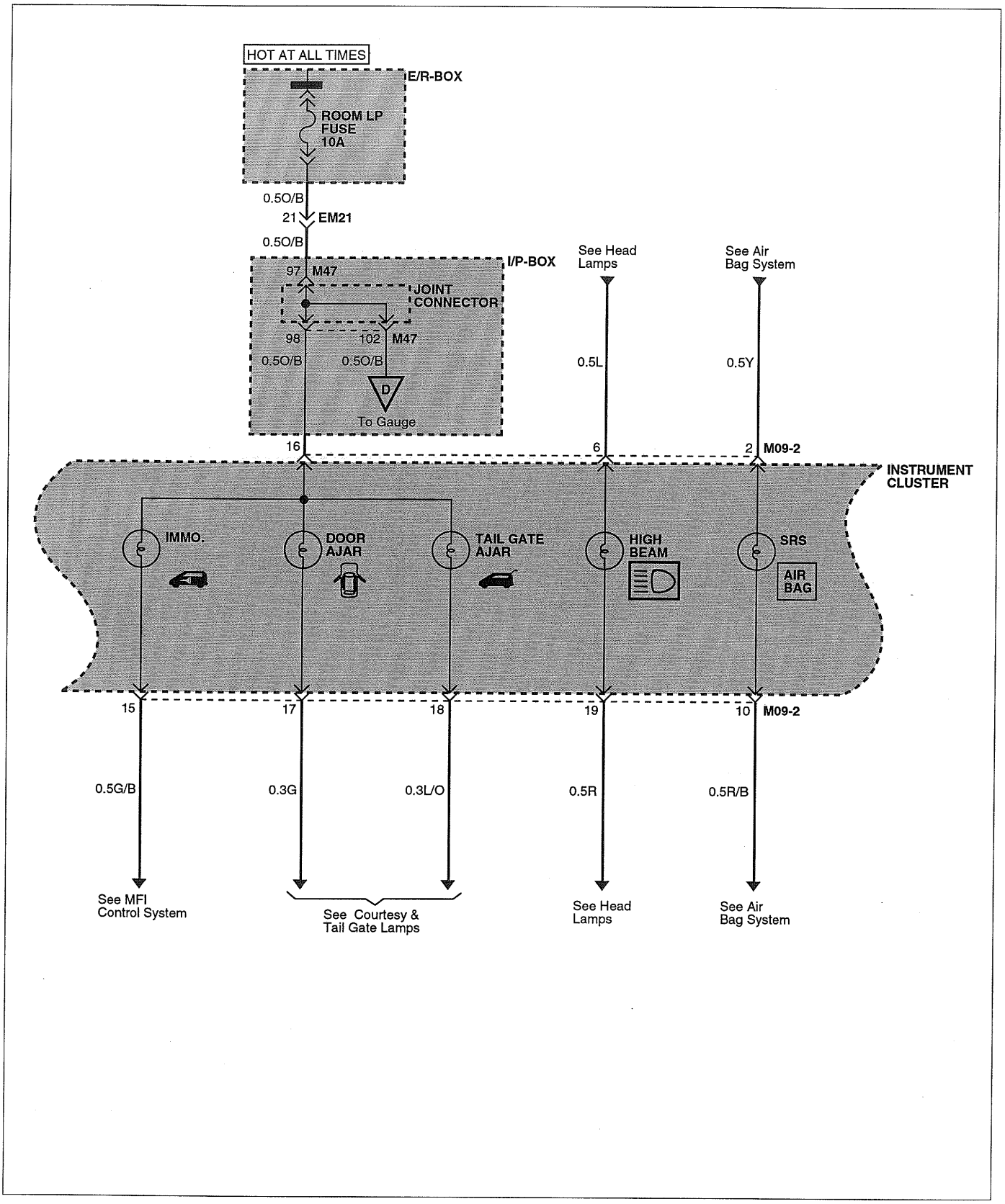
E2FC025A

INDICATORS & GAUGES (2)



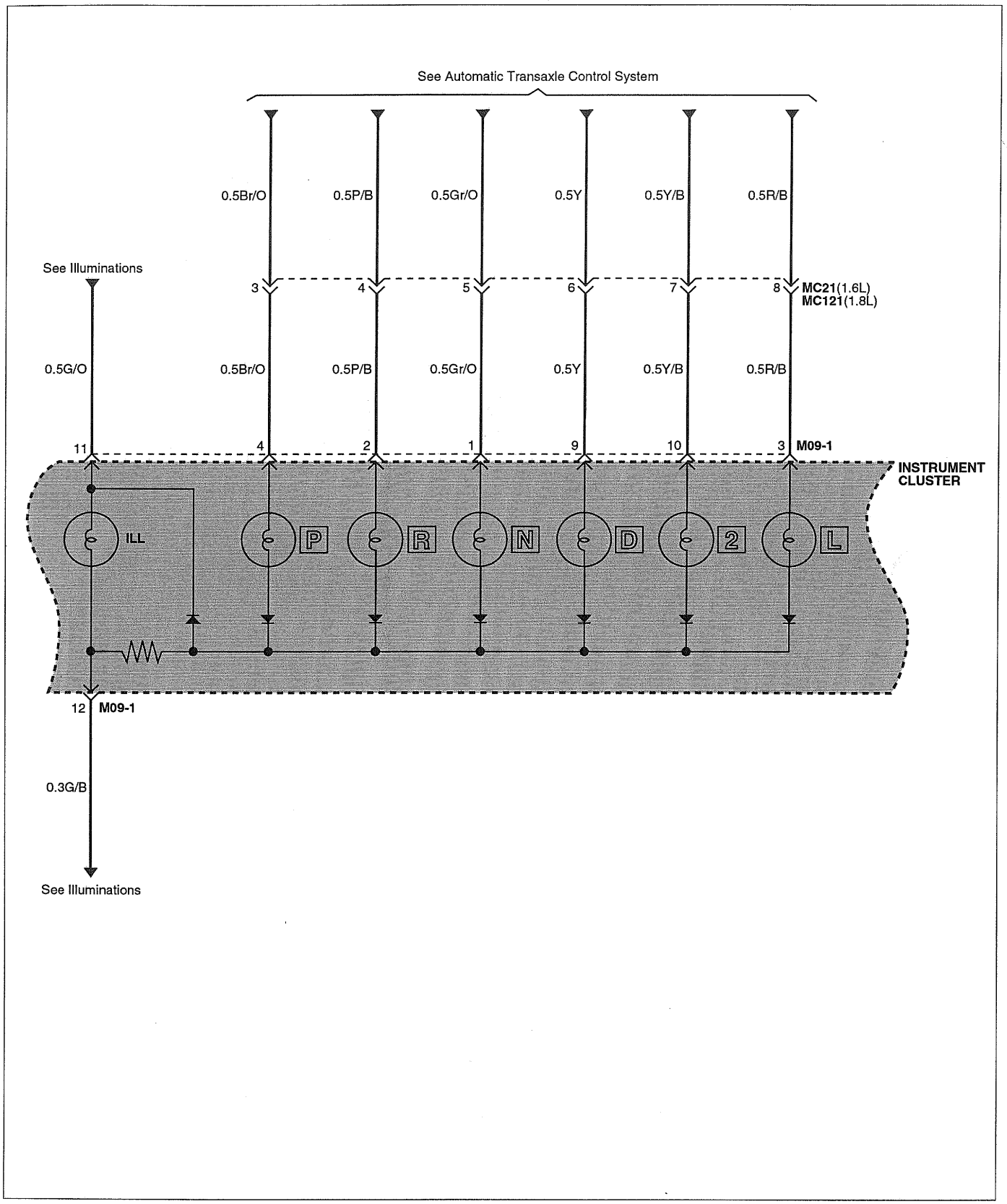
E2FC025B

INDICATORS & GAUGES (3)



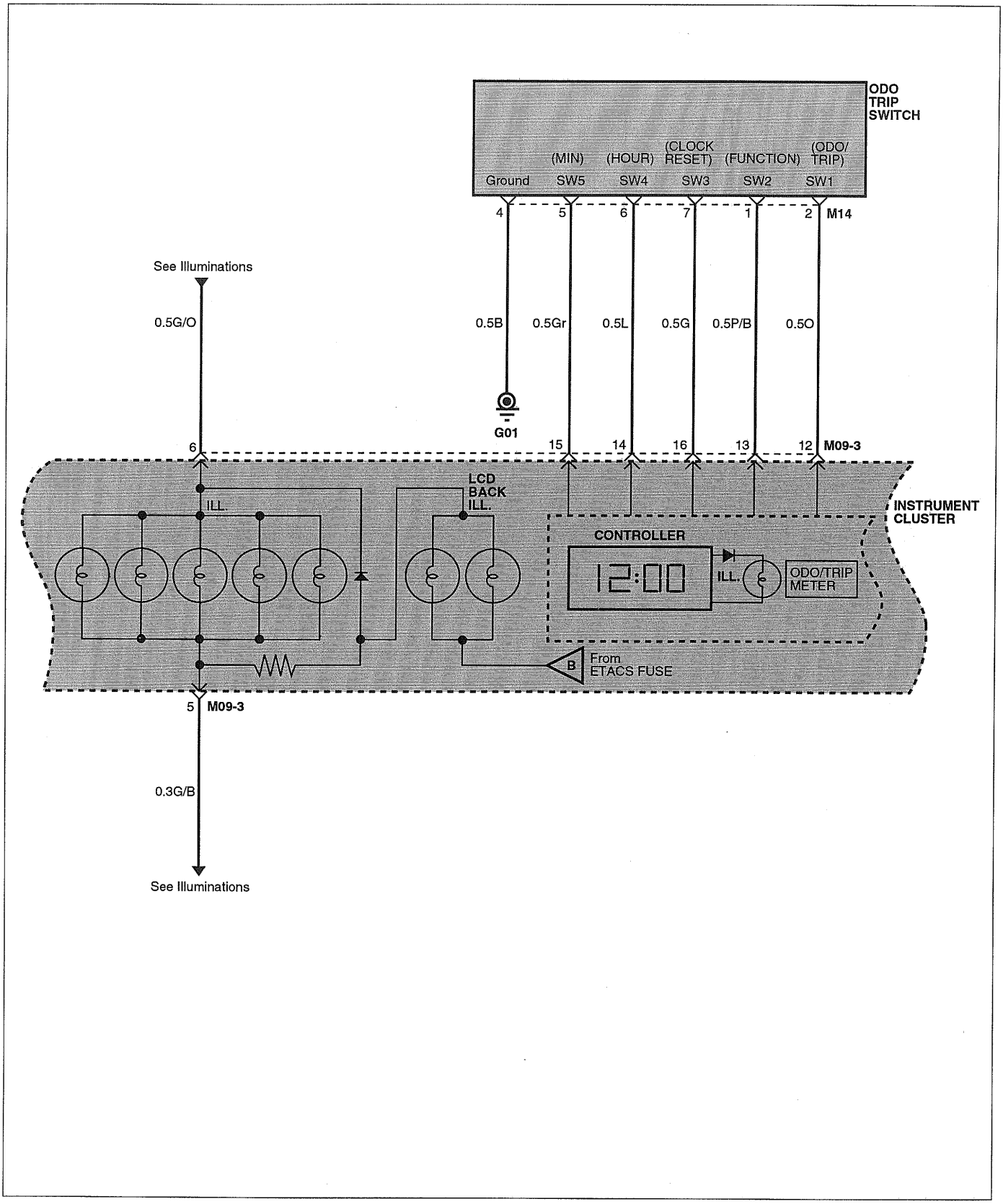
E2FC025C

INDICATORS & GAUGES (4)



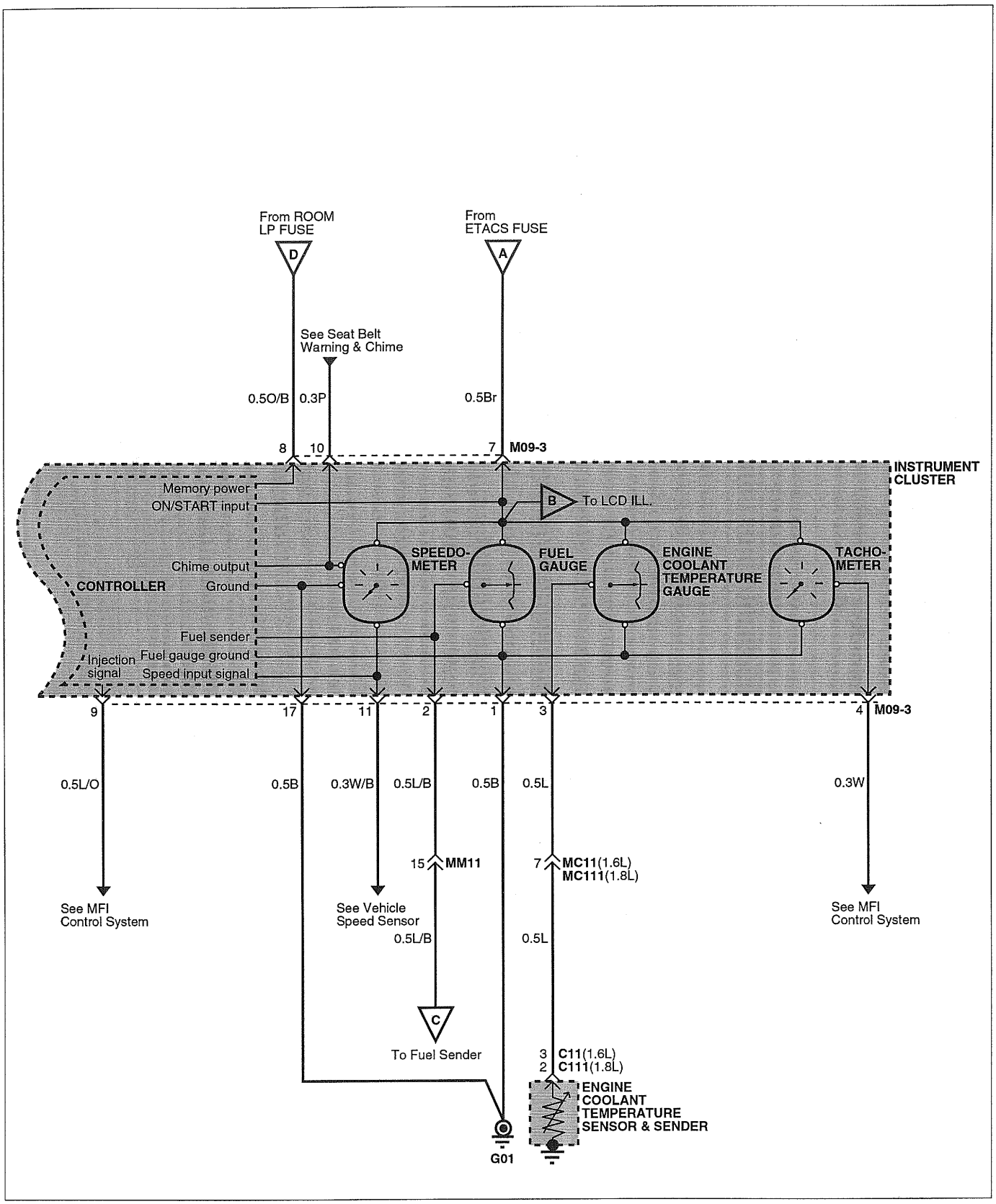
E2FC025D

INDICATORS & GAUGES (5)



E2FC025E

INDICATORS & GAUGES (6)



E2FC025F

COMPONENT LOCATION INDEX

Circuit Description

GAUGES Operation
With the ignition switch in ON or START, battery voltage is applied to the gauges (Speedometer, Tachometer, Fuel Gauge and Engine Coolant Temperature Gauge) from ETACS fuse.

Speedometer
The speedometer drive circuits receive pulses from the Vehicle Speed Sensor (VSS). The pulse rates increase as the car accelerates. The frequency and duration of these input pulses are measured and displayed by the speedometer.

Tachometer
The tachometer displays engine speed in rpm. Voltage pulses are taken from the ignition system and sent to the tachometer. The tachometer responds to the frequency of the voltage pulses which vary according to engine speed. The ECM processes these pulses into a signal that causes the gauge needle to move.

Fuel Gauge
The pointer of the fuel gauge is moved by the magnetic field of two coils. The coils are at right angles to each other. The megnetic field, controlled by the fuel gauge sender, causes the gauge needle to move. As the resistance in the sender varies, current through the gauge coils changes. When the fuel level is below the thermistor, the resistance of thermistor varies, providing a ground for the low fuel indicator bulb.

Engine Coolant Temperature Gauge
The pointer of the engine coolant temperature gauge is moved by the magnetic field of two coils. The coils are at right angles to each other. The magnetic field, controlled by the engine coolant temperature sender, cause the gauge needle to move. As the resistance in the sender varies, current through the gauge coils changes.

INDICATOR Operation
With the ignition switch in ON or START, battery voltage is applied to the indicator bulb from ETACS fuse.

Oil pressure indicator
When the oil pressure is low (oil pressure switch is closed), ground is provided to the oil pressure indicator bulb. The oil pressure does not register when the engine is not running or with ignition ON. In that, case the pressure switch remains closed and the indicator illuminates.

Low fuel indicator
The thermister in the fuel gauge sender is near the bottom of the tank. When the fuel level is below the thermister, the resistance of the thermistor lowers, providing a ground for the indicator.

Check ENGINE indicator
The ground of the indicator is controlled by the ECM. The control module will light the indicator when the engine is not running or when it detects engine problems.

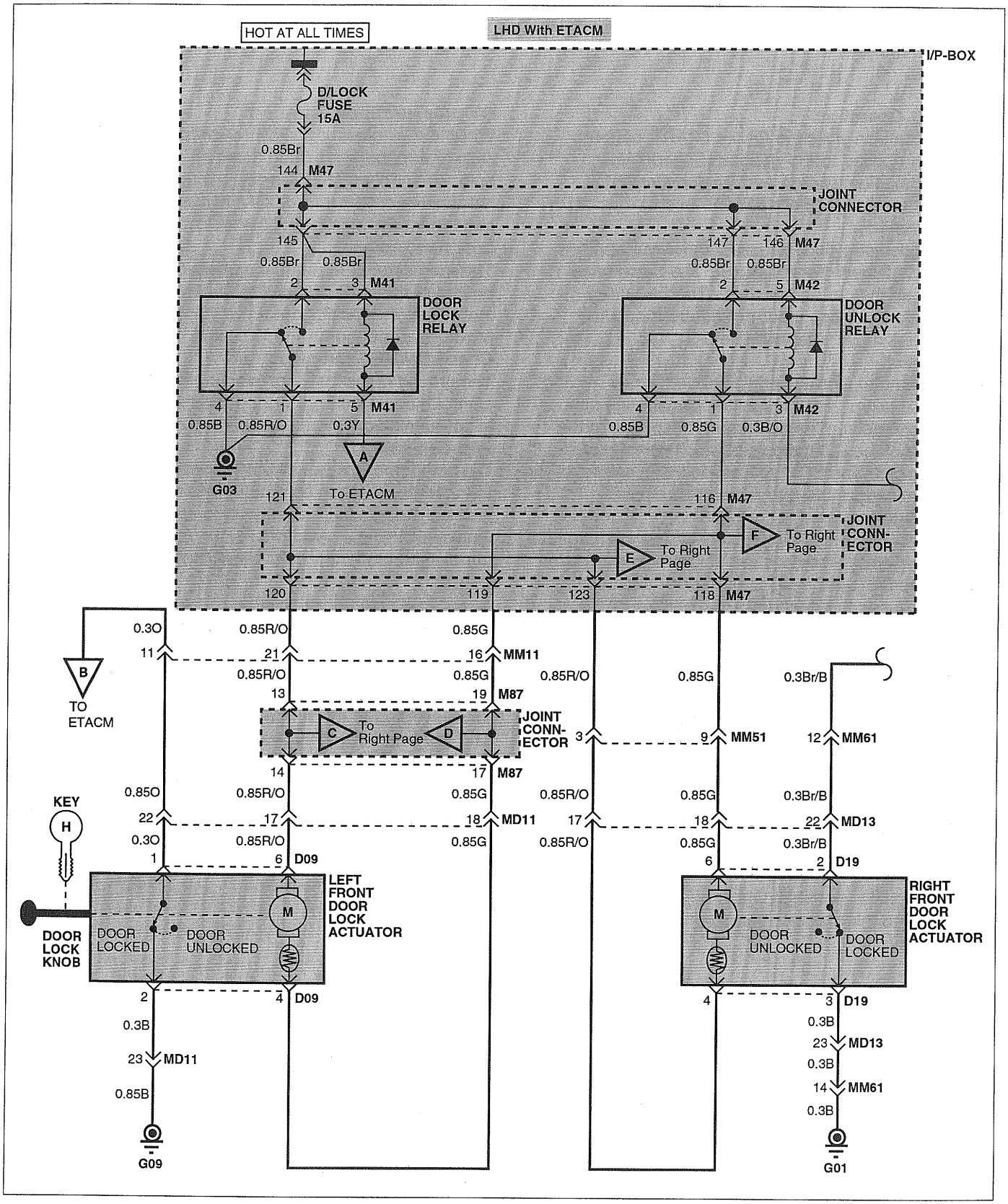
Trip computer
Trip computer receives all the information related to the trip and displays various data for driving on the monitor. The trip data includes the average speed from the ignition-ON till the ignition-OFF, the driving time and the distance to empty with remaining fuel.

Clock
Clock displays the current time on the monitor. Every time pressing "H" switch, the hour will be up-counted and pressing "M" switch, the minute will be up-counted. When the "R" switch is pressed in 30 minutes or less, the minutes will be reset to "oo" and pressed in 30 minutes or more, the hour will be increased and the minutes will be reset to "oo".

ODO/Trip meter
Controller receives the speedo meter input signal and displays the ODO/trip meter.
When pressing the ODO/trip select & reset switch, shifts the mode to ODO, trip A and trip B.

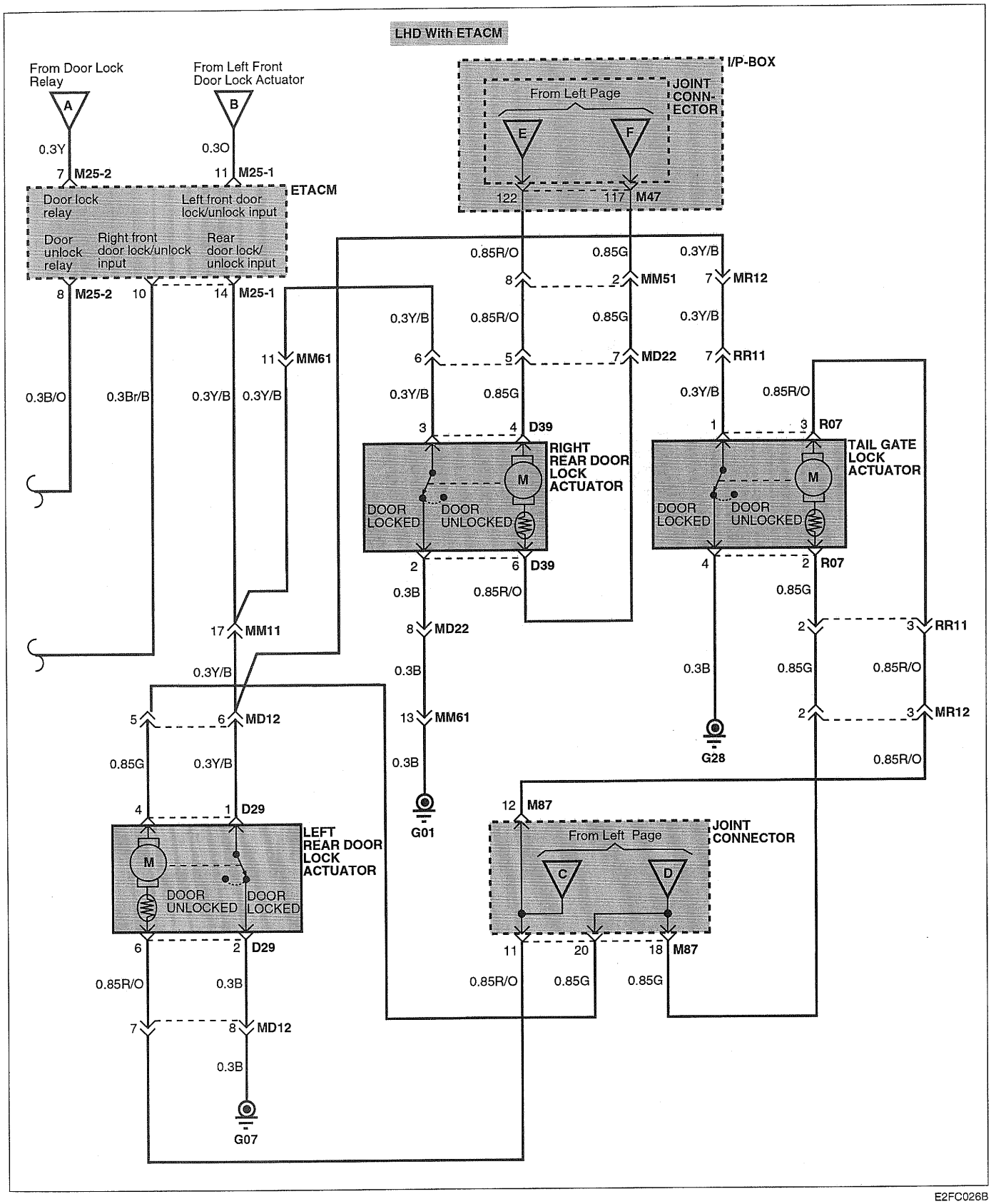
POWER DOOR LOCKS E2FC0260

POWER DOOR LOCKS (1)

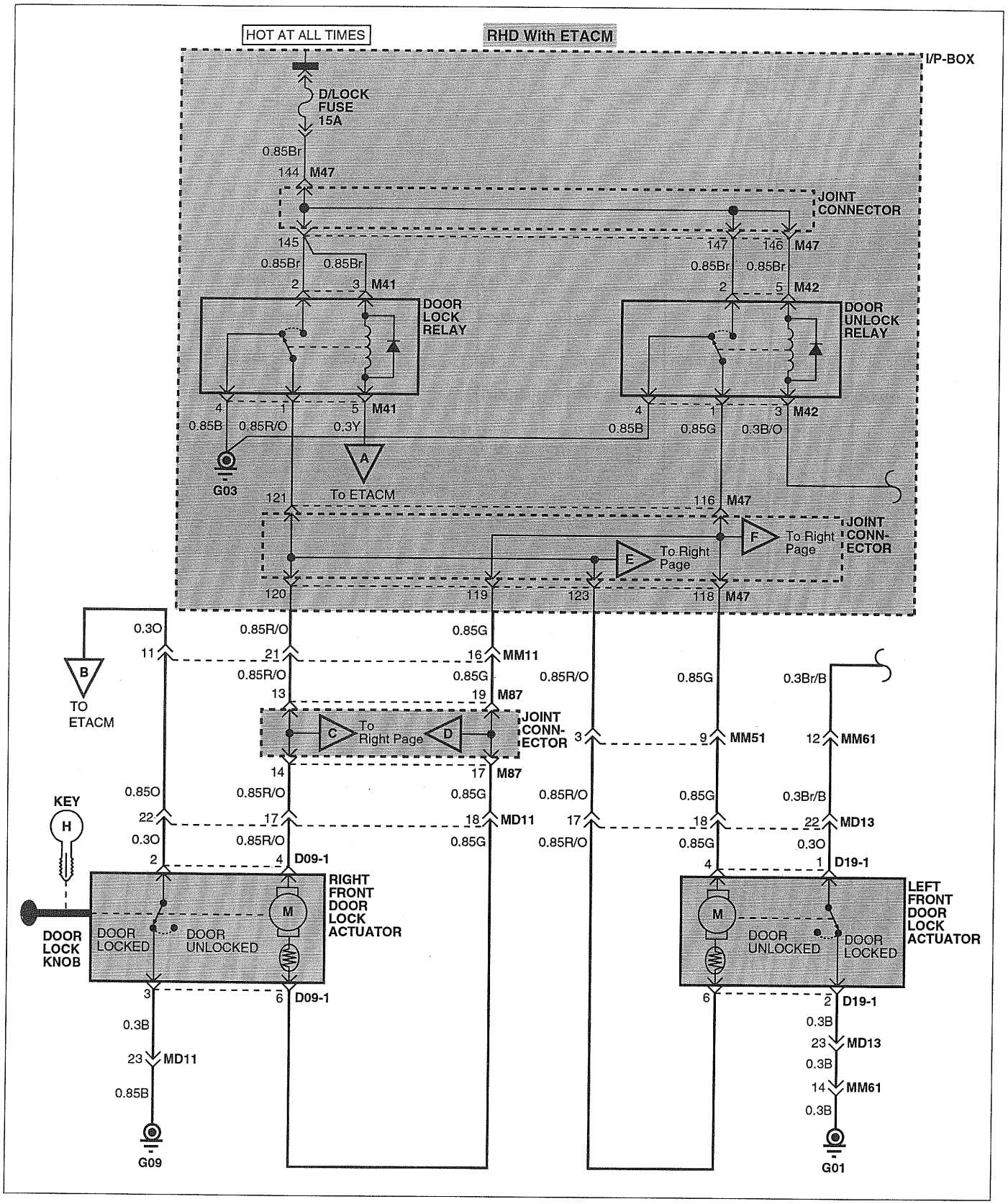


E2FC026A

POWER DOOR LOCKS (2)

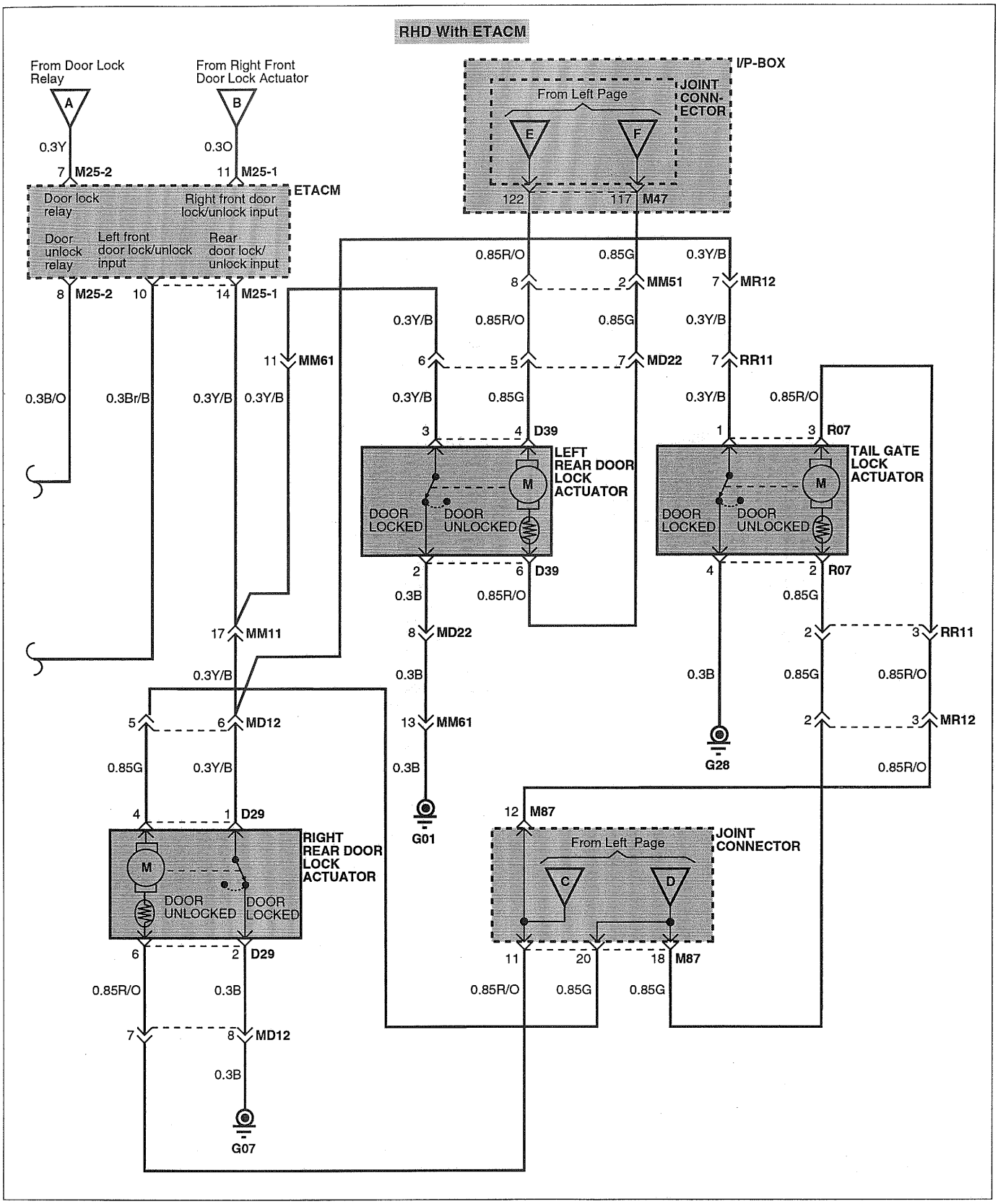


POWER DOOR LOCKS (3)



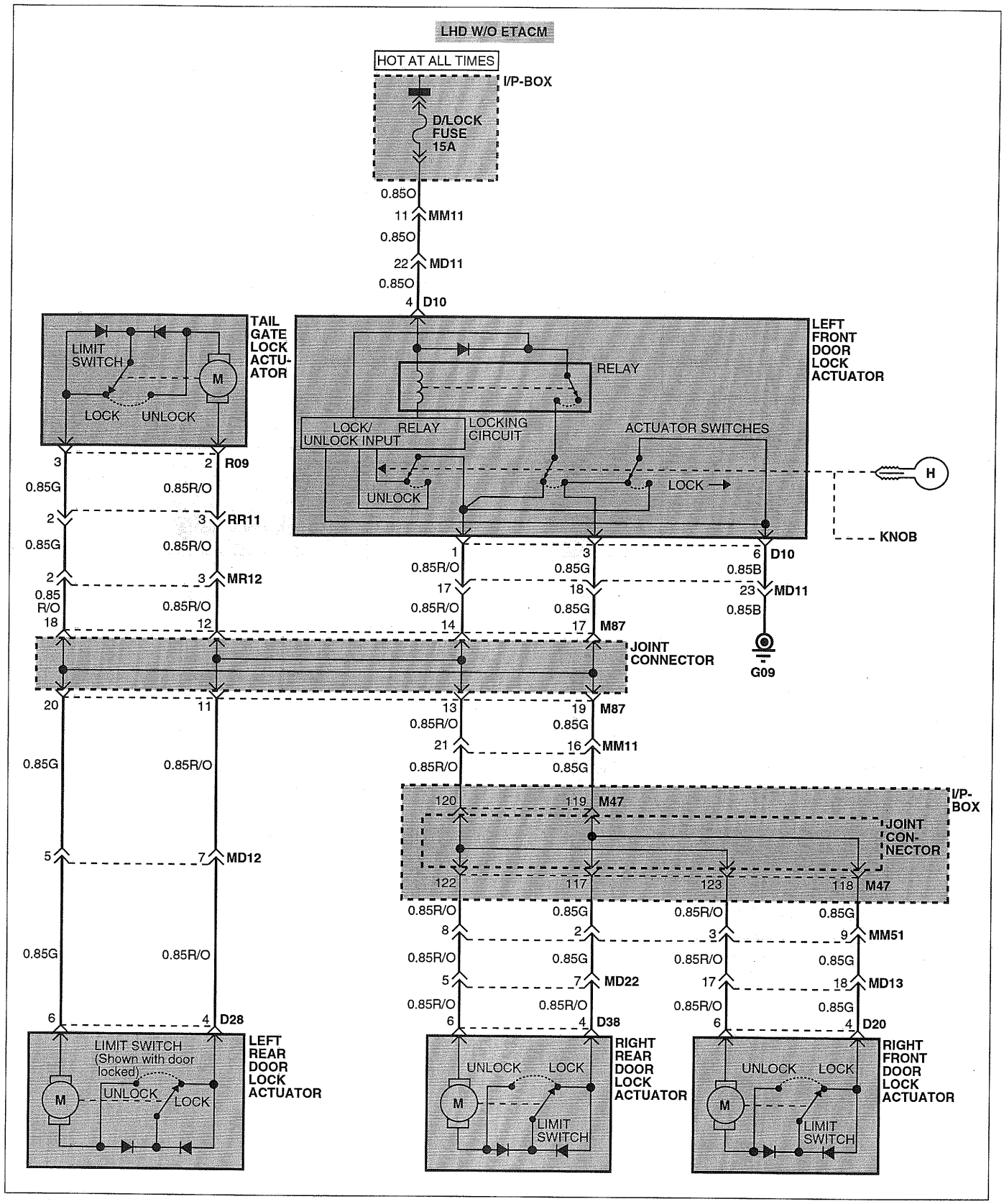
E2FC026C

POWER DOOR LOCKS (4)



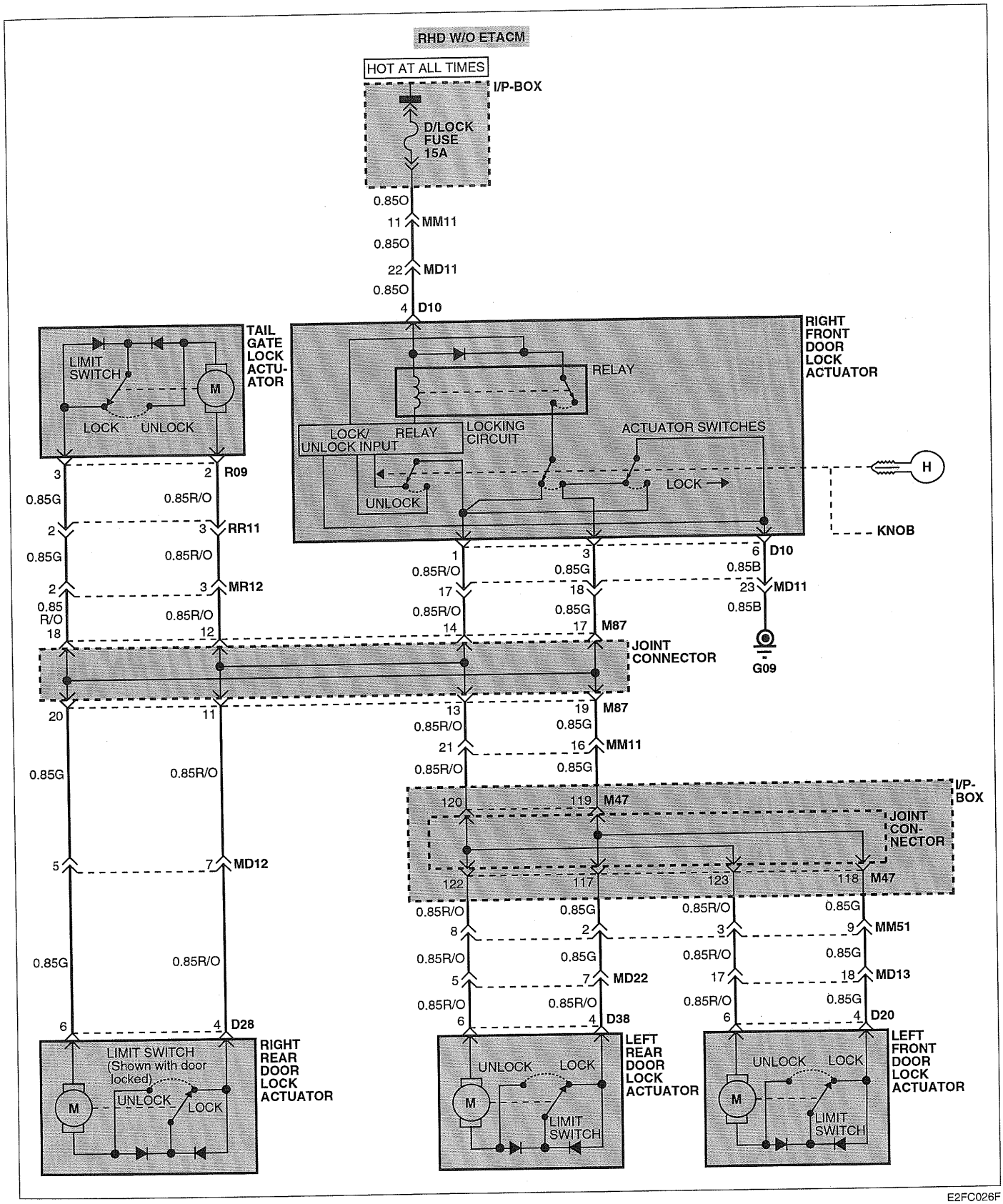
E2FC026D

POWER DOOR LOCKS (5)



E2FC026E

POWER DOOR LOCKS (6)



E2FC026F

COMPONENT LOCATION INDEX

Circuit Description

With ETACS CM

Battery voltage is supplied to the door lock control module at all times from D/LOCK fuse. There is a metal rod that links the left door lock switch and the left door locking actuator. When the left door lock switch is pushed to lock, the metal rod then pushes the actuator switches inside the door lock actuator to the lock position. The ETACM receives the lock input, controls the two door lock relay coils and then battery voltage is supplied to the door lock actuators through D/LOCK fuse and the two door lock relay contacts.

The solid state circuit will de-energize the relay coil when the limit switches in the door lock actuators move to the unlock position. The door locks work similarly when the left door lock switch is pushed to unlock, except that the electrical current goes through each motor in the opposite direction.

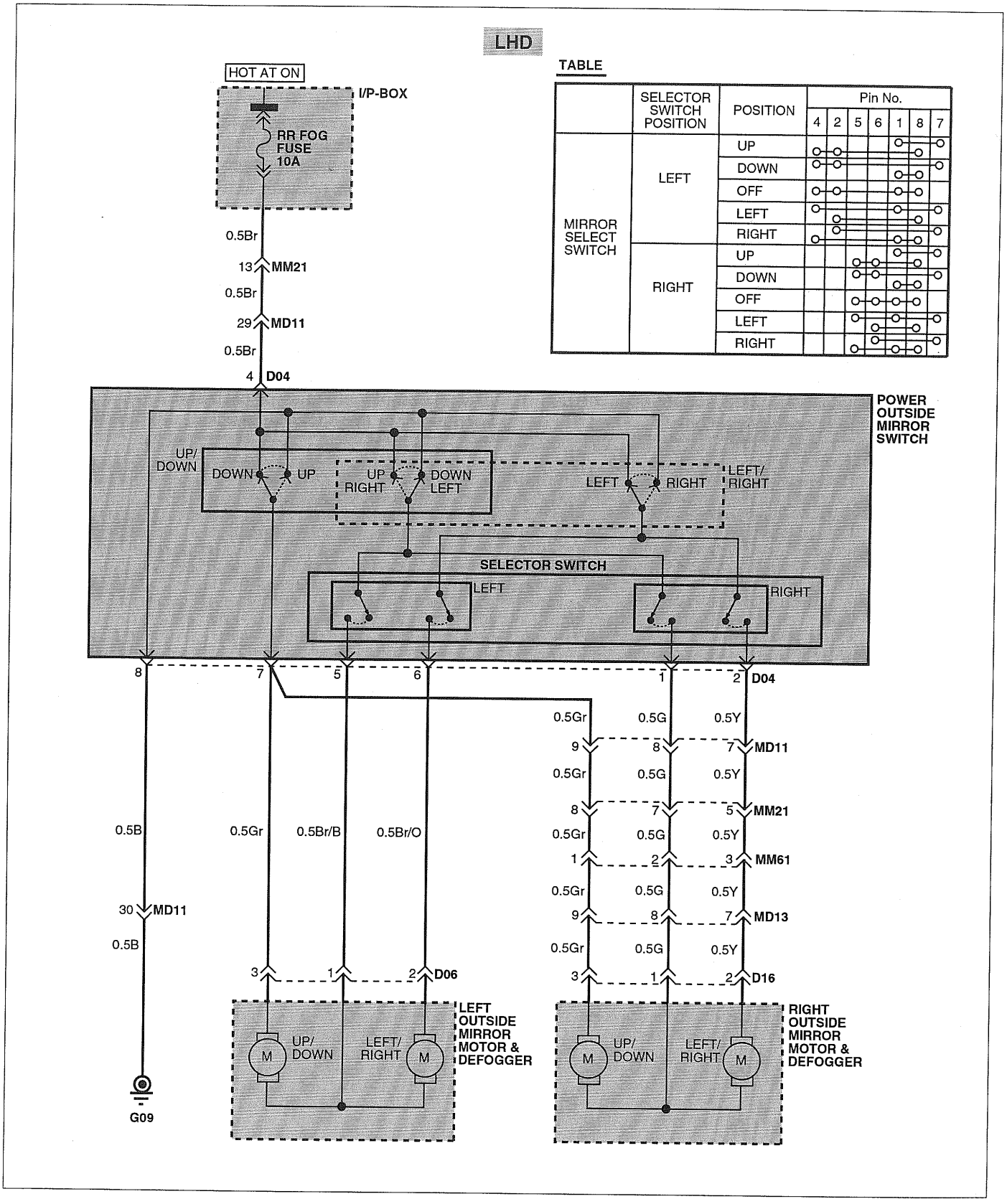
W/O ETACS CM

Battery voltage is supplied to the left door lock actuator at all times from D/LOCK fuse. There is a metal rod that links the left door lock switch and the left door locking actuator. When the left door lock switch is pushed to lock, the metal rod then pushes the actuator switches inside the door lock actuator to the lock position. The solid state circuit receives the lock input and then supplies power to the door lock actuators.

The solid state circuit will de-energize the relay coil when the limit switches in the door lock actuators move to the unlock position. The door locks work similarly when the left door lock switch is pushed to unlock, except that the electrical current goes through each motor in the opposite direction.

POWER OUTSIDE MIRRORS E2FC0270

POWER OUTSIDE MIRRORS (1)



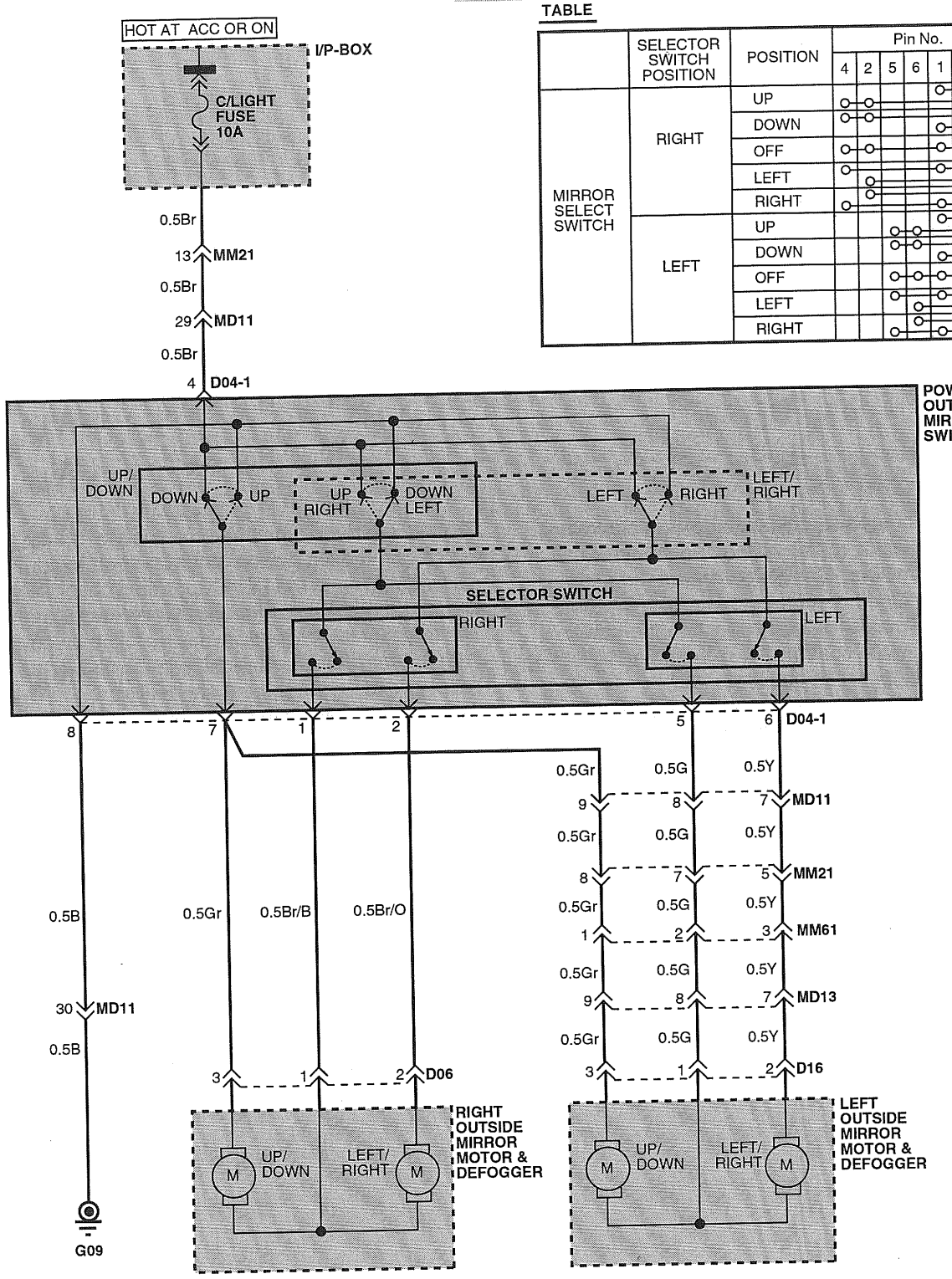
E2FC027A

POWER OUTSIDE MIRRORS (2)

RHD

TABLE

	SELECTOR SWITCH POSITION	POSITION	Pin No. 4	2	5	6	1	8	7
MIRROR SELECT SWITCH	RIGHT	UP	○	○			○	●	
		DOWN	○	○			●		○
		OFF	○				○	●	
		LEFT	○		●		○		○
		RIGHT	○		●		●		○
	LEFT	UP			●		○	●	
		DOWN			○	●	●		○
		OFF			○	●	○	●	
		LEFT			○	●	●		○
		RIGHT			●	○	●		○



E2FC027B

COMPONENT LOCATION INDEX

Components		Location reference-page
D04	Power outside mirror switch	CL-27
D06	Left outside mirror motor & defogger	CL-27
D16	Right outside mirror motor & defogger	CL-27
Connectors		
MD11		CL-8
MD13		CL-8
MM21		CL-9
MM61		CL-9
Grounds		
G09		CL-29

Circuit Description

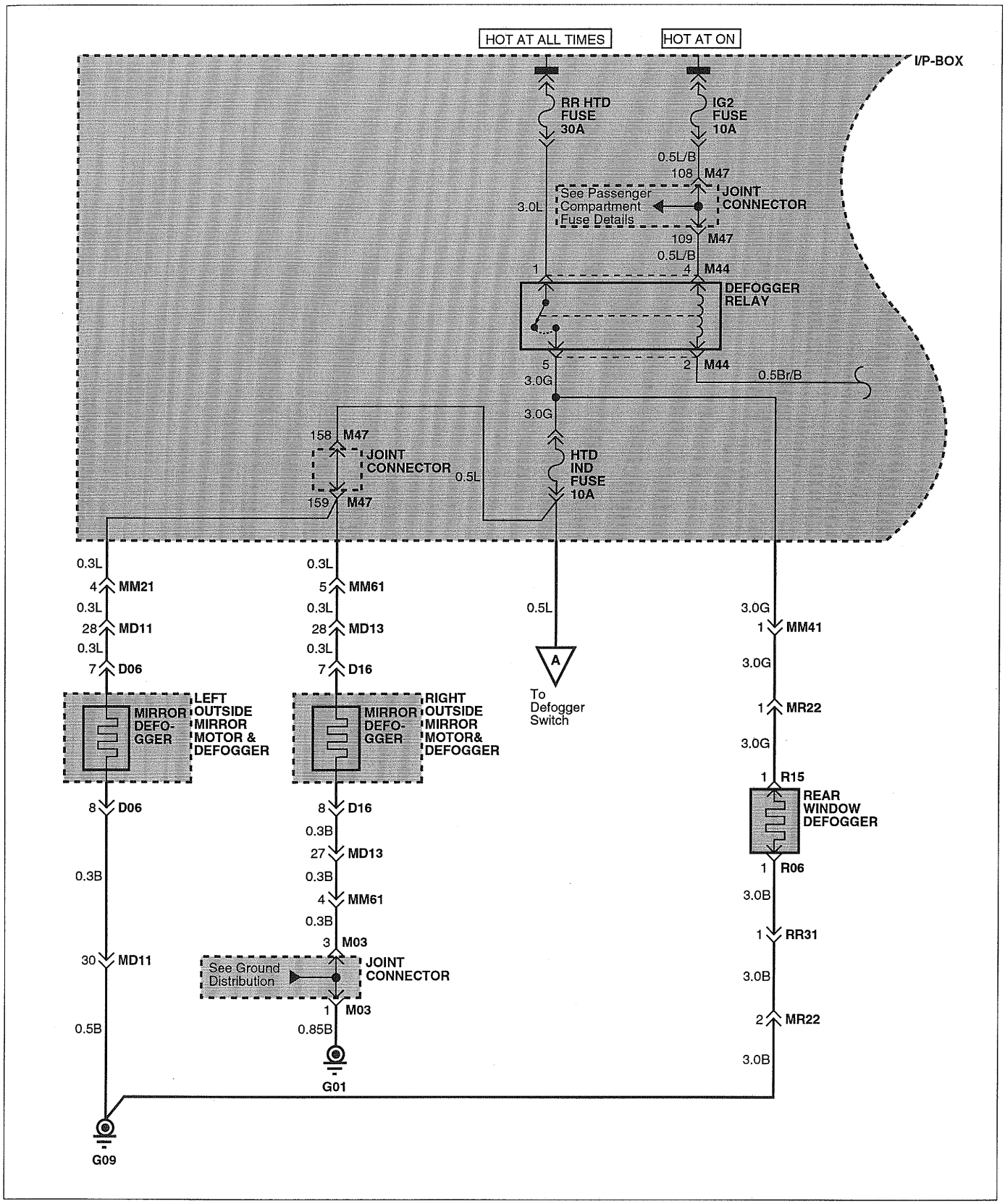
The operation of the two outside mirrors is controlled by the power outside mirror switch. Each mirror has two reversible motors: One motor moves the mirror up and down, the other motor moves the mirror left and right. The master selector switch in the power outside mirror switch controls the direction of the battery voltage to the right or left outside mirror.
With the ignition switch in ON, battery voltage is applied from RR FOG fuse to the power outside mirror switch. With the master selector switch in the LEFT position and the up/down switch in UP, battery voltage is applied to the up contacts of the up/down switch and to the left power mirror up/down motor.

Ground is provided to the up contacts of the up/down switch and the left power mirror up/down motor and the mirror goes up. In the DOWN position, battery voltage and ground are applied to the opposite terminals of the motor. The left/right switch works similarly to the up/down switch. With the master selector switch in the RIGHT position, battery voltage and ground are applied to the right power mirror motors, which then operate in a similarway.

MEMO

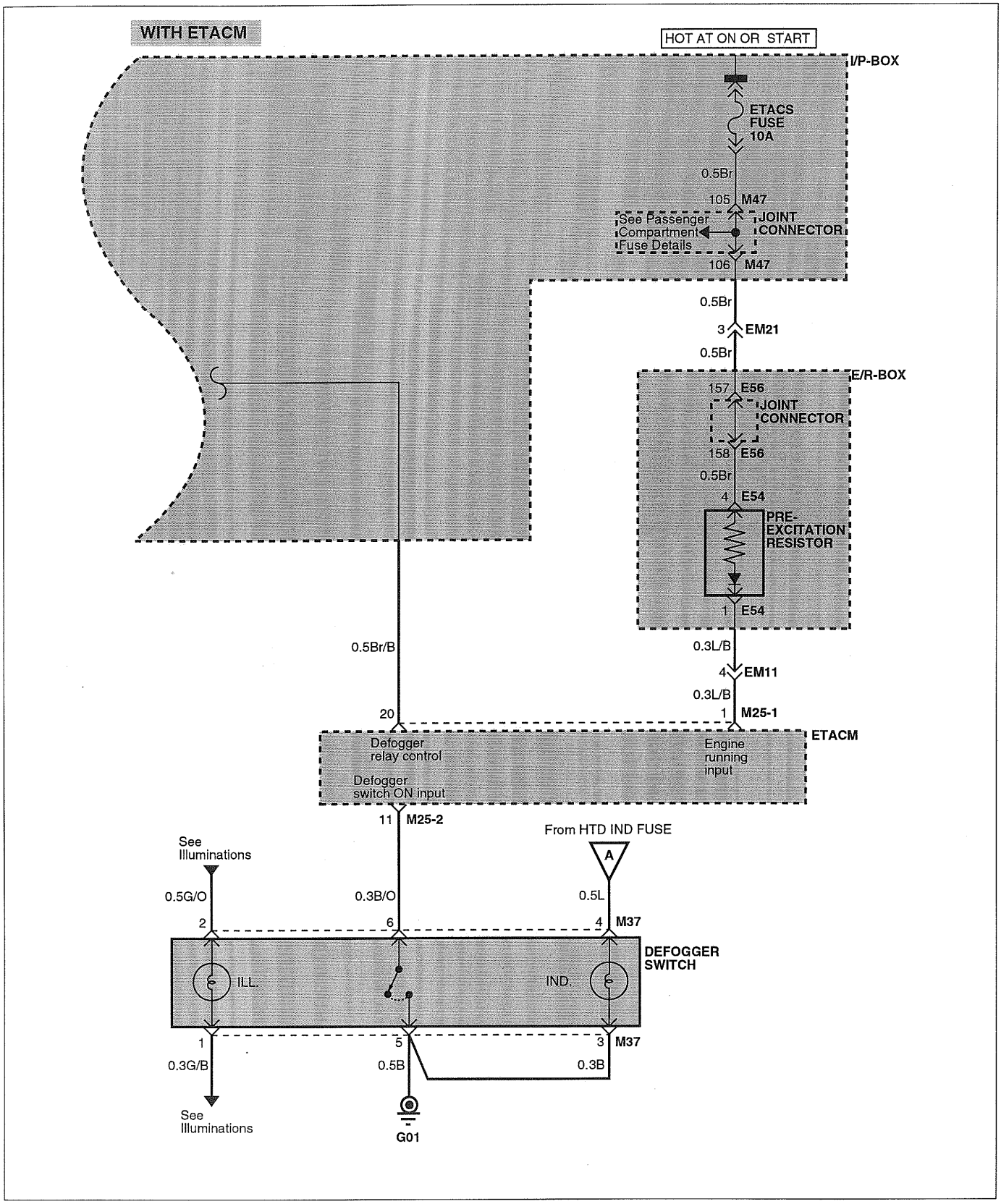
REAR WINDOW & OUTSIDE MIRROR DEFOGGER SYSTEM E2FC0280

REAR WINDOW & OUTSIDE MIRROR DEFOGGER SYSTEM (1)



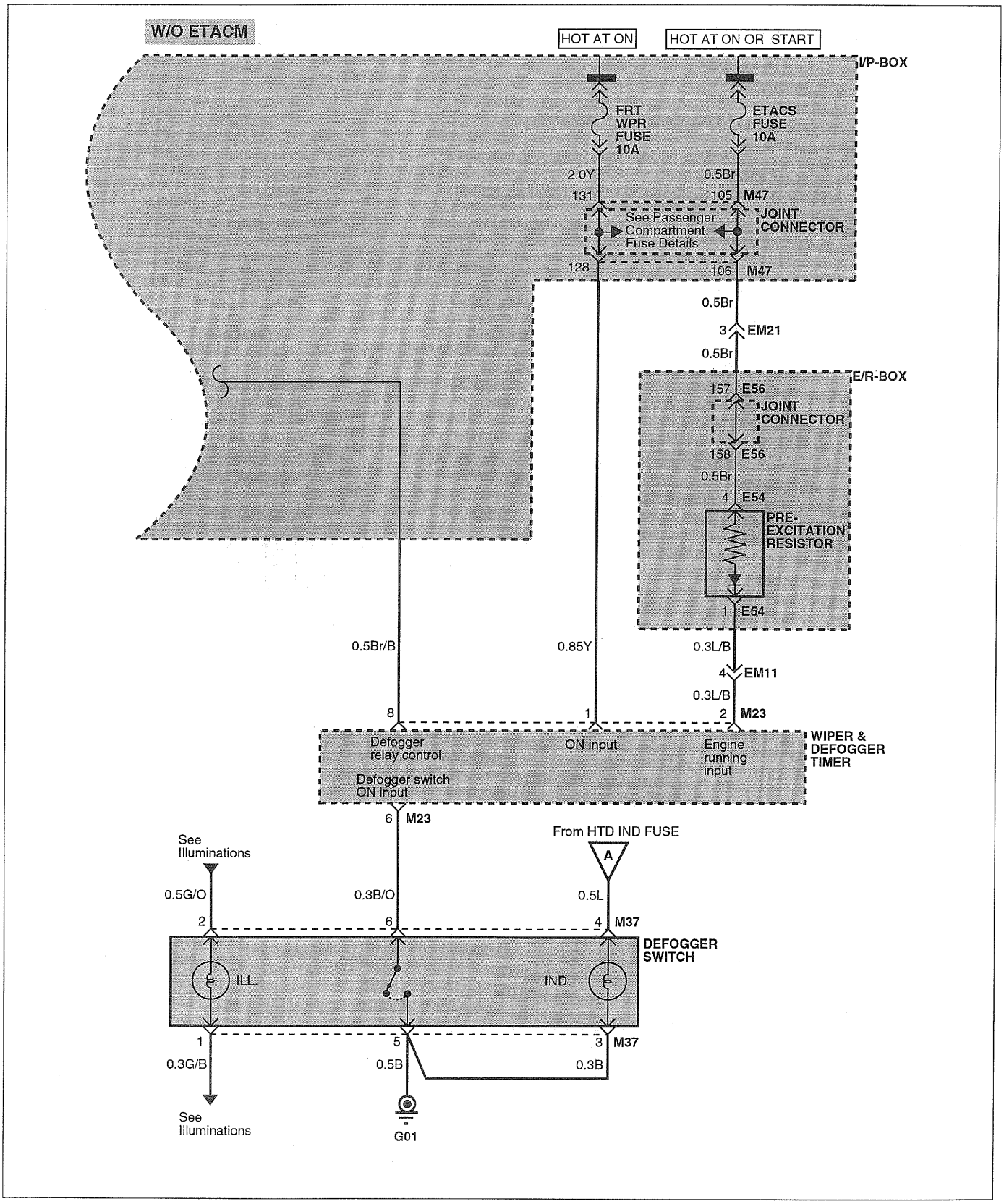
E2FC028A

REAR WINDOW & OUTSIDE MIRROR DEFOGGER SYSTEM (2)



E2FC028B

REAR WINDOW & OUTSIDE MIRROR DEFOGGER SYSTEM (3)



E2FC028C

COMPONENT LOCATION INDEX

Components		Location reference-page
D06	Left outside mirror motor & defogger	CL-27
D16	Right outside mirror motor & defogger	CL-27
E54	Pre-excitation resistor	CL-13
E56	Joint connector	CL-13
M03	Joint connector	CL-2
M25-1	ETACM	CL-4
M37	Defogger switch	CL-5
M44	Defogger relay	CL-5
M47	Joint connector	CL-5
R06	Rear window defogger (-)	CL-28
R15	Rear window defogger (+)	CL-28
Connectors		
EM11		CL-14
EM21		CL-14
MD11		CL-8
MD13		CL-8
MM21		CL-9
MM41		CL-9
MM61		CL-9
MR22		CL-9
RR31		CL-28
Grounds		
G01		CL-29
G09		CL-29

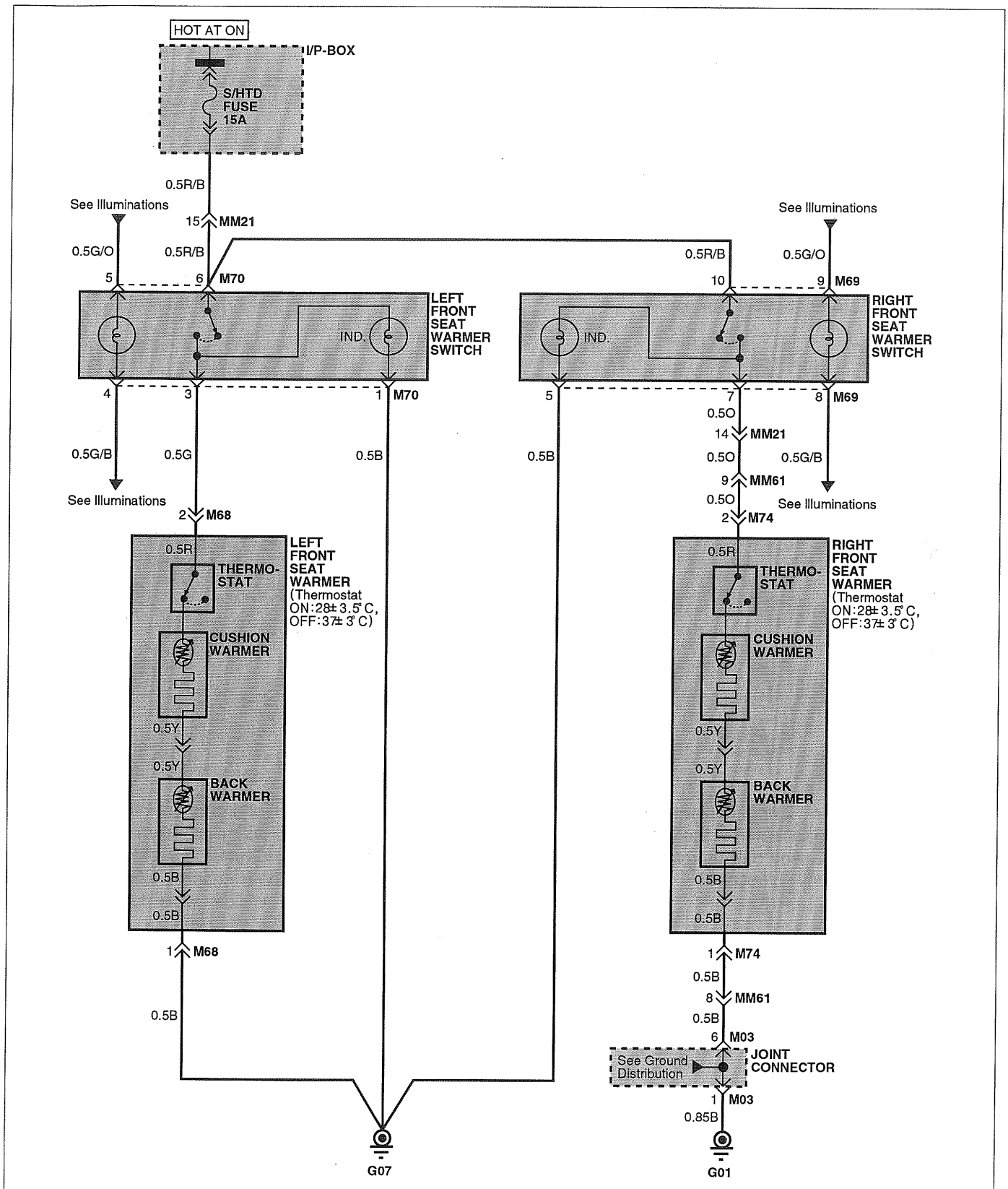
Circuit Description

The ETACM (Electric Time and Alarm Control Module)/Defogger Timer controls the operation of the rear window defogger and outside mirror defogger through defogger relay coil control.

When the defogger switch, is depressed (ON), and the engine is running, the defogger relay coil is energized through the ETACM/Defogger Timer for 20 minutes. Battery voltage is supplied to the rear window defogger and the outside mirror defogger through the closed defogger relay contact.

SEAT WARMER E2FC0290

SEAT WARMER (1)



E2FC029A

COMPONENT LOCATION INDEX

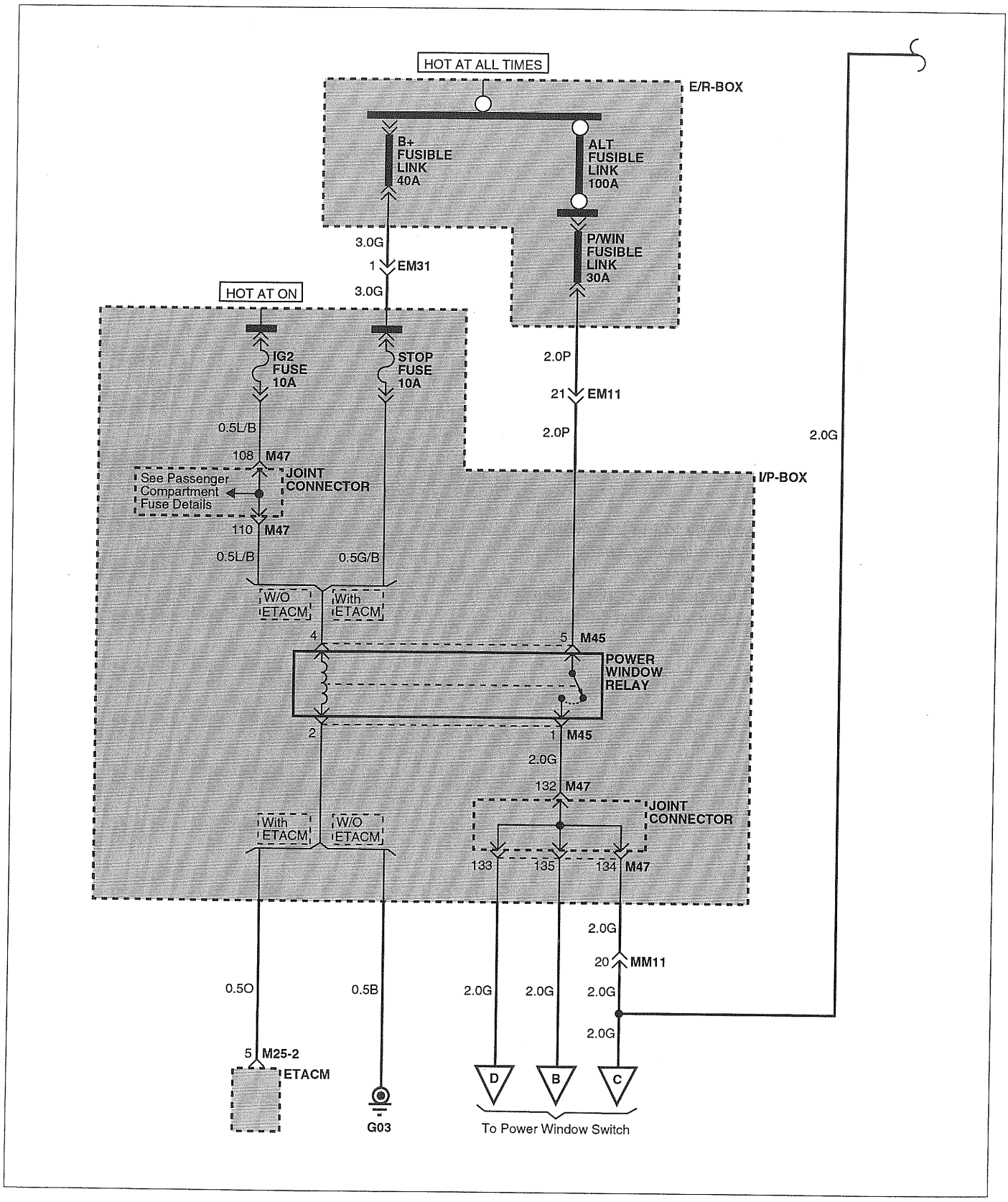
Components		Location reference-page
M03	Joint connector	CL-2
M68	Left front seat warmer	CL-6
M69	Right front seat warmer switch	CL-6
M70	Left front seat warmer switch	CL-6
M74	Right front seat warmer	CL-6
Connectors		
MM21		CL-9
MM61		CL-9
Grounds		
G01		CL-29
G07		CL-29

Circuit Description

S/HTD fuse supplies battery voltage to the Left/Right front seat warmer switch when the ignition switch is in ON for left/right seat warmers operation.
When each seat warmer switch is pushed, battery voltage supplied to the seat warmer and grounded at G01, G07.

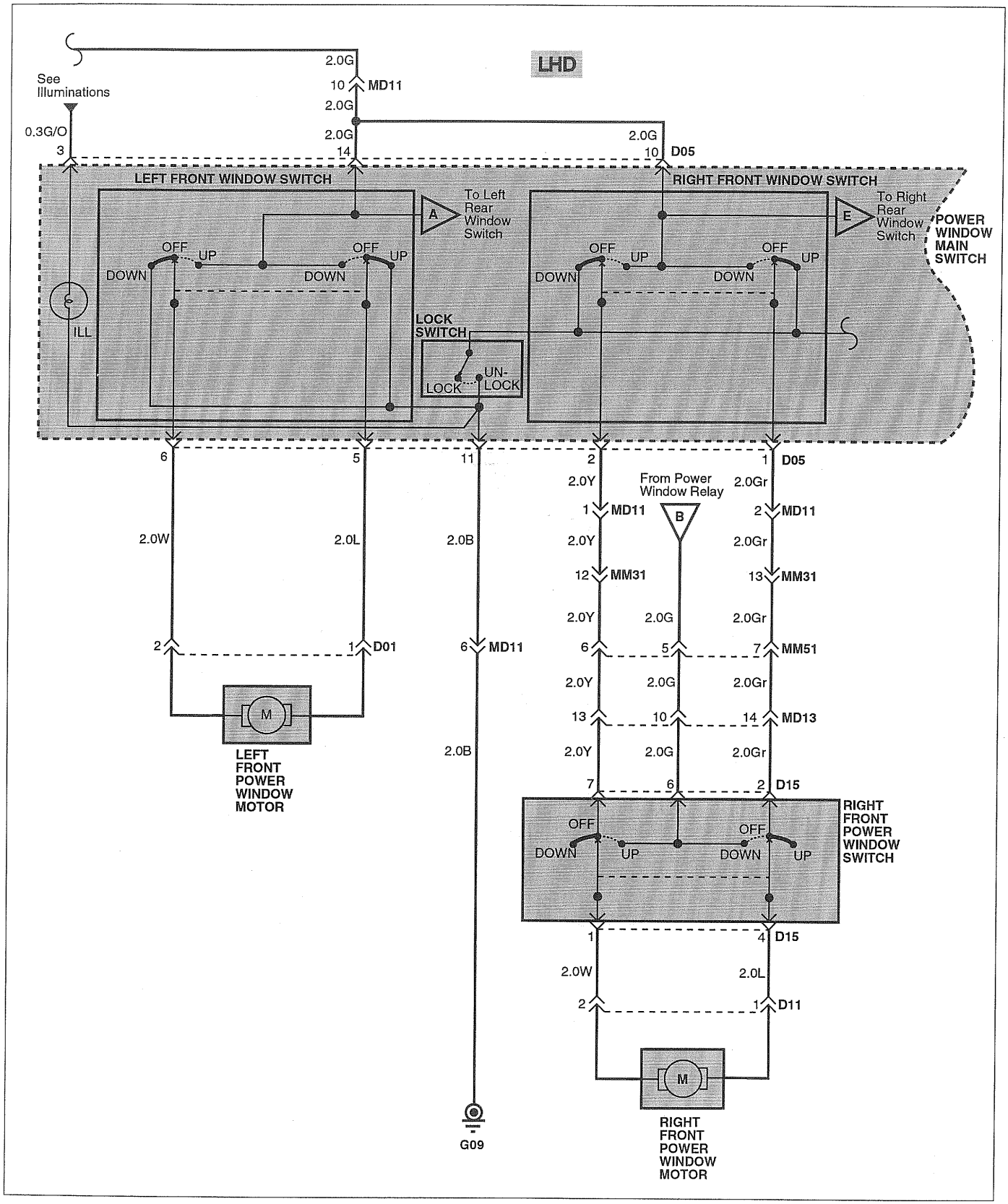
POWER WINDOWS E2FC0310

POWER WINDOWS (1)



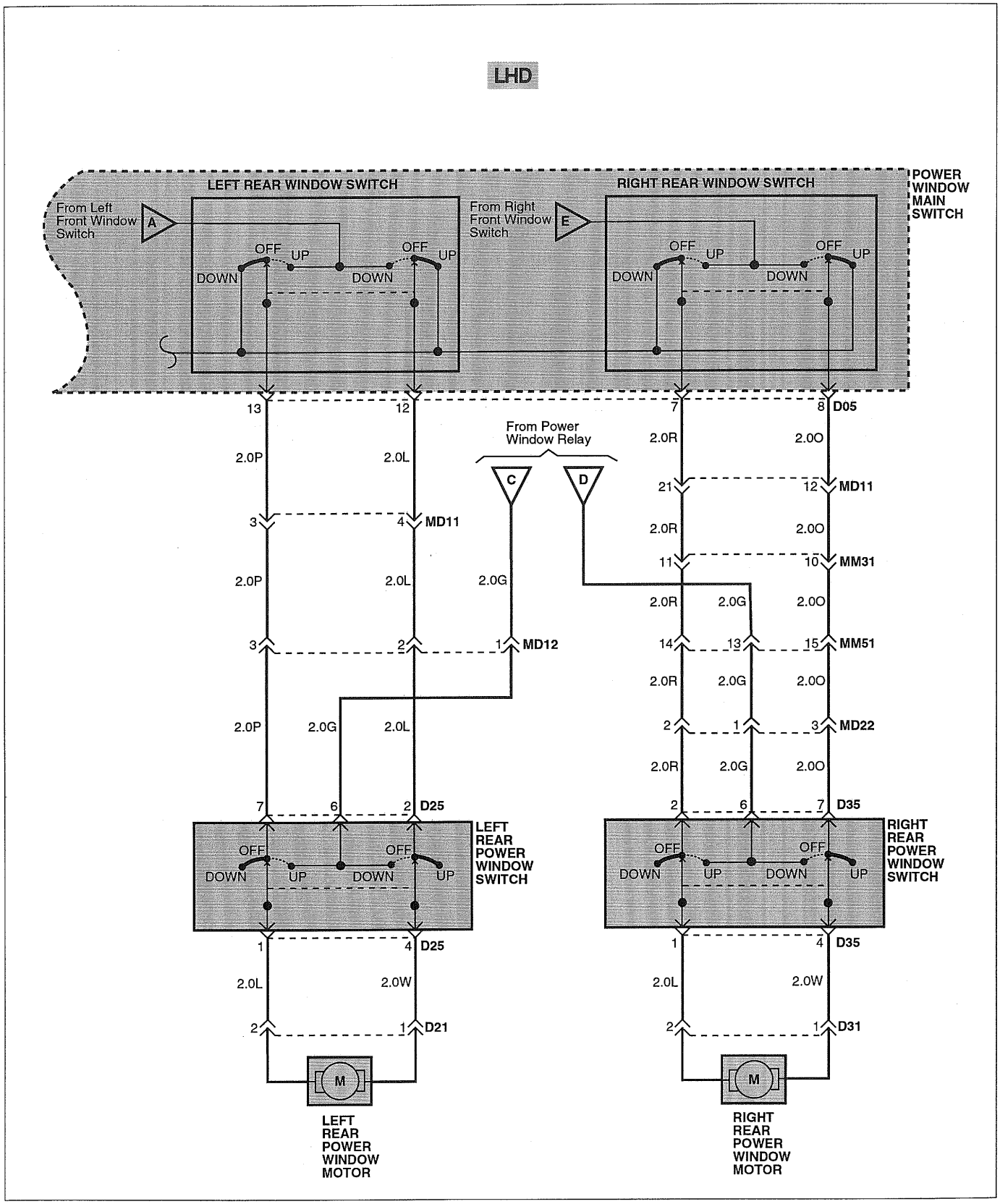
E2FC031A

POWER WINDOWS (2)



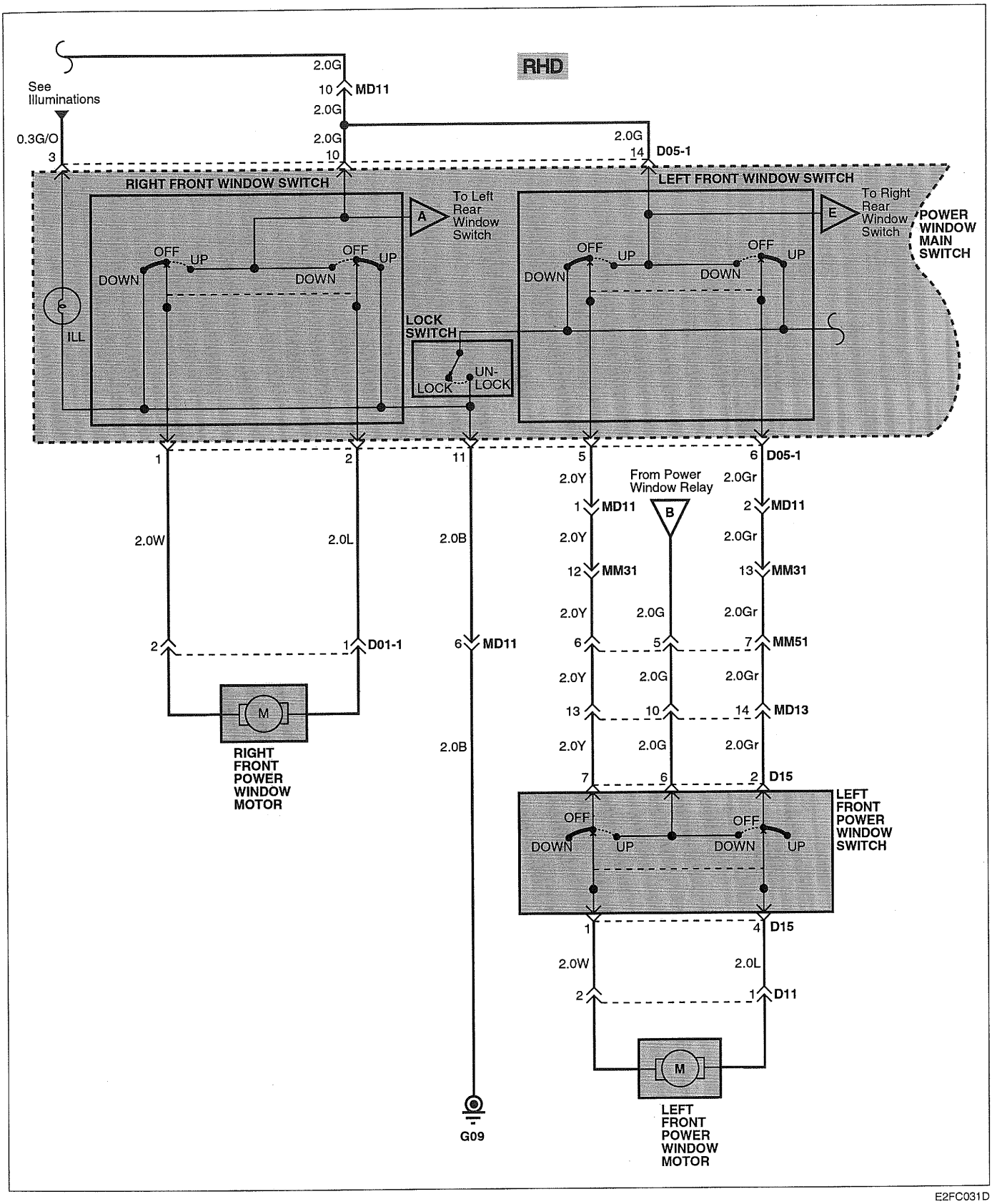
E2FC031B

POWER WINDOWS (3)



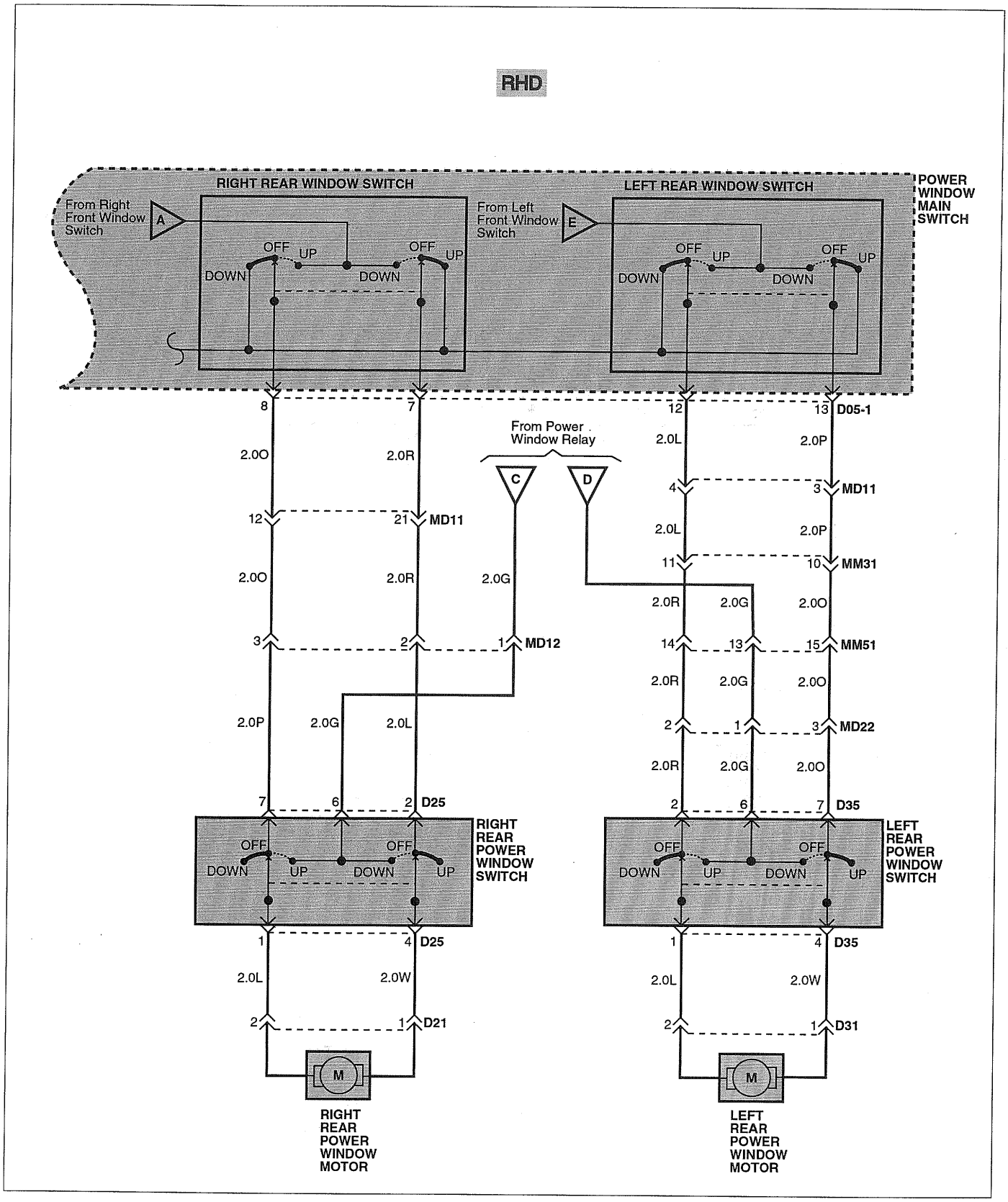
E2FC031C

POWER WINDOWS (4)



E2FC031D

POWER WINDOWS (5)



E2FC031E

COMPONENT LOCATION INDEX

Components		Location reference-page
D01	Left front power window motor	CL-27
D05	Power window main switch	CL-27
D11	Right front power window motor	CL-27
D15	Right front power window switch	CL-27
D21	Left rear power window motor	CL-27
D25	Left rear power window switch	CL-27
D31	Right rear power window motor	CL-27
D35	Right rear power window switch	CL-27
M25-2	ETACM	CL-4
M45	Power window relay	CL-5
M47	Joint connector	CL-5
Connectors		
EM11		CL-14
EM31		CL-14
MD11		CL-8
MD12		CL-8
MD13		CL-8
MD22		CL-8
MM11		CL-9
MM31		CL-9
MM51		CL-9
Grounds		
G09		CL-29

Circuit Description

A permanent magnetic motor operates each of the power windows. Each motor raises or lowers the glass when voltage is supplied to it. The direction the motor turns depends on the polarity of the supply voltage.
The power window main switch controls all the power window motors. Each window switch controls only one of the power window motors. If the lock switch in the power outside mirror switch is depressed, the rear power windows and the right front power window cannot be controlled by their own window switches, however, they can still be controlled by the power window main switch.

Power Window Main Switch Operation

Battery voltage is applied at all times to both the coil and contacts of the power window relay. The coil of the relay is supplied battery voltage through IG2 fuse(without ETACM)/ FUSIBLE LINK(B+)(with ETACM). Battery voltage is then supplied to the power window main switch through the closed relay contacts.

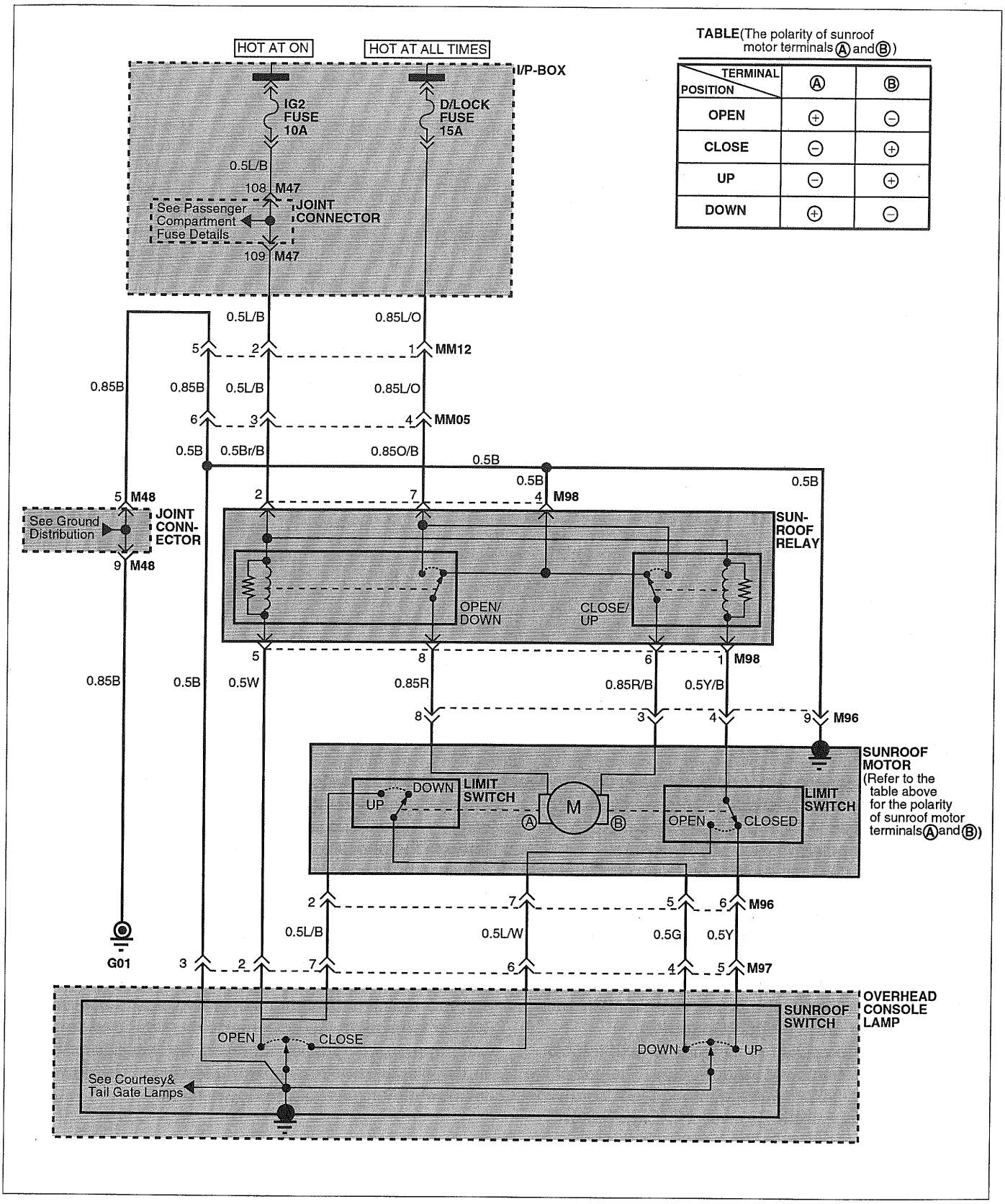
When any of the switches in the power window main switch are operated, battery voltage is applied to the power window motor. The power window motor is grounded through the opposite contact in the power window main switch. The power window motor runs to drive the window.

Window Switch Operation

When the power window relay coil is energized, battery voltage is supplied to the passenger window switches as long as the lock switch in the power window main switch is OFF (not depressed). When the passenger's window switch is operated, battery voltage is applied to one terminal of the power window motor and the other terminal is grounded through the opposite contact in the window switch and the main switch. The power window motor runs to drive the window.

SUNROOF E2FC0320

SUNROOF (1)



TABLE(The polarity of sunroof motor terminals Ⓐ and Ⓑ)

TERMINAL / POSITION	Ⓐ	Ⓑ
OPEN	⊕	⊖
CLOSE	⊖	⊕
UP	⊖	⊕
DOWN	⊕	⊖

E2FC032A

COMPONENT LOCATION INDEX

Components		Location reference-page
M47	Joint connector	CL-5
M48	Joint connector	CL-5
M96	Sunroof motor	CL-8
M97	Overhead console lamp	CL-8
M98	Sunroof relay	CL-8
Connectors		
MM05		CL-9
MM12		CL-9
Grounds		
G01		CL-29

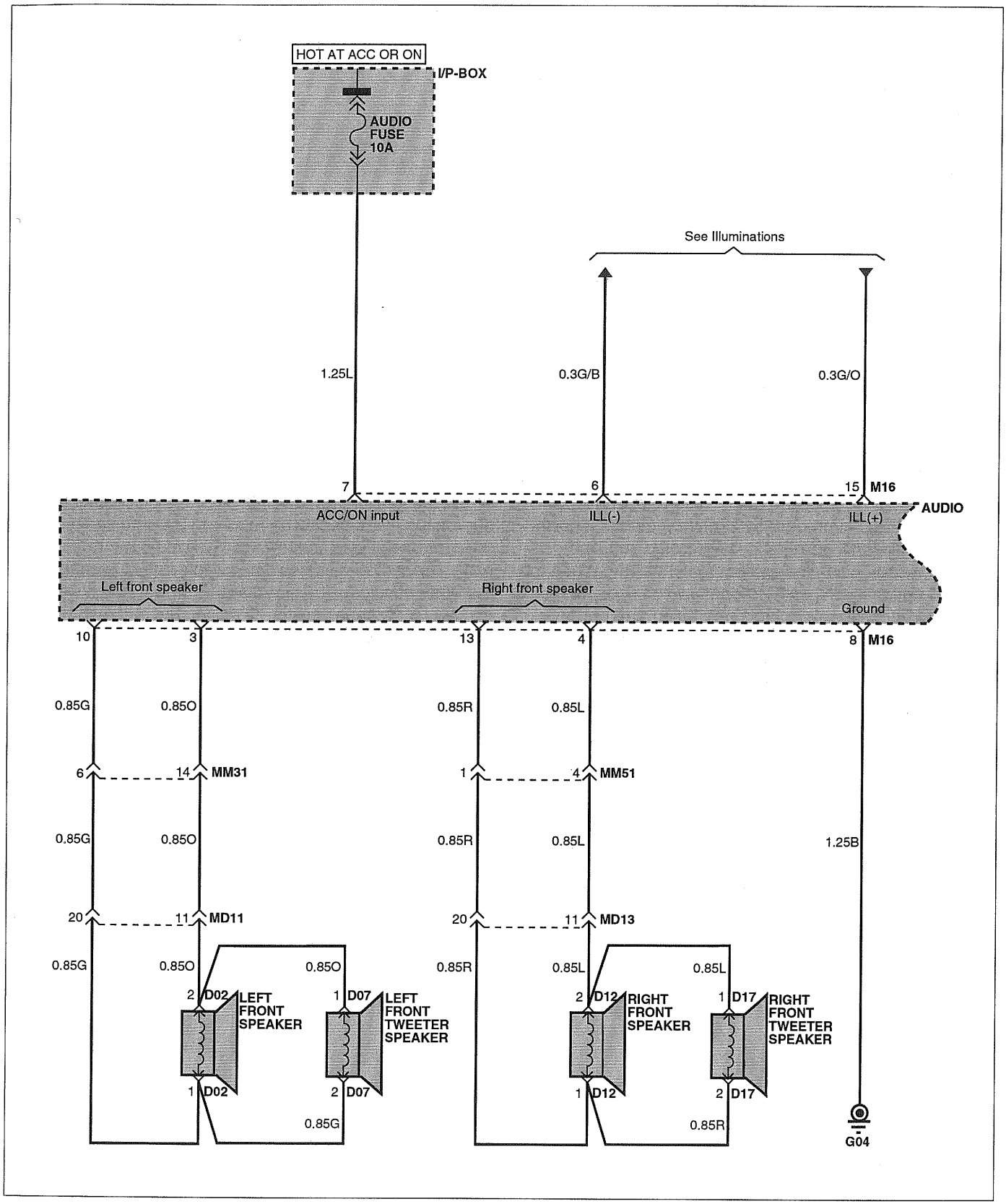
Circuit Description

Battery voltage is supplied at all times to open/tilt down and close/tilt up sunroof relay contacts. Open/tilt down relay and close/tilt up relay coils are also supplied battery voltage when the ignition switch is ON. When the ignition switch is ON, and the open switch is depressed, the open/tilt down relay coil is energized and battery voltage is then supplied to the sunroof motor through the open/tilt down relay contact. The motor is grounded through the close/tilt up relay contact.

When the ignition switch is ON, and the close switch is depressed, the close/tilt up relay coil is energized through the roof open/close limit switch. When the sunroof is open, the roof open/close limit switch always contacts the open position. The tilt up and tilt down switch works similarly to the open switch. The polarity of the voltage applied to the sunroof motor through the sunroof relay contacts changes according to the switch positions.

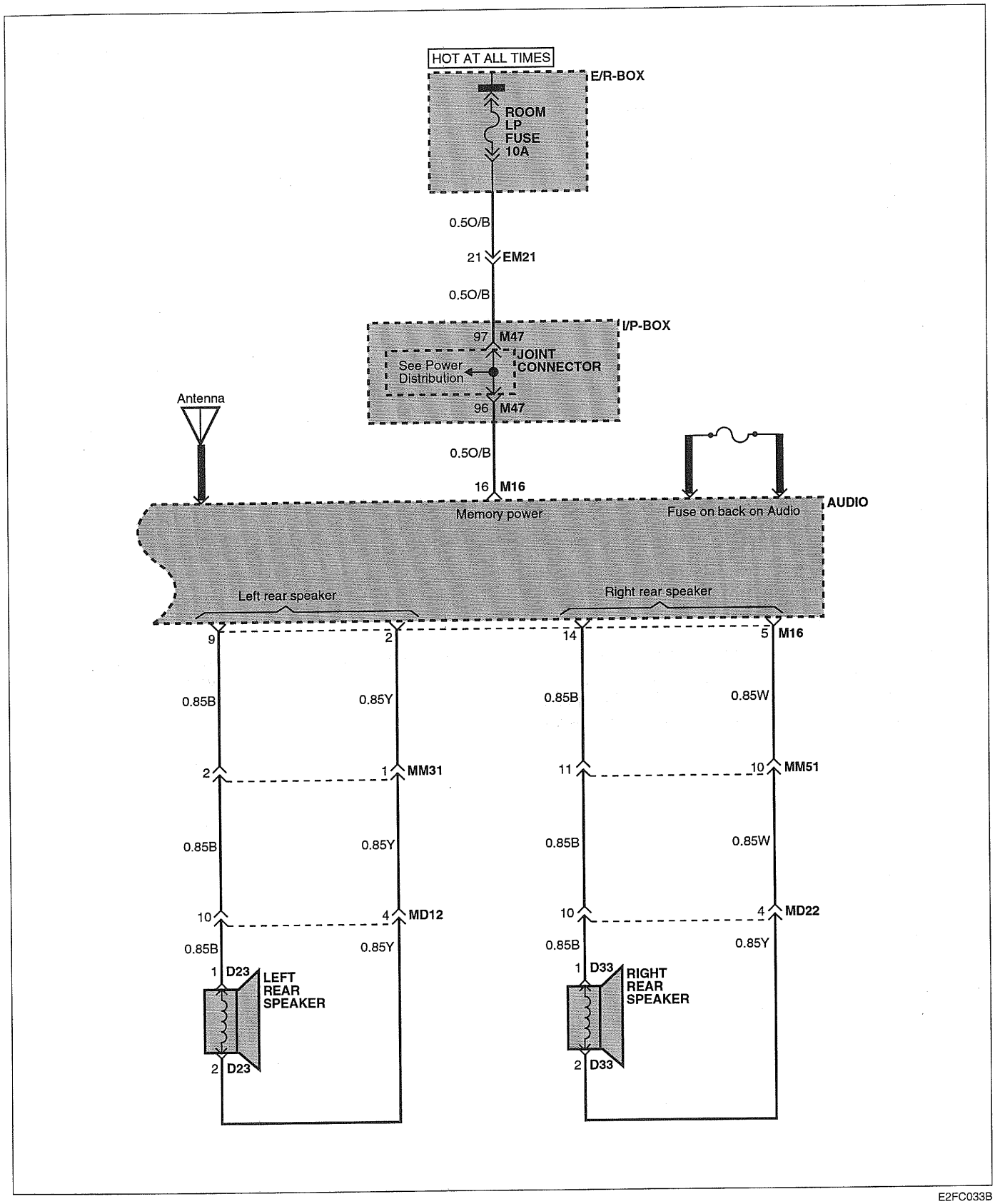
AUDIO * E2FC0330

AUDIO (1)



E2FC033A

AUDIO (2)



E2FC033B

COMPONENT LOCATION INDEX

Components		Location reference-page
D02	Left front speaker	CL-27
D07	Left front tweeter speaker	CL-27
D12	Right front speaker	CL-27
D17	Right front tweeter speaker	CL-27
D23	Left rear speaker	CL-27
D33	Right rear speaker	CL-27
M16	Audio	CL-3
M47	Joint connector	CL-5
Connectors		
MD11		CL-8
MD12		CL-8
MD13		CL-8
MD22		CL-8
MM31		CL-9
MM51		CL-9
Grounds		
G04		CL-29

Circuit Description

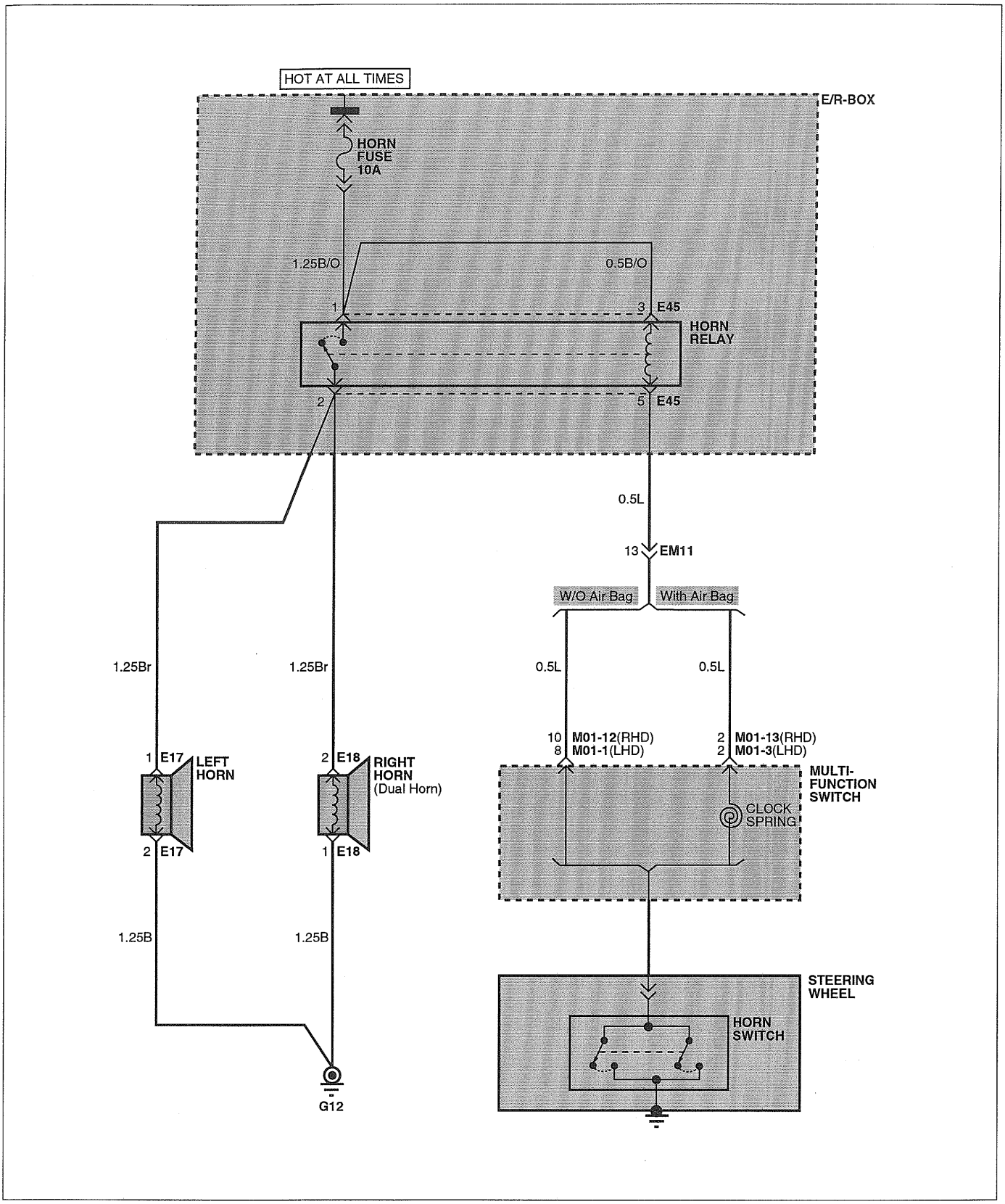
The audio receives battery voltage at all times from ROOM LP fuse to maintain memory function. AUDIO fuse supplies battery voltage to the audio when the ignition switch is in ACC or ON for audio operation and displays.

The audio is grounded at G04 and a noise filter is installed on the rear side of the audio case.

MEMO

HORNS E2FC0340

HORNS (1)



E2FC034A

COMPONENT LOCATION INDEX

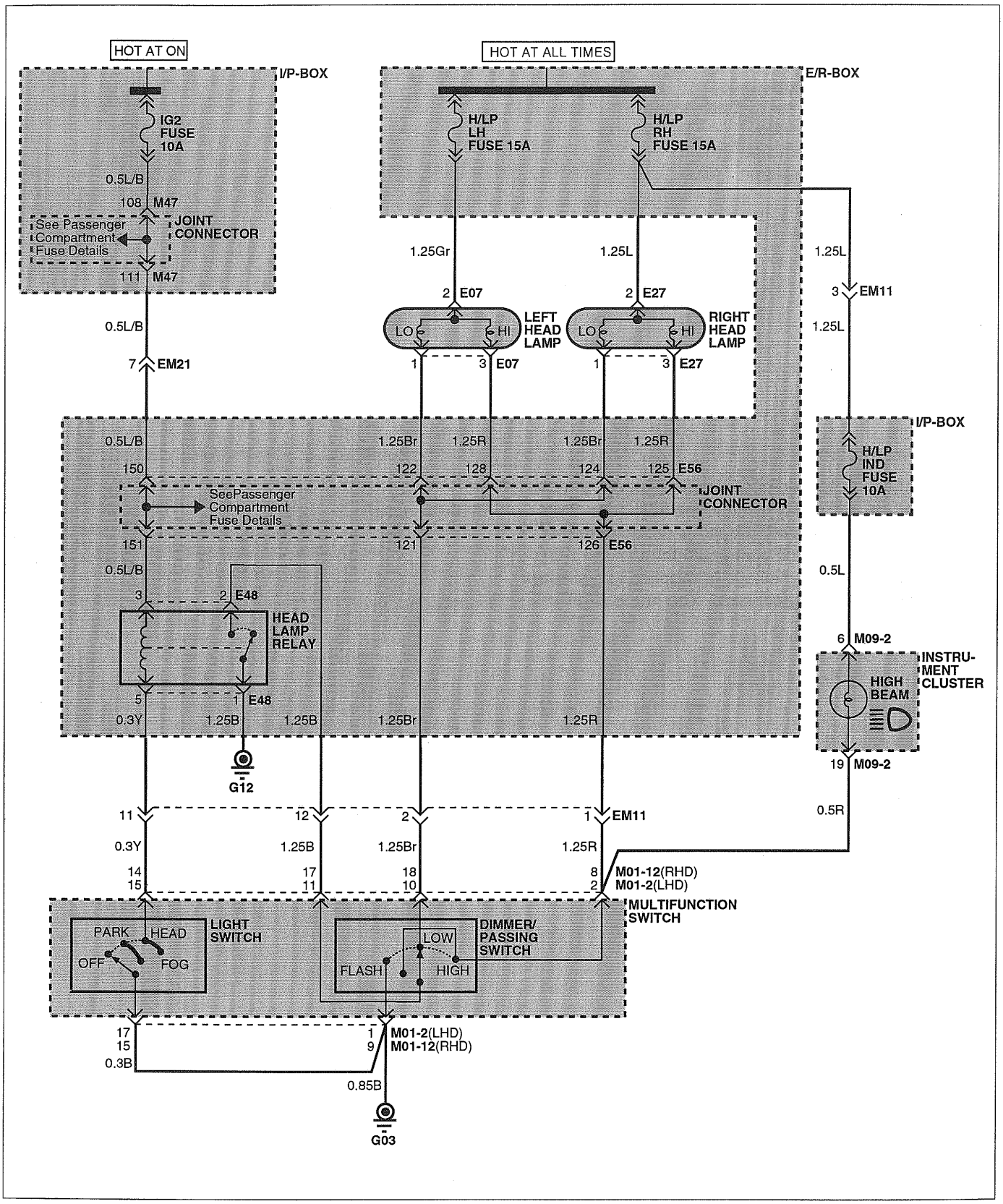
Components		Location reference-page
E17	Left horn	CL-11
E18	Right horn (Dual A/Bag)	CL-11
E45	Horn relay	CL-13
M01-1	Multifunction switch	CL-2
M01-3	Multifunction switch	CL-2
Connectors		
EM11		CL-14
Grounds		
G12		CL-30

Circuit Description

Battery voltage is applied at all times to the coil and the contacts of the horn relay through the horn fuse. With the horn switch depressed, ground is provided to the coil of the horn relay (coil energized) through the horn switch, and then battery voltage is supplied to the horns through the closed relay contacts. The horns sound.

HEAD LAMPS E2FC0360

HEAD LAMPS (1)



E2FC036A

COMPONENT LOCATION INDEX

Components		Location reference-page
E07	Left head lamp	CL-10
E27	Right head lamp	CL-11
E48	Head lamp relay	CL-13
E56	Joint connector	CL-13
M01-2	Multifunction switch	CL-2
M09-2	Instrument cluster	CL-2
M47	Joint connector	CL-5
Connectors		
EM11		CL-14
EM21		CL-14
Grounds		
G03		CL-29
G12		CL-30

Circuit Description

Low Beam Operation

With the ignition switch in ON and the light switch in HEAD position, battery voltage is applied to the coil of the headlamp relay from IG2 fuse and then ground is provided to the coil of the headlamp relay through the light switch. Battery voltage is provided to the Left/Right headlamp through the H/LP LH and RH fuse. The low beam head lamp illuminates when the Dimmer/Passing switch is in low position.

High Beam Operation

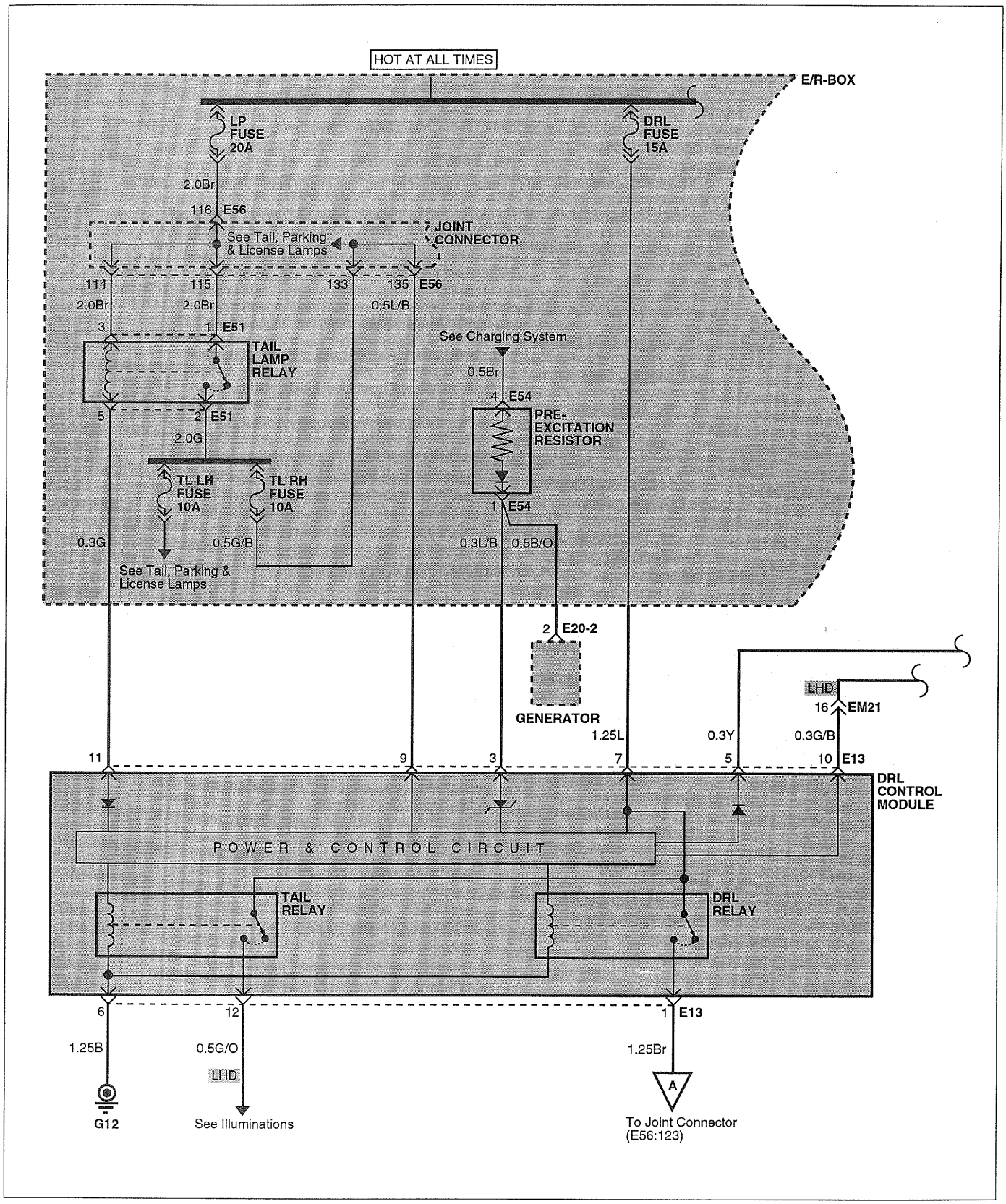
With the light switch in HEAD position and ignition switch in ON, battery voltage is applied to the headlamp relay coil from IG2 fuse. The high beam headlamps illuminates when the Dimmer/Passing switch is in FLASH or HIGH position.

Flash Operation

The flash feature works with the light switch in all positions (OFF, PARK or HEAD). With the light switch in OFF or PARK and the headlamp dimmer switch in FLASH, ground is provided to the high beam headlamps through the headlamp dimmer/passing switch. Battery voltage is applied to the high beam headlamp and the beam indicator, and the high beams and the high beam indicator illuminate as long as the switch is held in the FLASH position.

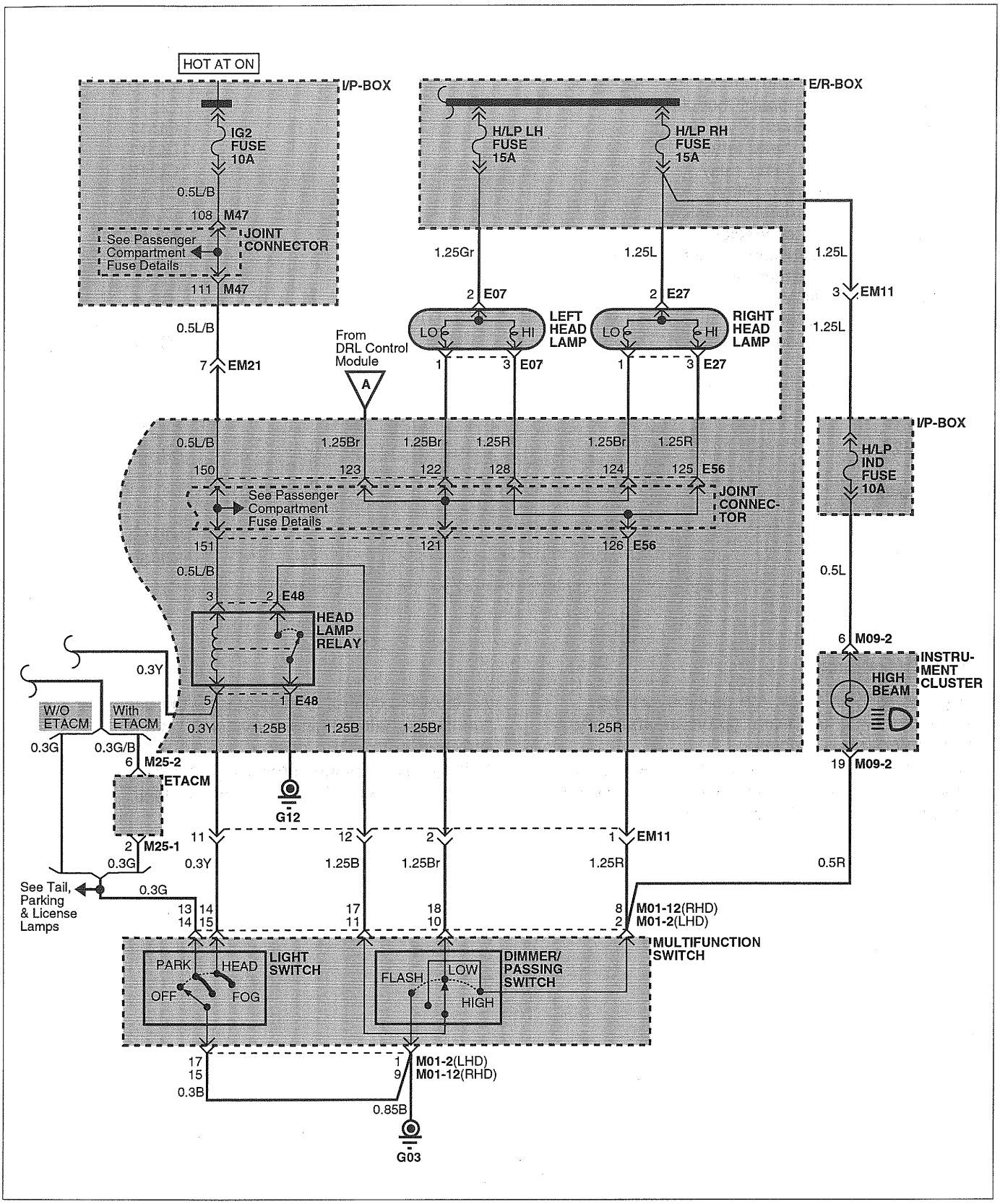
DAYTIME RUNNING LIGHTS E2FC0370

DAYTIME RUNNING LIGHTS (1)



E2FC037A

DAYTIME RUNNING LIGHTS (2)



E2FC037B

COMPONENT LOCATION INDEX

Components		Location reference-page
E07	Left head lamp	CL-10
E13	DRL control module	CL-10
E20-2	Generator	CL-11
E27	Right head lamp	CL-11
E48	Head lamp relay	CL-13
E51	Tail lamp relay	CL-13
E54	Pre-excitation resistor	CL-13
E56	Joint connector	CL-13
M01-2	Multifunction switch	CL-2
M09-2	Instrument cluster	CL-2
M25-1	ETACM	CL-4
M25-2	ETACM	CL-4
M47	Joint connector	CL-5
Connectors		
EM11		CL-14
EM21		CL-14
Grounds		
G03		CL-29
G12		CL-30

Circuit Description

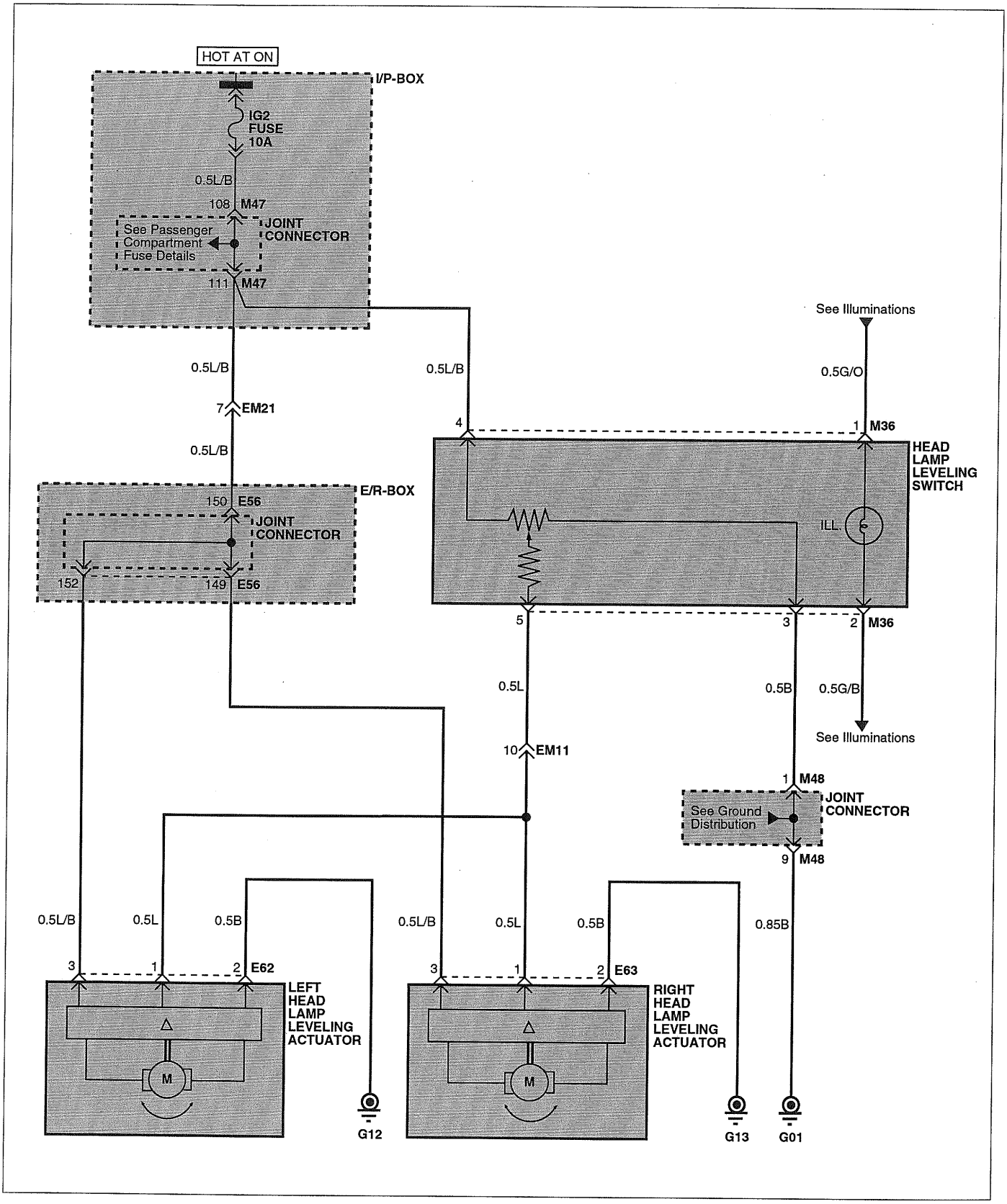
For the visibility of driver, the daytime running lights (head lamp low beam) go on automatically when the engine is running.
With the ignition switch in ON position, battery voltage is applied to the head lamp relay coils and daytime running lights (DRL) control module.

As the DRL control module detects the generator running signals (engine is running), ground is provided to the DRL relay.
battery voltage is then provided to the low beam head lamps and the low beam head lamps light.

MEMO

HEAD LAMP LEVELING DEVICE E2FC0390

HEAD LAMP LEVELING DEVICE (1)



E2FC039A

COMPONENT LOCATION INDEX

Components		Location reference-page
E56	Joint connector	CL-13
E62	Left head lamp leveling actuator	CL-14
E63	Right head lamp leveling actuator	CL-14
M36	Head lamp leveling switch	CL-4
M47	Joint connector	CL-5
M48	Joint connector	CL-5
Connectors		
EM11		CL-14
EM21		CL-14
Grounds		
G01		CL-29
G12		CL-30
G13		CL-30

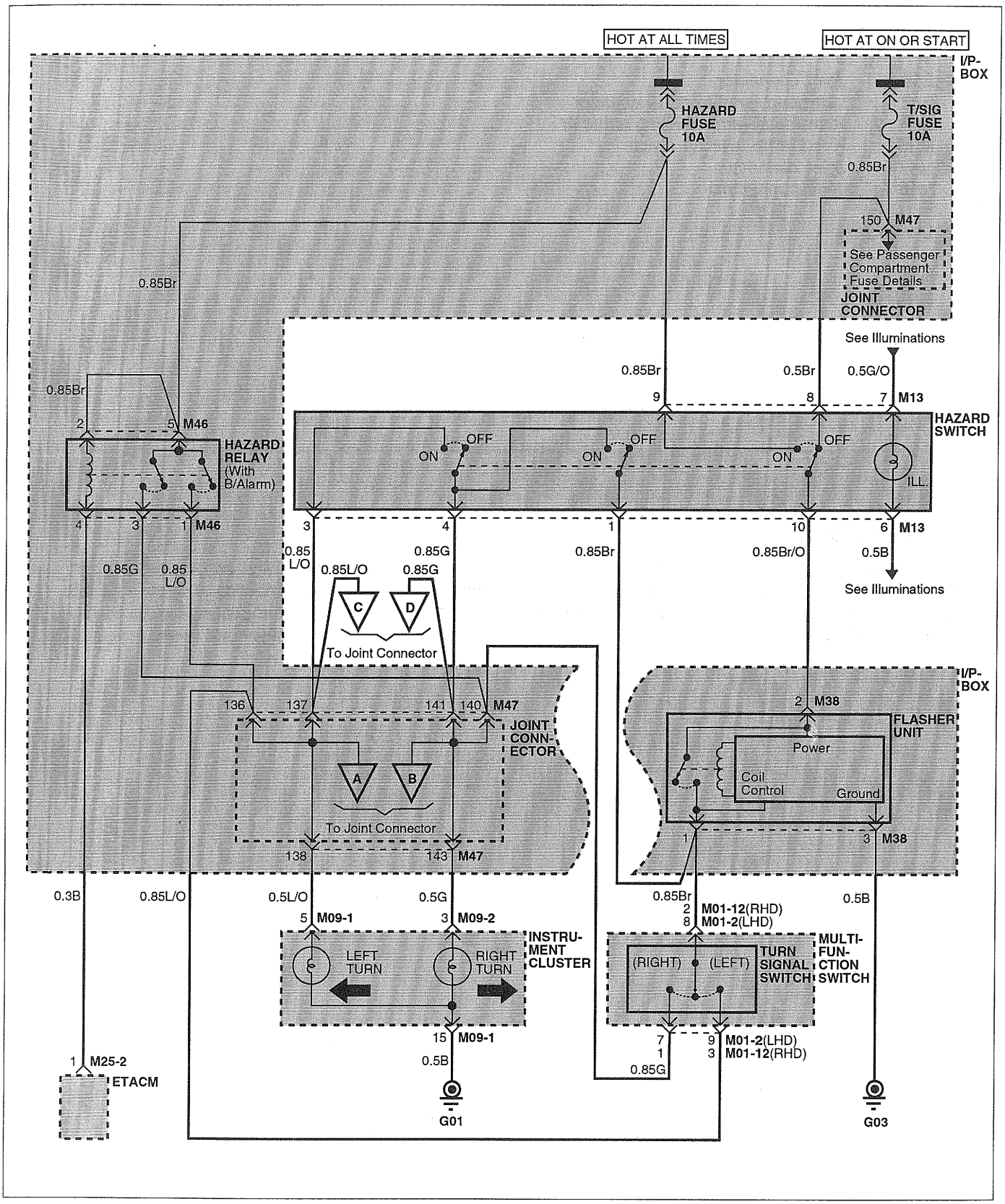
Circuit Description

The head lamps should be aimed properly according to the number of the passengers and the loading weight in the luggage area. To adjust the head lamps beam level, turn the beam leveling switch.

The higher the number of the switch position, the lower the head lamp beam level. Always keep the head lamps beam at the proper leveling position, or head lamp may dazzle other road users.

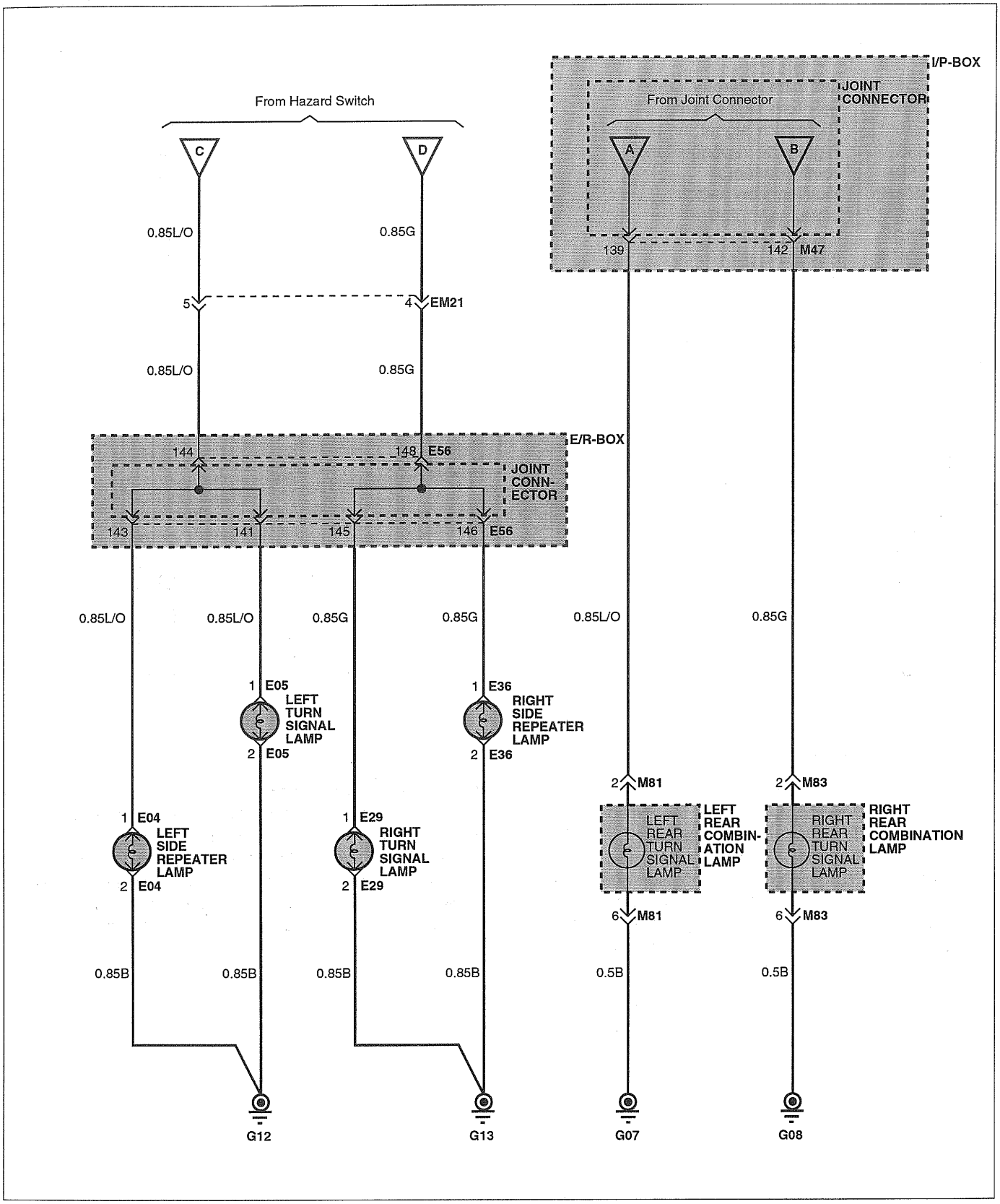
TURN & HAZARD LAMPS E2FC0400

TURN & HAZARD LAMPS (1)



E2FC040A

TURN & HAZARD LAMPS (2)



E2FC040B

COMPONENT LOCATION INDEX

Components		Location reference-page
E04	Left side repeater lamp	CL-10
E05	Left turn signal lamp	CL-10
E29	Right turn signal lamp	CL-12
E36	Right side repeater lamp	CL-13
E56	Joint connector	CL-13
M01-2	Multifunction switch	CL-2
M09-2	Instrument cluster	CL-2
M13	Hazard switch	CL-3
M25-2	ETACM	CL-4
M38	Flasher unit	CL-5
M46	Hazard relay (with B/Alarm)	CL-5
M47	Joint connector	CL-5
M81	Left rear combination lamp	CL-7
M83	Right rear combination lamp	CL-7
Connectors		
EM21		CL-14
Grounds		
G01		CL-29
G03		CL-29
G07		CL-29
G08		CL-29
G12		CL-30
G13		CL-30

Circuit Description

Turn Signal Lamps operation

With the hazard switch in OFF and the ignition switch in ON or START, battery voltage is supplied from T/SIG fuse to the flasher unit. The solid-state in the flasher unit senses the turn signal switch position and controls the relay coil. Battery voltage to the turn signal switch alternately applies on and off. Voltage is applied to the left or right turn signal lamp and indicators dependent upon the turn signal switch position.

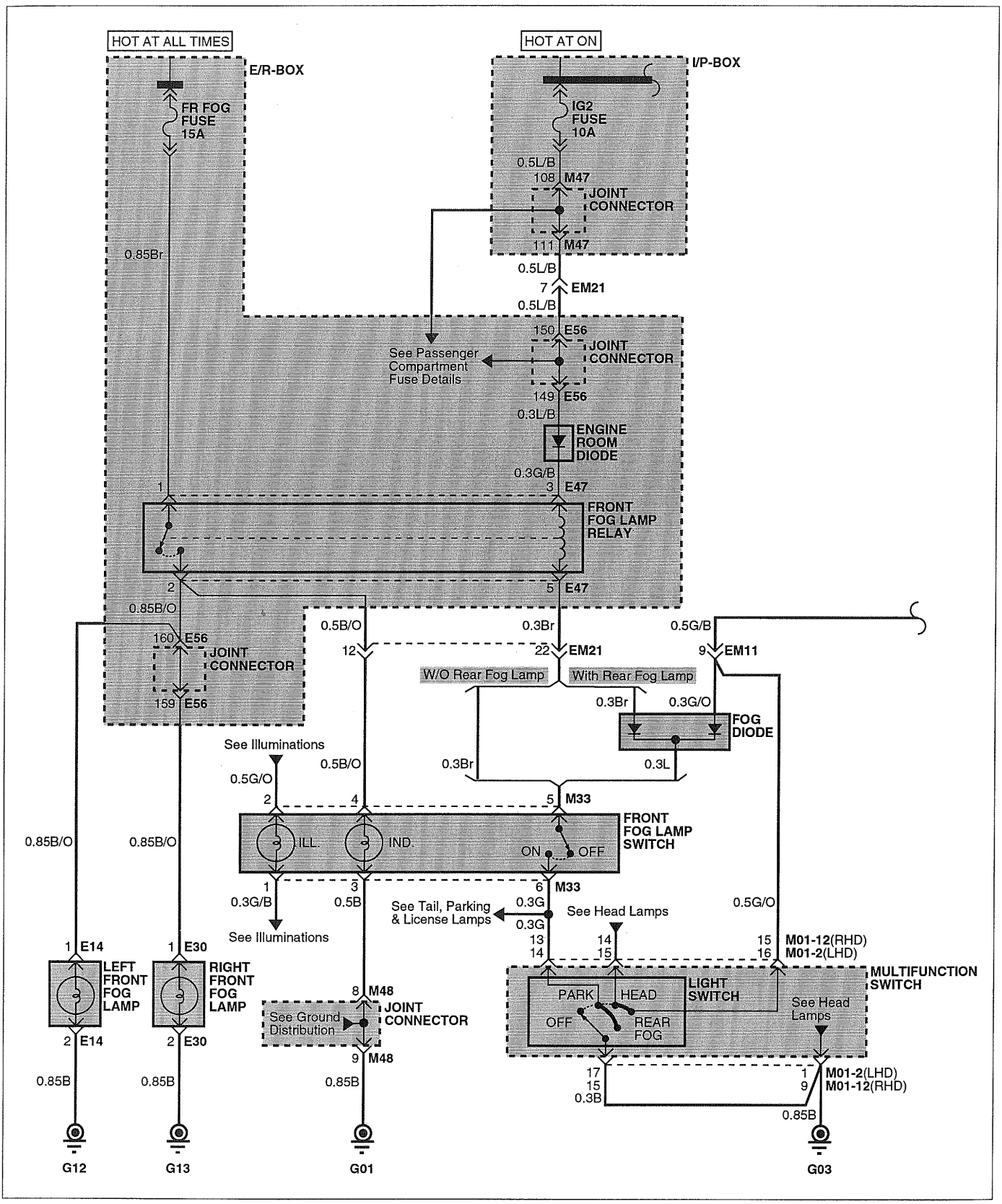
Hazard Lamps operation

With the hazard switch depressed (ON), battery voltage is supplied from HAZARD fuse to the flasher unit. The soild -state in the flasher unit senses the hazard switch ON signal and controls the relay coils, and then alternately applies and removes battery voltage to the left turn and right turn lamps and both indicators at the same time.

MEMO

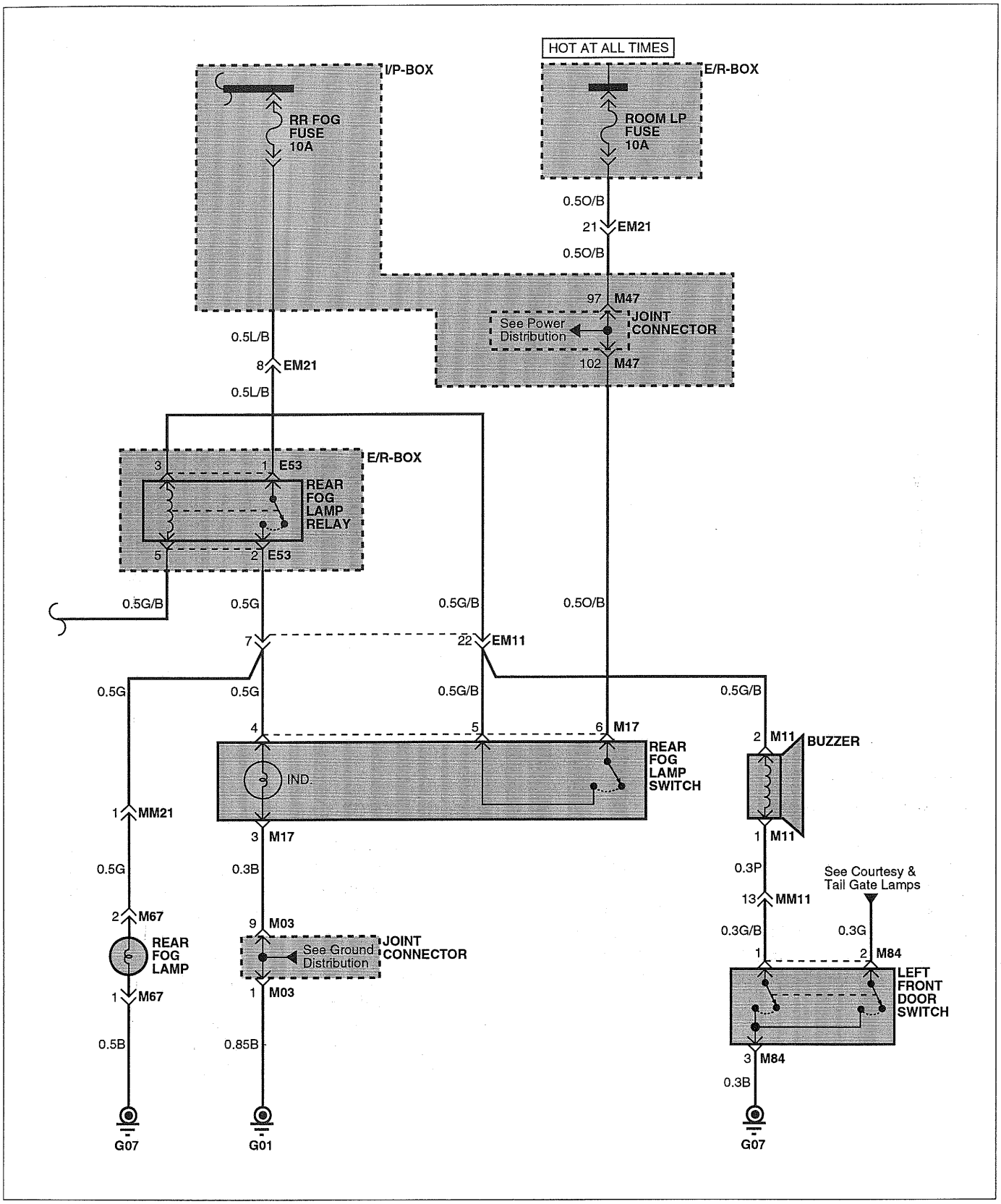
FRONT FOG LAMP & REAR FOG LAMP E2FC0410

FRONT FOG LAMP & REAR FOG LAMP (1)



E2FC041A

FRONT FOG LAMP & REAR FOG LAMP (2)



E2FC041B

COMPONENT LOCATION INDEX

Components		Location reference-page
E14	Left front fog lamp	CL-11
E30	Right front fog lamp	CL-12
E47	Front fog lamp relay	CL-13
E53	Rear fog lamp relay	CL-13
E56	Joint connector	CL-13
M01-2	Multifunction switch	CL-2
M03	Joint connector	CL-2
M11	Buzzer	CL-3
M17	Rear fog lamp switch	CL-3
M33	Front fog lamp switch	CL-4
M47	Joint connector	CL-5
M48	Joint connector	CL-5
M67	Rear fog lamp	CL-6
M84	Left front door switch	CL-6
Connectors		
EM11		CL-14
EM21		CL-14
MM21		CL-9
Grounds		
G01		CL-29
G03		CL-29
G07		CL-29
G12		CL-30
G13		CL-30

Circuit Description

W/O REAR FOG LAMPS

With the Light switch in PARK or HEAD position, battery voltage is applied to the fog lamp relay coils from the IG2 fuse. When the front fog lamp switch is ON, ground is provided to the coil of the fog lamp relay. Battery from the FR FOG fuse is then provided to the Left/Right front fog lamps through the closed contact of the front fog lamp relay. The Left/Right front fog lamps light.

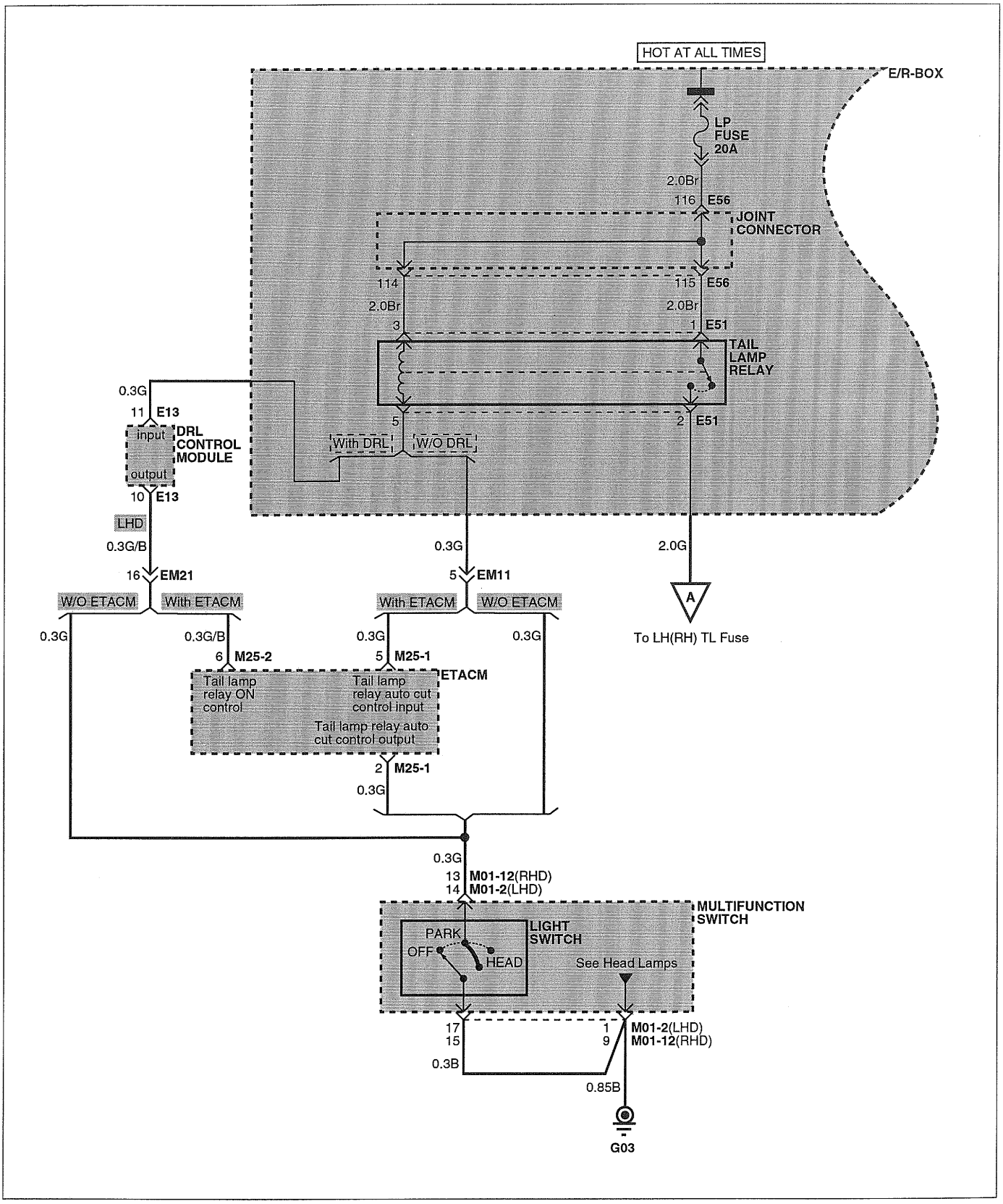
With REAR FOG LAMPS

1. With the light switch in PARK position and front fog lamp switch is ON, the ground (G03) is provided to the rear fog lamp relay coils. When the rear fog lamp switch is ON, the rear fog lamp relay coil is energized and the battery voltage is applied to the rear fog lamps through the closed rear fog lamp relay contacts.
2. With the light switch in HEAD or REAR FOG position, the ground (G03) is provided to the rear fog lamp relay coils. When the rear fog lamp switch is ON, the rear fog lamp relay coil is energized. Battery voltage is supplied to the rear fog lamps through the closed rear fog lamp relay contacts and then the lamps light.

MEMO

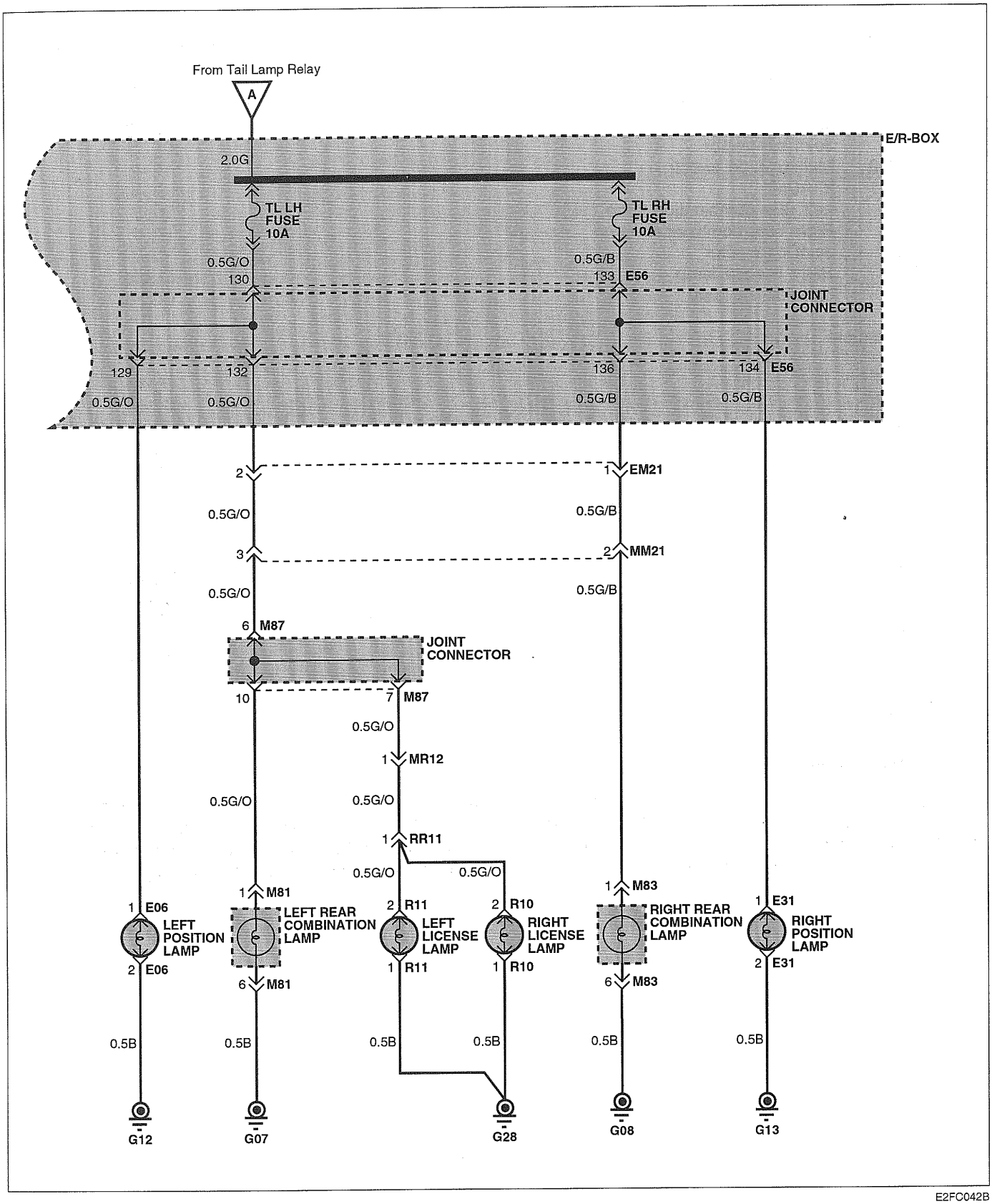
TAIL, PARKING & LICENSE LAMPS E2FC0420

TAIL, PARKING & LICENSE LAMPS (1)



E2FC042A

TAIL, PARKING & LICENSE LAMPS (2)



E2FC042B

COMPONENT LOCATION INDEX

Circuit Description

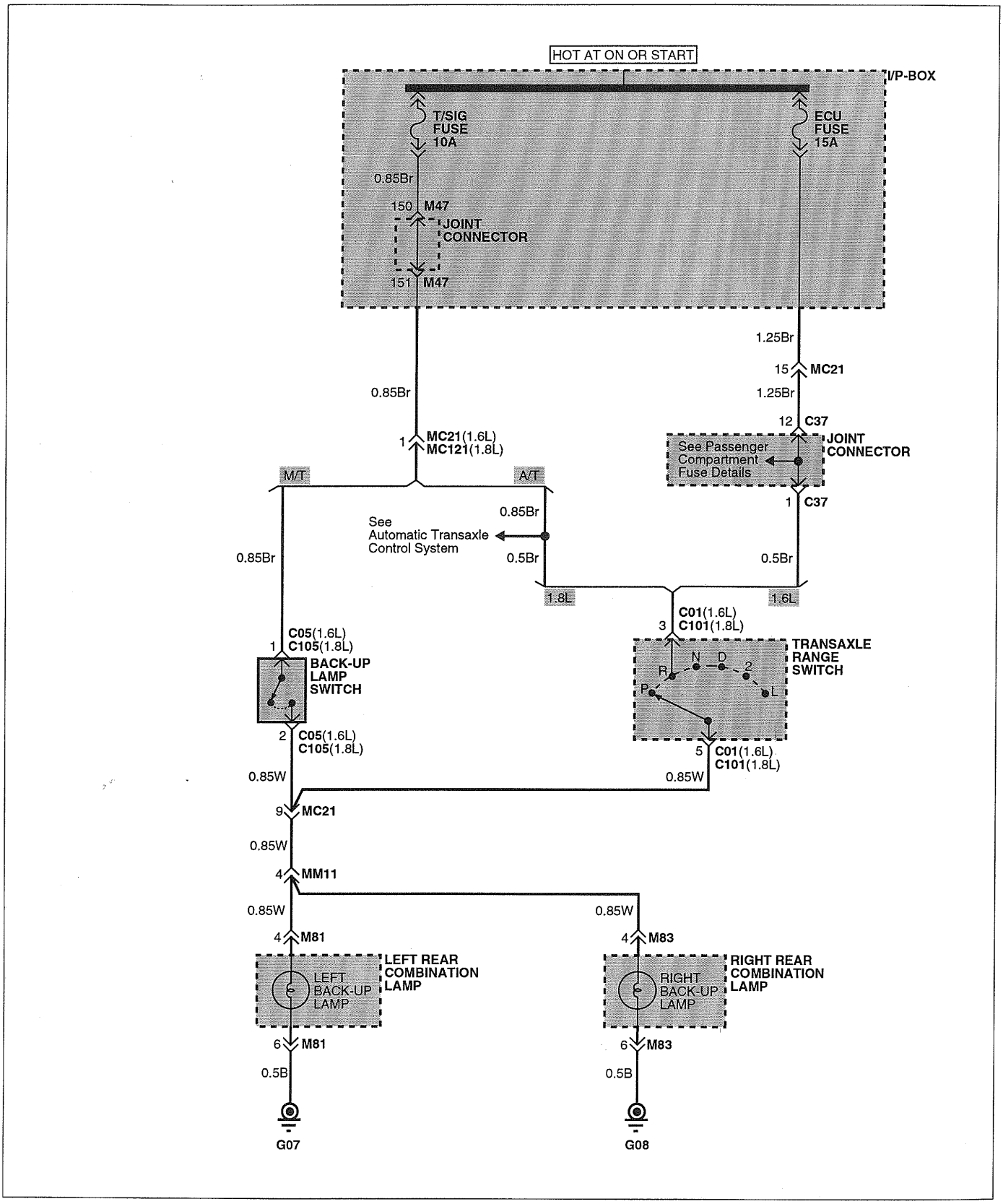
Battery voltage is applied at all times to both the coil and contact of the tail lamp relay from LP fuse. With the light switch in PARK or HEAD, the coil of the tail lamp relay is grounded through the ETACM.

Battery voltage from TL LH and RH fuse is then applied to the Left/Right position lamps, Left/Right rear combination lamps and Left/Right license lamps through the closed tail lamp relay contact and all the lamps go on.

MEMO

BACK-UP LAMPS E2FC0430

BACK-UP LAMPS (1)



E2FC043A

COMPONENT LOCATION INDEX

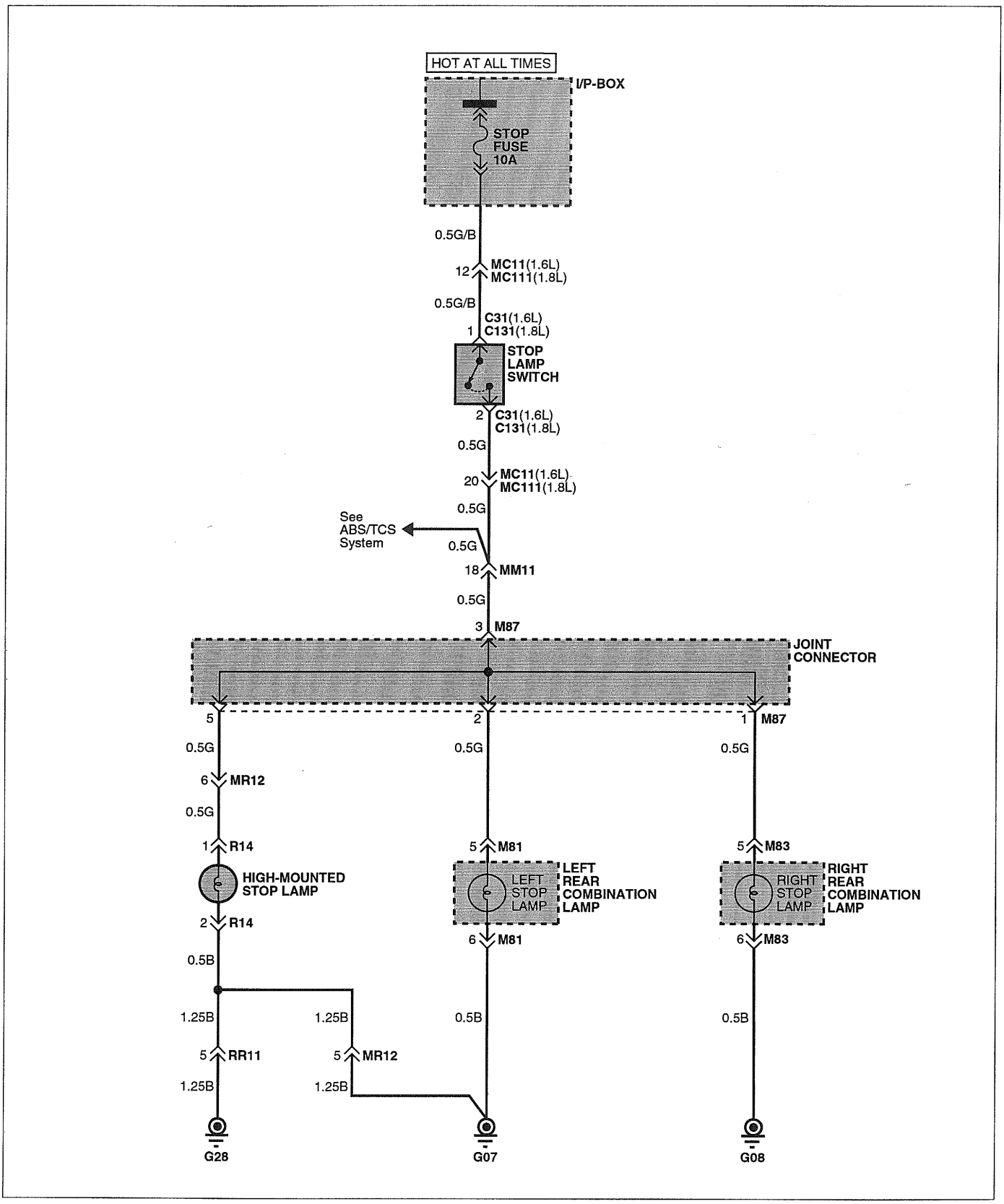
Components		Location reference-page
C01	Transaxle range switch (1.6L)	CL-16
C05	Back-up lamp switch (1.6L)	CL-16
C37	Joint connector	CL-19
C101	Transaxle range switch (1.8L)	CL-19
C105	Back-up lamp switch (1.8L)	CL-19
C137	Joint connector	CL-22
M47	Joint connector	CL-5
M81	Left rear combination lamp	CL-7
M83	Right rear combination lamp	CL-7
Connectors		
MC21		CL-8
MM11		CL-9
Grounds		
G07		CL-29
G08		CL-29

Circuit Description

With the ignition switch in ON or START, battery voltage is supplied applied from ECU fuse(1.6L) or T/SIG fuse(1.8L) to the back-up lamp switch (Manual transaxle) or to the transaxle range switch (Automatic transaxle). When the transaxle is in reverse, battery voltage is applied to the back-up lamps and the back-up lamps go on.

STOP LAMPS E2FC0440

STOP LAMPS (1)



E2FC044A

COMPONENT LOCATION INDEX

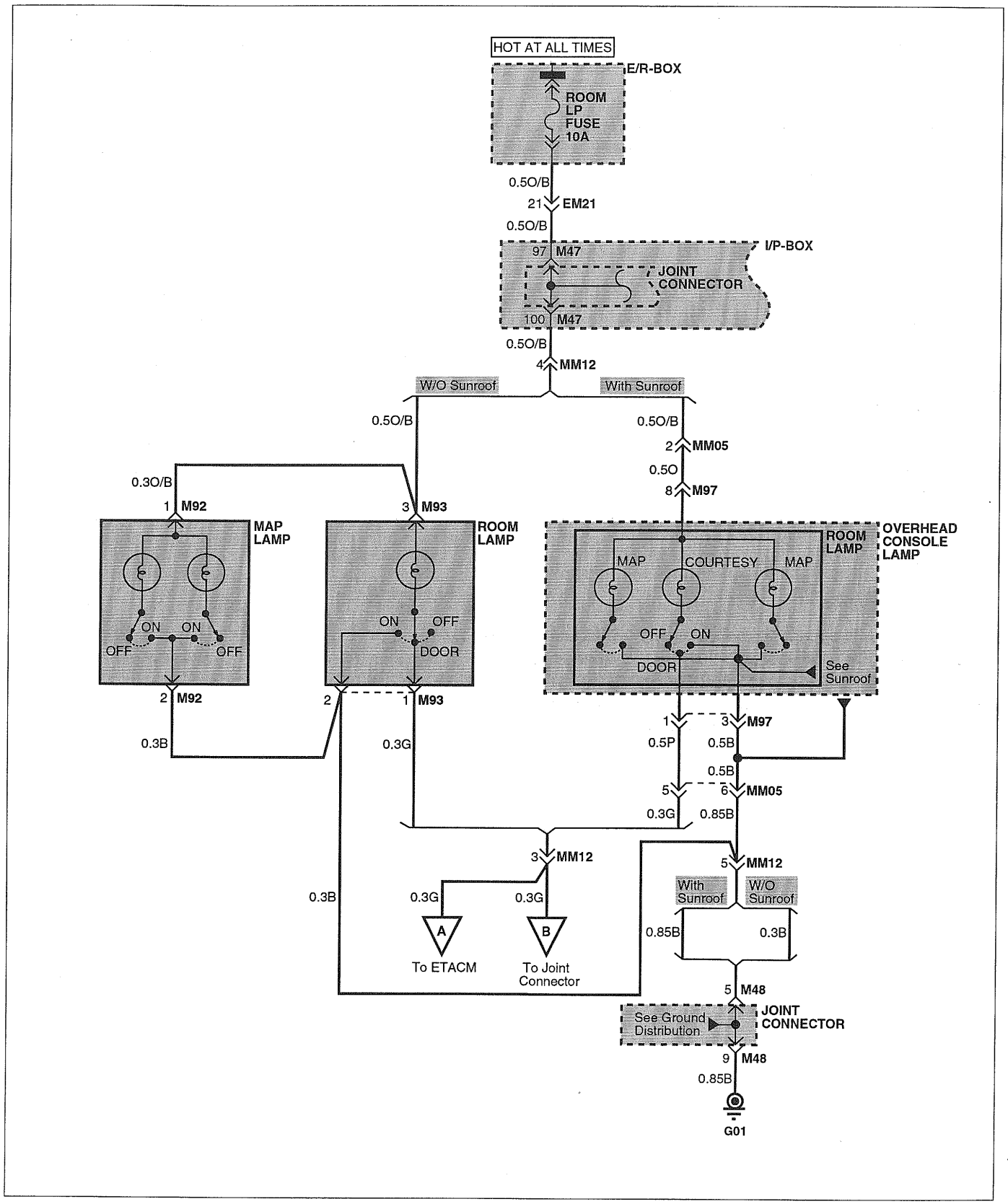
Components		Location reference-page
C31	Stop lamp switch (1.6L)	CL-18
C131	Stop lamp switch (1.8L)	CL-17
M81	Left rear combination lamp	CL-7
M83	Right rear combination lamp	CL-7
M87	Joint connector	CL-7
R14	High-mounted stop lamp	CL-28
Connectors		
MC11		CL-8
MC111		CL-8
MM11		CL-9
MR12		CL-9
RR11		CL-28
Grounds		
G07		CL-29
G08		CL-29
G28		CL-31

Circuit Description

Battery voltage is applied to the stop lamp switch at all times from STOP fuse. With the brake pedal depressed, the stop lamp switch is closed and battery voltage is applied to all the stop lamps (Left/Right stop lamps and high-mounted stop lamp) and lamps go on.

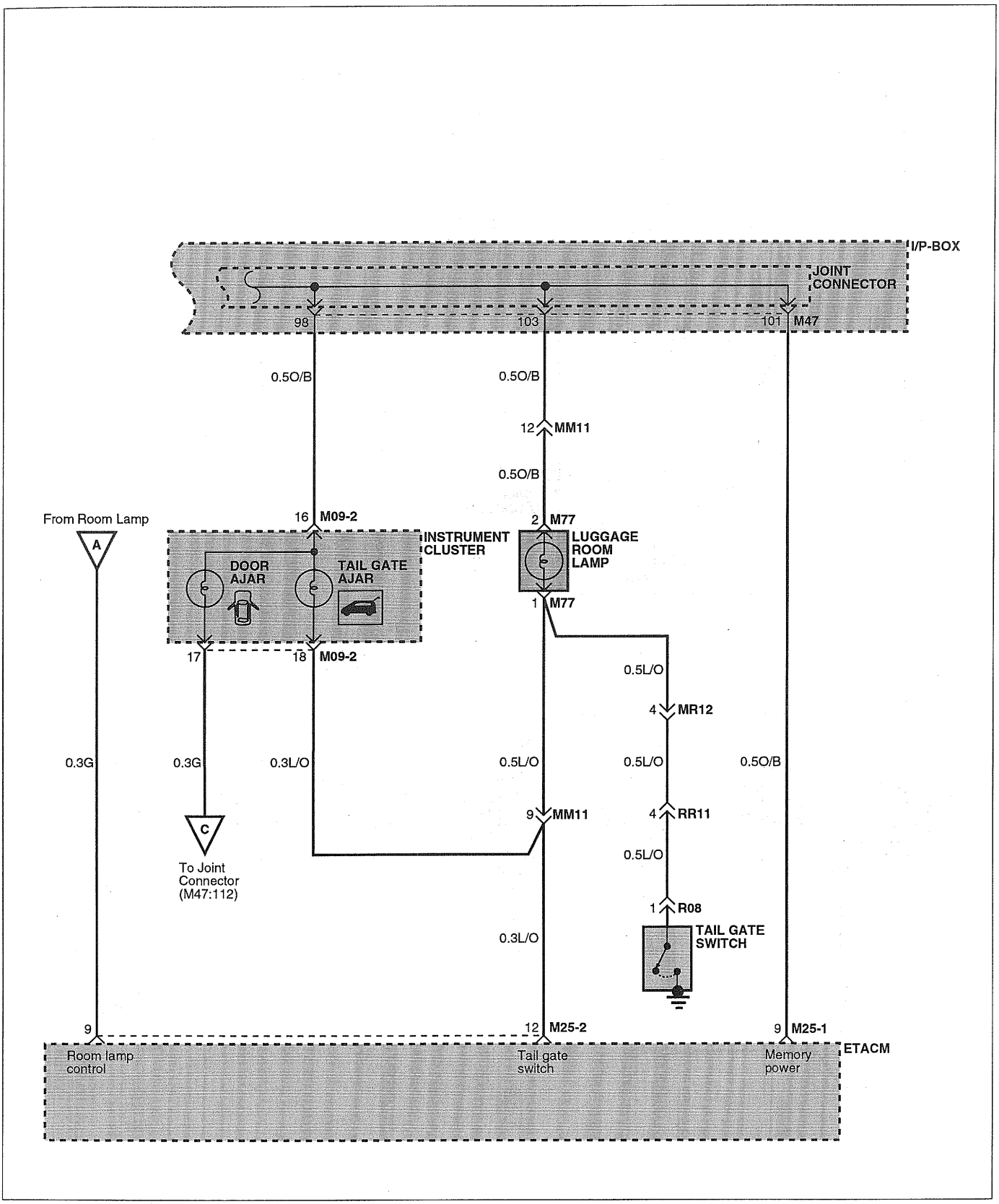
COURTESY & TAIL GATE LAMPS E2FC0450

COURTESY & TAIL GATE LAMPS (1)



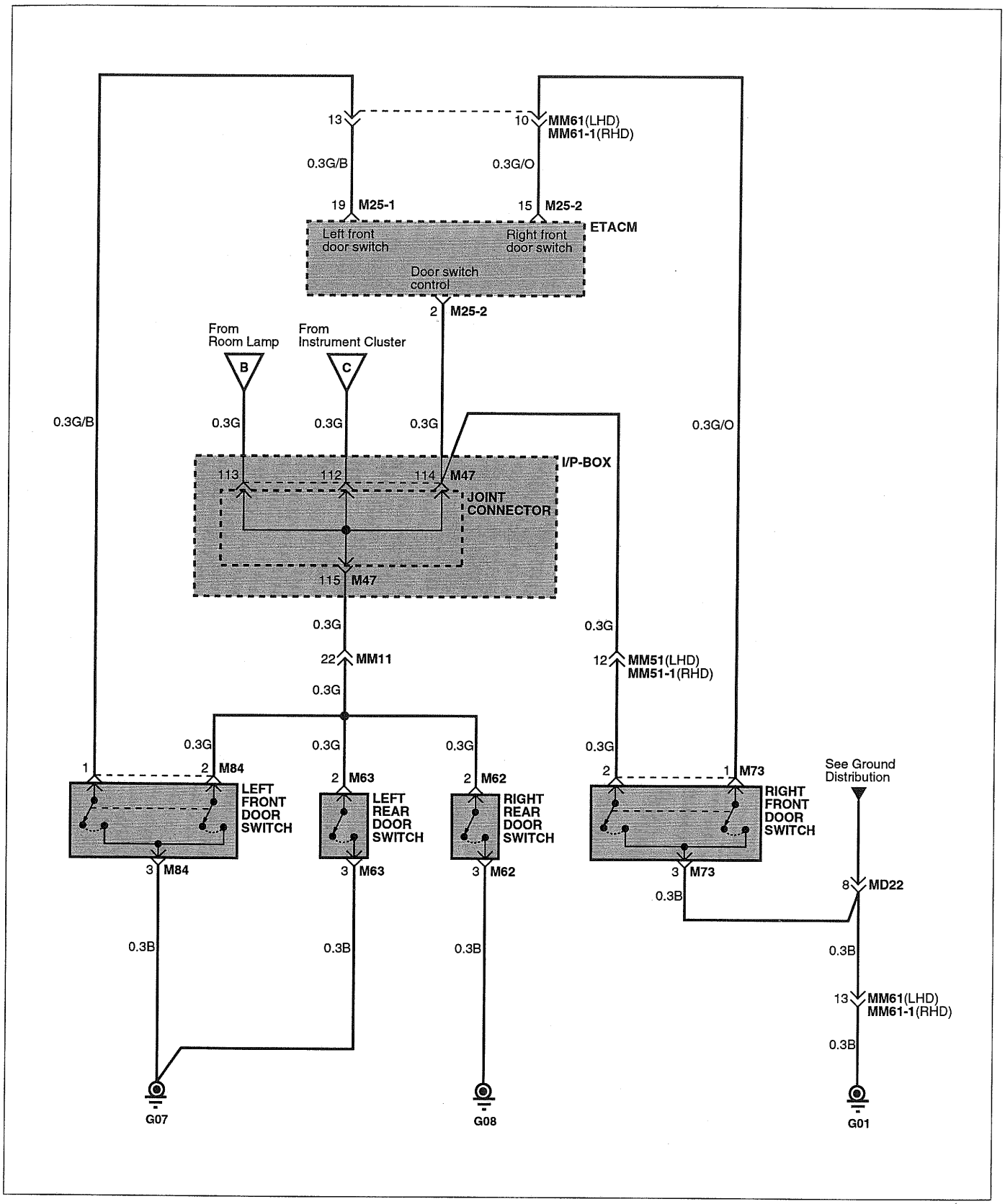
E2FC045A

COURTESY & TAIL GATE LAMPS (2)



E2FC045B

COURTESY & TAIL GATE LAMPS (3)



E2FC045C

COMPONENT LOCATION INDEX

Components		Location reference-page
M25-1	ETACM	CL-4
M25-2	ETACM	CL-4
M47	Joint connector	CL-5
M48	Joint connector	CL-5
M62	Right rear door switch	CL-6
M63	Left rear door switch	CL-6
M73	Right front door switch	CL-6
M77	Luggage room lamp	CL-7
M84	Left front door switch	CL-7
M92	Map lamp (W/O sunroof)	CL-7
M93	Room lamp	CL-8
M97	Overhead console lamp	CL-8
R08	Luggage room lamp switch	CL-28
Connectors		
EM21		CL-14
MM05		CL-9
MM11		CL-9
MM12		CL-9
MM51		CL-9
MM61		CL-9
MR12		CL-9
RR11		CL-28
Grounds		
G01		CL-29
G07		CL-29
G08		CL-29

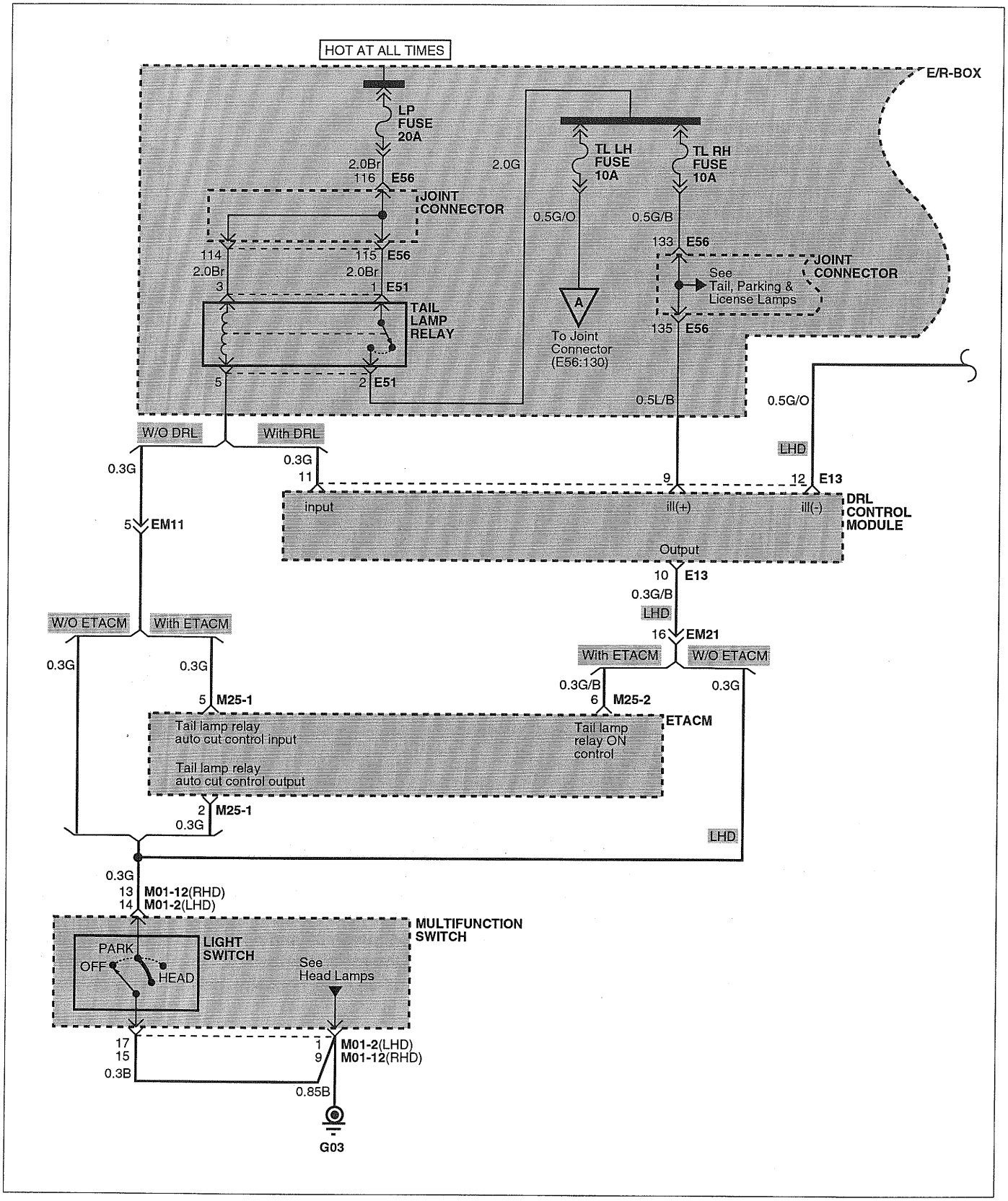
Circuit Description

Battery voltage is applied at all times from ROOM LP fuse to the map lamps, the luggage room lamp the door ajar, the tail gate ajar warning indicators and the room lamp (without sunroof)/overhead console assembly (with sunroof). When the appropriate lamp switch is closed, a ground path is provided to the respective lamps through the ETACM and causing the lamps to go on.

The room lamp/overhead console assembly is controlled not only by a door switch (controlled by ETACM), but also by a room lamp switch in the room lamp/overhead console assembly. They are turned on and off manually. The room lamp can be turned on and off manually, depending on the position of the room lamp switch. The room lamp can also be turned off so it will not come on with the door open.

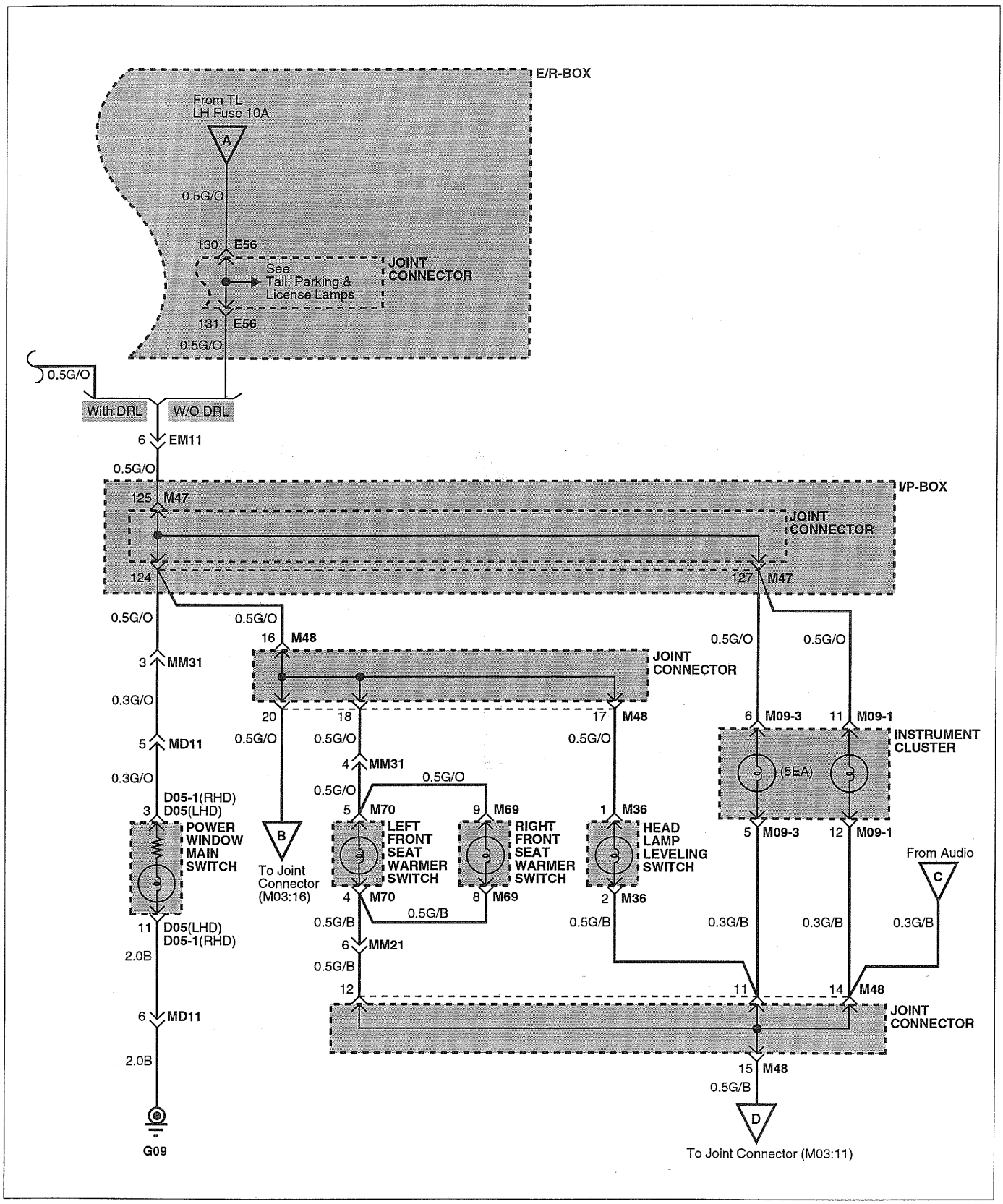
ILLUMINATIONS E2FC0460

ILLUMINATIONS (1)



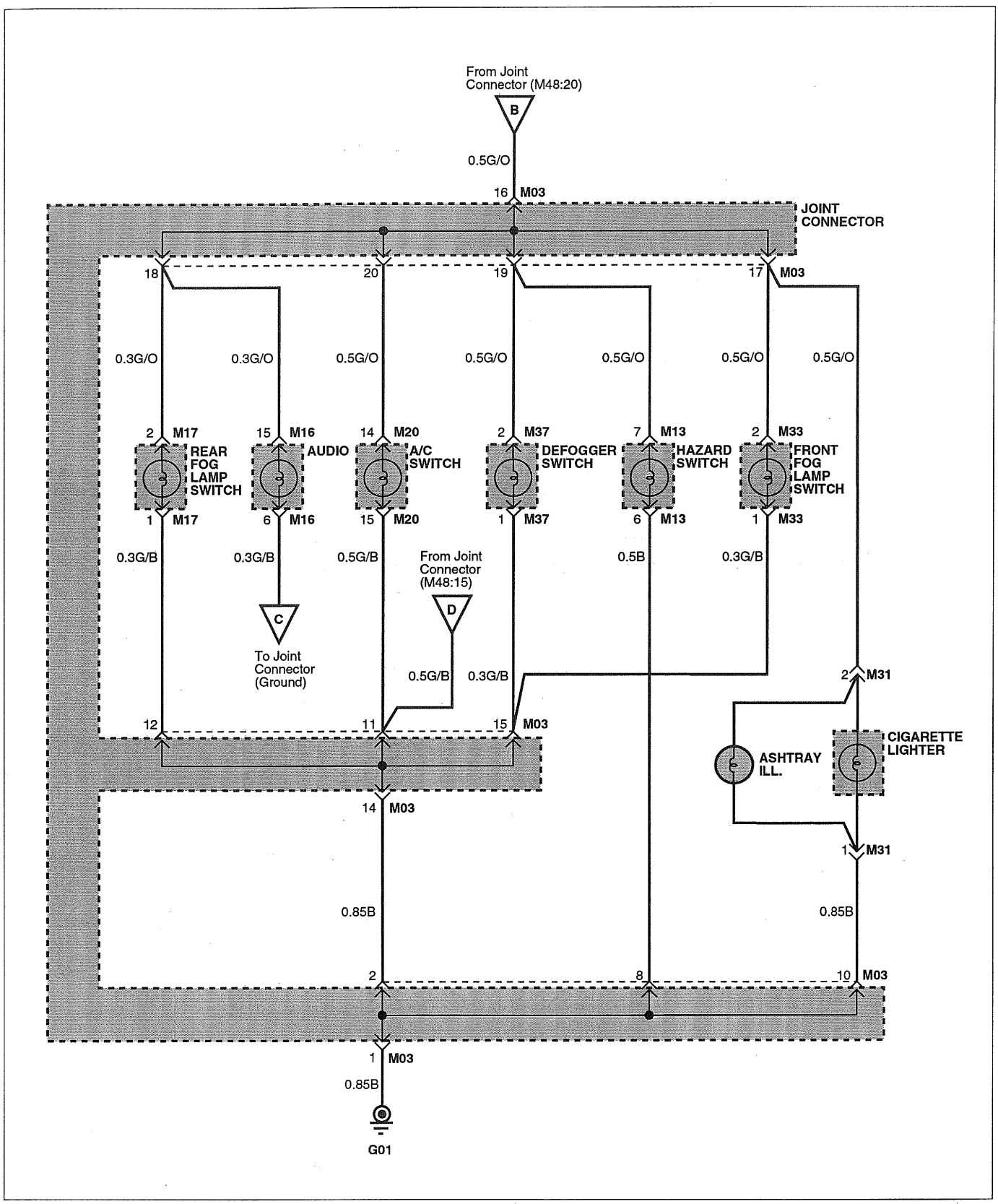
E2FC046A

ILLUMINATIONS (2)



E2FC046B

ILLUMINATIONS (3)



E2FC046C

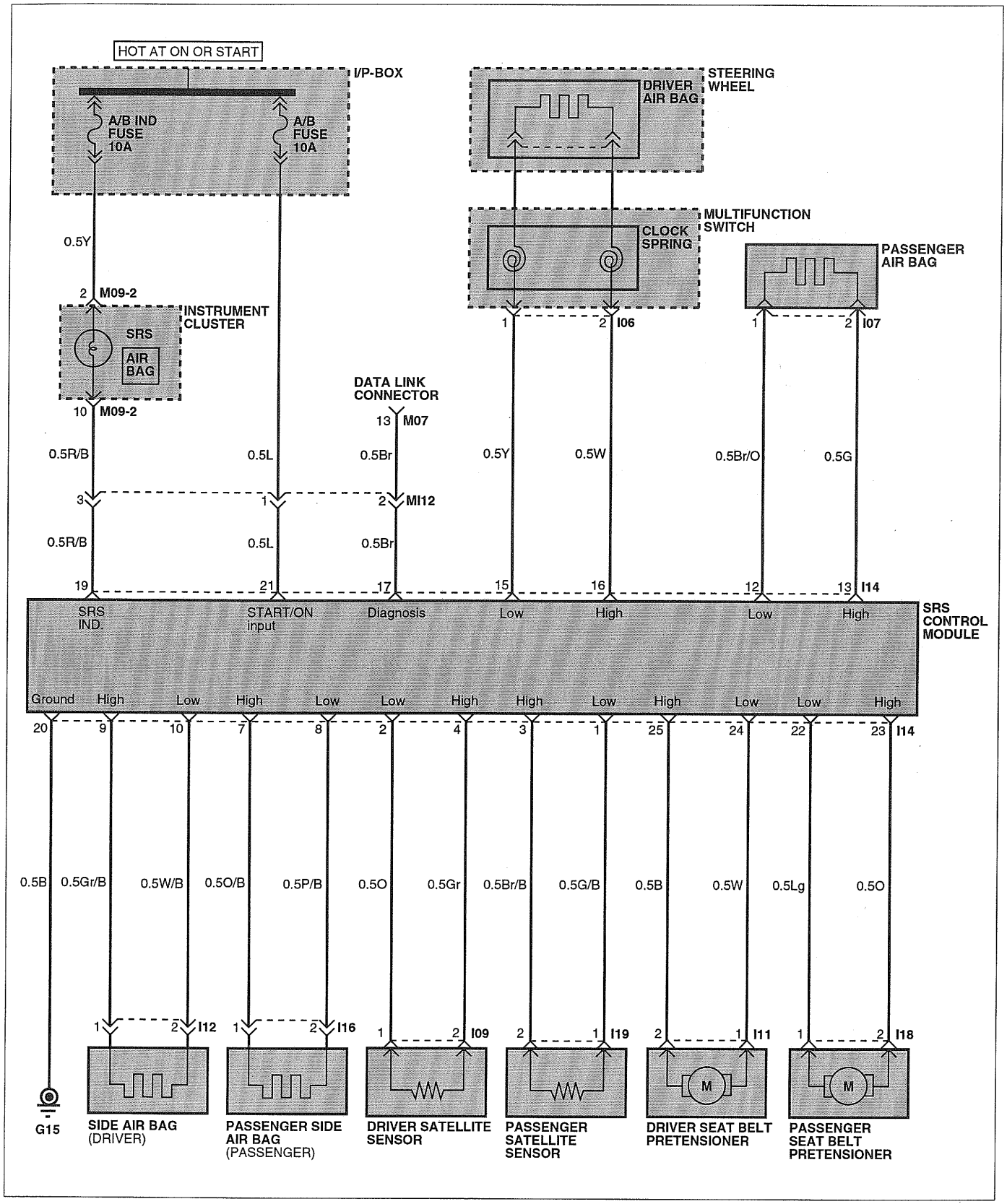
COMPONENT LOCATION INDEX

Circuit Description

Battery voltage is applied to the coil and contact of the tail lamp relay from LP fuse. With the light switch in PARK or HEAD, ground is provided to the tail lamp relay coil through the ETACM. Battery voltage from TL LH and RH fuse is then provided to the illumination lamps through the closed contact of the tail lamp relay.

AIR BAG SYSTEM (SRS) E2FC0470

AIR BAG SYSTEM (SRS) (1)



E2FC047A

COMPONENT LOCATION INDEX

Components		Location reference-page
I06	Driver air bag	CL-15
I07	Passenger air bag	CL-15
I09	Driver satellite sensor	CL-15
I11	Driver seat belt pretensioner	CL-15
I12	Side air bag (Driver)	CL-15
I14	SRS control module	CL-15
I16	Side air bag (Passenger)	CL-15
I18	Passenger seat belt pretensioner	CL-15
I19	Passenger satellite sensor	CL-15
M07	Data link connector	CL-2
M09-2	Instrument cluster	CL-2
Connectors		
MI12		CL-9
Grounds		
G15		CL-30

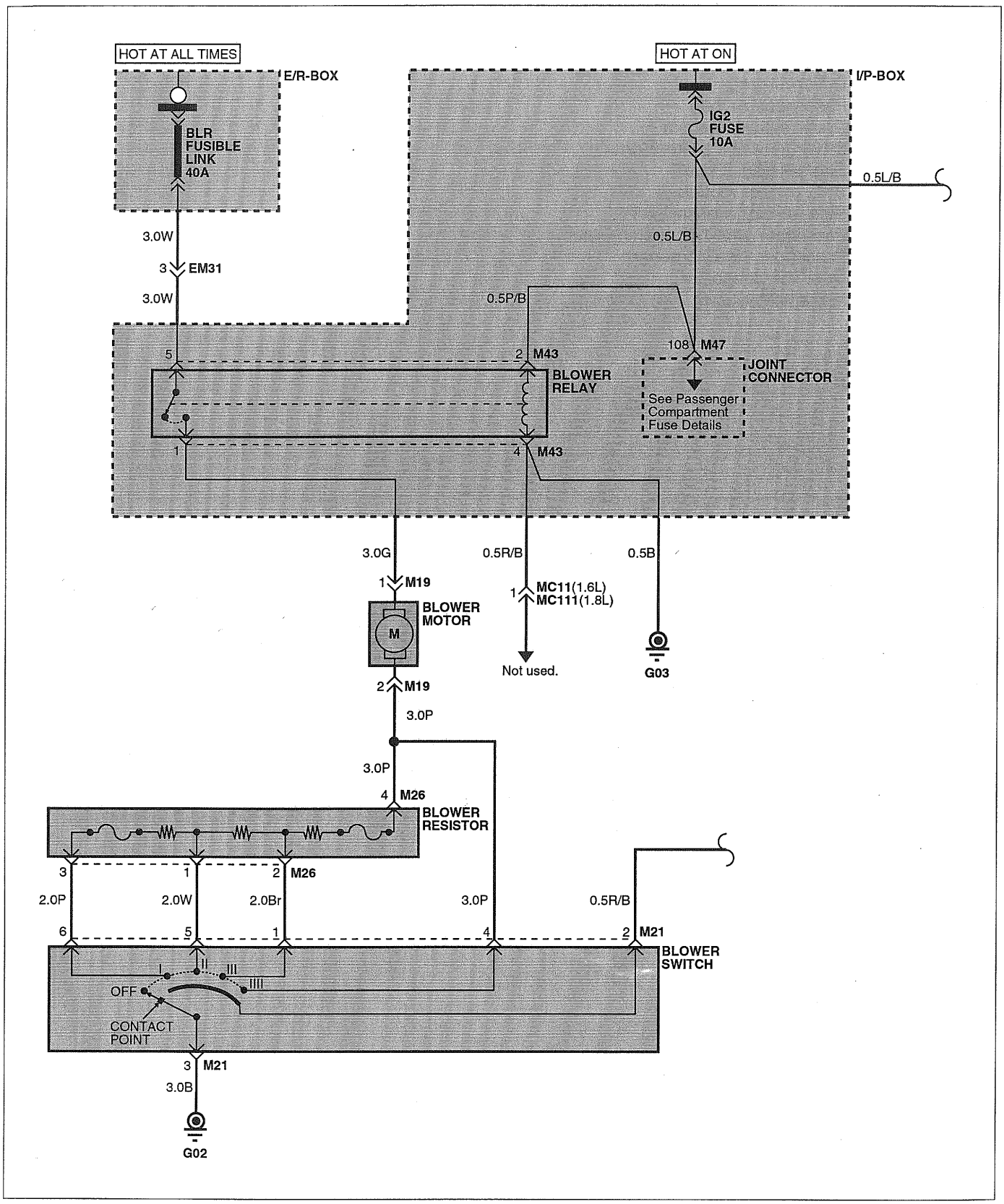
Circuit Description

Only authorized service personnel should do work on or around the Supplemental Restraint System (SRS) components. Service personnel should read the SRS section of the service manual carefully before starting work on the Supplemental Restraint System (SRS). The Supplemental Restraint System (SRS) is a safety device, which, when used in conjunction with the seat belts, is designed to protect the driver and front seat passenger by deploying air bags when the car receives a frontal impact exceeding a certain set limit.

With the ignition switch in ON or START, battery voltage is applied to the SRS control module from fuse 3 and to the SRS indicator in the instrument cluster from fuse 12. When the ignition switch is turned to the ON position, the SRS indicator in the instrument cluster will flash six times. If the SRS indicator does not flash six times, stays on, or comes on while driving, the SRS is not working properly. Refer to the Shop Manual, section RT, for details.

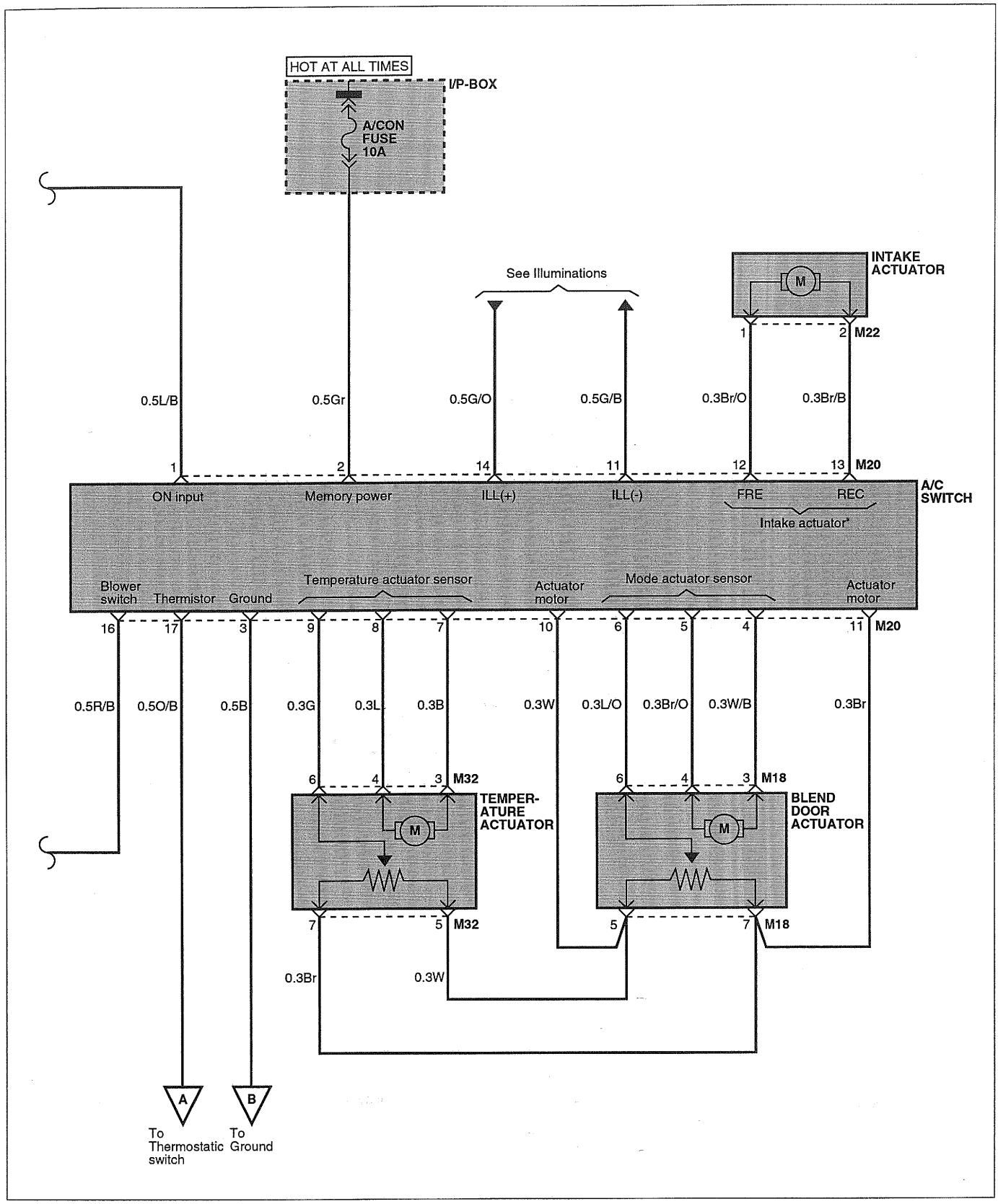
BLOWER & A/C CONTROLS E2FC0490

BLOWER & A/C CONTROLS (1)



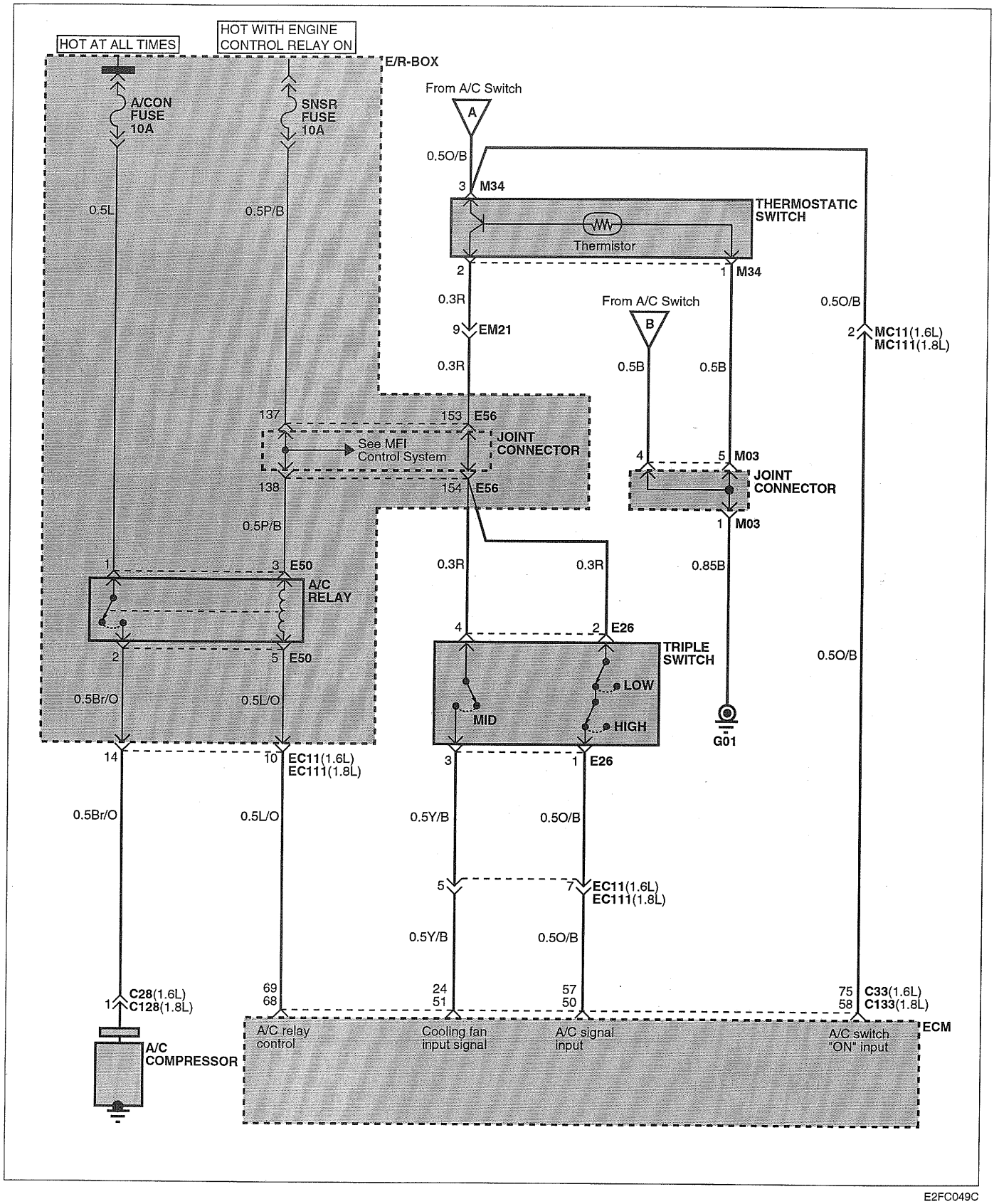
E2FC049A

BLOWER & A/C CONTROLS (2)



E2FC049B

BLOWER & A/C CONTROLS (3)



E2FC049C

COMPONENT LOCATION INDEX

Components		Location reference-page
C28	A/C compressor	CL-18
C33	ECM (1.6L)	CL-18
C133	ECM (1.8L)	CL-22
E26	Triple switch	CL-11
E50	A/C relay	CL-13
E56	Joint connector	CL-13
M03	Joint connector	CL-2
M18	Blend door actuator	CL-3
M19	Blower motor	CL-4
M20	A/C switch	CL-4
M21	Blower switch	CL-4
M22	Intake actuator	CL-4
M26	Blower resistor	CL-4
M32	Temperature actuator	CL-4
M34	Thermostatic switch	CL-4
M43	Blower relay	CL-5
M47	Joint connector	CL-5
Connectors		
EC11		CL-14
EM21		CL-14
EM31		CL-14
MC11		CL-8
MC111		CL-8
Grounds		
G01		CL-29
G02		CL-29
G03		CL-29

Circuit Description

Blower control

With the ignition switch in ON and the blower switch in any position except OFF, the blower relay coil energizes and the blower relay contact closes. Battery voltage is then applied to the blower motor through the closed contacts of the blower relay and then ground is provided to the blower motor through the blower resistor and the blower switch. As the blower switch is moved from OFF to HI, resistance of the resistors (built in to the blower resistor) will decrease and battery voltage applied to the blower motor will increase. This will increase the blower motor speed. When the blower switch is in HI, all of the resistors are bypassed and the maximum voltage is now applied to the blower motor so that it runs at the highest speed.

A/C control

With the ignition switch in ON and the blower switch in any position except OFF, the blower relay coil energizes and the blower relay contact closes. Battery voltage is then applied to the blower motor through the closed contacts of the blower relay and then ground is provided to the blower motor through the blower resistor and the blower switch. Battery voltage is applied to A/C switch through the IG2 fuse. With the A/C switch in ON, the Engine Control Module (ECM) will ground the coil of the A/C control relay after a short delay to adjust idle speed. Battery voltage will then be applied to the compressor magnetic clutch from the A/C fuse through the closed contacts of the A/C relay. The A/C compressor runs.