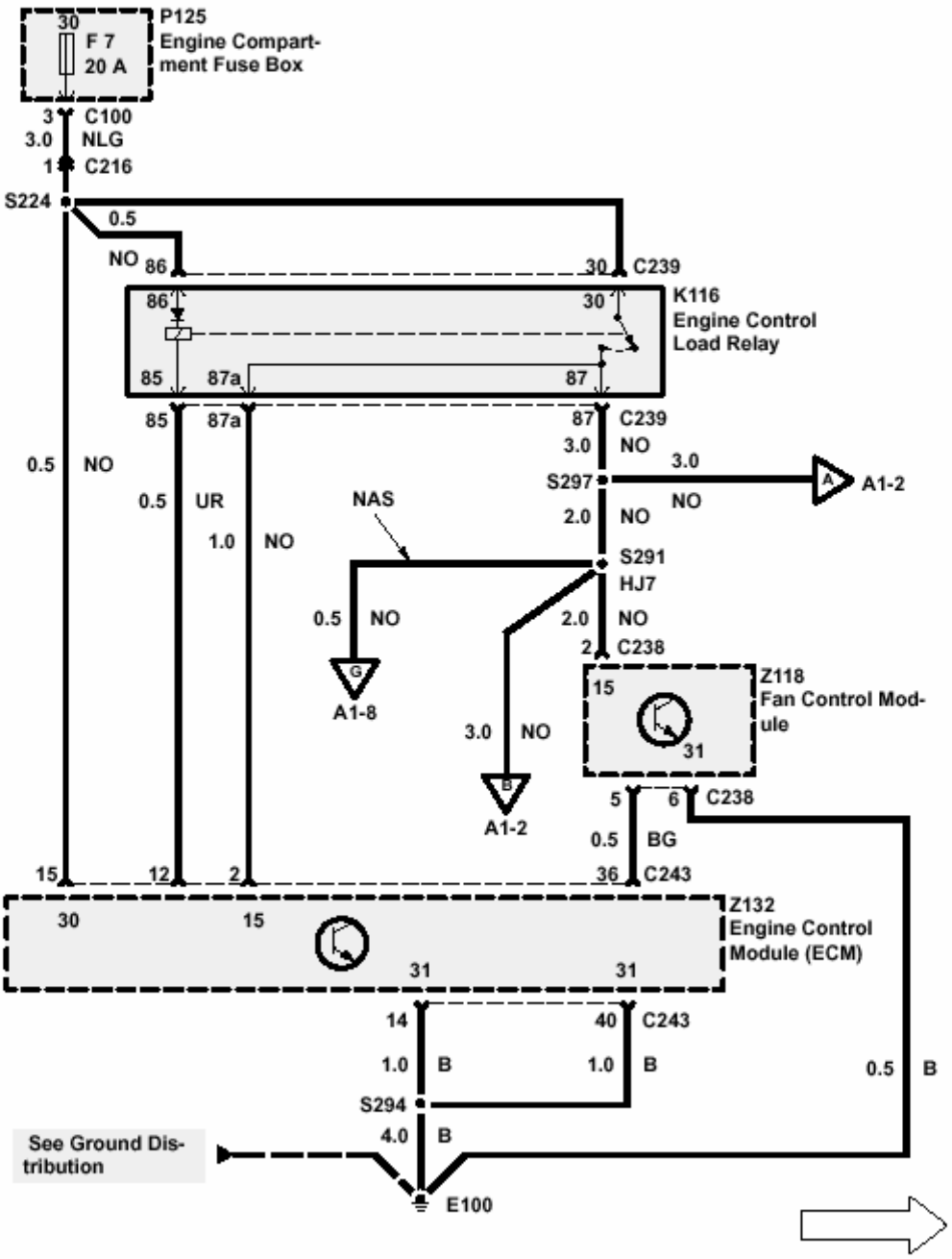
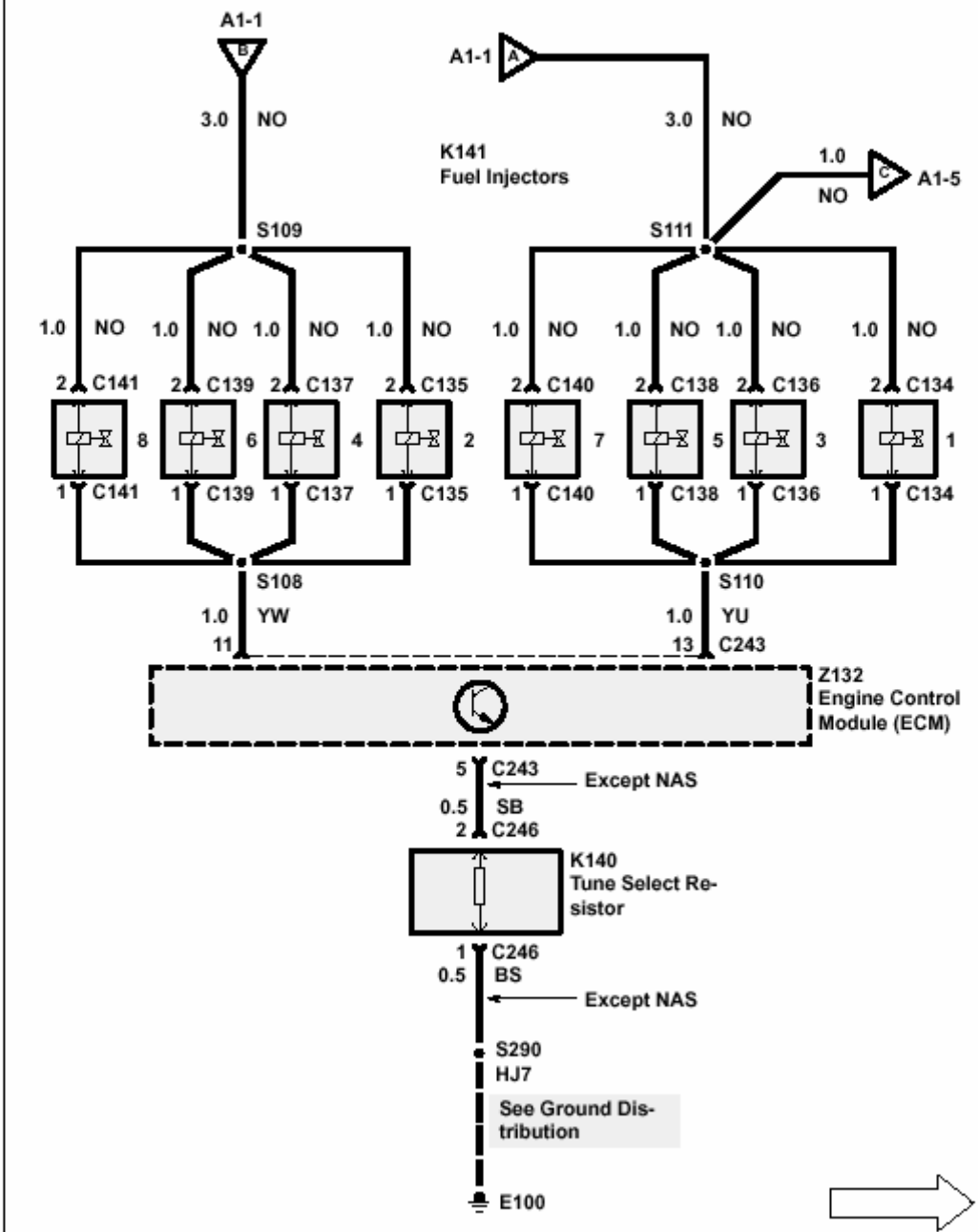
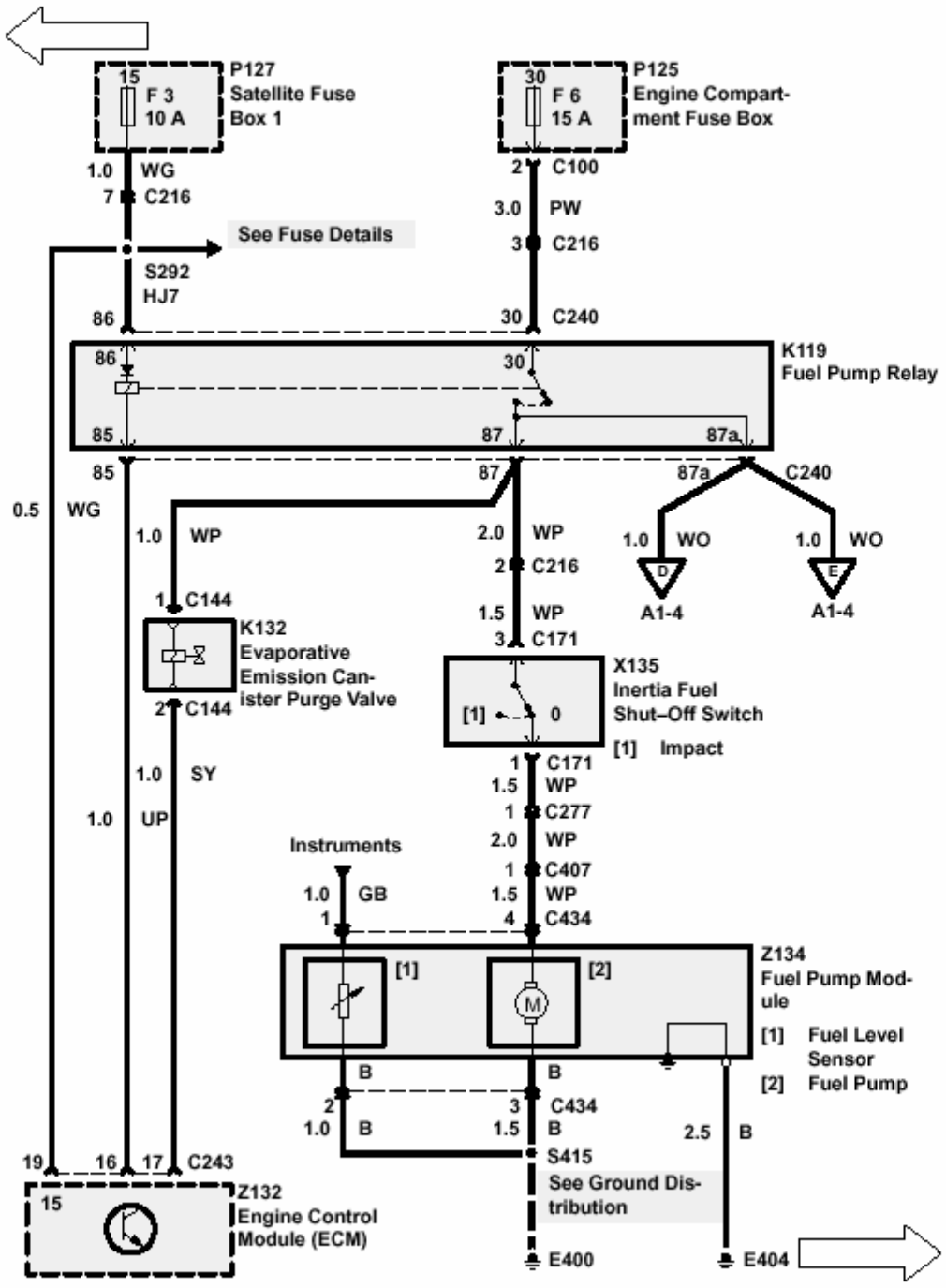

30
F 7
20 A
P125
Engine Compartment Fuse Box
3
C100
3.0
NLG
1
C216
S224
0.5
NO
86
30
C239
86
30
K116
Engine Control Load Relay
85
87a
87
85
87a
87
C239
3.0
NO
0.5
NO
S297
3.0
A
A1-2
0.5
UR
NAS
NO
2.0
NO
1.0
NO
S291
HJ7
0.5
NO
2.0
NO
2
C238
G
A1-8
15
Z118
Fan Control Module
31
3.0
NO
B
A1-2
5
6
C238
0.5
BG
15
12
2
36
C243
30
15
Z132
Engine Control Module (ECM)
31
31
14
40
C243
1.0
B
1.0
B
0.5
B
S294
4.0
B
See Ground Distribution
E100

A1 ETM

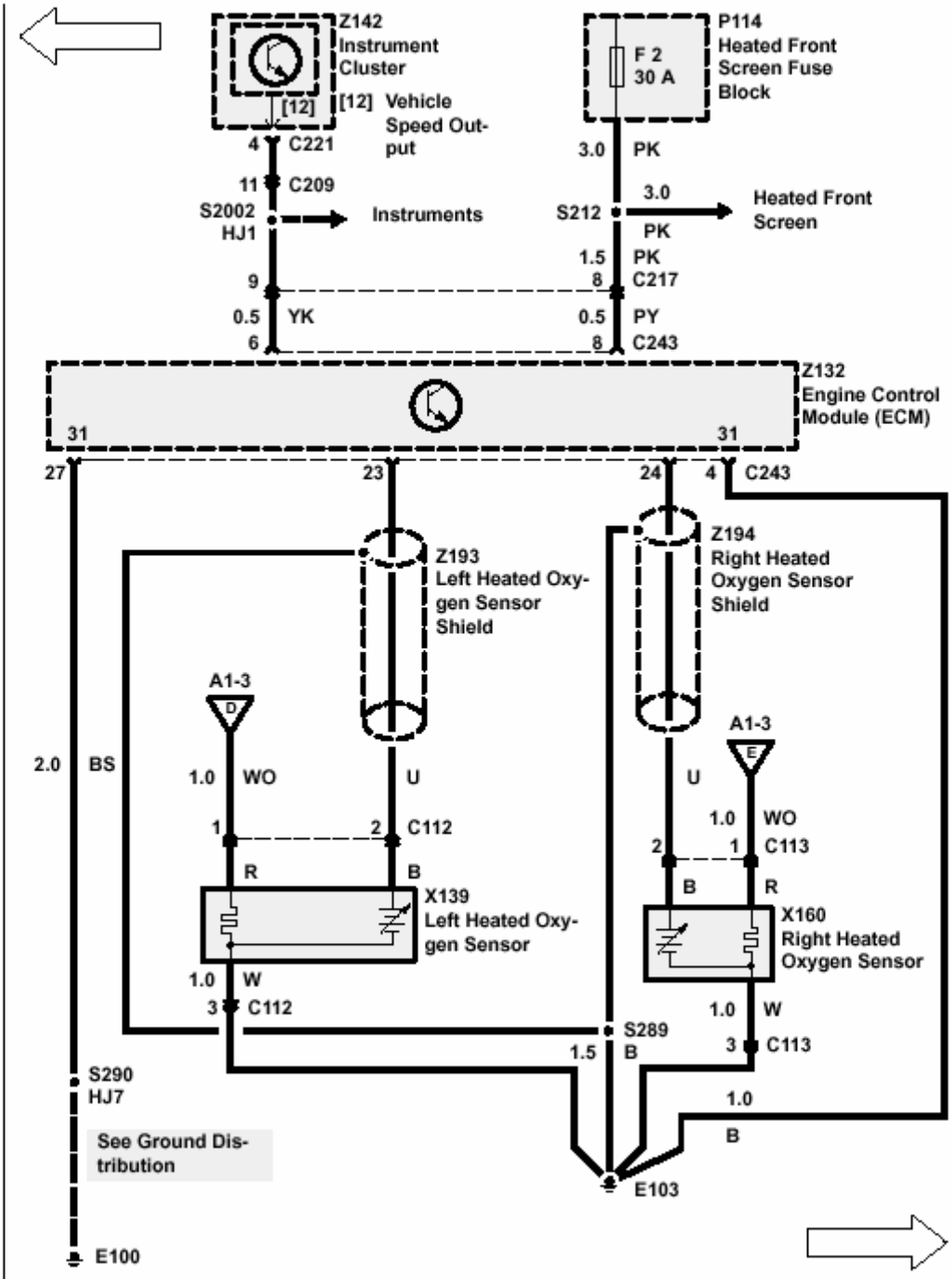
1995 RANGE ROVER

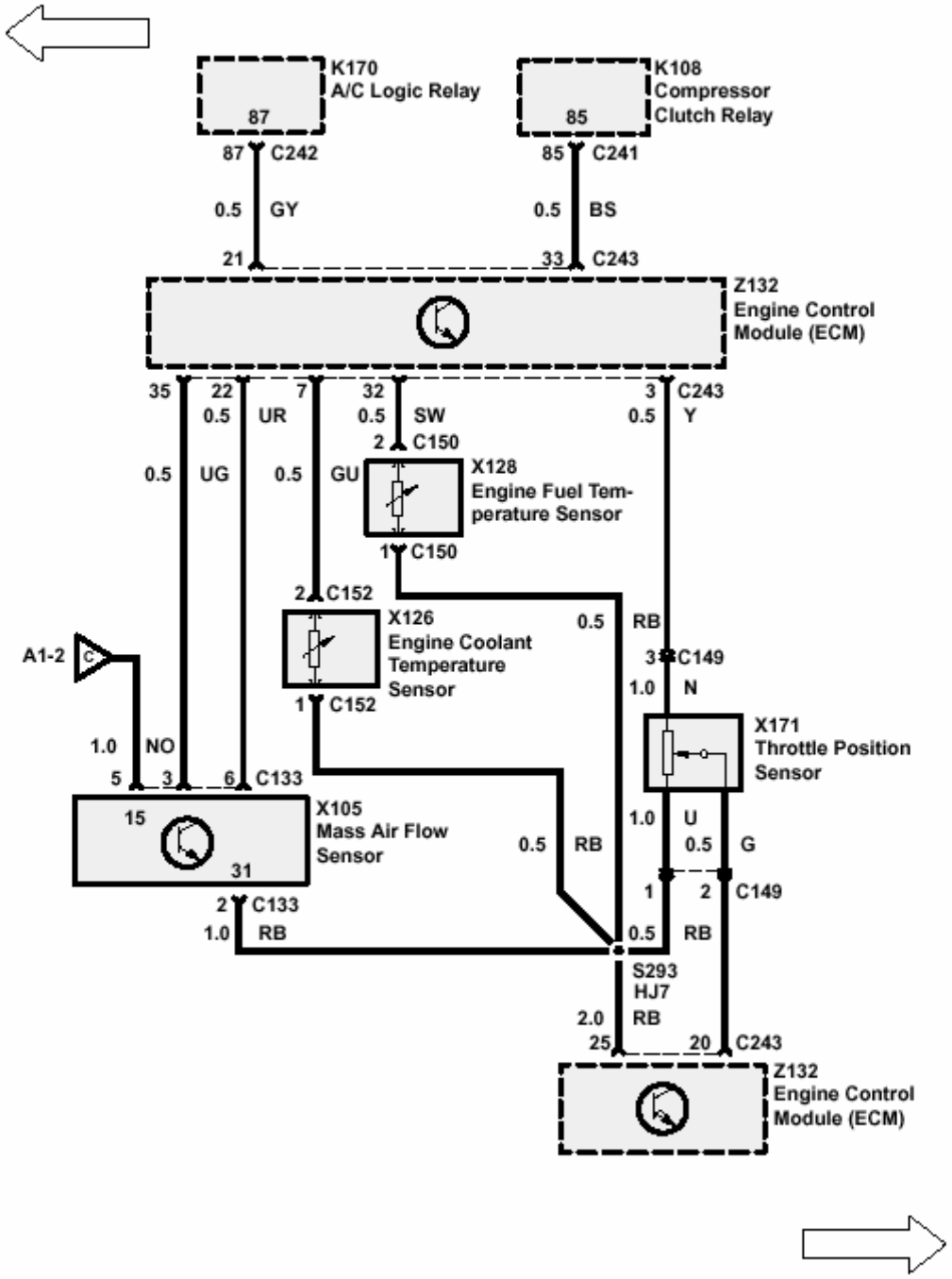



P127
Satellite Fuse Box 1
F 3
10 A
P125
Engine Compartment Fuse Box
F 6
15 A
1.0 WG
C216
See Fuse Details
S292
HJ7
2 C100
3.0 PW
3 C216
30 C240
K119
Fuel Pump Relay
86
85
30
87
87a
0.5 WG
1.0 WP
2.0 WP
C216
1.0 WO
A1-4
C144
K132
Evaporative Emission Canister Purge Valve
1.5 WP
C171
X135
Inertia Fuel Shut–Off Switch
[1] Impact
1.0 SY
1.0 UP
1.5 WP
C277
2.0 WP
C407
Instruments
1.0 GB
C434
Z134
Fuel Pump Module
[1] Fuel Level Sensor
[2] Fuel Pump
B
2.5 B
S415
See Ground Distribution
19 16 17 C243
Z132
Engine Control Module (ECM)
E400
E404

A1 ETM

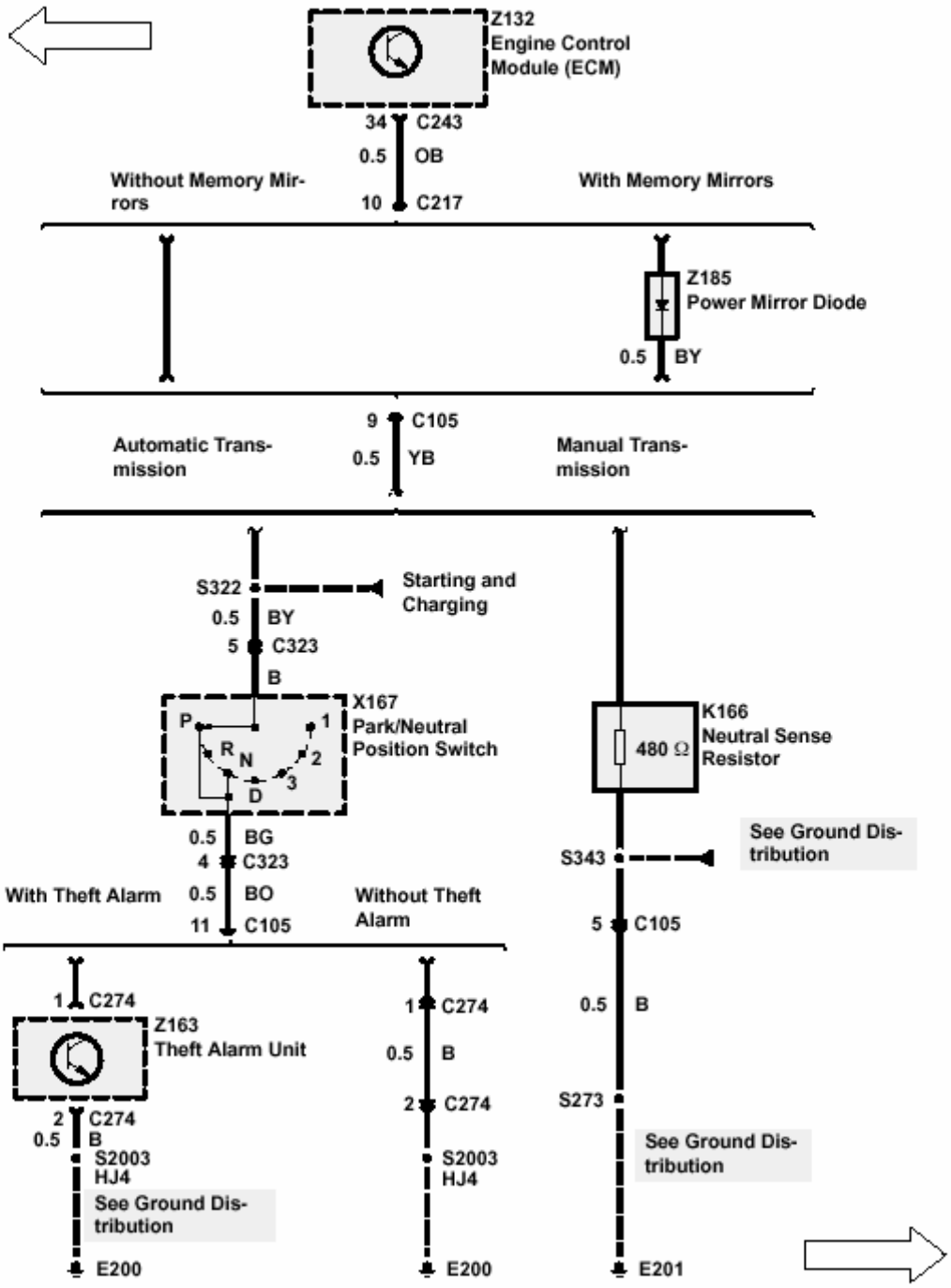
1995 RANGE ROVER

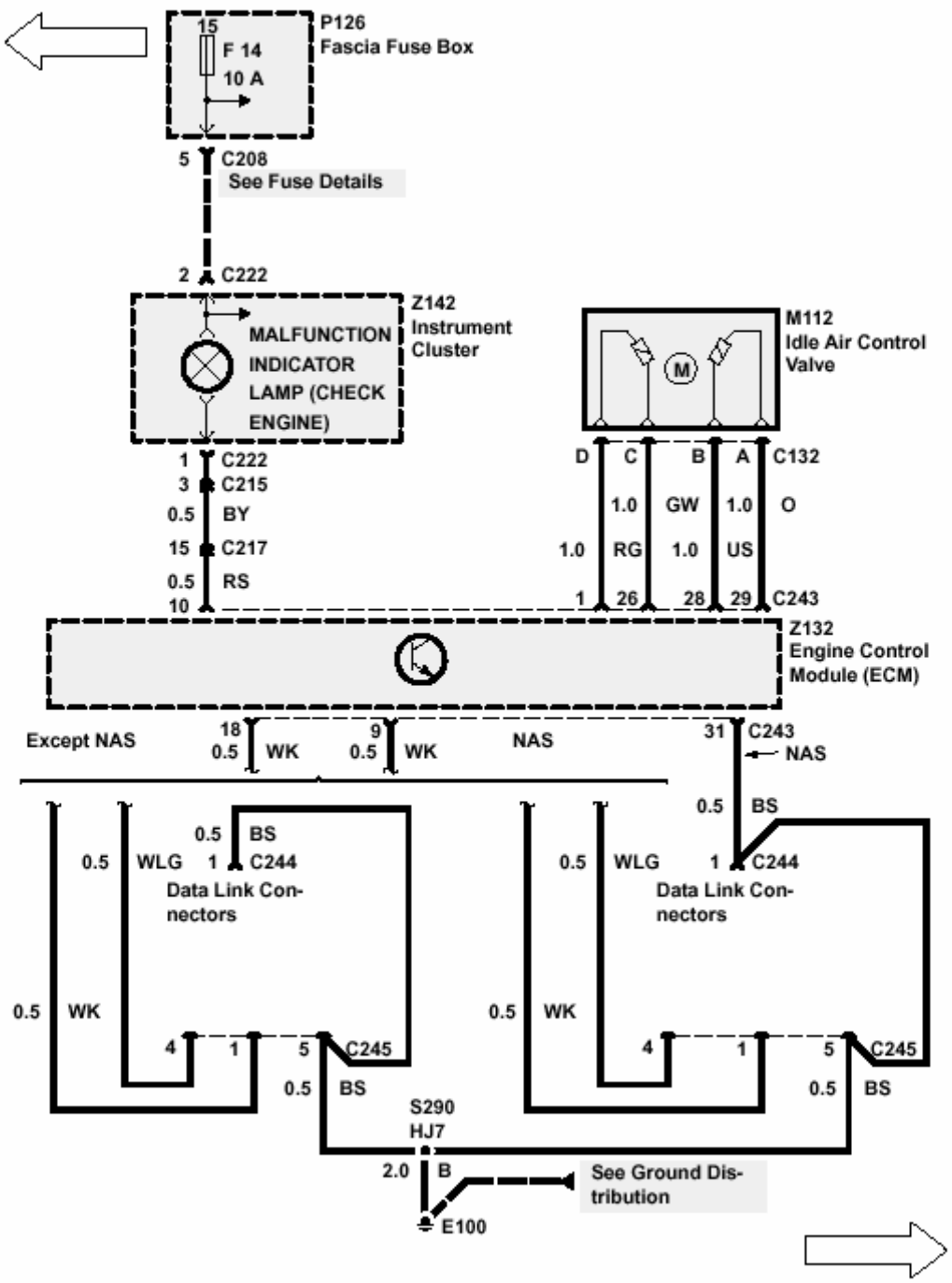



K170
A/C Logic Relay
87
87 C242
0.5 GY
21
K108
Compressor
Clutch Relay
85
85 C241
0.5 BS
33 C243
Z132
Engine Control
Module (ECM)
35 22 7 32 3 C243
0.5 UR 0.5 SW 0.5 Y
2 C150
0.5 UG 0.5 GU
X128
Engine Fuel Temperature Sensor
1 C150
2 C152
X126
Engine Coolant
Temperature
Sensor
1 C152
0.5 RB
3 C149
1.0 N
A1-2 C
1.0 NO
5 3 6 C133
X171
Throttle Position
Sensor
15
31
X105
Mass Air Flow
Sensor
0.5 RB
1.0 U
0.5 G
1 2 C149
2 C133
1.0 RB
0.5 RB
S293
HJ7
2.0 RB
25 20 C243
Z132
Engine Control
Module (ECM)

A1 ETM

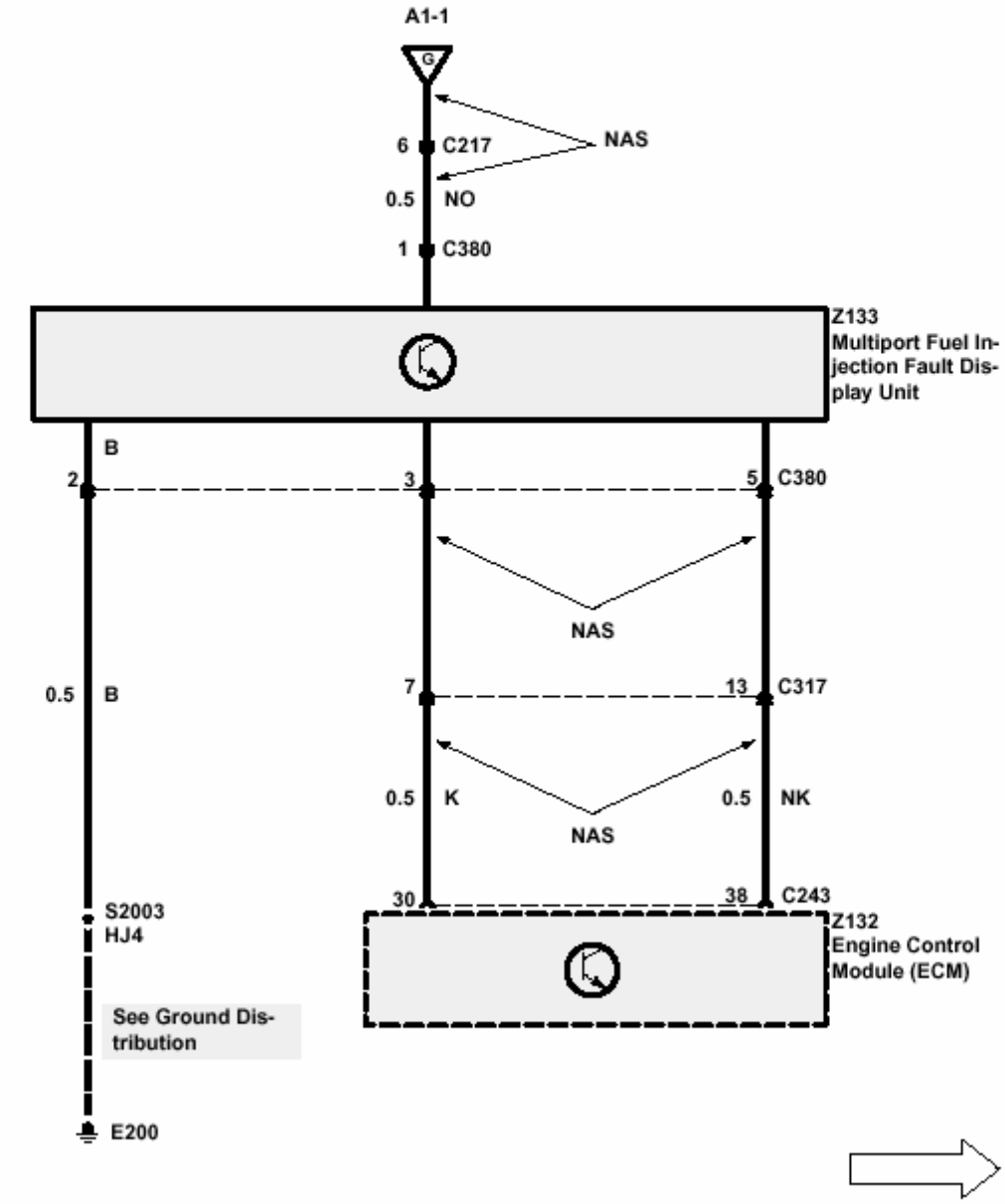
1995 RANGE ROVER

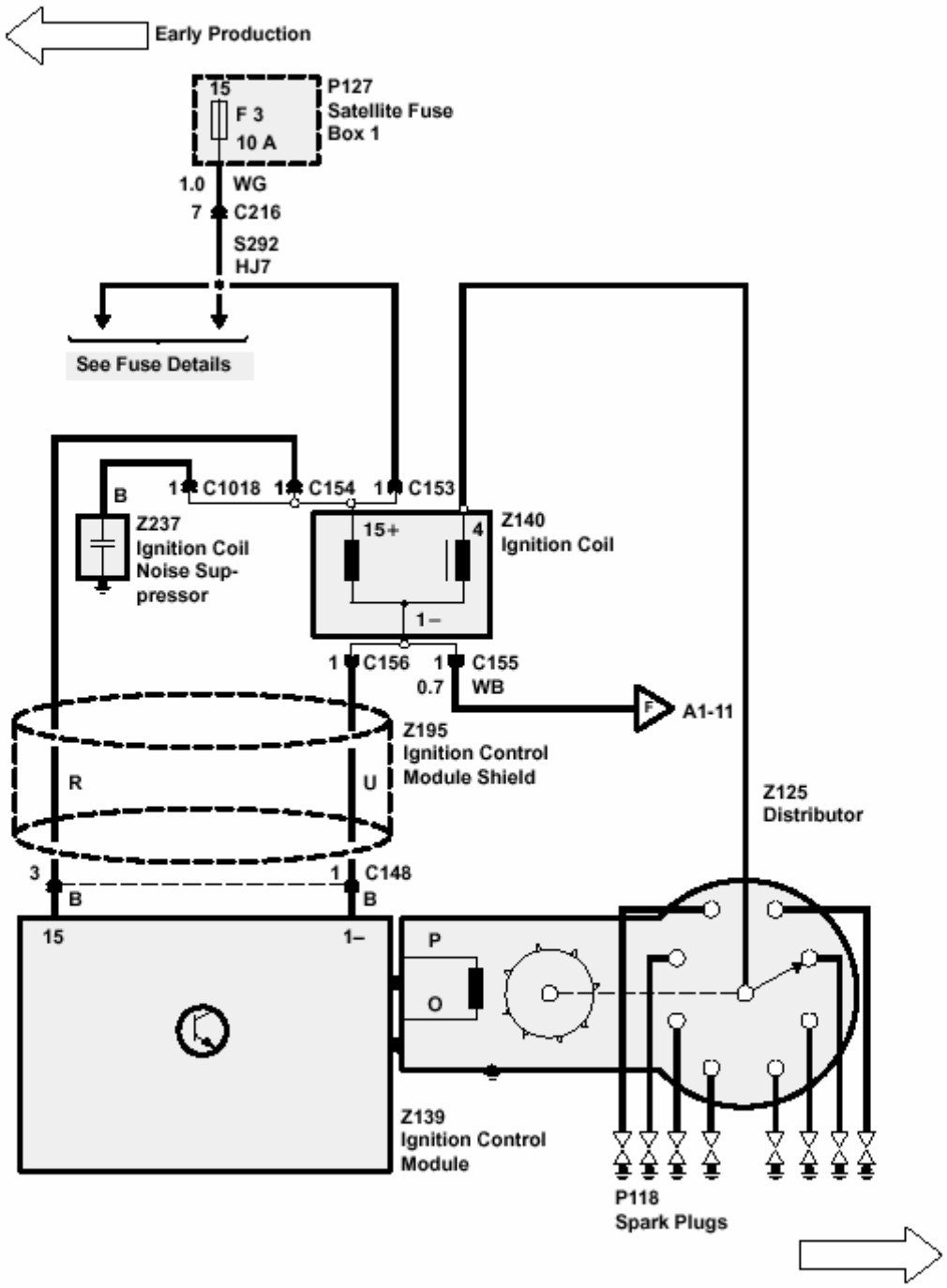



15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
2
C222
MALFUNCTION INDICATOR LAMP (CHECK ENGINE)
Z142
Instrument Cluster
M112
Idle Air Control Valve
M
1
C222
3
C215
0.5
BY
15
C217
0.5
RS
10
D
C
B
A
C132
1.0
GW
1.0
O
1.0
RG
1.0
US
1
26
28
29
C243
Z132
Engine Control Module (ECM)
Except NAS
18
0.5
WK
9
0.5
WK
NAS
31
C243
NAS
0.5
BS
0.5
WLG
1
C244
Data Link Connectors
0.5
WK
4
1
5
C245
0.5
BS
S290
HJ7
2.0
B
See Ground Distribution
E100

A1 ETM

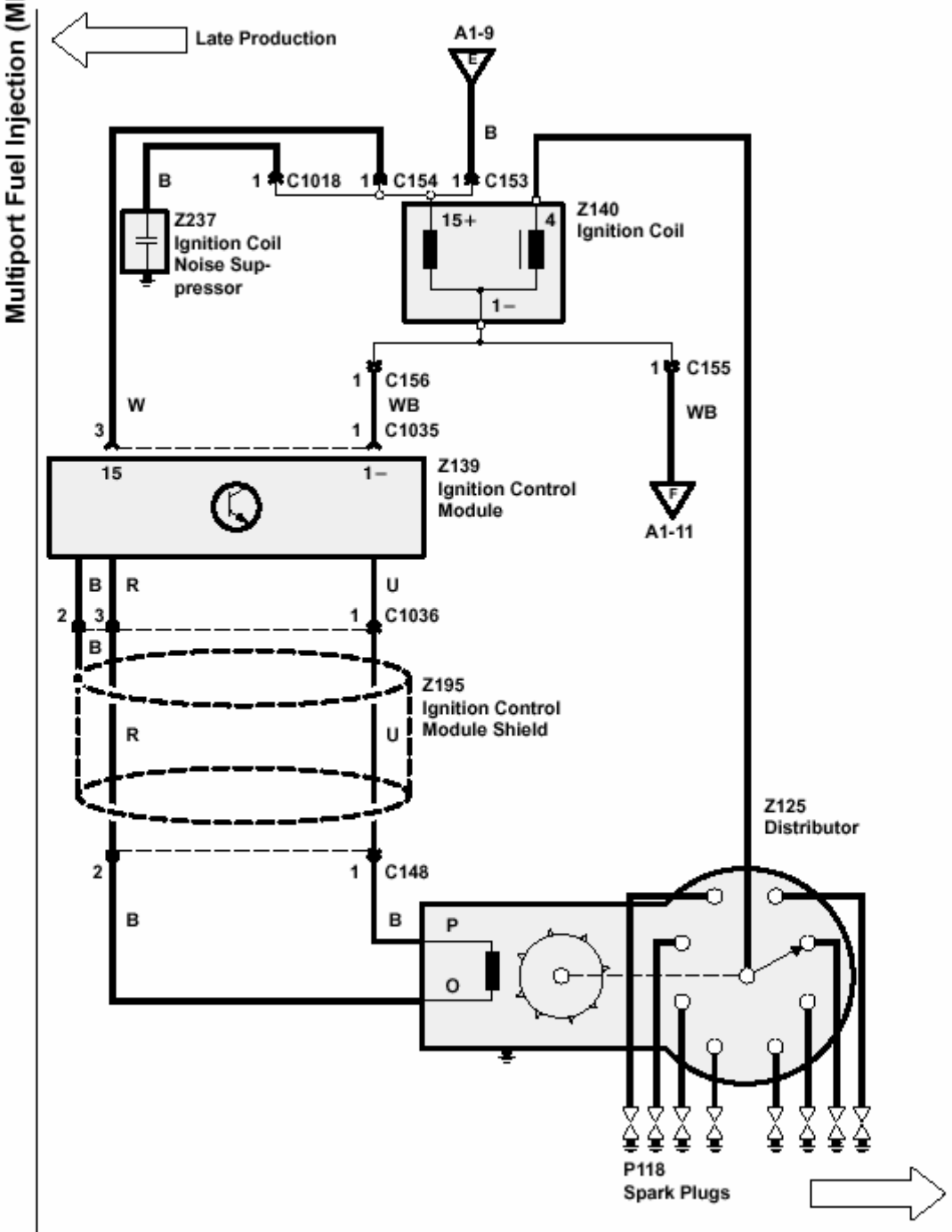
1995 RANGE ROVER

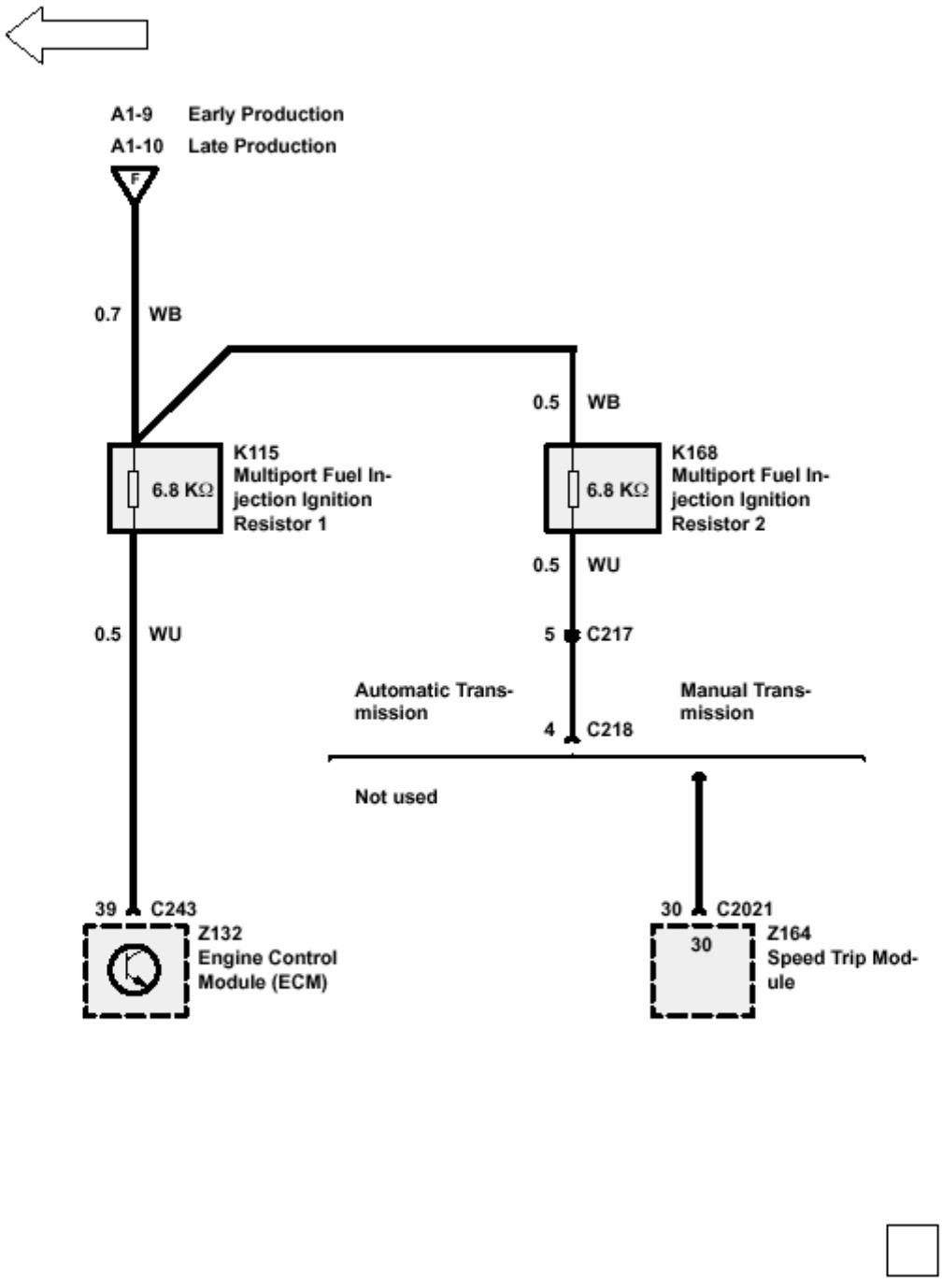


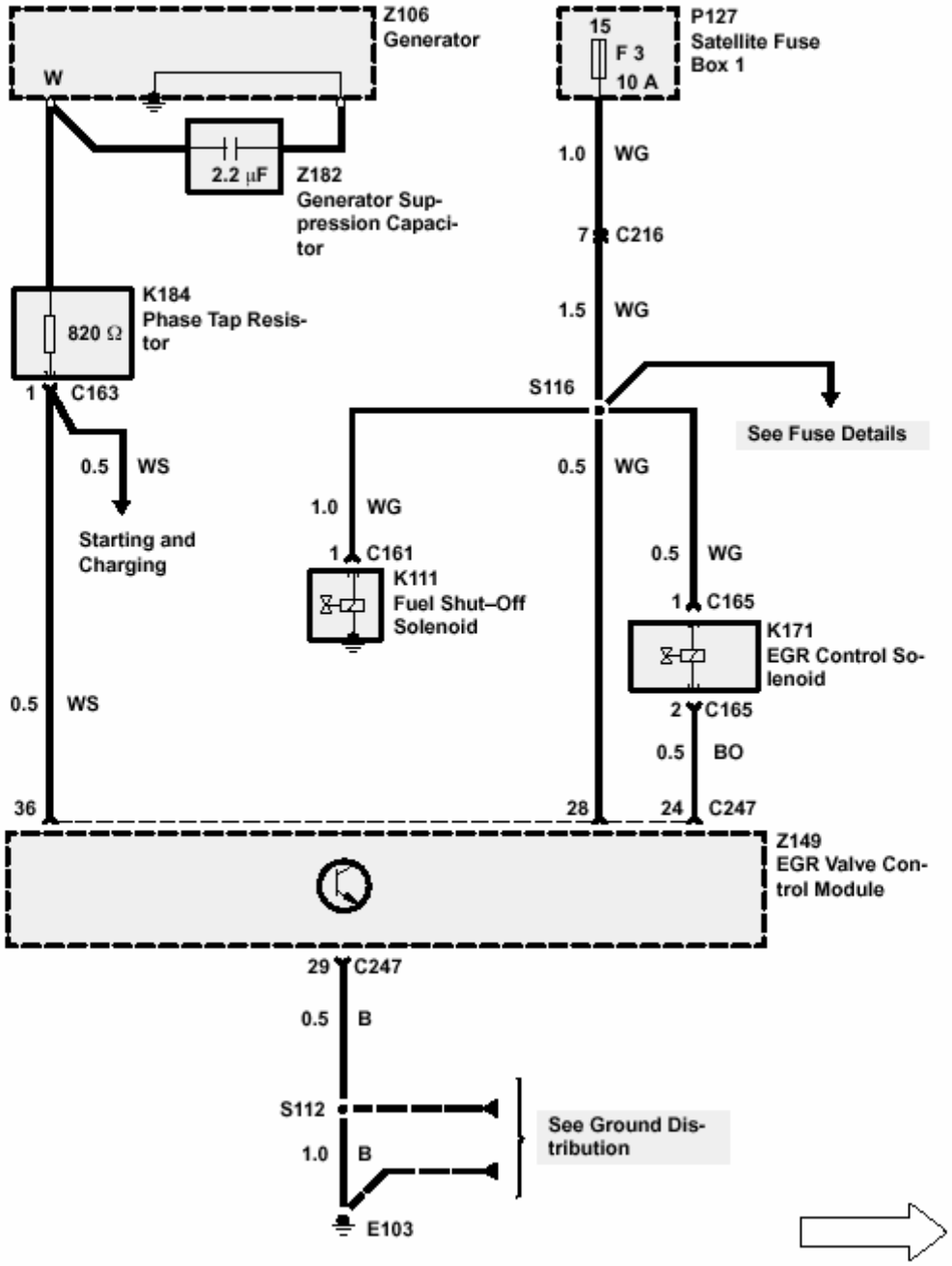

Early Production
15
F 3
10 A
P127
Satellite Fuse
Box 1
1.0 WG
7 C216
S292
HJ7
See Fuse Details
B
1 C1018
1 C154
1 C153
Z237
Ignition Coil
Noise Sup-
pressor
15+
4
Z140
Ignition Coil
1–
1 C156
1 C155
0.7 WB
F
A1-11
Z195
Ignition Control
Module Shield
R
U
Z125
Distributor
3
B
1 C148
B
15
1–
P
O
Z139
Ignition Control
Module
P118
Spark Plugs

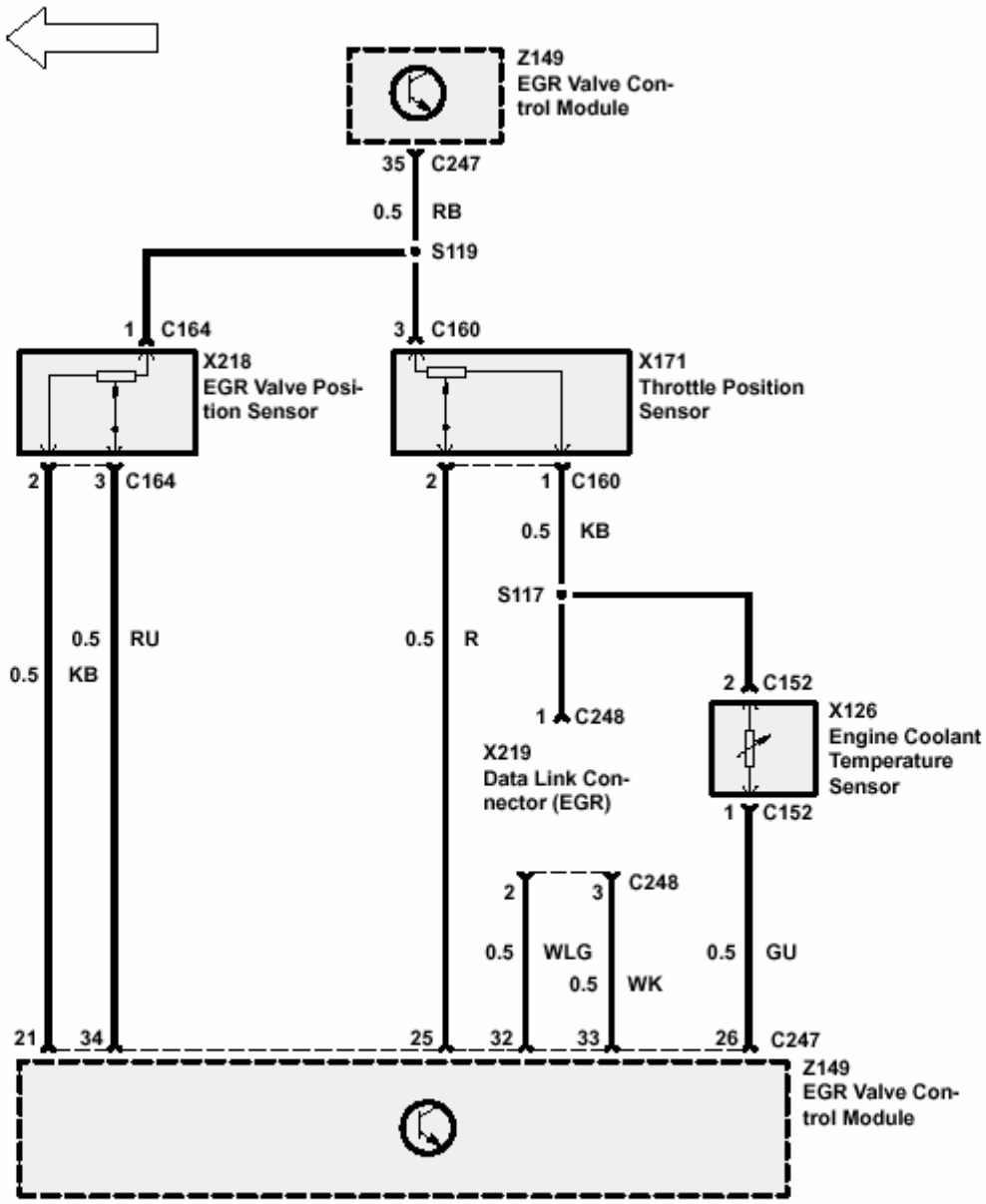
A1 ETM

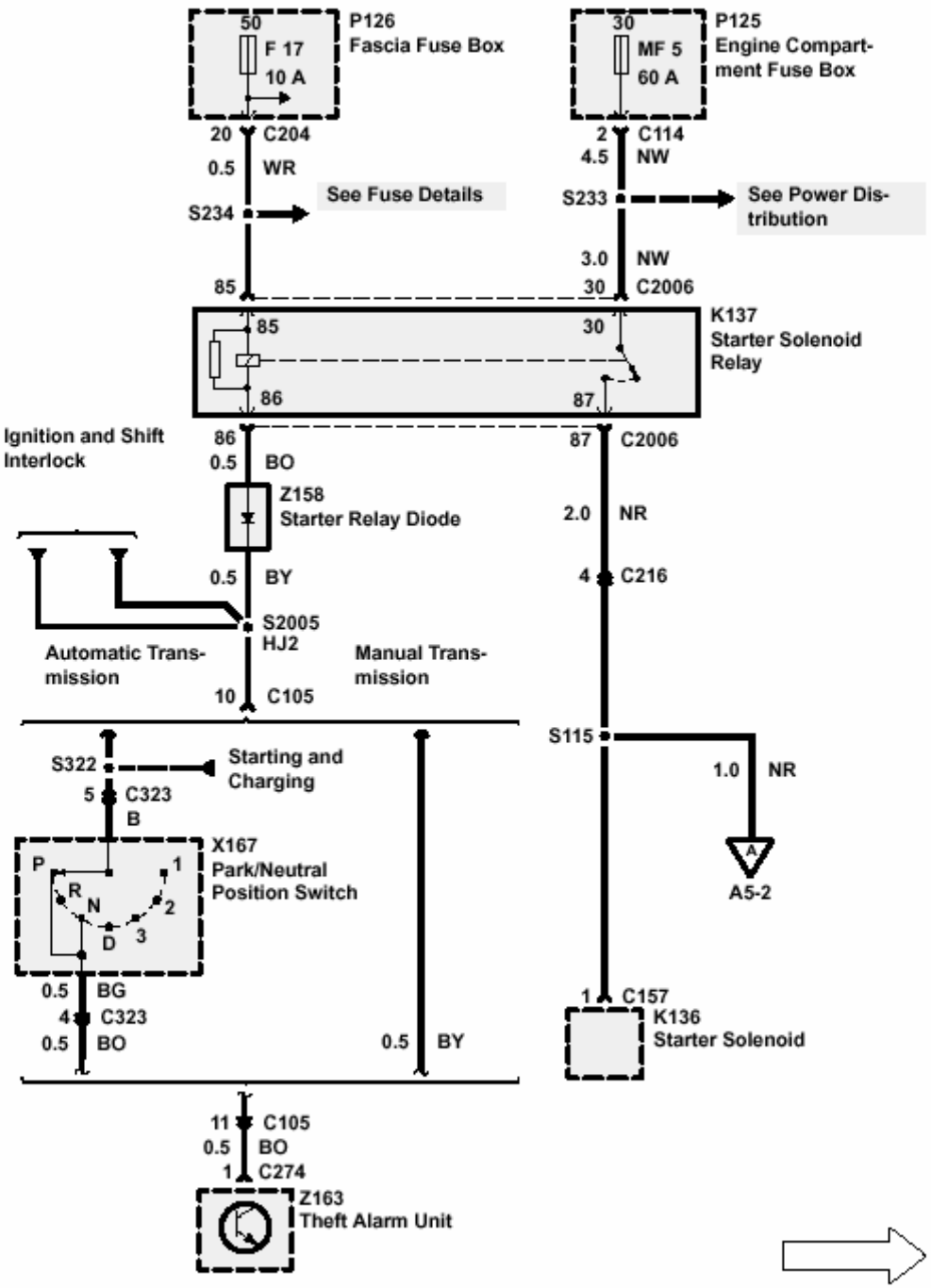
1995 RANGE ROVER




A1-9 Early Production
A1-10 Late Production
F
0.7 WB
0.5 WB
K115
Multiport Fuel Injection Ignition Resistor 1
6.8 KΩ
K168
Multiport Fuel Injection Ignition Resistor 2
6.8 KΩ
0.5 WU
0.5 WU
5 C217
Automatic Transmission
Manual Transmission
4 C218
Not used
39 C243
Z132
Engine Control Module (ECM)
30 C2021
30
Z164
Speed Trip Module

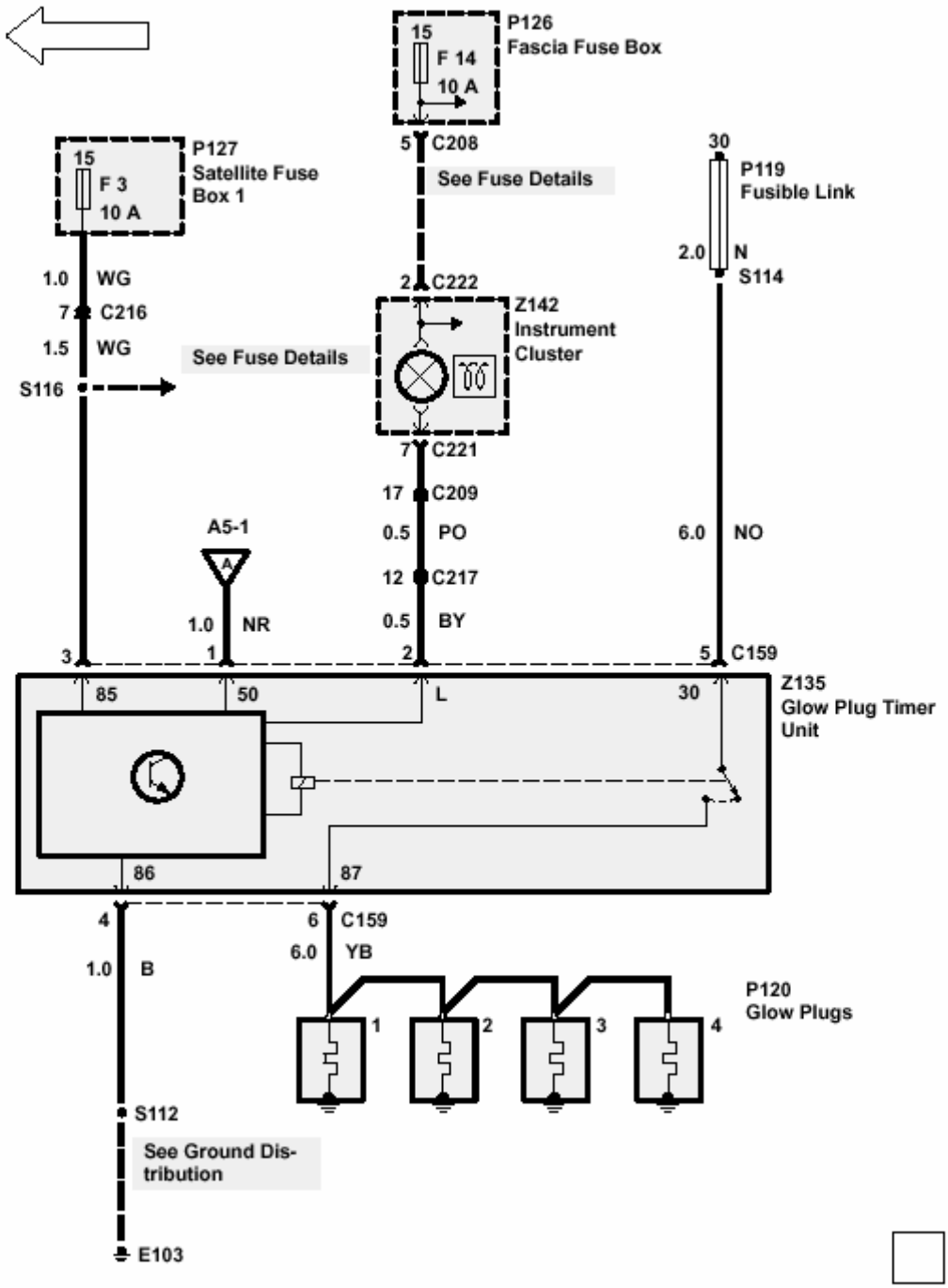

Z106
Generator
W
2.2 µF
Z182
Generator Suppression Capacitor
P127
Satellite Fuse Box 1
15
F 3
10 A
1.0 WG
7 C216
1.5 WG
S116
See Fuse Details
K184
Phase Tap Resistor
820 Ω
1 C163
0.5 WS
Starting and Charging
0.5 WG
1.0 WG
1 C161
K111
Fuel Shut–Off Solenoid
0.5 WG
1 C165
K171
EGR Control Solenoid
2 C165
0.5 WS
0.5 BO
36
28
24 C247
Z149
EGR Valve Control Module
29 C247
0.5 B
S112
See Ground Distribution
1.0 B
E103


Z149
EGR Valve Control Module
35 C247
0.5 RB
S119
1 C164
3 C160
X218
EGR Valve Position Sensor
X171
Throttle Position Sensor
2 3 C164
2 1 C160
0.5 KB
S117
0.5 RU
0.5 KB
0.5 R
2 C152
1 C248
X219
Data Link Connector (EGR)
X126
Engine Coolant Temperature Sensor
1 C152
2 3 C248
0.5 WLG
0.5 WK
0.5 GU
21 34 25 32 33 26 C247
Z149
EGR Valve Control Module


50
F 17
10 A
P126
Fascia Fuse Box
30
MF 5
60 A
P125
Engine Compartment Fuse Box
20
C204
0.5
WR
See Fuse Details
S234
2
C114
4.5
NW
S233
See Power Distribution
3.0
NW
85
30
C2006
K137
Starter Solenoid Relay
85
30
86
87
Ignition and Shift Interlock
86
0.5
BO
87
C2006
Z158
Starter Relay Diode
2.0
NR
0.5
BY
4
C216
S2005
HJ2
Automatic Transmission
Manual Transmission
10
C105
S115
S322
Starting and Charging
1.0
NR
5
C323
B
A
A5-2
X167
Park/Neutral Position Switch
P
R
N
D
1
2
3
0.5
BG
4
C323
0.5
BO
0.5
BY
1
C157
K136
Starter Solenoid
11
C105
0.5
BO
1
C274
Z163
Theft Alarm Unit

A5 ETM

1995 RANGE ROVER



CIRCUIT OPERATION

Starting System

Putting the Ignition Switch (X134) in position III applies battery voltage to the Starter Solenoid Relay (K137). The Starter Solenoid Relay (K137) energizes and applies battery voltage to the Starter Solenoid (K136) and Starter (M134).

On manual transmission vehicles equipped with a theft alarm, the Theft Alarm Unit (Z163) provides a ground circuit to the Starter Solenoid Relay's (K137) 86 terminal.

On automatic transmission vehicles equipped with a theft alarm, the Theft Alarm Unit (Z163) provides a ground circuit to the Starter Solenoid Relay's (K137) 86 terminal via the Park/Neutral Position Switch (X167).

If the theft alarm is activated, the Theft Alarm Unit (Z163) will interrupt the Starter Solenoid Relay's (K137) ground path and prevent starting the engine.

For vehicles not equipped with Theft Alarm, a black wire is used to short pins 1 and 2 of C274.

Charging System

When the Ignition Switch (X134) is in position II, battery voltage is applied to the charging system fault light. When the Generator (Z106) is being turned by the engine, its stator windings are excited by voltage applied to the Generator (Z106) via the charging system fault light. The Generator (Z106) begins to produce electricity in order to charge the vehicle Battery (P104). If the Generator (Z106) fails to produce power, the Generator (Z106) grounds the fault light control wire, causing the charging system fault light to glow.

The tachometer displays engine speed in rpm. Voltage pulses are taken from the Generator (Z106) and are generated when the engine drive belt turns the Generator pulley. The tachometer responds to the frequency of the voltage pulses, which increases proportionally to that of the engine speed.

B1 ETM

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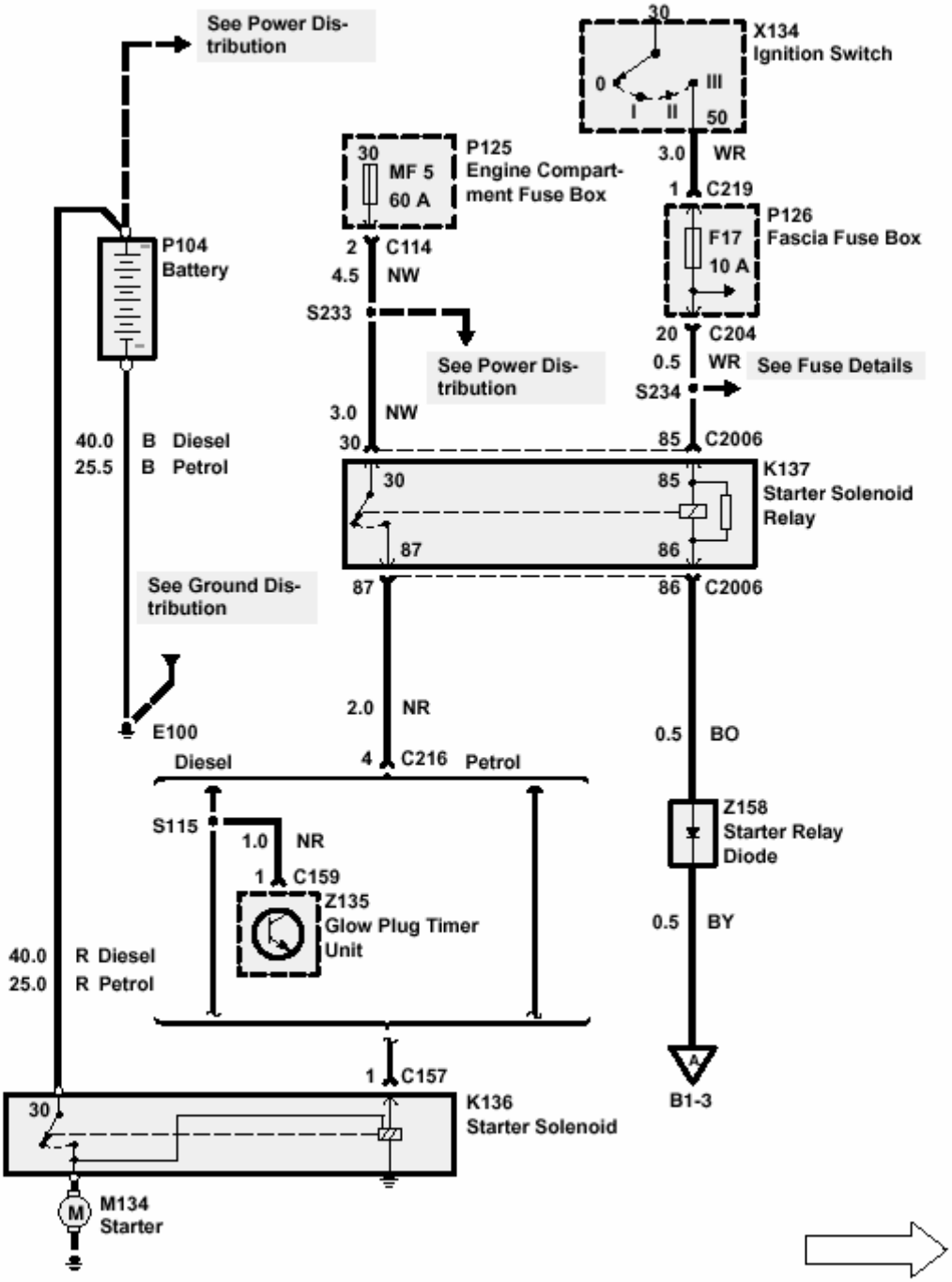
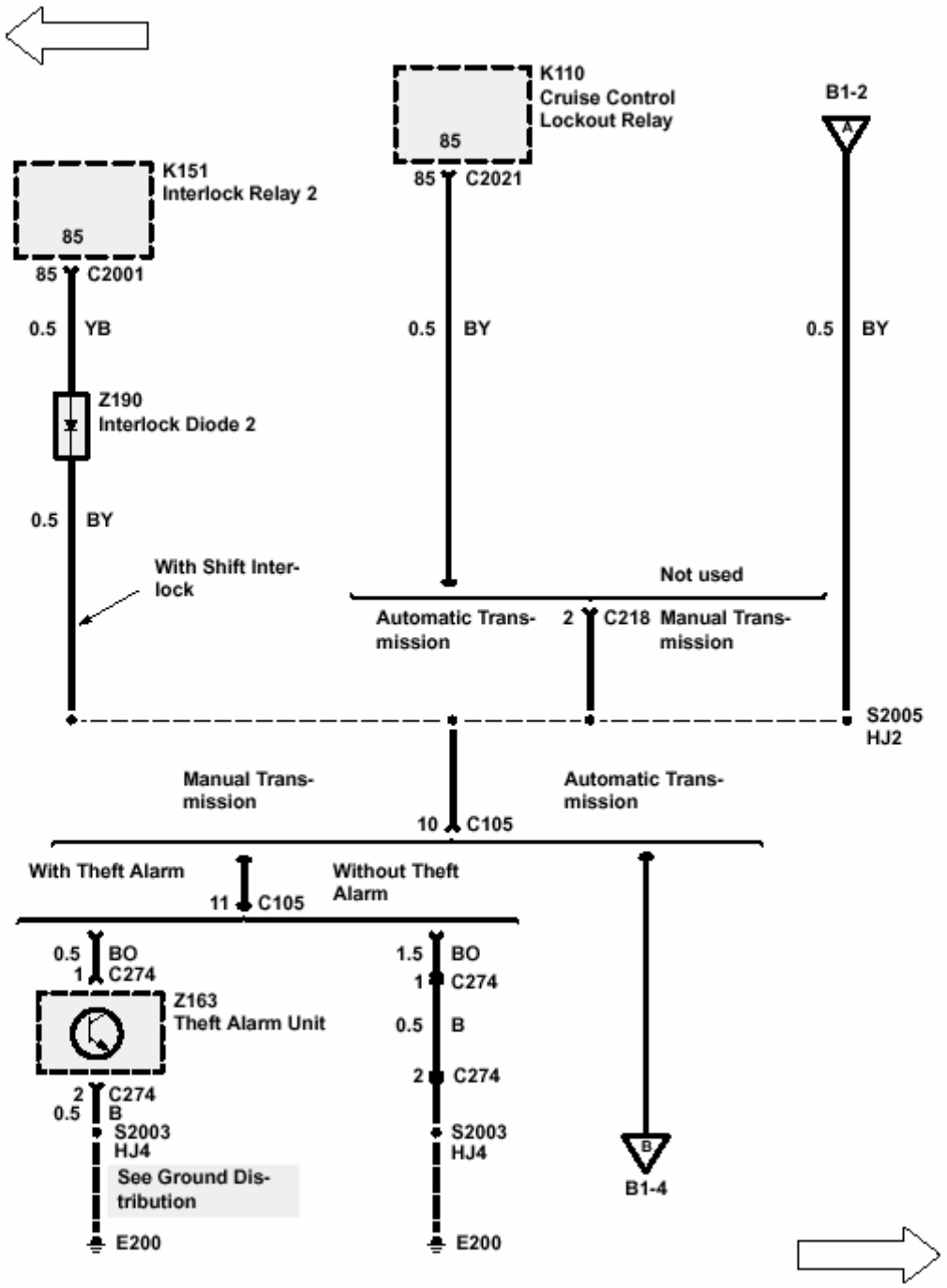
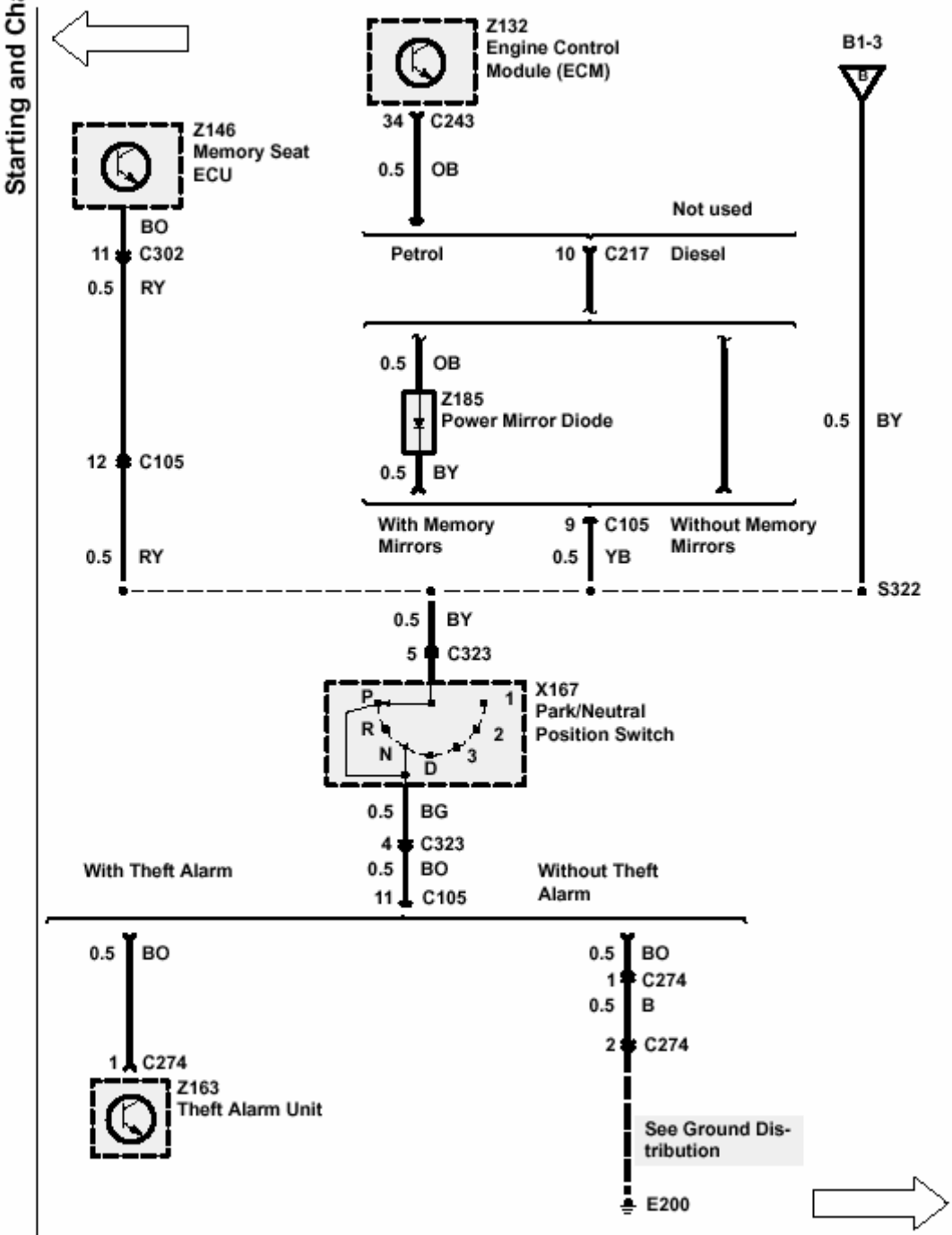
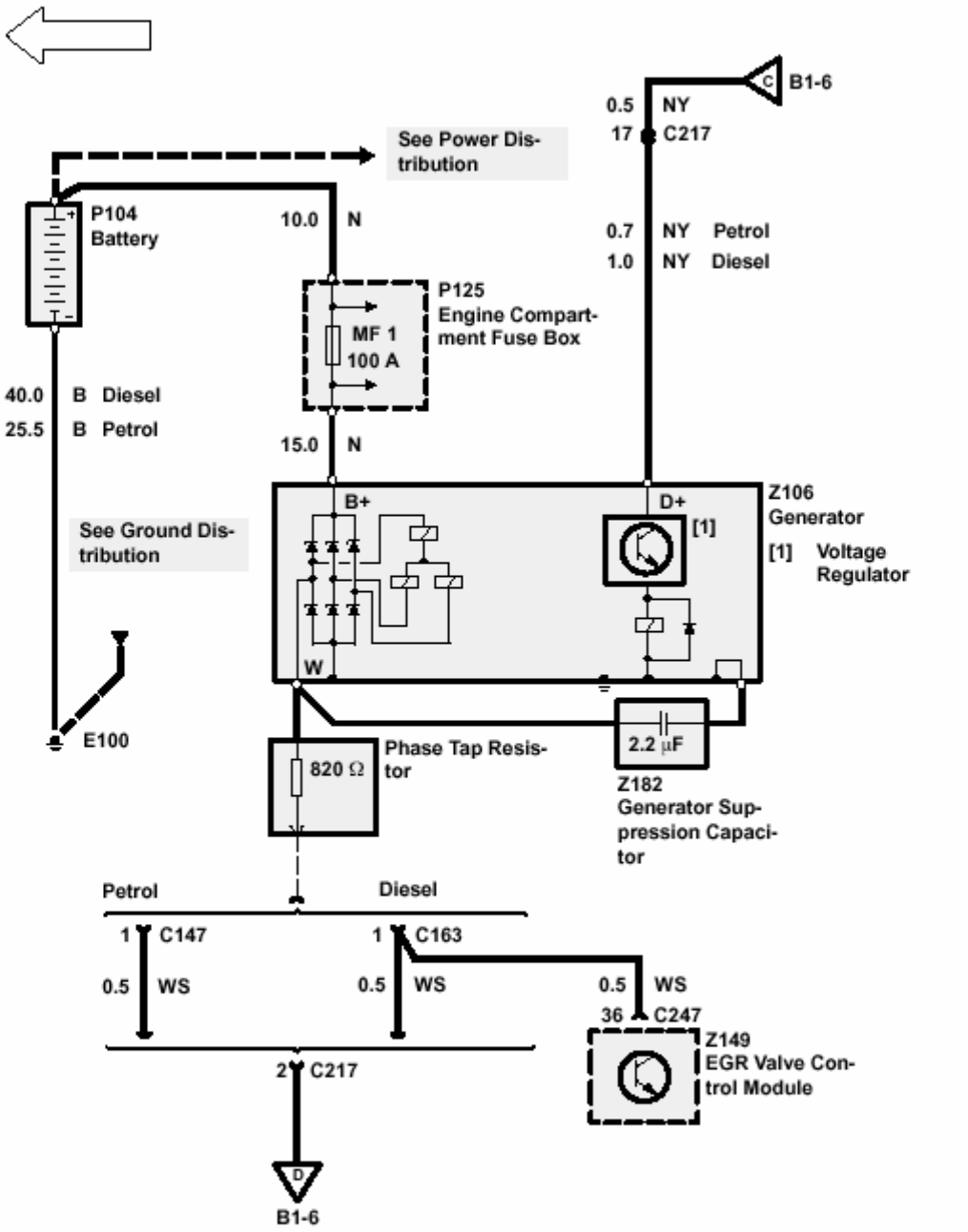



K110
Cruise Control
Lockout Relay
85
85 C2021
B1-2
A
K151
Interlock Relay 2
85
85 C2001
0.5 YB
0.5 BY
0.5 BY
Z190
Interlock Diode 2
0.5 BY
With Shift Inter-
lock
Not used
Automatic Trans-
mission
2 C218 Manual Trans-
mission
S2005
HJ2
Manual Trans-
mission
Automatic Trans-
mission
10 C105
With Theft Alarm
11 C105
Without Theft
Alarm
0.5 BO
1 C274
Z163
Theft Alarm Unit
2 C274
0.5 B
S2003
HJ4
See Ground Dis-
tribution
E200
1.5 BO
1 C274
0.5 B
2 C274
S2003
HJ4
E200
B
B1-4

B1 ETM

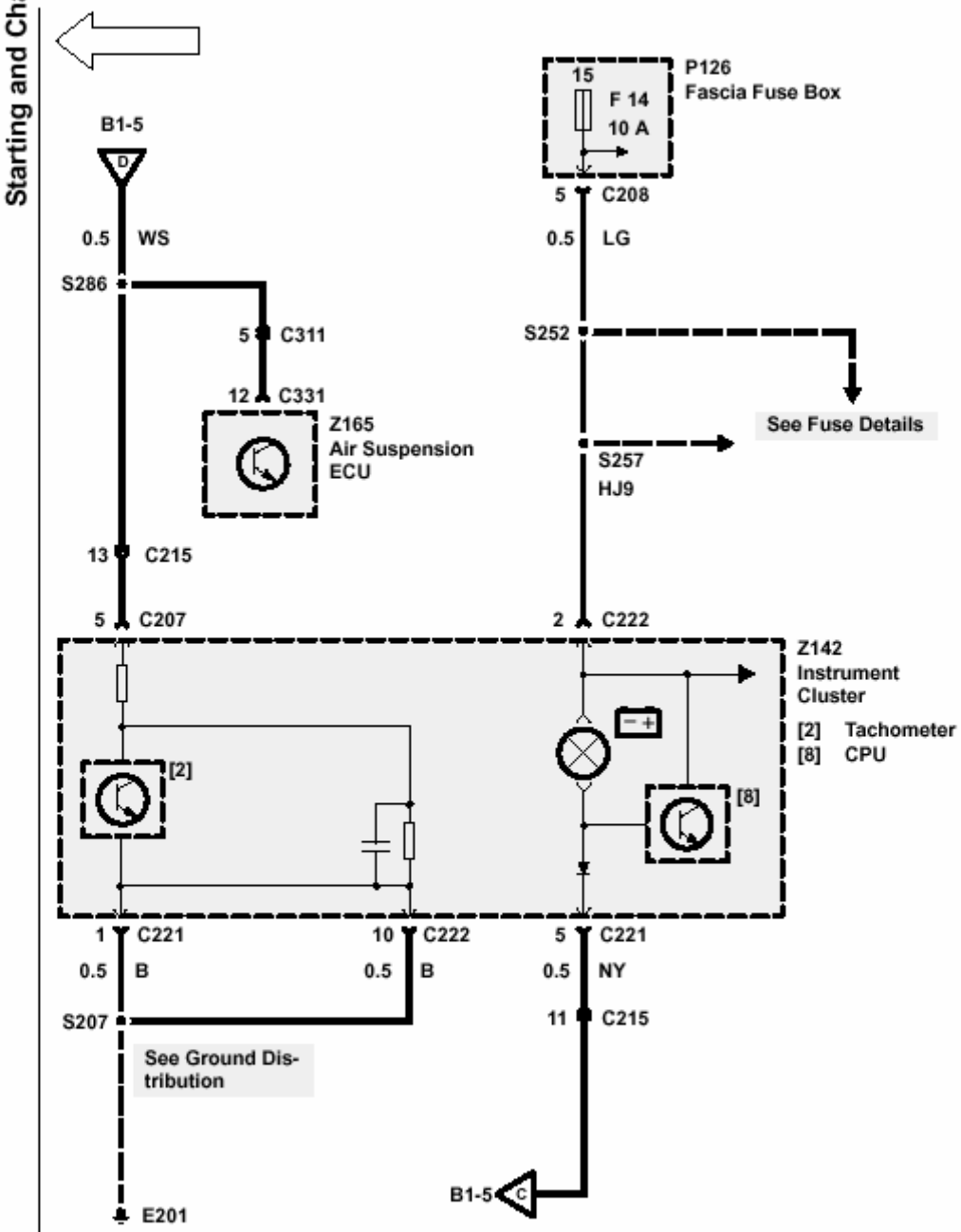
1995 RANGE ROVER




See Power Distribution
P104
Battery
10.0 N
P125
Engine Compartment Fuse Box
MF 1
100 A
40.0 B Diesel
25.5 B Petrol
15.0 N
See Ground Distribution
E100
B+
D+
[1]
Z106
Generator
[1] Voltage Regulator
W
820 Ω
Phase Tap Resistor
2.2 µF
Z182
Generator Suppression Capacitor
0.5 NY
17 C217
B1-6
0.7 NY Petrol
1.0 NY Diesel
Petrol
Diesel
1 C147
0.5 WS
1 C163
0.5 WS
0.5 WS
36 C247
Z149
EGR Valve Control Module
2 C217
B1-6

B1 ETM

1995 RANGE ROVER



TROUBLESHOOTING HINTS

1. If the Starter Solenoid (K136) does not click and the vehicle is equipped with a memory seat, check seat operation. If the seat does not operate, check the Park/Neutral Position Switch (X167) and the Theft Alarm Unit (Z163).

SYSTEM DIAGNOSIS

1. If the Starter Solenoid (K136) does not click and the engine does not crank, do Test A.
2. If the Starter Solenoid (K136) clicks but the engine does not crank or cranks slowly, do Test B.
3. If the charge warning light does not light with the engine off and the Ignition Switch (X134) in position II, do Test C.
4. If the charge warning light stays lit with the engine running, do Test D.

CIRCUIT OPERATION

With the Cruise Control Switch (X115) on, voltage from Fuse F18 is applied to the Cruise Control ECU (Z121), Cruise Control Vacuum Pump (M103), Steering Wheel Cruise Switches (X266) through the WY wire, Rotary Coupler (Z104) and PB wire. The Cruise Control ECU (Z121) is grounded at terminal 8 through the B wire to E200.

Cruise Control Vacuum Pump (M103)

With the Cruise Control Switch (X115) on, voltage is applied to the Cruise Control Vacuum Pump (M103) through the WU wire. When a cruise speed is set, the Cruise Control ECU (Z121) applies ground through the BR wire to operate the pump motor and applies ground through the BY wire to close the normally open solenoid valve in the pump. The pump applies vacuum to the actuator.

SET/ACCEL

To set a cruise speed, the Cruise Control Switch (X115) must be on and vehicle speed must exceed 28 mph (45 km/h). When the SET/ACCEL Switch is depressed under these conditions, voltage from Fuse F18 is applied to terminal 3 of the Cruise Control ECU (Z121) through the closed Cruise Control Switch (X115) and Steering Wheel Cruise Switches (X266), causing the vacuum pump to operate. When the SET/ACCEL Switch is released, voltage is removed from terminal 3, signalling the ECU to set the speed.

RES/DECEL

When the RES/DECEL Switch is depressed, voltage is applied to terminal 4 of the Cruise Control ECU (Z121). This voltage signals the ECU to disengage the system and the vehicle slows down. When the switch is depressed a second time, voltage is again applied to the ECU and the vehicle returns to the previously set speed.

Speed Input

Terminal 11 of the Cruise Control ECU (Z121) monitors the Vehicle Speed output signal from the Instrument Cluster (Z142) through the YK wire. This signal is a pulsing voltage and its frequency changes with vehicle speed.

System Disable

The Cruise Control System can be disabled in one of four ways:

1. The Cruise Control Switch (X115) is put in the 0 position, removing power from the Cruise Control ECU (Z121) and vacuum pump, and erasing the set speed memory.
2. The RES/DECEL Switch is depressed, signalling the Cruise Control ECU (Z121) to disengage the system.
3. The brake pedal is depressed and a vacuum valve in the Brake Switch Vent Valve opens (X112). This vents vacuum to the actuator valve and releases the throttle.

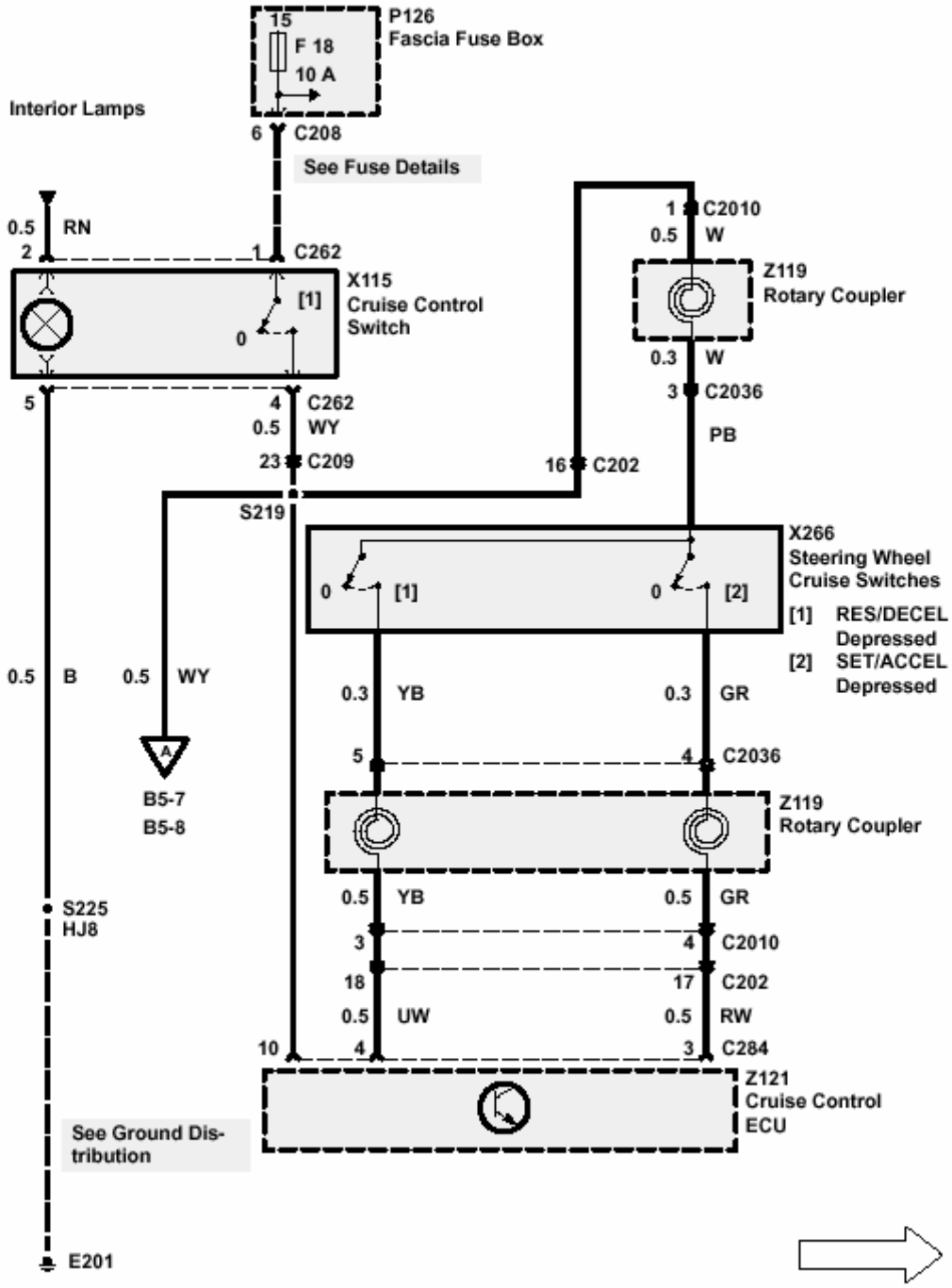
4. The Voltage applied to Cruise Control ECU (Z121) terminal 9 is interrupted, causing the Cruise Control ECU (Z121) to turn off the vacuum pump and de−energize the vacuum solenoid valve. This voltage path is interrupted when the brake pedal is depressed, the Clutch Pedal is depressed, or the vehicle is in Park or Neutral. With the brake pedal depressed, the Brake Switch Vent Valve (X112) moves to 1 and the circuit is interrupted. With the vehicle in Park or Neutral the Park/Neutral Position Switch (X167) energizes the Cruise Control Lockout Relay (K110) by grounding the relay's coil. The relay then opens its contacts, interrupting the circuit. With the clutch pedal depressed, the Clutch Switch (X200) moves to 1 and the circuit is interrupted.

Road Test

CAUTION: DO NOT ENGAGE CRUISE CONTROL WHEN VEHICLE IS BEING USED IN LOW TRANSFER GEARS

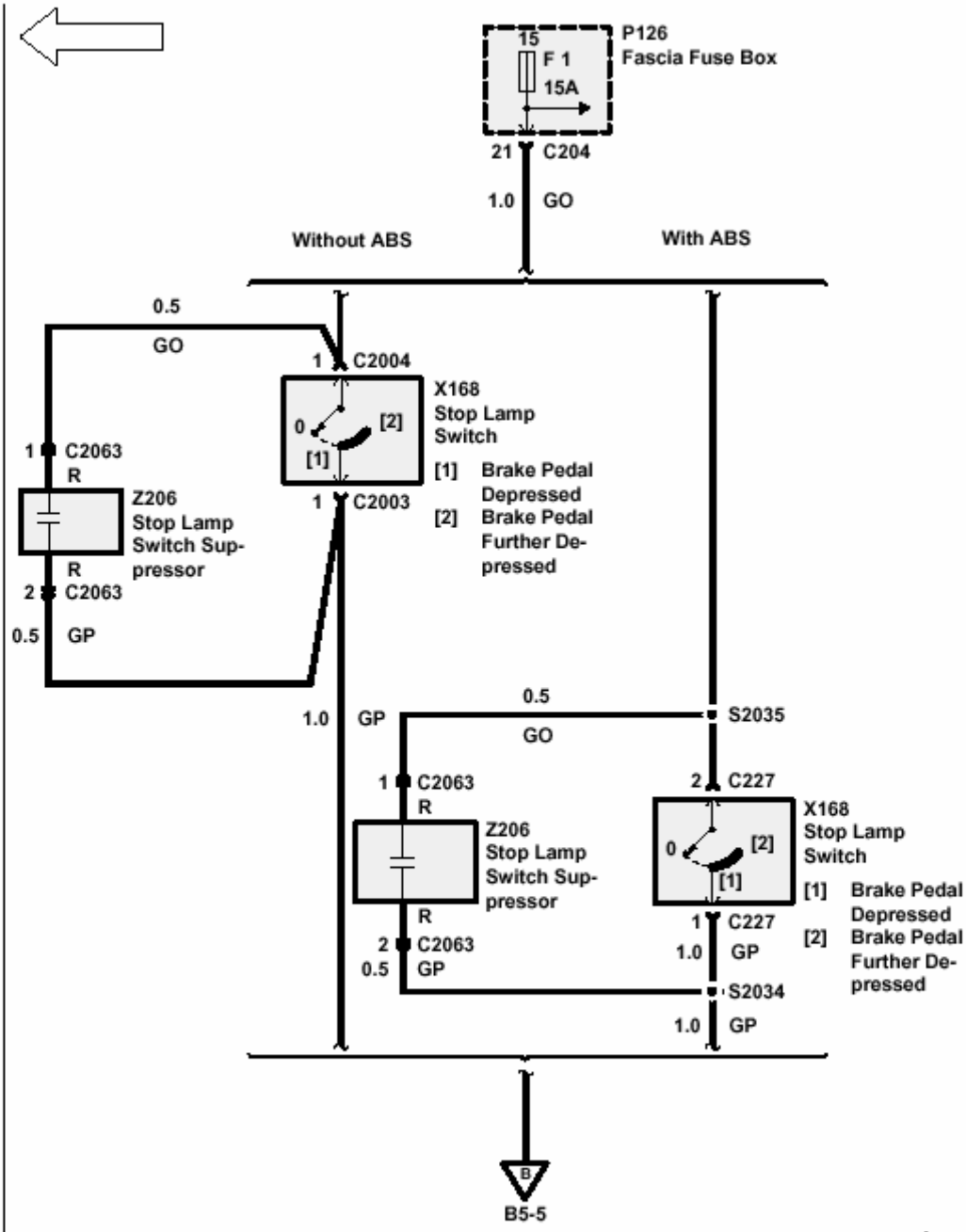
WARNING: The use of cruise control is not recommended on winding, snow covered or slippery roads, or in heavy traffic conditions where a constant speed cannot be maintained.

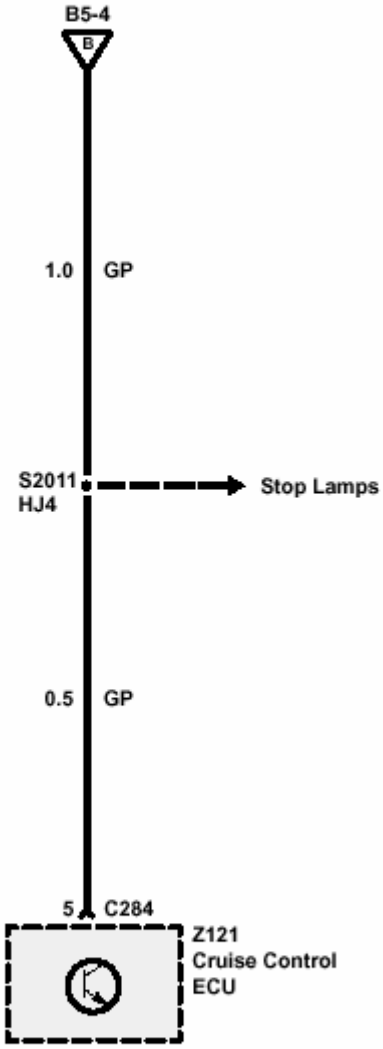
1. Start the engine and depress the Cruise Control Switch (X115) to activate the Cruise Control System. Accelerate to approximately 30 mph (50 km/h) and press the SET/ACCEL Switch. Immediately release the switch and remove foot from the accelerator pedal. The vehicle should maintain the speed at which the SET/ACCEL Switch was pressed.
2. Press the SET/ACCEL Switch and hold at that position. The vehicle should accelerate smoothly until the switch is released. The vehicle should now maintain the new speed at which the SET/ACCEL Switch was released.
3. Press the RES/DECEL Switch while the vehicle is in the cruise control mode. The cruise control should disengage. Slow to approximately 35 mph (55 km/h) and press the RES/DECEL Switch. Immediately release the switch and remove foot from the accelerator. The vehicle should smoothly accelerate to the previously set speed. Increase speed using the accelerator pedal. Releasing the pedal should return the vehicle to the previously set speed.
4. Depressing the brake pedal should immediately disengage the Cruise Control System and return the vehicle to driver's control at accelerator pedal. Press the RES/DECEL Switch and the vehicle should accelerate to the previously set speed without operation of the accelerator pedal.
5. Press the RES/DECEL Switch and allow the vehicle to decelerate to below 26 mph (42 km/h). Press the RES/DECEL Switch and the Cruise Control System should remain disengaged.
6. Press the SET/ACCEL Switch below 28 mph (45 km/h) and the Cruise Control System should remain disengaged. Accelerate the vehicle above 28 mph (45 km/h), press the RES/DECEL Switch and remove foot from the accelerator pedal. The vehicle should smoothly adjust to the previously memorized speed.
7. Pressing the Cruise Control Switch (X115) should immediately disengage the Cruise Control System and erase the previously set speed from ECU memory.


15
F 18
10 A
P126
Fascia Fuse Box
Interior Lamps
6 C208
See Fuse Details
0.5 RN
2
1 C262
X115
Cruise Control
Switch
[1]
0
5
4 C262
0.5 WY
23 C209
S219
1 C2010
0.5 W
Z119
Rotary Coupler
0.3 W
3 C2036
PB
16 C202
X266
Steering Wheel
Cruise Switches
0 [1]
0 [2]
[1] RES/DECEL
Depressed
[2] SET/ACCEL
Depressed
0.5 B
0.5 WY
A
B5-7
B5-8
0.3 YB
0.3 GR
5
4 C2036
Z119
Rotary Coupler
0.5 YB
0.5 GR
3
4 C2010
18
17 C202
0.5 UW
0.5 RW
10
4
3 C284
Z121
Cruise Control
ECU
S225
HJ8
See Ground Dis-
tribution
E201

B5 ETM

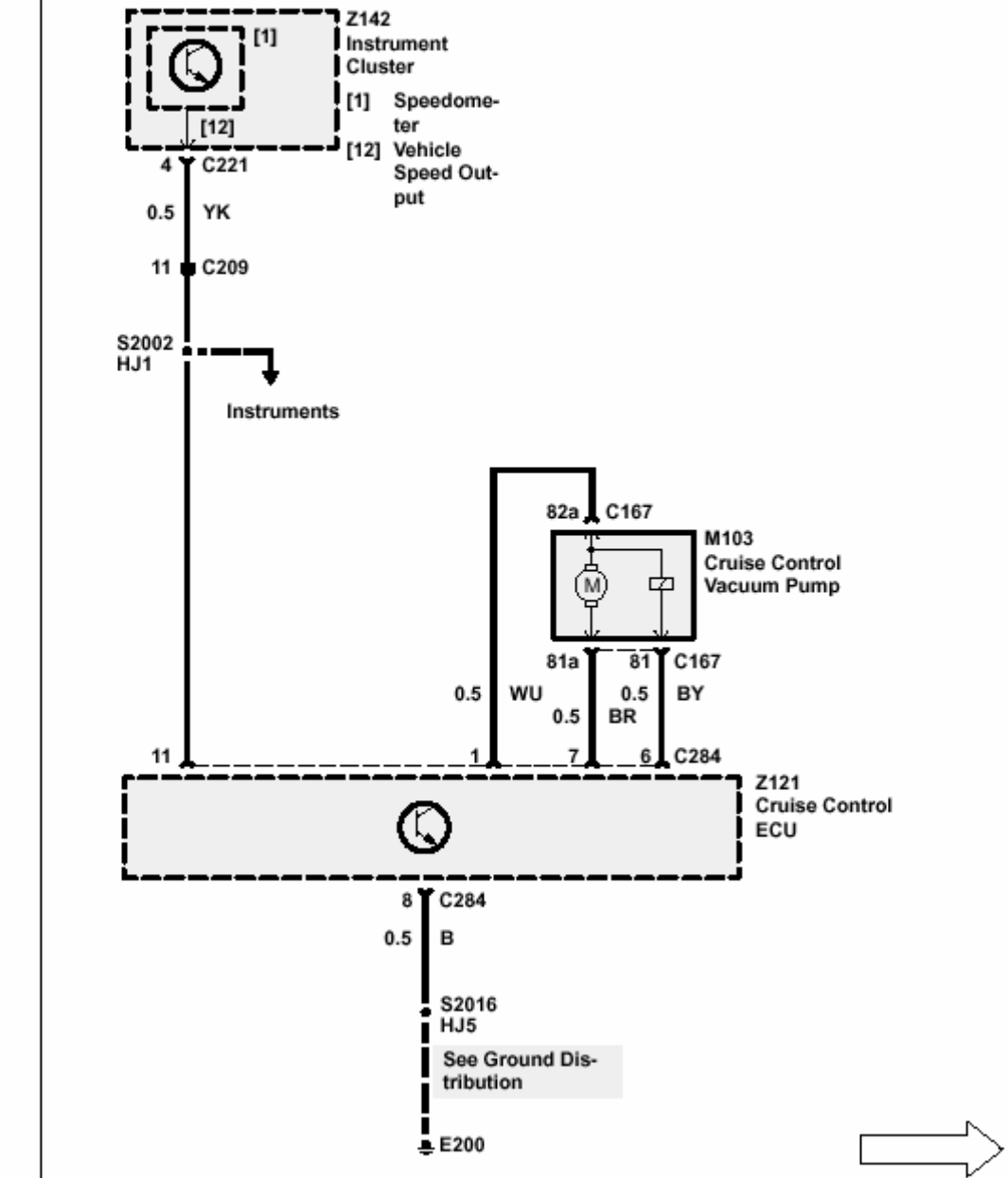
1995 RANGE ROVER

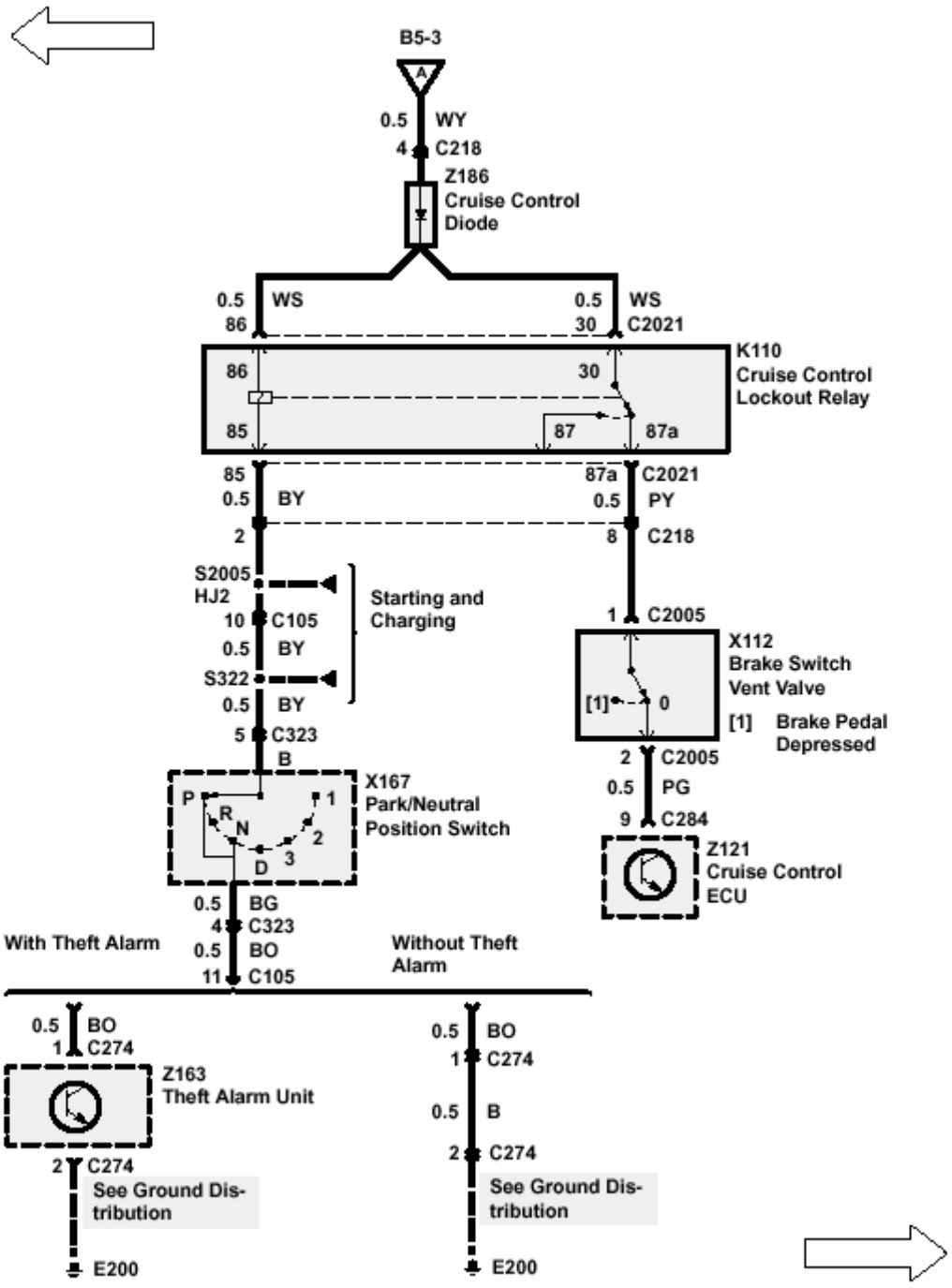



B5-4
B
1.0
GP
S2011
HJ4
Stop Lamps
0.5
GP
5
C284
Z121
Cruise Control
ECU

B5 ETM

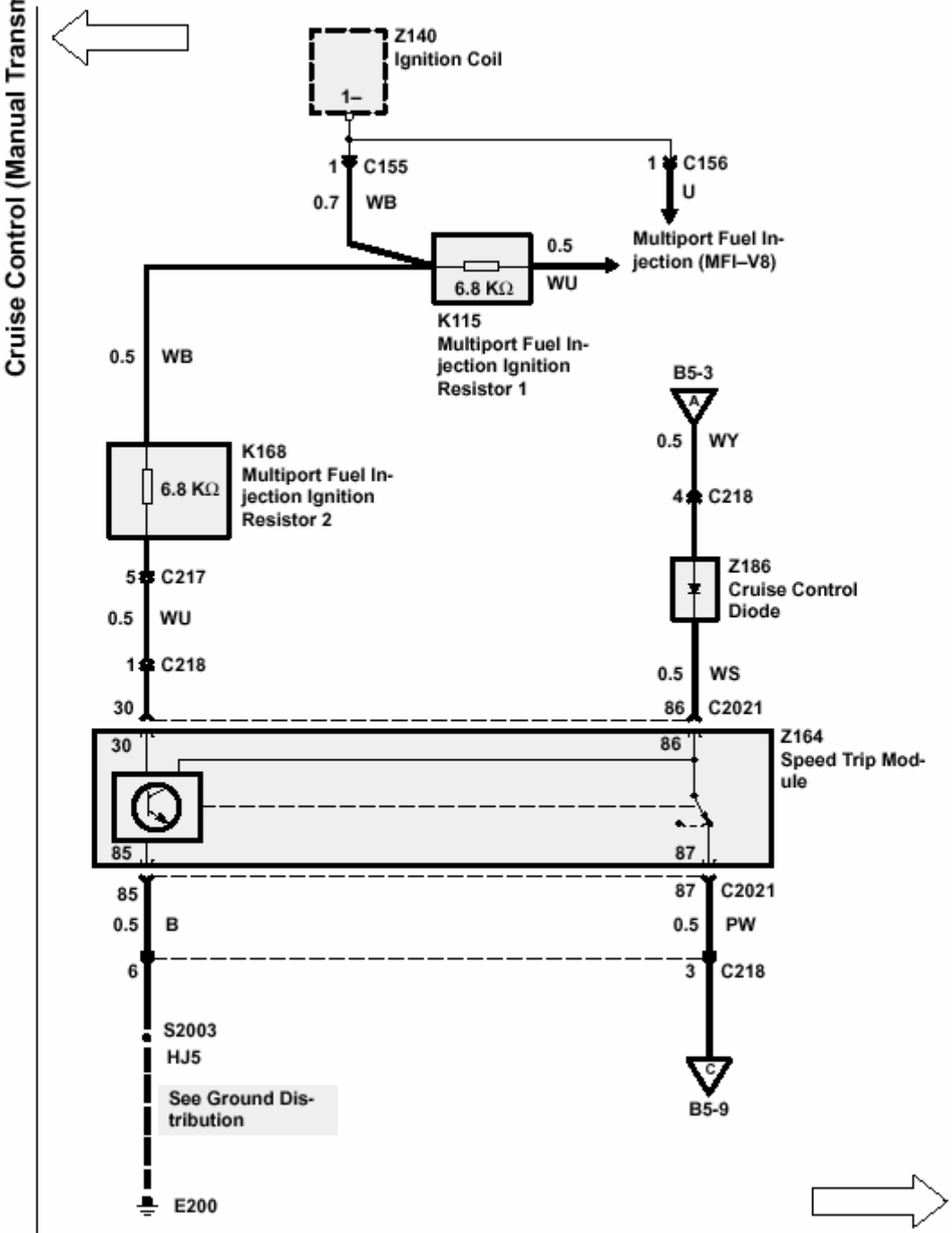
1995 RANGE ROVER

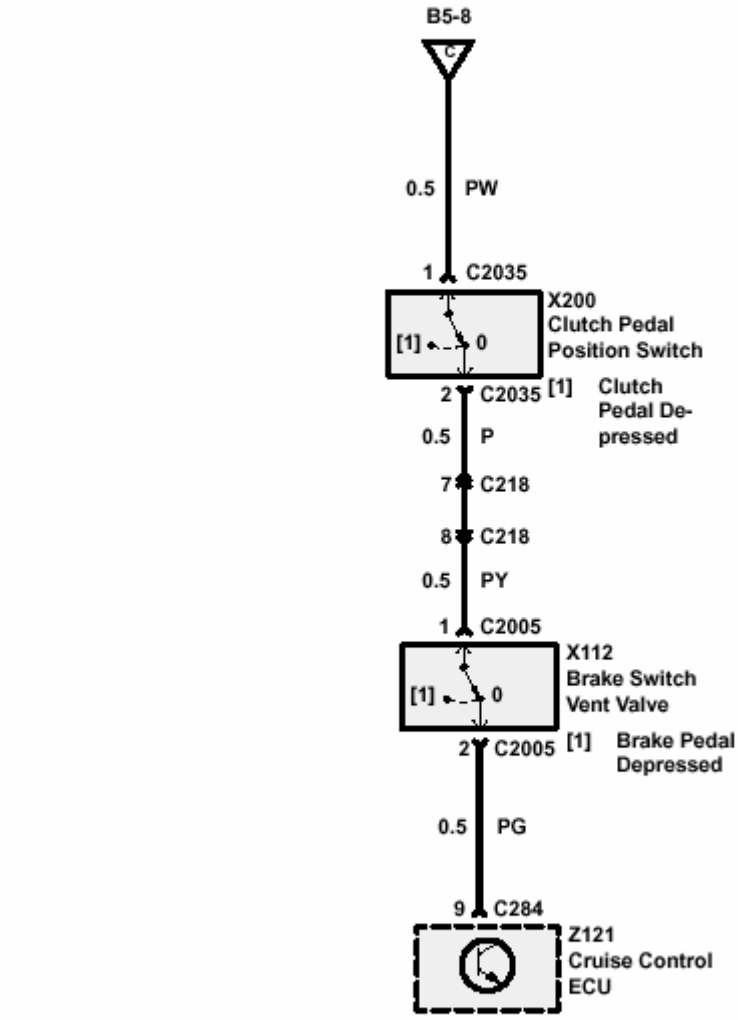



B5-3
A
0.5 WY
4 C218
Z186
Cruise Control
Diode
0.5 WS
86
0.5 WS
30 C2021
K110
Cruise Control
Lockout Relay
86
30
85
87
87a
85
0.5 BY
87a C2021
0.5 PY
2
8 C218
S2005
HJ2
10 C105
0.5 BY
S322
0.5 BY
5 C323
B
Starting and
Charging
1 C2005
X112
Brake Switch
Vent Valve
[1]
0
[1] Brake Pedal
Depressed
2 C2005
0.5 PG
9 C284
Z121
Cruise Control
ECU
X167
Park/Neutral
Position Switch
P
R
N
D
1
2
3
0.5 BG
4 C323
0.5 BO
11 C105
With Theft Alarm
Without Theft
Alarm
0.5 BO
1 C274
Z163
Theft Alarm Unit
2 C274
See Ground Dis-
tribution
E200
0.5 BO
1 C274
0.5 B
2 C274
See Ground Dis-
tribution
E200

B5 ETM

1995 RANGE ROVER




B5-8
0.5 PW
1 C2035
X200
Clutch Pedal
Position Switch
[1]
0
2 C2035 [1] Clutch Pedal De-pressed
0.5 P
7 C218
8 C218
0.5 PY
1 C2005
X112
Brake Switch
Vent Valve
[1]
0
2 C2005 [1] Brake Pedal Depressed
0.5 PG
9 C284
Z121
Cruise Control
ECU

CIRCUIT OPERATION

Selector Interlock

When the gear selector is in the park position, the solenoid inside the Transmission Range Selector Switch (Z110) is de–energized and prevents the selector from being moved into another gear. To free the selector, the Ignition Switch (X134) must be in position II and the brake pedal must be depressed. When this occurs, voltage from Fuse F1 is applied to the Transmission Range Selector through the closed Stop Lamp Switch (X168). The solenoid inside the Transmission Range Selector Switch is grounded at E200 through the selector switch, the KS wire and the B wire. The solenoid then energizes, freeing the selector.

Ignition Key Interlock

On vehicles equipped with the interlock safety feature the vehicle must be in park and the transfer case in high or low gear before the key can be removed from the ignition. If the gear selector or transfer gear are out of gear, the key must be cycled before removal.

If the vehicle is not in park, voltage from Fuse F12 is applied to the Key Barrel Switch (X230) through the closed contacts of the Transmission Range Selector Switch (Z110). When the Ignition Switch is placed in the 0 position, the Key Barrel Switch (X230) closes to energize the solenoid and prevent key removal.

If the key is in the ignition and the transfer box is in the neutral position, Interlock Relay 1 (K153) is de–energized since the relay coil is not grounded by the Transfer Box Position Switch (X175). When the relay is de–energized, voltage is applied to the Key Barrel Switch (X230) through the relay's switch contacts and the Key–In Switch (X229) causing the solenoid to energize and prevent key removal.

If the transfer box is in the "H" or "L" position, the Interlock Relay 1 (K153) is energized, since the relay coil is grounded by the Transfer Box Position Switch (X175). When the relay is energized, voltage to the Key Barrel Switch (X230) is interrupted. The Ignition Key Lock Solenoid (K191) is then disabled, allowing removal of the key.

If the Transfer Box is switched to "N" position, the Transfer Box Warning Relay (K186) is de–energized, providing ground to the Multifunction Unit (Z148). An internal sounder provides a warning chime to the driver.

Transfer Box Interlock

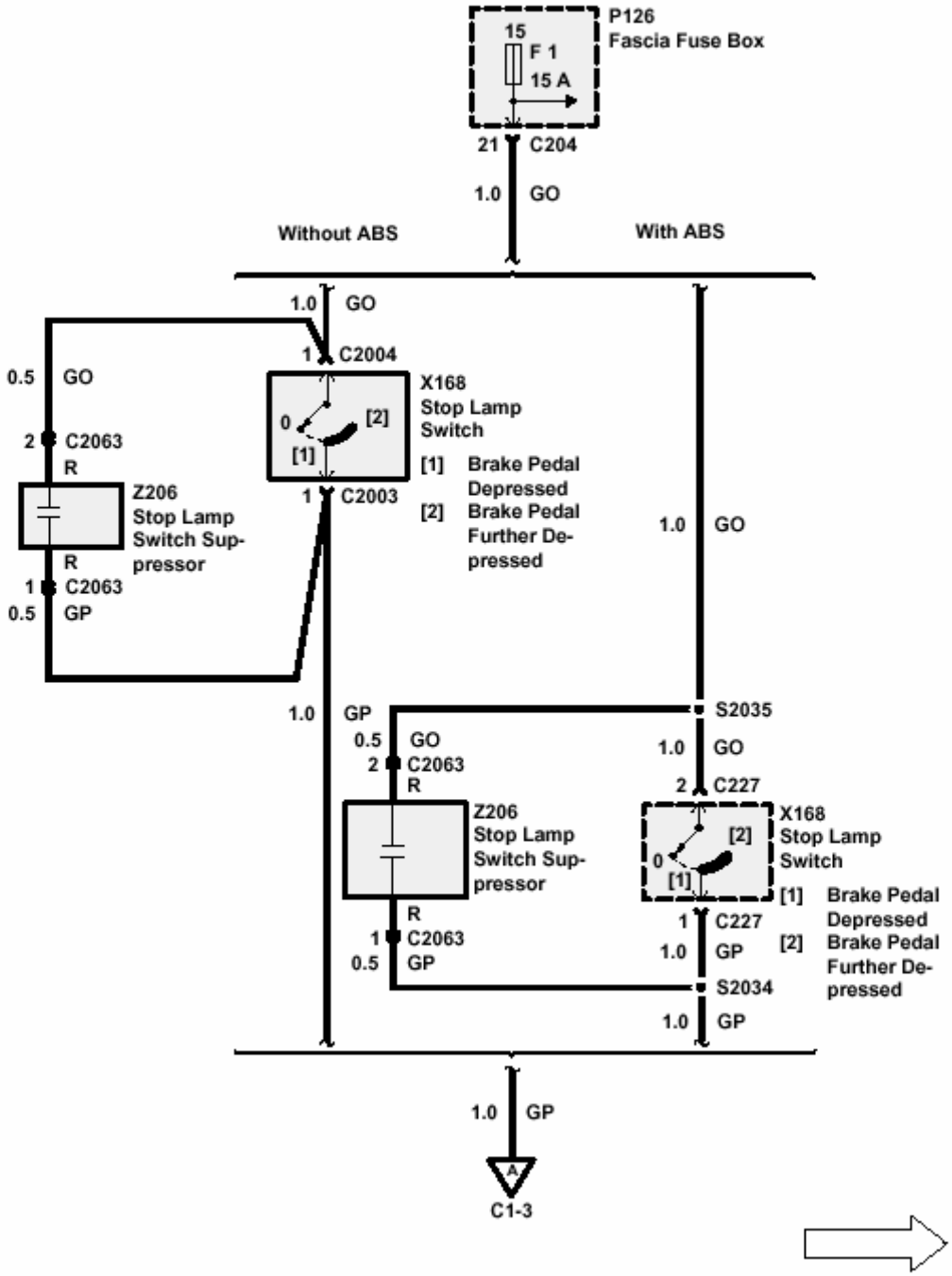
The Transfer Box Interlock Safety feature is designed to prevent the transfer case shifter from being shifted out of "H" or "L" unless the vehicle's gear selector is in the neutral position.

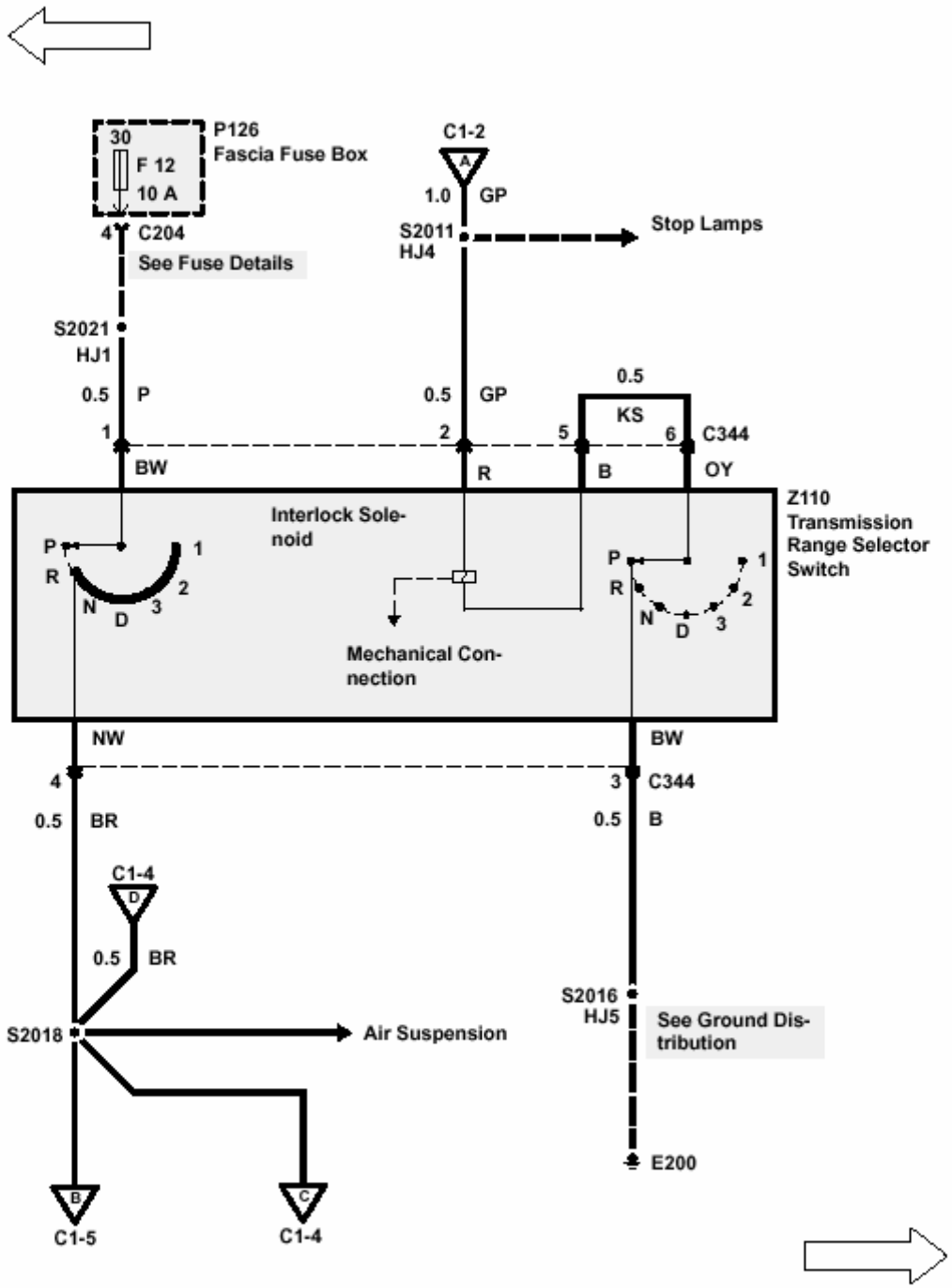
When the gear selector is placed in the neutral position, voltage is applied to the Interlock Relay 2's coil through the Transmission Range Selector Switch (Z110). The relay's coil is grounded through the Park/Neutral Position Switch (X167).

Interlock Relay 2 now energizes and applies voltage from Fuse F13 to the Transfer Box Solenoid (K154). When the Transfer Box Solenoid (K154) is energized the transfer box shifter can be operated.

C1 ETM

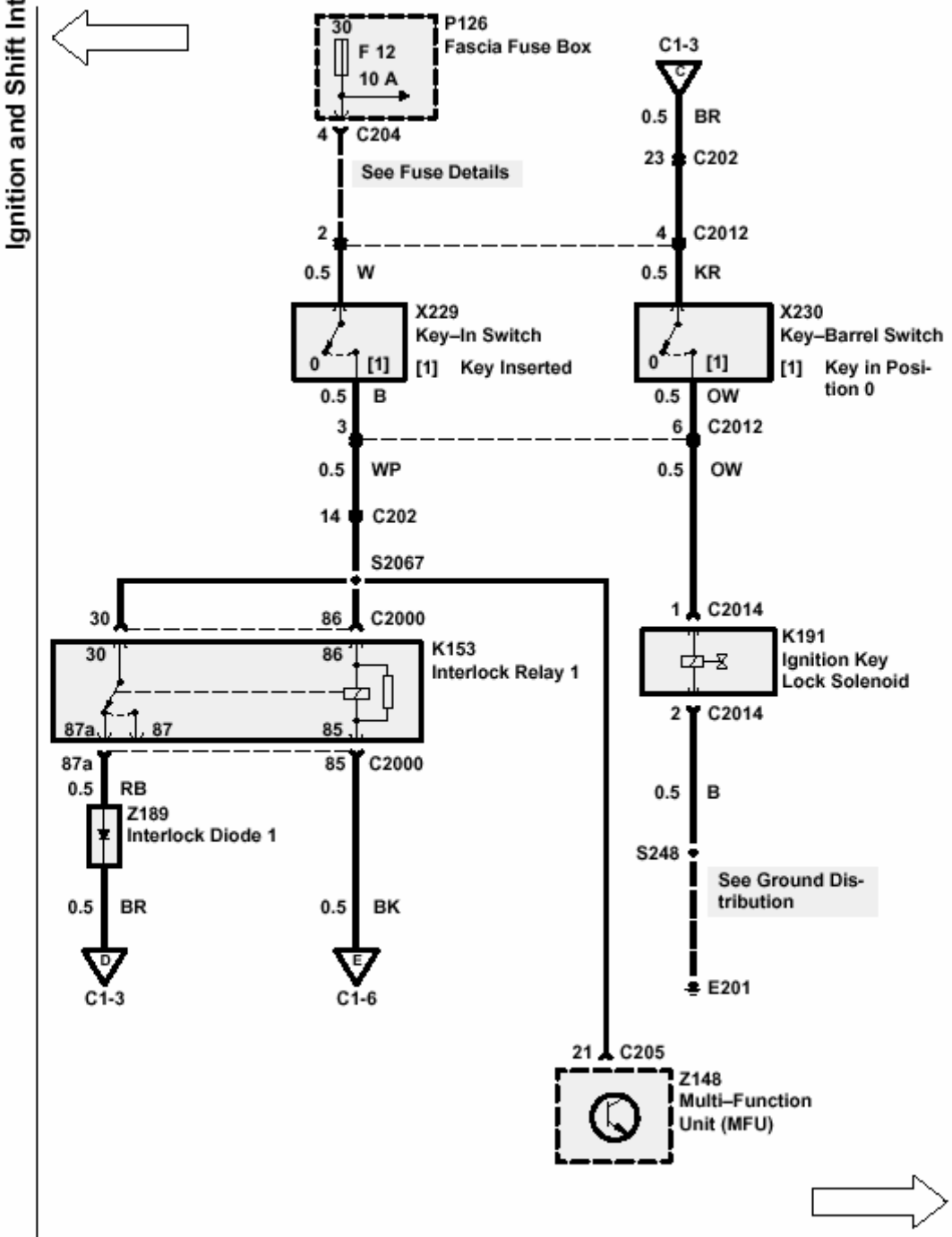
1995 RANGE ROVER

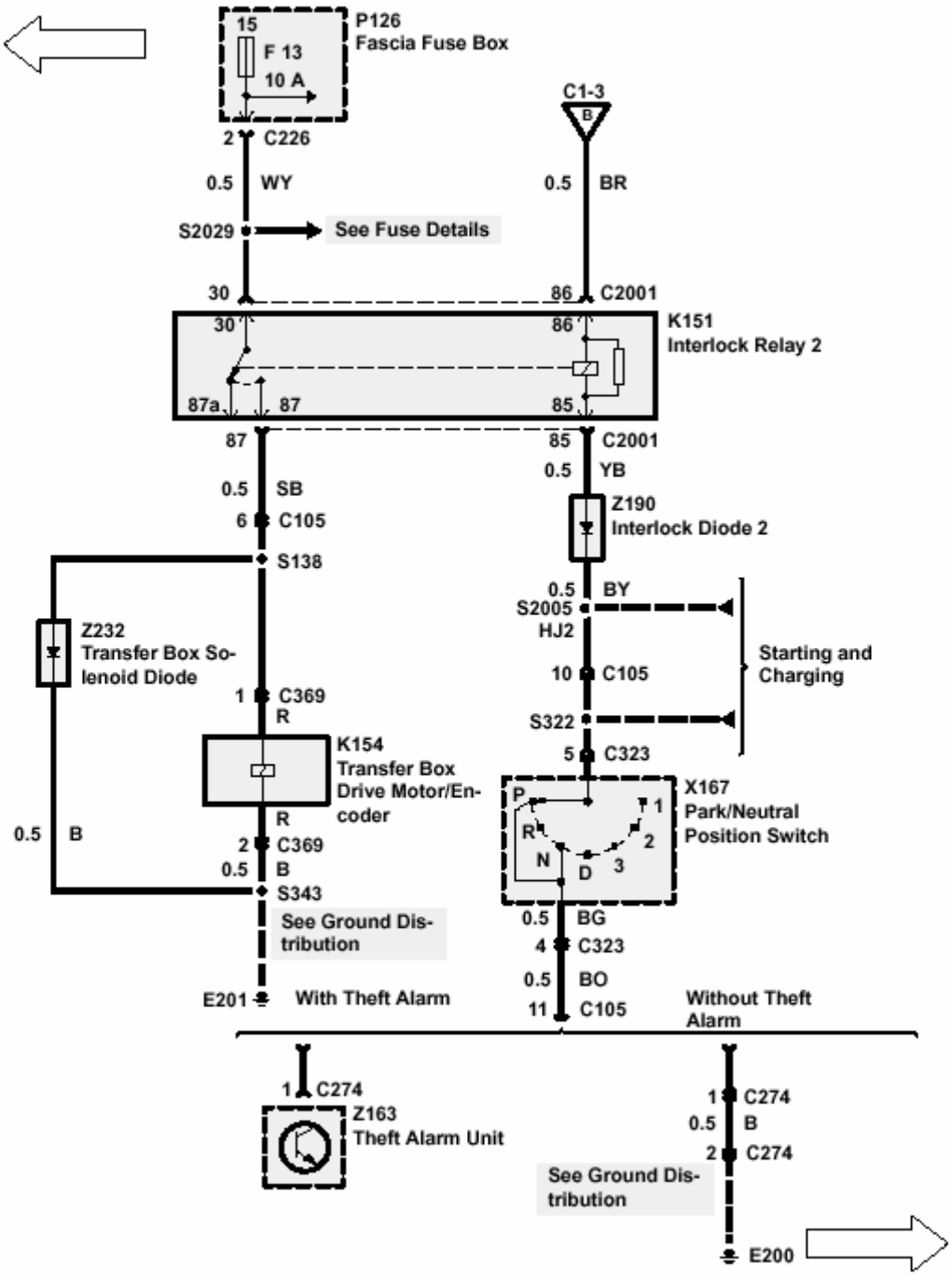



30
F 12
10 A
P126
Fascia Fuse Box
4
C204
See Fuse Details
S2021
HJ1
0.5
P
1
BW
C1-2
A
1.0
GP
S2011
HJ4
Stop Lamps
0.5
GP
2
R
0.5
KS
5
B
6
C344
OY
Z110
Transmission
Range Selector
Switch
Interlock Sole-
noid
P
R
N
D
1
2
3
Mechanical Con-
nection
NW
4
0.5
BR
BW
3
C344
0.5
B
C1-4
D
0.5
BR
S2018
Air Suspension
S2016
HJ5
See Ground Dis-
tribution
E200
B
C1-5
C
C1-4

C1 ETM

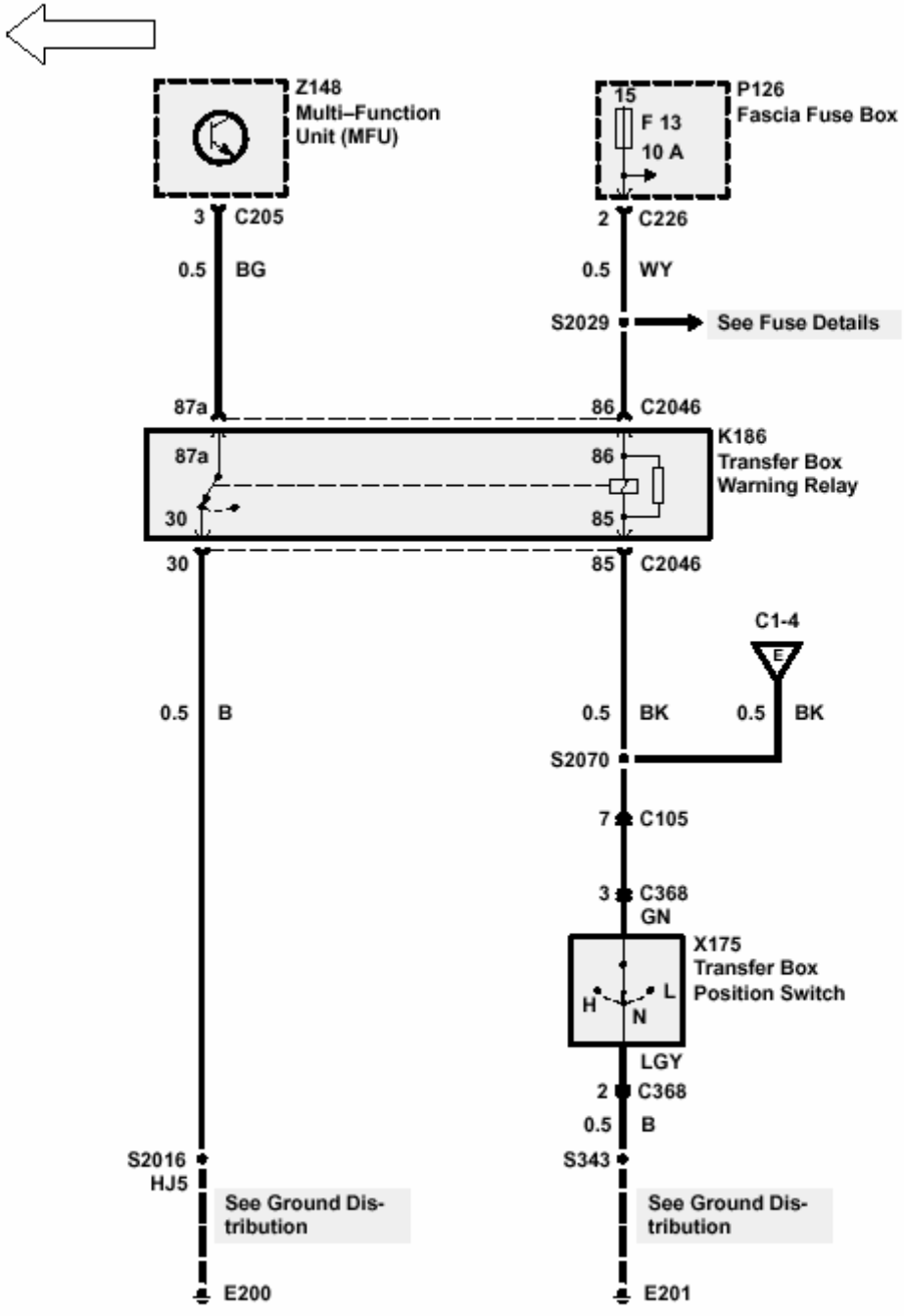
1995 RANGE ROVER

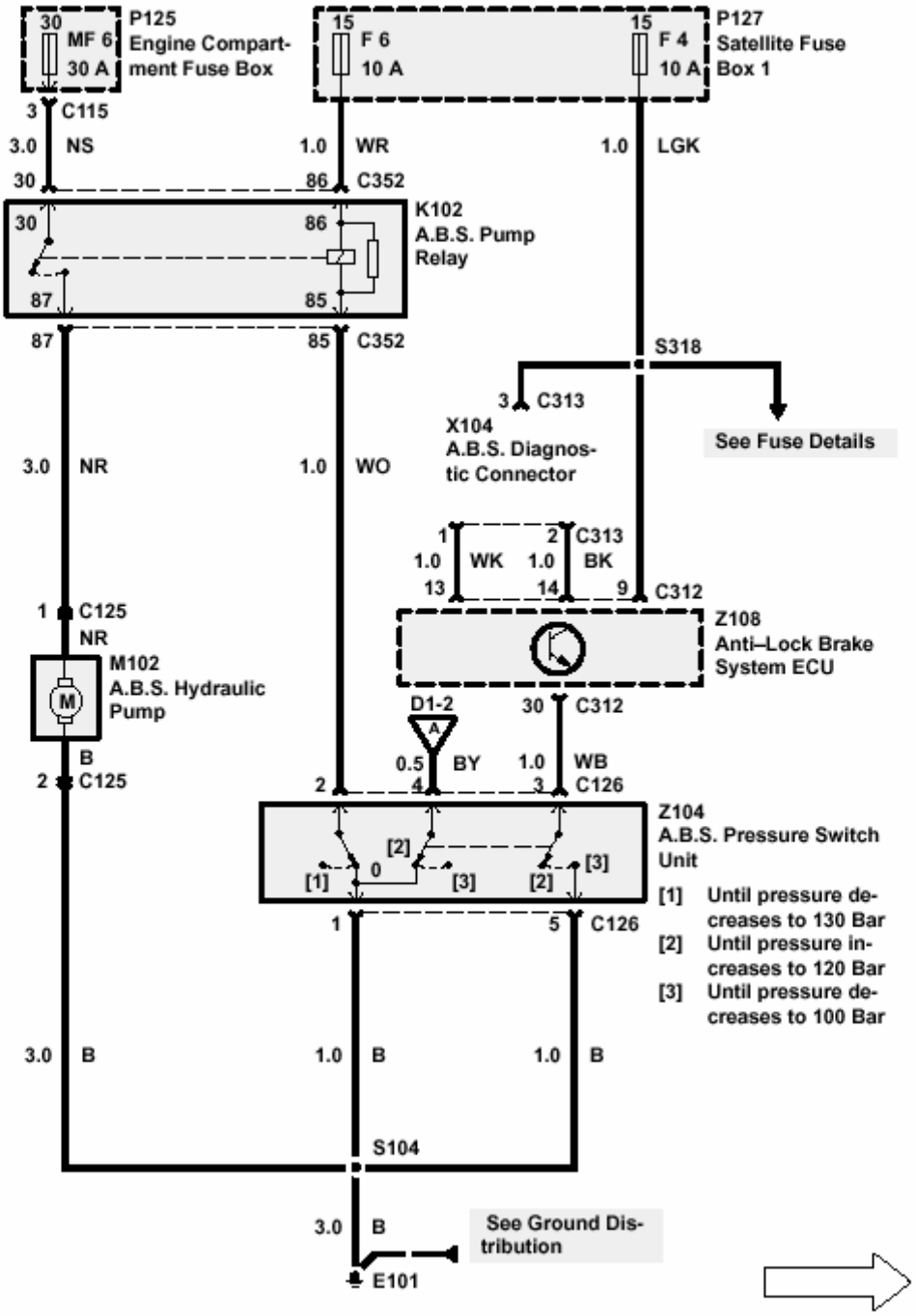



15
F 13
10 A
P126
Fascia Fuse Box
C1-3
B
2
C226
0.5
WY
0.5
BR
S2029
See Fuse Details
30
86
C2001
30
86
K151
Interlock Relay 2
87a
87
85
87
85
C2001
0.5
SB
0.5
YB
6
C105
Z190
Interlock Diode 2
S138
0.5
BY
S2005
HJ2
Z232
Transfer Box Solenoid Diode
10
C105
Starting and Charging
1
C369
R
S322
5
C323
K154
Transfer Box Drive Motor/Encoder
X167
Park/Neutral Position Switch
P
R
N
D
1
2
3
R
0.5
B
2
C369
0.5
B
S343
See Ground Distribution
0.5
BG
4
C323
0.5
BO
11
C105
E201
With Theft Alarm
Without Theft Alarm
1
C274
Z163
Theft Alarm Unit
1
C274
0.5
B
2
C274
See Ground Distribution
E200

C1 ETM

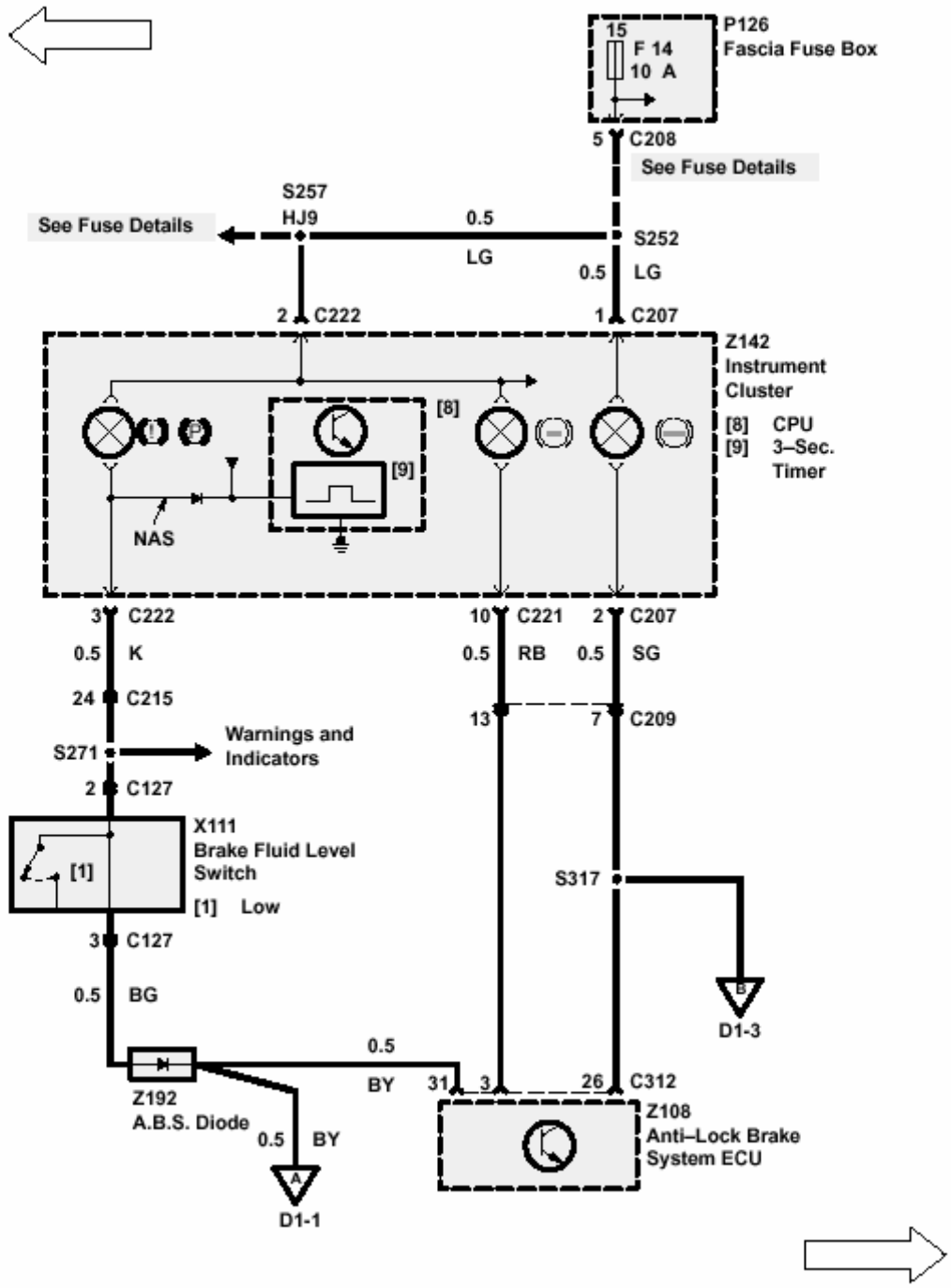
1995 RANGE ROVER

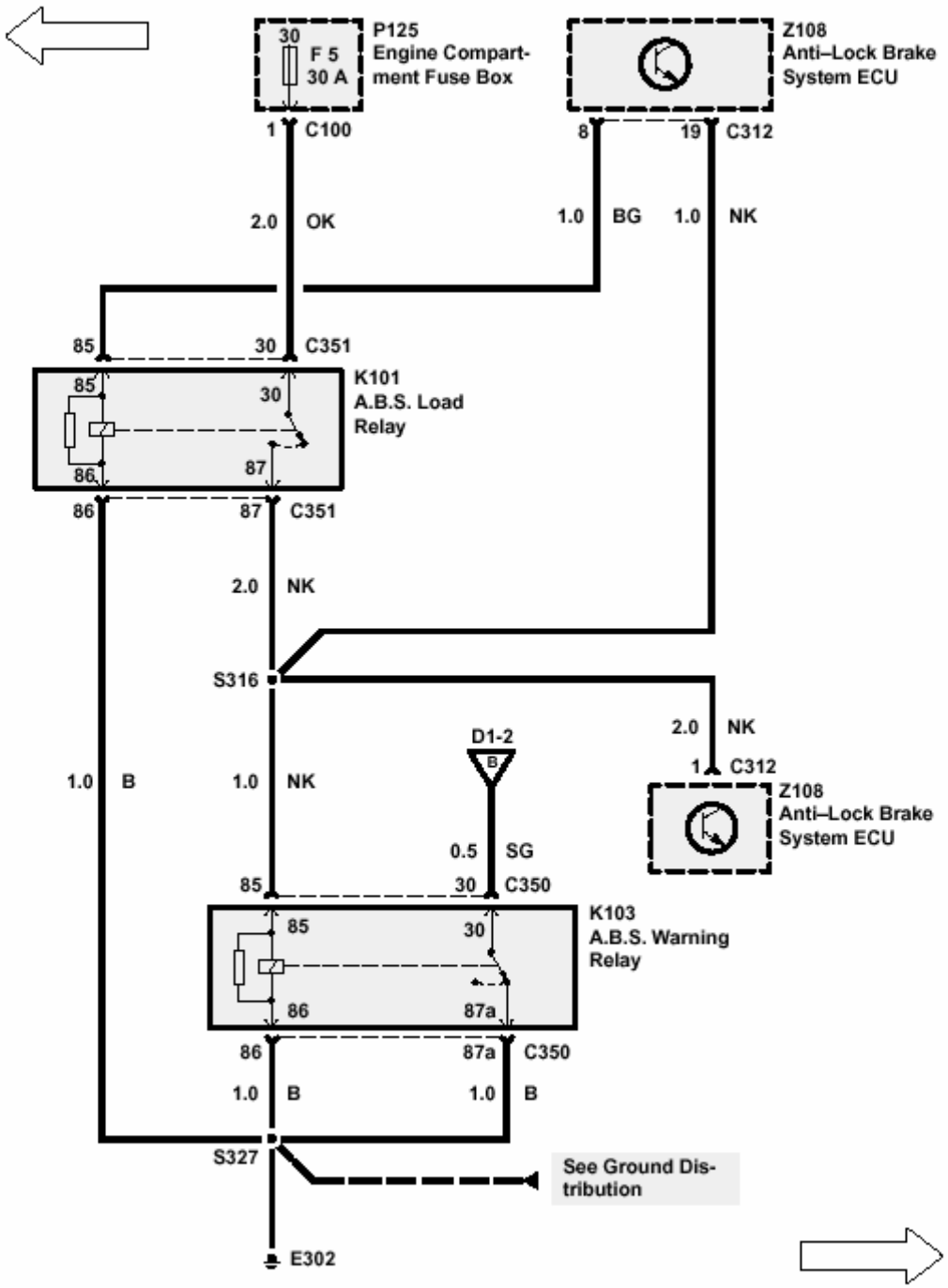



30
MF 6
30 A
P125
Engine Compartment Fuse Box
15
F 6
10 A
15
F 4
10 A
P127
Satellite Fuse Box 1
3
C115
3.0
NS
1.0
WR
1.0
LGK
30
86
C352
K102
A.B.S. Pump Relay
87
85
S318
3
C313
X104
A.B.S. Diagnostic Connector
See Fuse Details
3.0
NR
1.0
WO
1
2
C313
1.0
WK
1.0
BK
13
14
9
C312
1
C125
NR
Z108
Anti–Lock Brake System ECU
M102
A.B.S. Hydraulic Pump
D1-2
30
C312
0.5
BY
1.0
WB
B
2
C125
2
4
3
C126
Z104
A.B.S. Pressure Switch Unit
[1]
[2]
[3]
0
1
5
C126
[1] Until pressure decreases to 130 Bar
[2] Until pressure increases to 120 Bar
[3] Until pressure decreases to 100 Bar
3.0
B
1.0
B
1.0
B
S104
3.0
B
See Ground Distribution
E101

D1 ETM

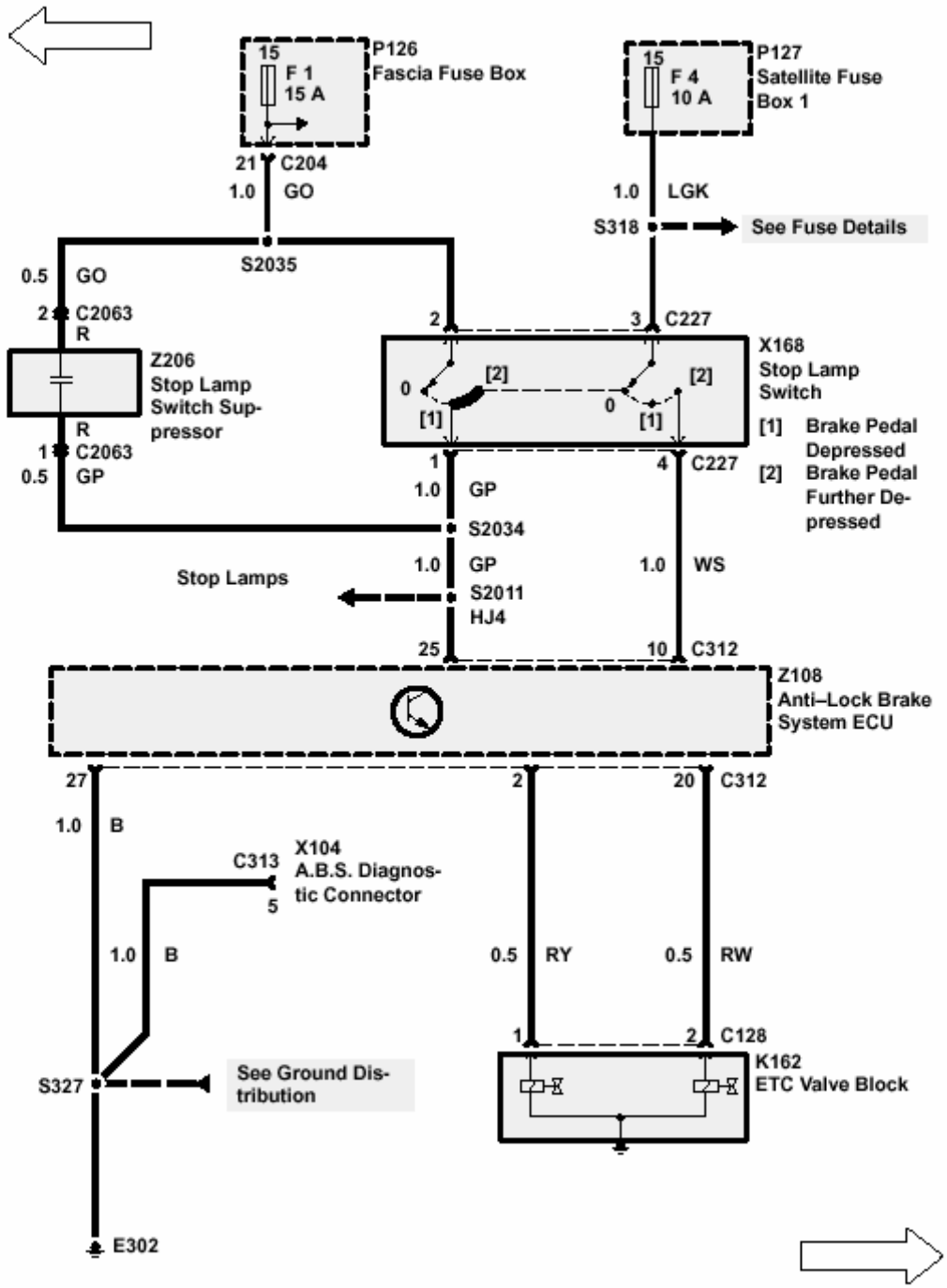
1995 RANGE ROVER

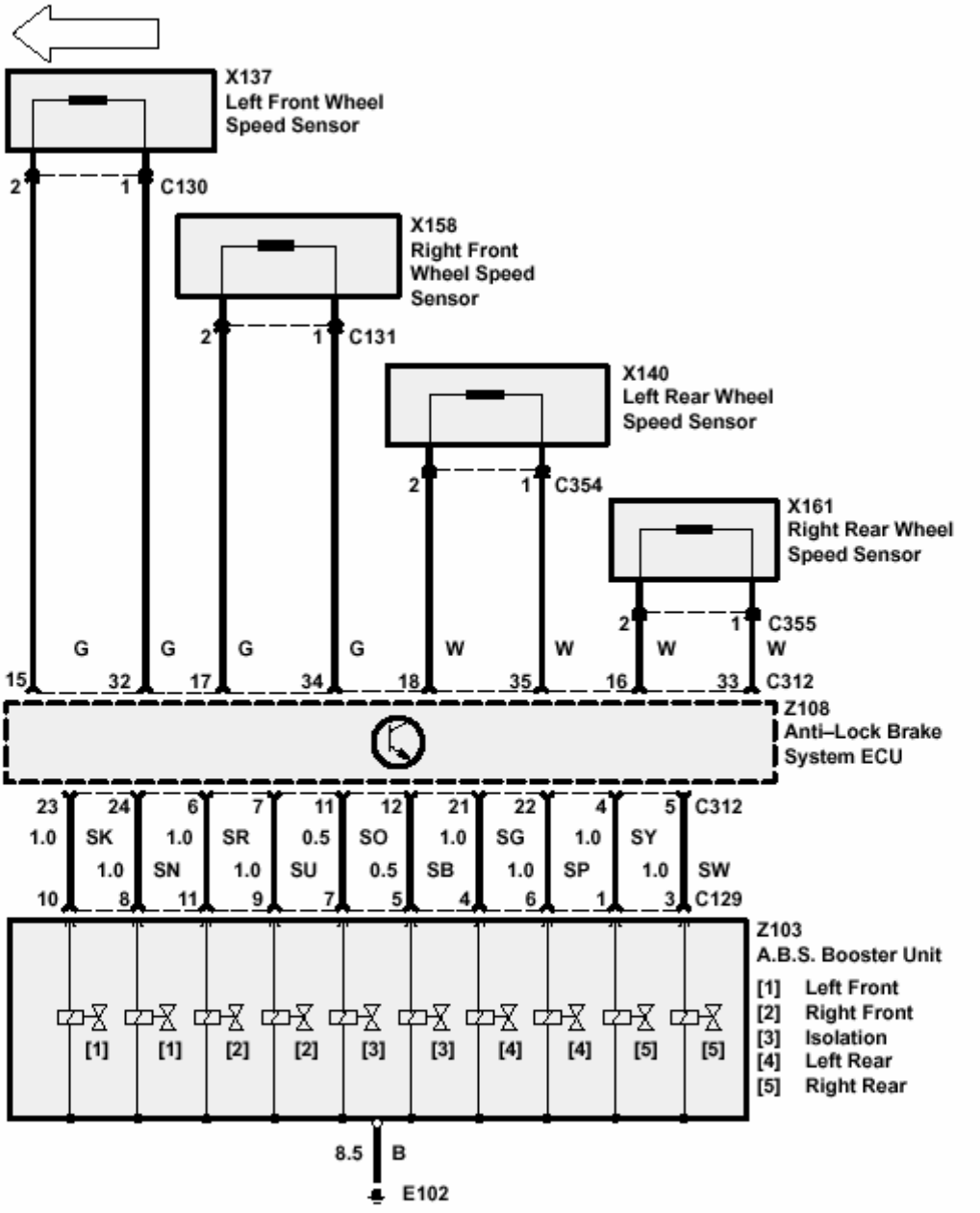



P125
Engine Compartment Fuse Box
30
F 5
30 A
1
C100
Z108
Anti–Lock Brake System ECU
8
19
C312
2.0
OK
1.0
BG
1.0
NK
85
30
C351
K101
A.B.S. Load Relay
85
30
86
87
86
87
C351
2.0
NK
S316
2.0
NK
1
C312
Z108
Anti–Lock Brake System ECU
D1-2
B
1.0
B
1.0
NK
0.5
SG
85
30
C350
K103
A.B.S. Warning Relay
85
30
86
87a
86
87a
C350
1.0
B
1.0
B
S327
See Ground Distribution
E302

D1 ETM

1995 RANGE ROVER




X137
Left Front Wheel Speed Sensor
2
1
C130
X158
Right Front Wheel Speed Sensor
2
1
C131
X140
Left Rear Wheel Speed Sensor
2
1
C354
X161
Right Rear Wheel Speed Sensor
2
1
C355
G
G
G
G
W
W
W
W
15
32
17
34
18
35
16
33
C312
Z108
Anti–Lock Brake System ECU
23
24
6
7
11
12
21
22
4
5
C312
1.0
SK
1.0
SR
0.5
SO
1.0
SG
1.0
SY
1.0
SN
1.0
SU
0.5
SB
1.0
SP
1.0
SW
10
8
11
9
7
5
4
6
1
3
C129
Z103
A.B.S. Booster Unit
[1] Left Front
[2] Right Front
[3] Isolation
[4] Left Rear
[5] Right Rear
[1]
[1]
[2]
[2]
[3]
[3]
[4]
[4]
[5]
[5]
8.5
B
E102

CIRCUIT OPERATION

Engine Coolant Temperature Gauge

The Engine Coolant Temperature Gauge Sensor (X114) has approximately 200 ohms resistance when the coolant temperature is low. As coolant temperature increases, the resistance of the sensor decreases. This varying resistance causes the current through the sensor to change and the gauge to register the temperature. When the coolant is hot, the resistance of the sensor is approximately 10 ohms.

Fuel Gauge

When the fuel tank level is low, the resistance of the fuel gauge sender is approximately 220 ohms. As the fuel level increases, the resistance of the sender decreases, causing the gauge to register the change. When the fuel tank is full, the resistance of the sender is approximately 10 ohms. When the fuel gauge sender's resistance falls below approximately 25 ohms (6 liters/1.5 US gallons), the fuel warning light will illuminate to warn the driver.

Speedometer

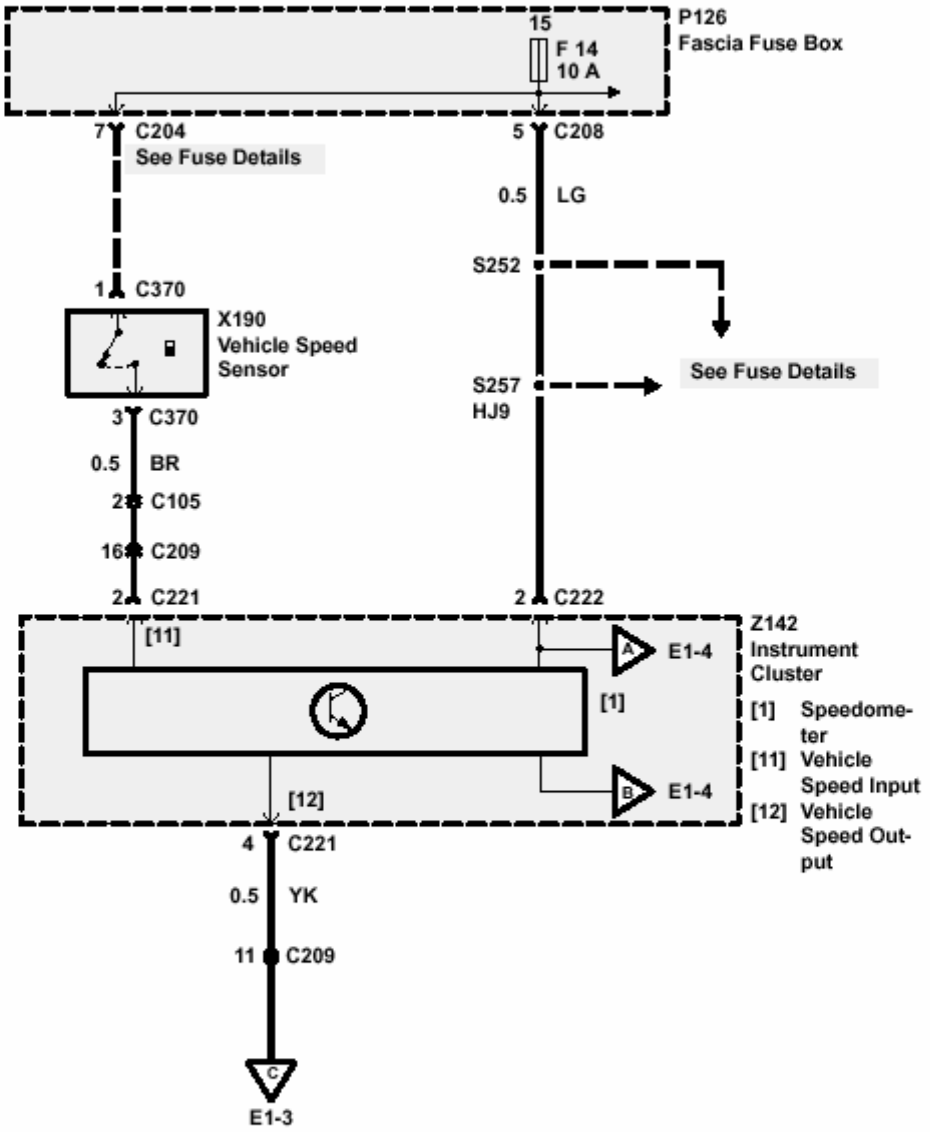
The Vehicle Speed Sensor (X190) sends a signal to the speedometer in the form of voltage pulses. The pulses are filtered by a Vehicle Speed Sensor Buffer inside the speedometer. The voltage alternates between battery voltage and 0 volts 6 times per wheel revolution. The speed sensor signal is also sent to the Cruise Control ECU (Z121), Engine Control Module (Z132), Memory Seat ECU (Z146), Air Suspension ECU (Z165), the Service Reminder Unit (NAS) (Z126), and the Multifunction Unit (MFU) (Z148) (Persian Gulf Countries).

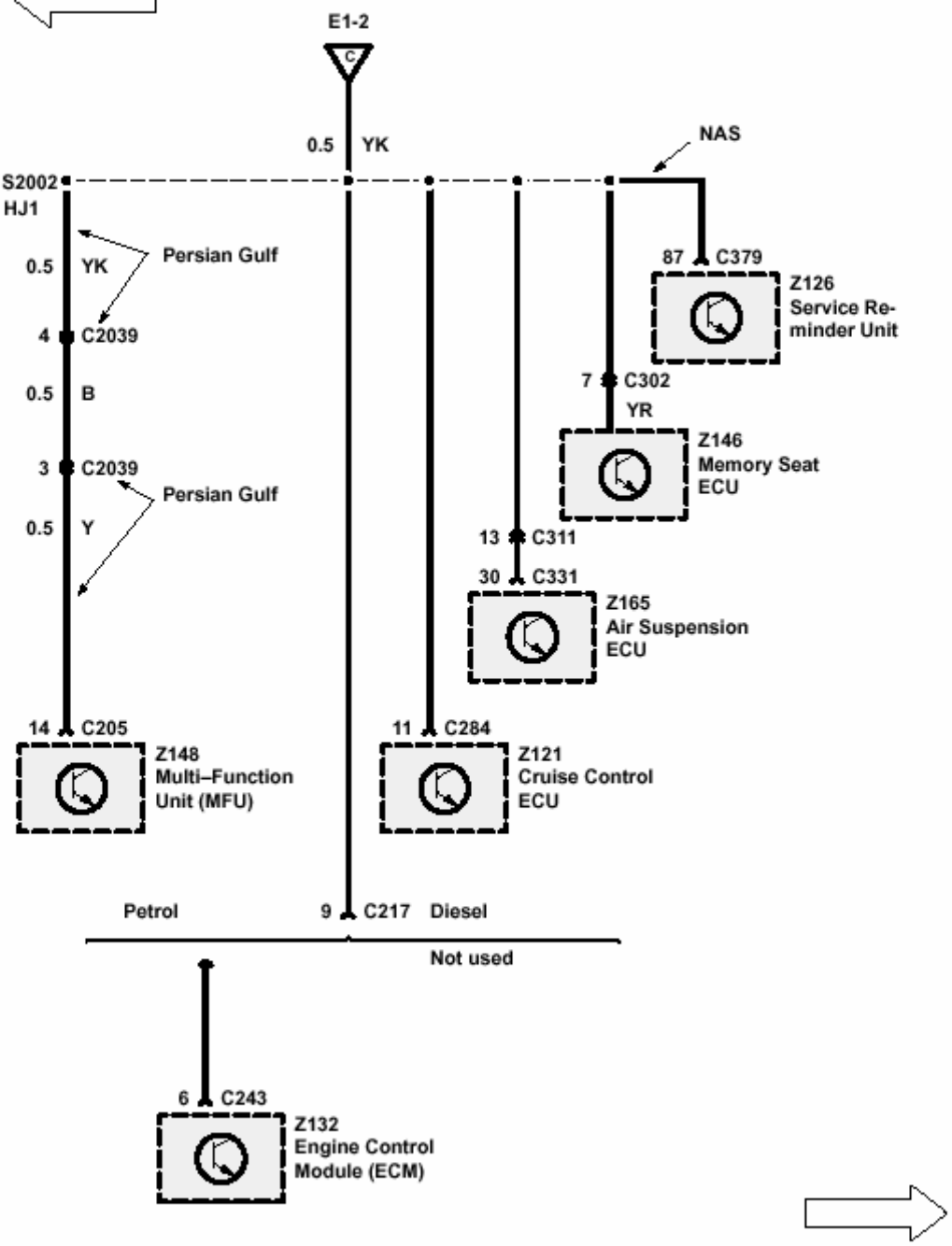
Tachometer

The tachometer displays engine speed in rpm. Voltage pulses are taken from the Generator (Z106) and are generated when the engine drive belt turns the Generator pulley. The tachometer responds to the frequency of the voltage pulses, which increases proportionally to that of the engine speed.

E1 ETM

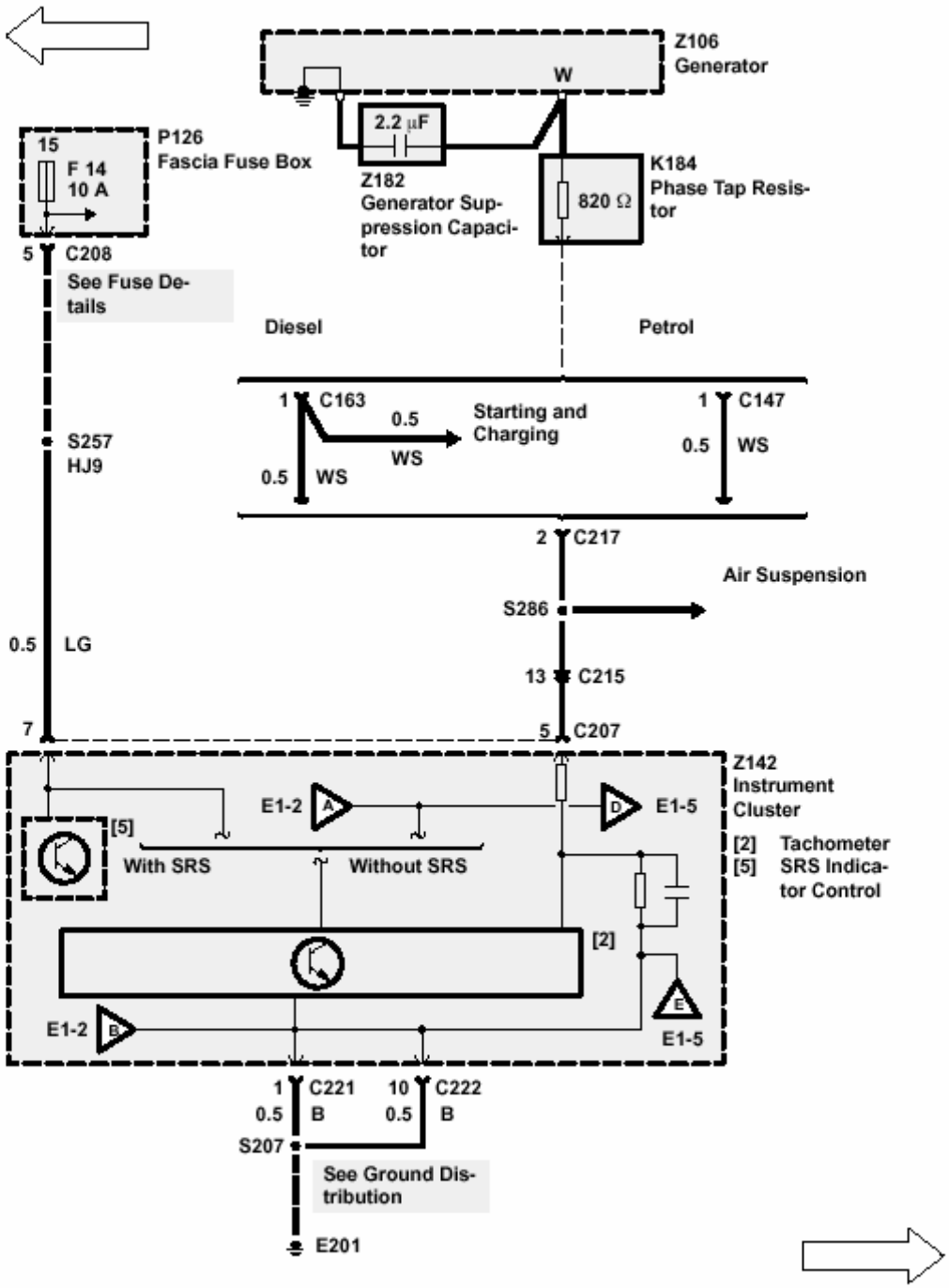
1995 RANGE ROVER

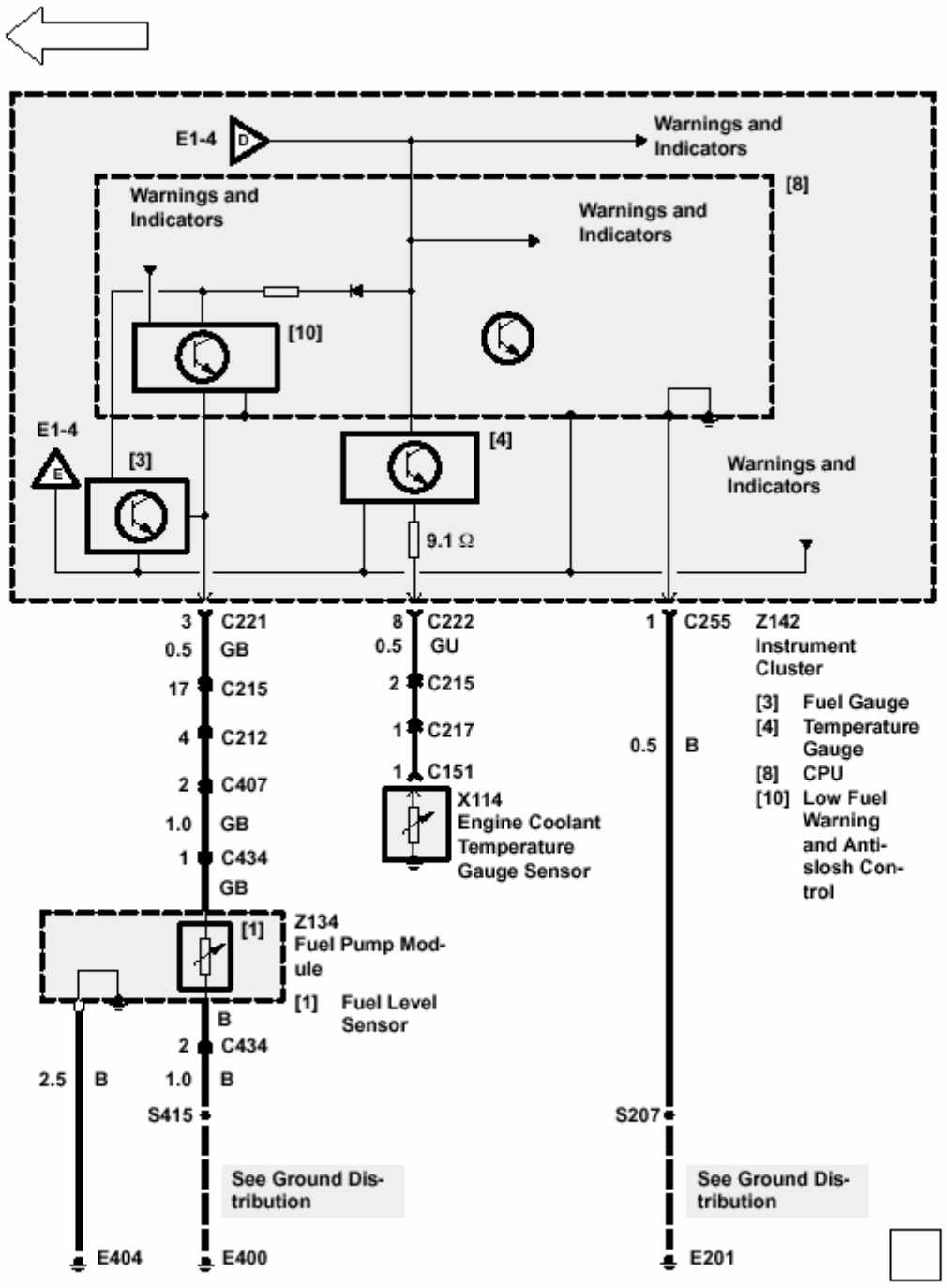



E1-2
C
0.5 YK
NAS
S2002
HJ1
0.5 YK
Persian Gulf
4 C2039
0.5 B
3 C2039
Persian Gulf
0.5 Y
14 C205
Z148
Multi–Function
Unit (MFU)
87 C379
Z126
Service Re-
minder Unit
7 C302
YR
Z146
Memory Seat
ECU
13 C311
30 C331
Z165
Air Suspension
ECU
11 C284
Z121
Cruise Control
ECU
Petrol
9 C217 Diesel
Not used
6 C243
Z132
Engine Control
Module (ECM)

E1 ETM

1995 RANGE ROVER




E1-4
D
Warnings and Indicators
[8]
Warnings and Indicators
Warnings and Indicators
[10]
E1-4
E
[3]
[4]
Warnings and Indicators
9.1 Ω
3 C221
0.5 GB
17 C215
4 C212
2 C407
1.0 GB
1 C434
GB
8 C222
0.5 GU
2 C215
1 C217
1 C151
X114
Engine Coolant Temperature Gauge Sensor
1 C255
Z142
Instrument Cluster
[3] Fuel Gauge
[4] Temperature Gauge
[8] CPU
[10] Low Fuel Warning and Anti-slosh Control
0.5 B
Z134
Fuel Pump Module
[1]
[1] Fuel Level Sensor
B
2 C434
2.5 B
1.0 B
S415
S207
See Ground Distribution
See Ground Distribution
E404
E400
E201

CIRCUIT OPERATION

Charge Warning Light

The charge warning light receives battery voltage with the Ignition Switch (X134) in position II. This warning light is grounded by the Generator (Z106) if the Generator is not producing normal power output or the Generator stops turning.

ABS Warning Light

The ABS warning light receives battery voltage with the Ignition Switch (X134) in position II. It is grounded by the Anti–Lock Brake System ECU (Z108) or the ABS Warning Relay (K103) in the event of an ABS problem.

Brake Warning Light

The brake warning light receives battery voltage with the Ignition Switch (X134) in position II. It is grounded by the Brake Fluid Level Switch (X111) when the brake fluid level is low. It may also be grounded through the Right Front and Right Rear Inboard Brake Pads (B129, B155), and the Handbrake Diode (Z197) when the Handbrake Switch (X191) is closed. The warning light is also grounded by the Anti–Lock Brake System ECU (Z108) or by the ABS Pressure Switch Unit (Z104) in the event of an ABS system problem. When the Right Front or Right Rear Inboard Brake Pad (B129, B135) is in need of replacement, the brake warning light is grounded through the Right Front or Right Rear Inboard Brake Pad (B129, B135).

Oil Pressure Warning Light

The oil pressure warning light receives battery voltage with the Ignition Switch (X134) in position II. If the engine oil pressure is very low, the Oil Pressure Switch (X149) will apply ground to the warning light.

Transmission/Transfer Box Oil Temperature Warning Light

The transmission/transfer box oil temperature warning light is grounded by the Automatic Transmission Oil Temperature Switch (X108) when the temperature of the transmission fluid exceeds 130°C (266°F). The warning light is also grounded by the Transfer Box Oil Temperature Switch (X174) when the temperature of the transfer box fluid exceeds 145°C (266°F). The Bulb Check Relay (K173) will illuminate the warning light when the vehicle is first started to test the bulb.

Petrol

Malfunction Indicator Lamp (Check Engine)

The Malfunction Indicator Lamp (Check Engine) is grounded by the Engine Control Module (ECM) (Z132) when a diagnostic trouble code is set.

Diesel

Glow Plug Indicator

The Glow Plug Indicator is grounded by the Glow Plug Timer Unit (Z135) to indicate that the Glow Plugs have been activated.

Hazard Indicator

If the Hazard Switch (X220) is depressed, a pulsing voltage is applied to the Hazard Indicator which is permanently grounded by ground E200.

Direction Indicator

If the Direction Indicator Switch (X116) is turned on, a pulsing voltage is applied from the Flasher Unit (Z128) to the Direction Indicator which is permanently grounded by ground E200.

Trailer Indicator

With the Direction Indicator Switch (X116) turned on, the Flasher Unit (Z128) also applies a pulsing voltage to the Trailer Indicator which is permanently grounded by ground E200.

SRS Indicators

The SRS Indicators are controlled by the Air Bag Diagnostic Control Module (Z151) and the SRS Indicator Control Circuit of the Instrument Cluster (Z142) to indicate SRS System faults.

Low Fuel Warning Indicator

When the fuel gauge sender's resistance falls below approximately 25 Ohms (6 liters/1.5 US gallons), the Low Fuel Warning Indicator will illuminate to warn the driver.

Main Beam Indicator

With the Headlamps turned on the Main Lighting Switch (X145), battery voltage is applied to the Main Beam Indicator which is also permanently grounded by ground E200.

TC Warning Light

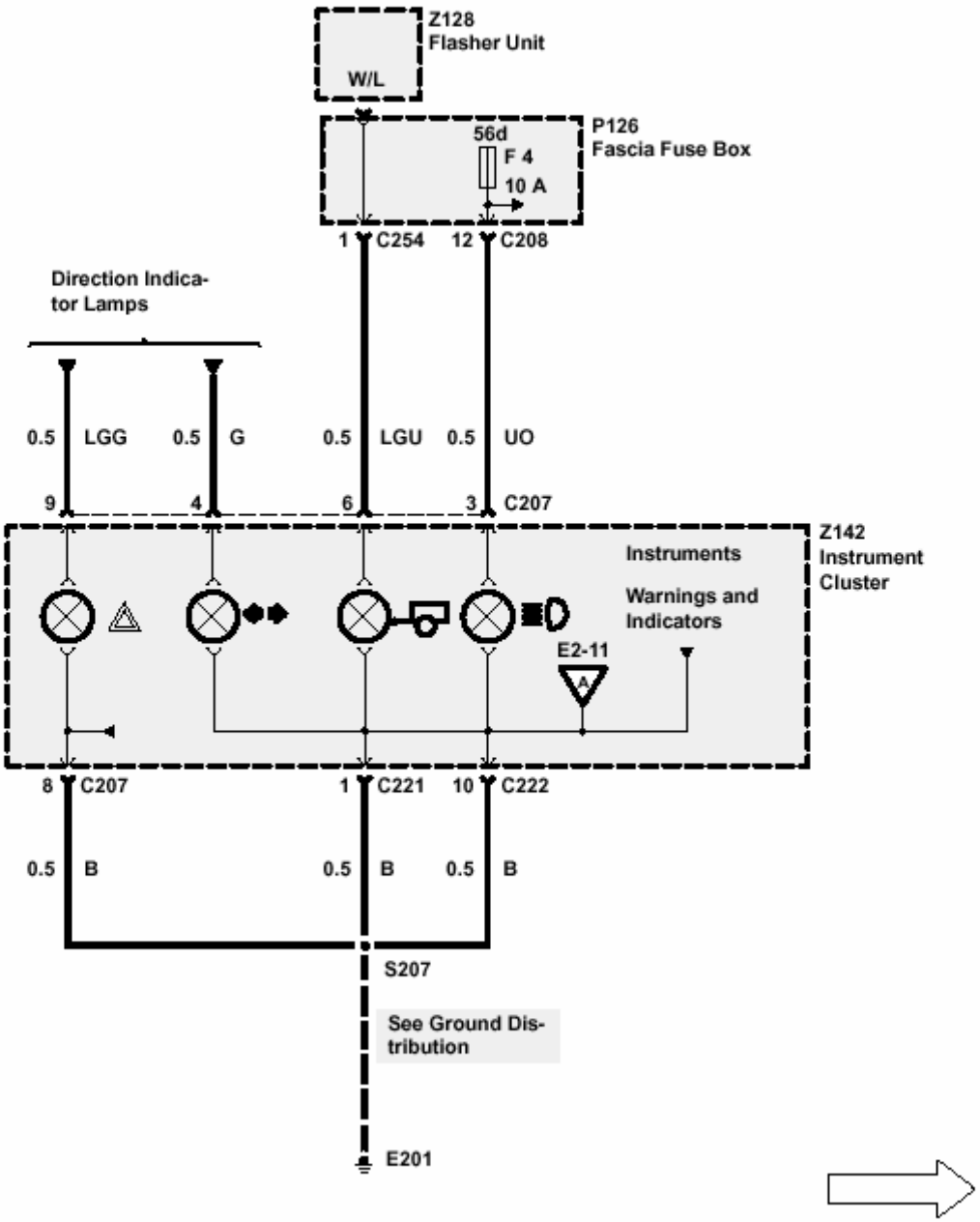
The TC warning light will be on for up to 60 seconds while the system is active. After 60 seconds of TC operation, the TC warning light will begin to flash to inform the driver that the system has been shut down to allow the brakes to cool. If the TC warning light stays on continuously for more than 60 seconds, a fault in the system is indicated. The TC warning light receives battery voltage with the Ignition Switch (X134) in position II. A ground supply is provided by the A.B.S. ECU (Z108) when the TC system is active.

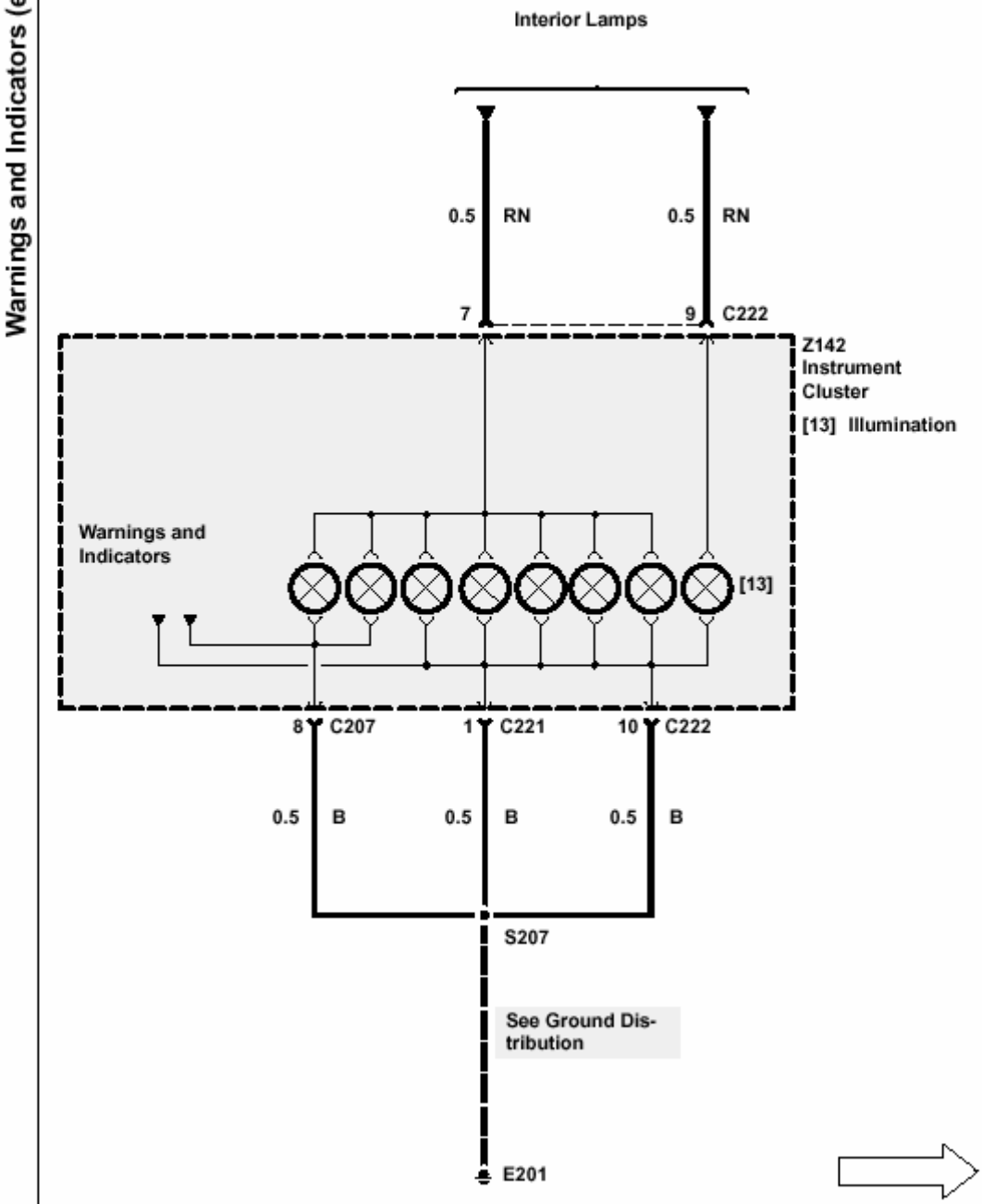
Air Suspension Indicator

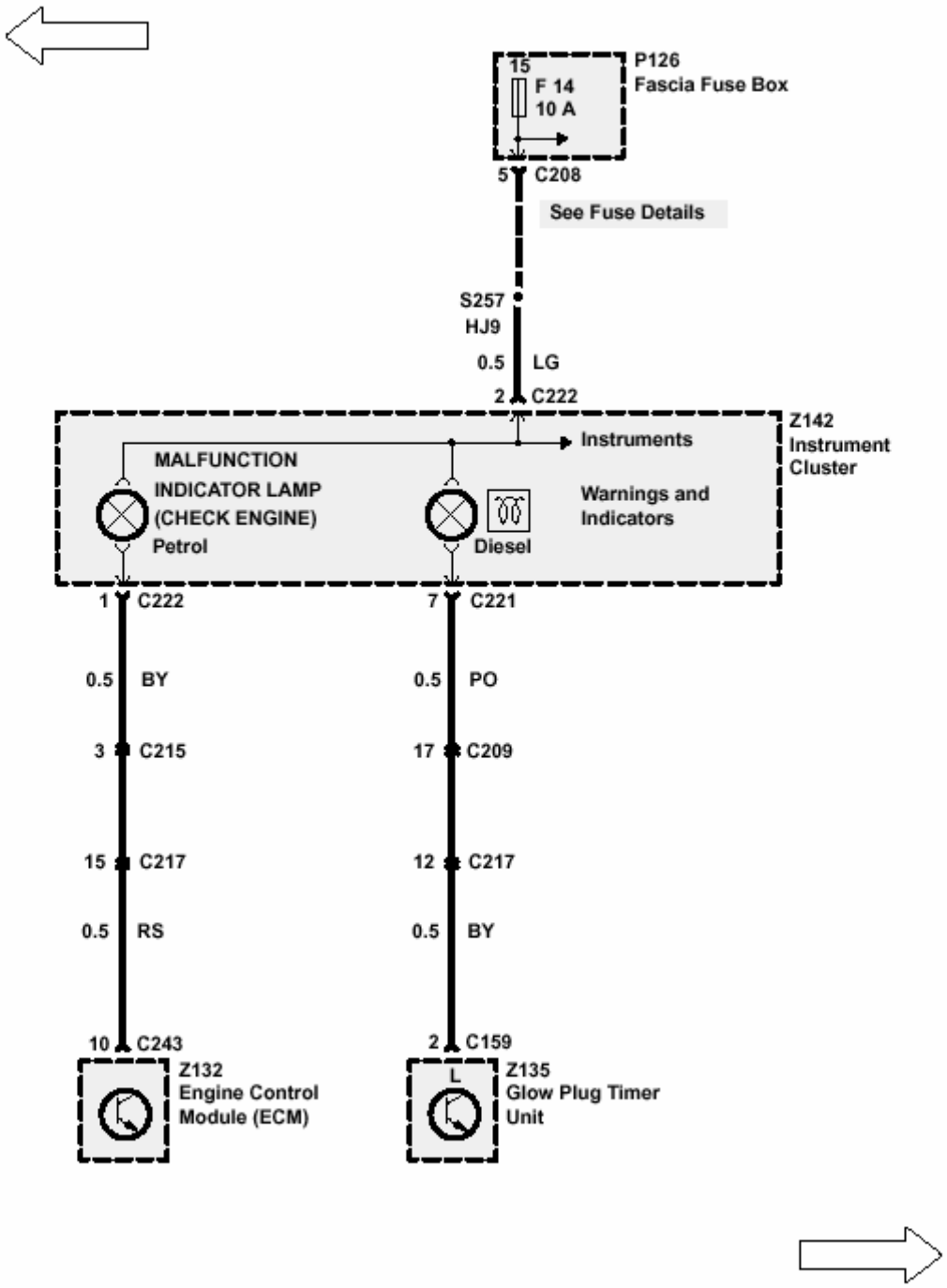
If the Air Suspension ECU (Z165) detects a fault in the system, the ECU will inform the driver by intermittently grounding the Warning Lamp Relay (K155) for 30 seconds. This causes the Air Suspension Indicator to flash for 30 seconds. After 30 seconds the indicator will remain on until the repair is made.

Fasten Seat Belt Indicator

The Fasten Seat Belt Indicator receives battery voltage with the Ignition Switch (X134) in position II. The indicator is also grounded through the Multifunction Unit (MFU) (Z148) and the Driver's Seat Buckle Switch (X120). If the Driver's Seat Belt is buckled the Driver's Seat Belt Buckle Switch opens and the Indicator turns off.

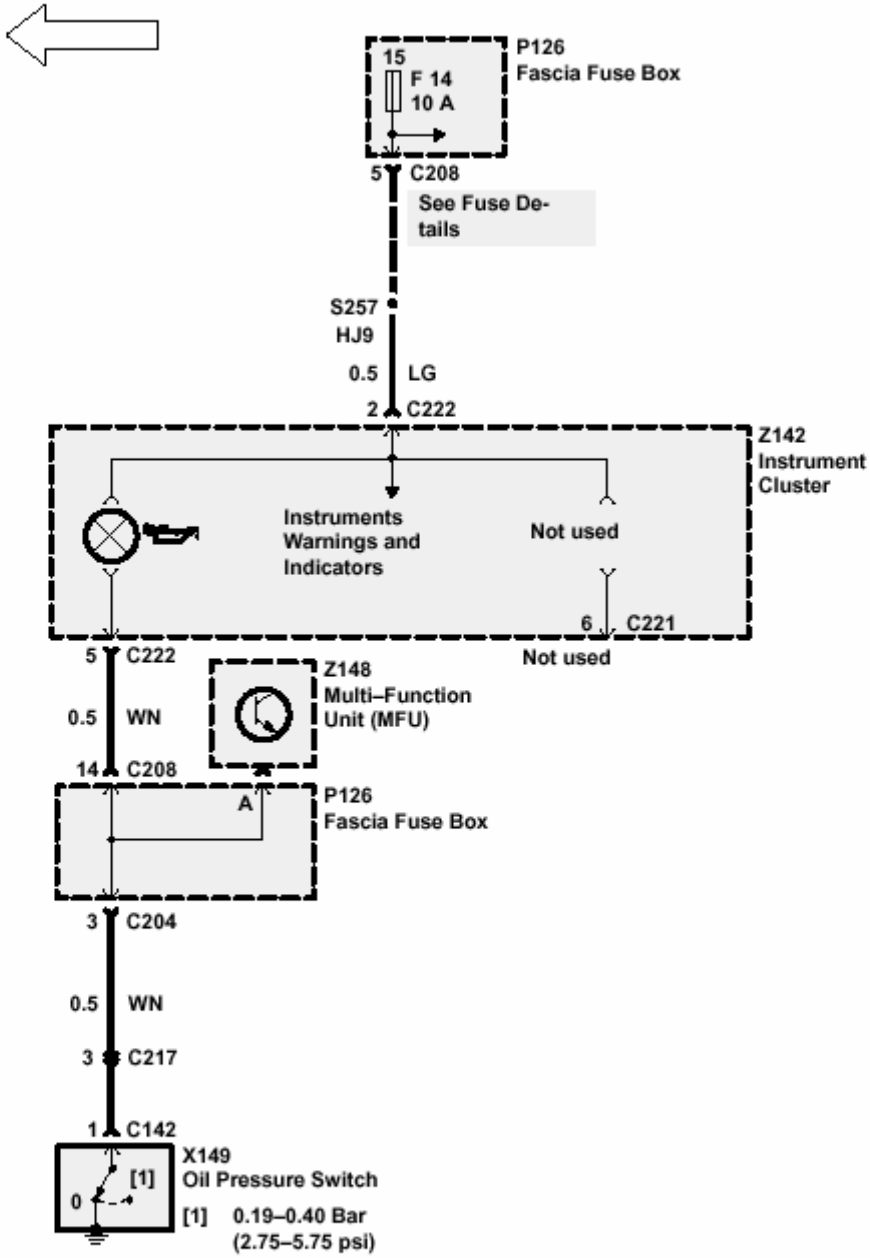

Z128
Flasher Unit
W/L
P126
Fascia Fuse Box
56d
F 4
10 A
1 C254
12 C208
Direction Indicator Lamps
0.5 LGG
0.5 G
0.5 LGU
0.5 UO
9
4
6
3 C207
Z142
Instrument Cluster
Instruments
Warnings and Indicators
E2-11
8 C207
1 C221
10 C222
0.5 B
0.5 B
0.5 B
S207
See Ground Distribution
E201

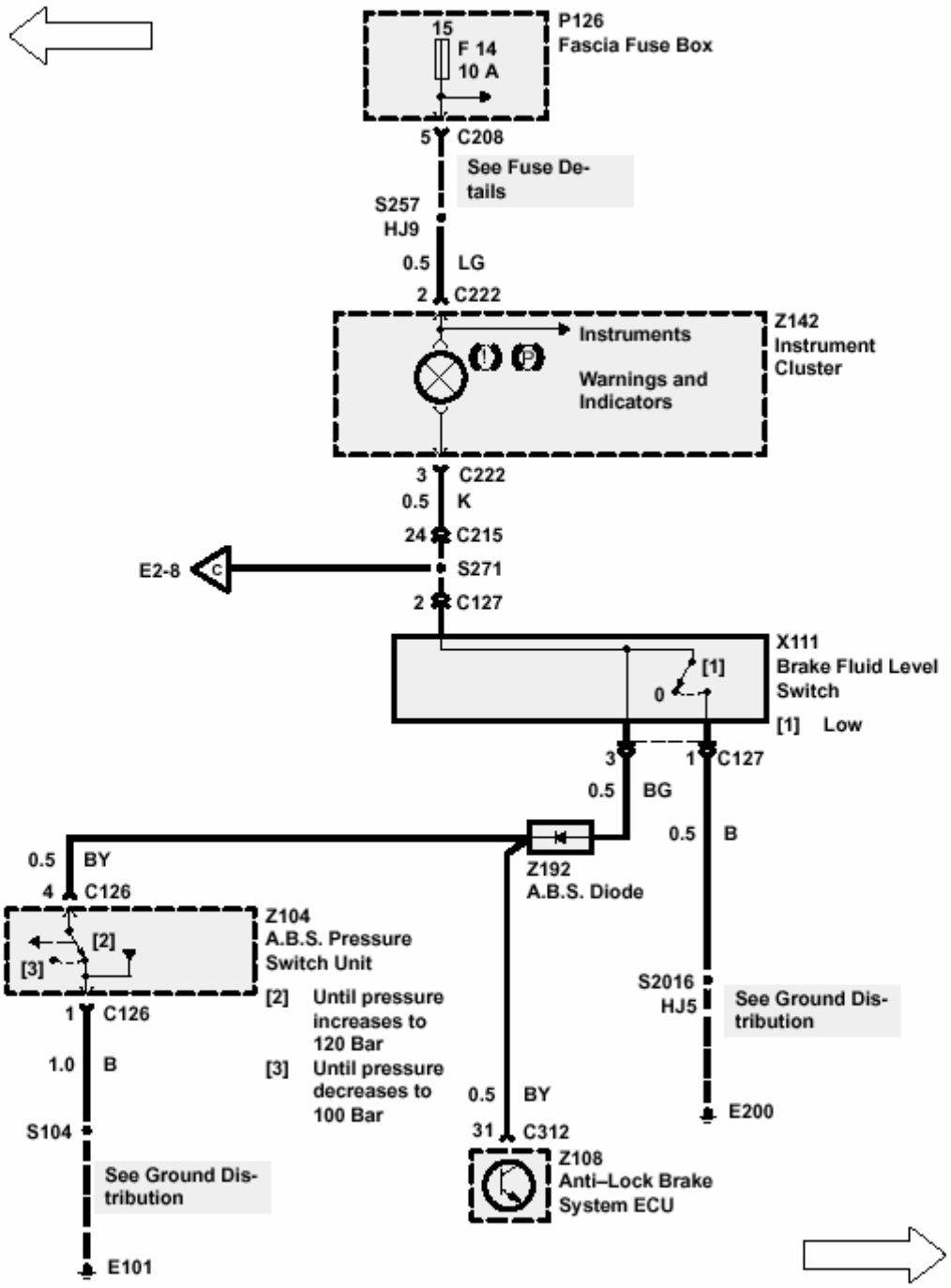

Interior Lamps
0.5 RN
0.5 RN
7
9 C222
Z142
Instrument
Cluster
[13] Illumination
Warnings and
Indicators
[13]
8 C207
1 C221
10 C222
0.5 B
0.5 B
0.5 B
S207
See Ground Dis-
tribution
E201


15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S257
HJ9
0.5
LG
2
C222
Z142
Instrument
Cluster
Instruments
MALFUNCTION
INDICATOR LAMP
(CHECK ENGINE)
Petrol
Diesel
Warnings and
Indicators
1
C222
7
C221
0.5
BY
0.5
PO
3
C215
17
C209
15
C217
12
C217
0.5
RS
0.5
BY
10
C243
2
C159
Z132
Engine Control
Module (ECM)
L
Z135
Glow Plug Timer
Unit

E2 ETM

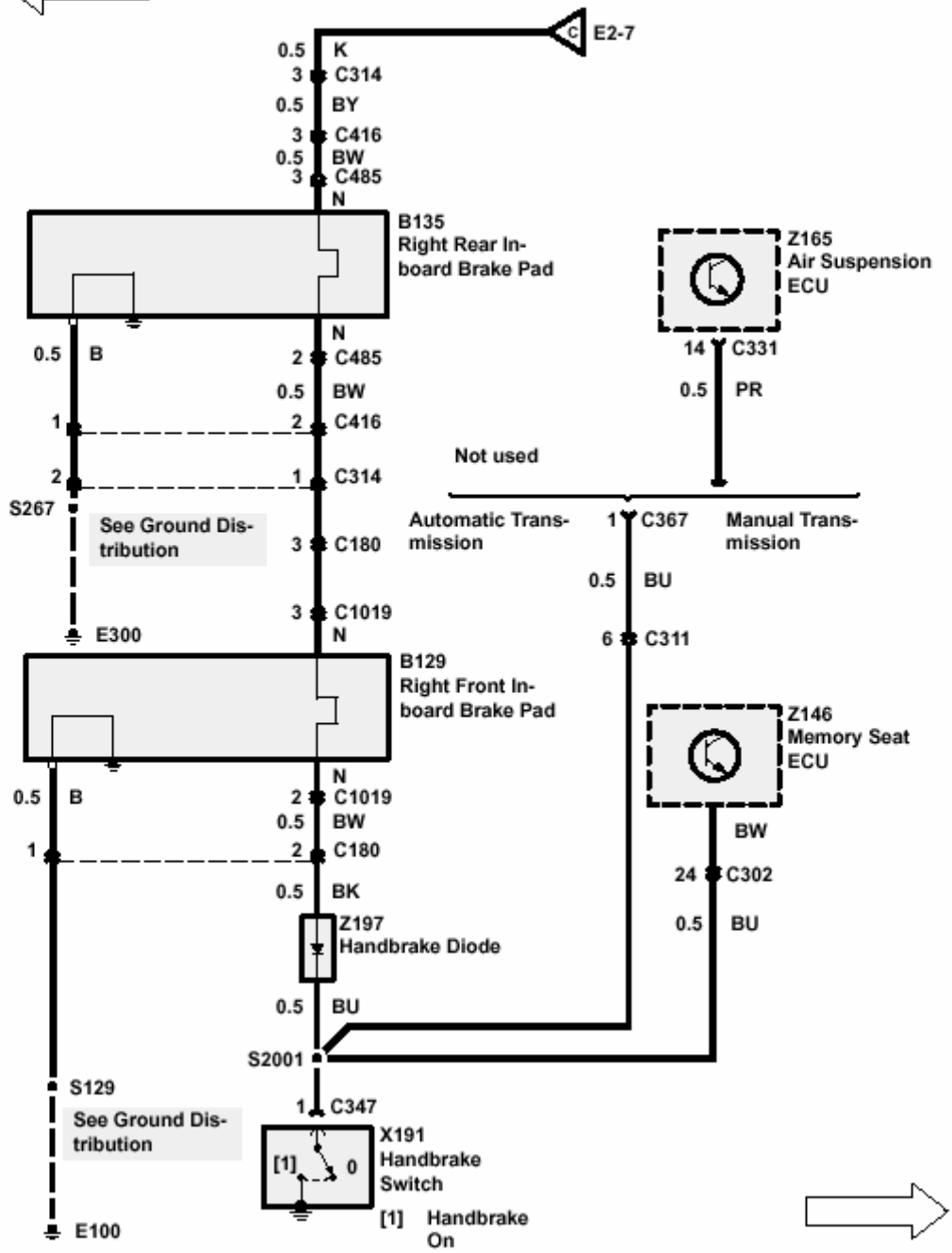
1995 RANGE ROVER

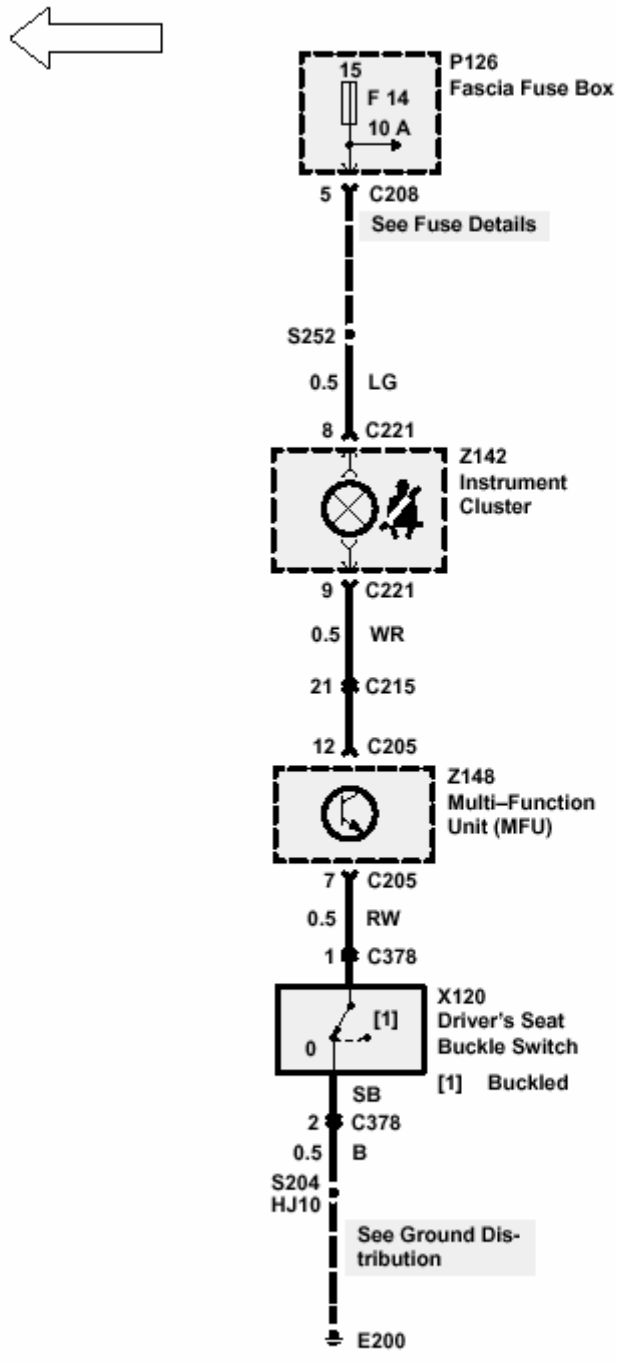



15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S257
HJ9
0.5
LG
2
C222
Instruments
Warnings and Indicators
Z142
Instrument Cluster
3
C222
0.5
K
24
C215
E2-8
C
S271
2
C127
X111
Brake Fluid Level Switch
[1]
0
[1] Low
3
1
C127
0.5
BG
0.5
B
0.5
BY
4
C126
Z192
A.B.S. Diode
Z104
A.B.S. Pressure Switch Unit
[2]
[3]
[2] Until pressure increases to 120 Bar
[3] Until pressure decreases to 100 Bar
S2016
HJ5
See Ground Distribution
1
C126
1.0
B
S104
See Ground Distribution
E101
0.5
BY
31
C312
Z108
Anti–Lock Brake System ECU
E200

E2 ETM

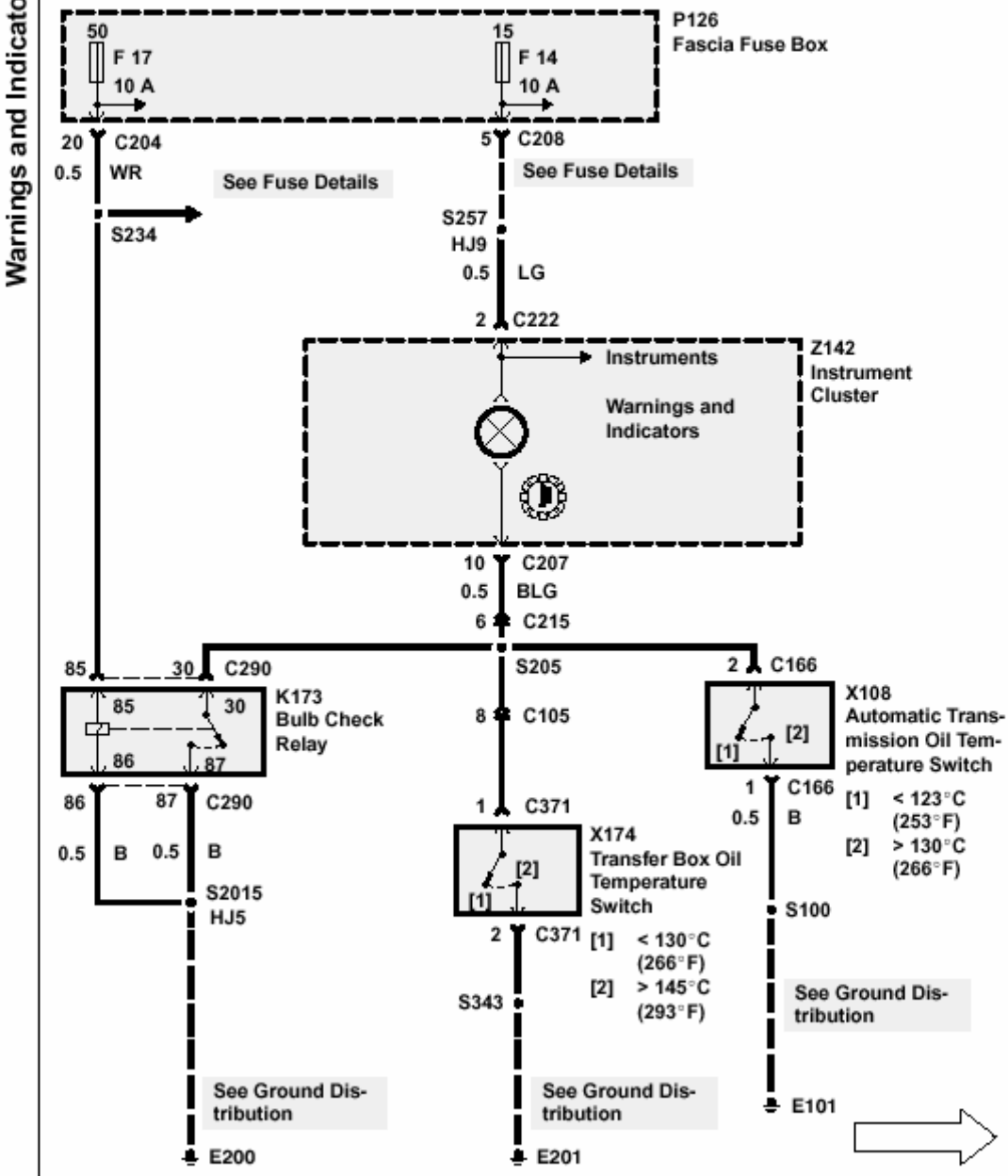
1995 RANGE ROVER

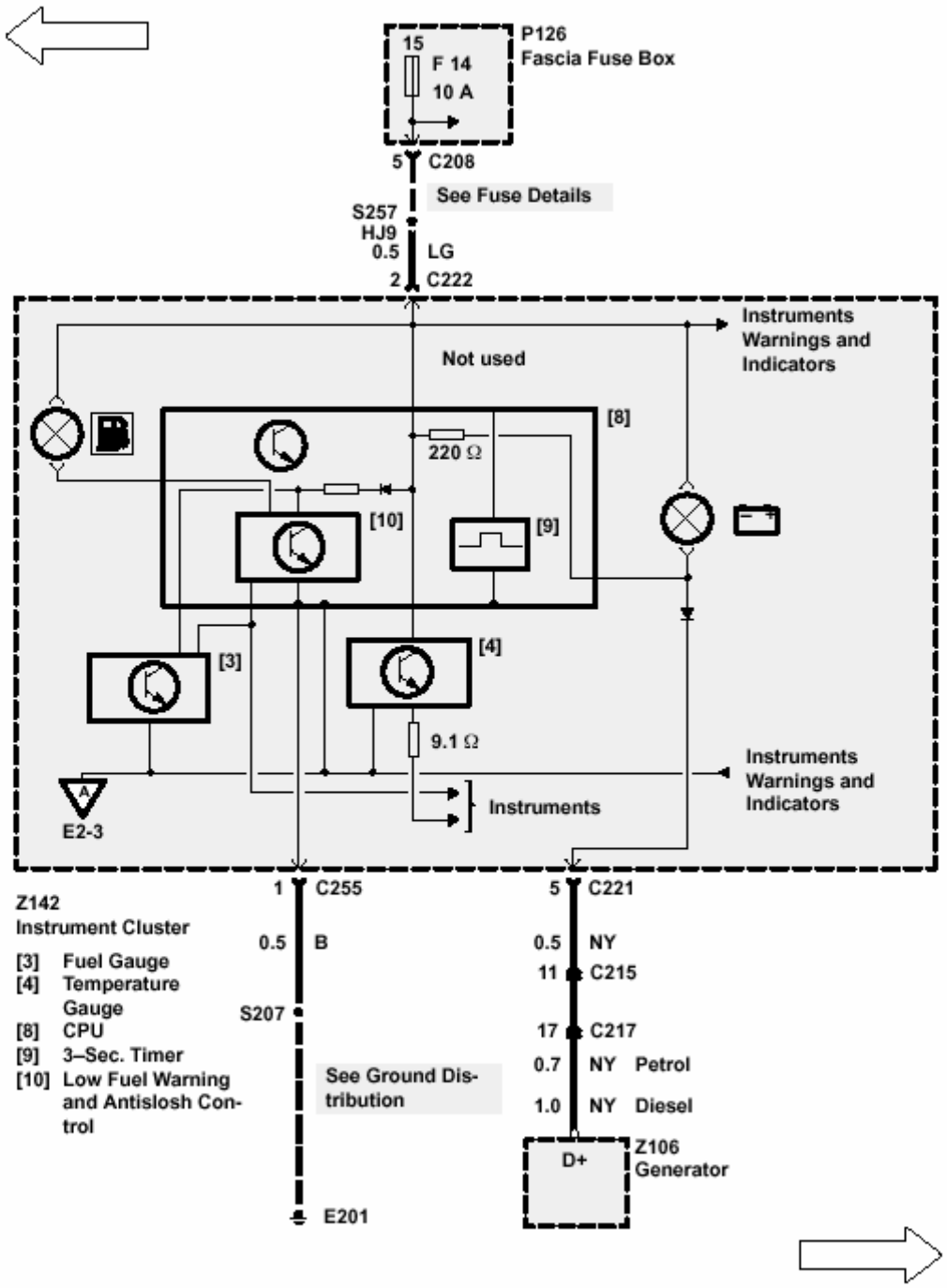


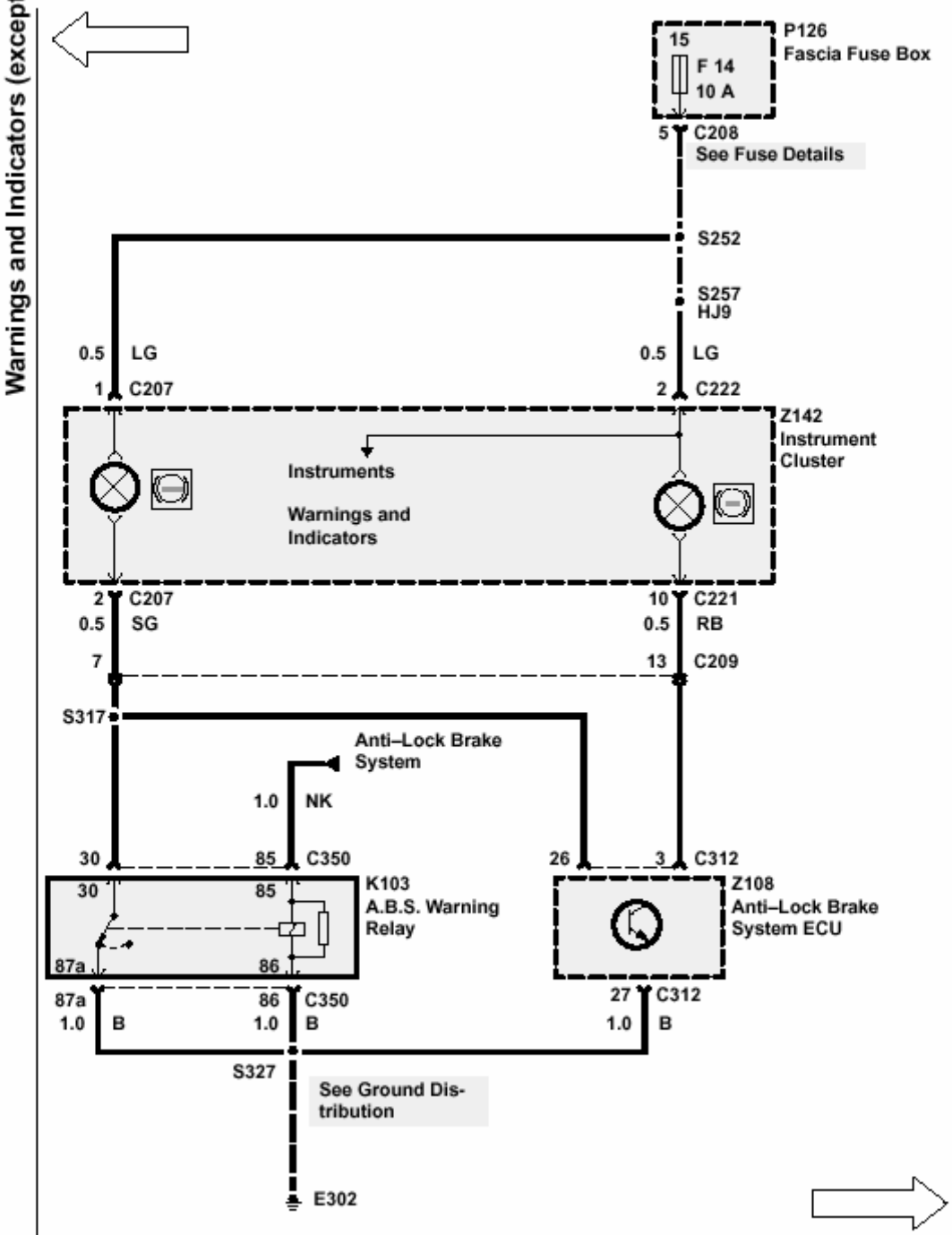

15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S252
0.5
LG
8
C221
Z142
Instrument
Cluster
9
C221
0.5
WR
21
C215
12
C205
Z148
Multi–Function
Unit (MFU)
7
C205
0.5
RW
1
C378
[1]
0
X120
Driver's Seat
Buckle Switch
[1] Buckled
SB
2
C378
0.5
B
S204
HJ10
See Ground Dis-
tribution
E200

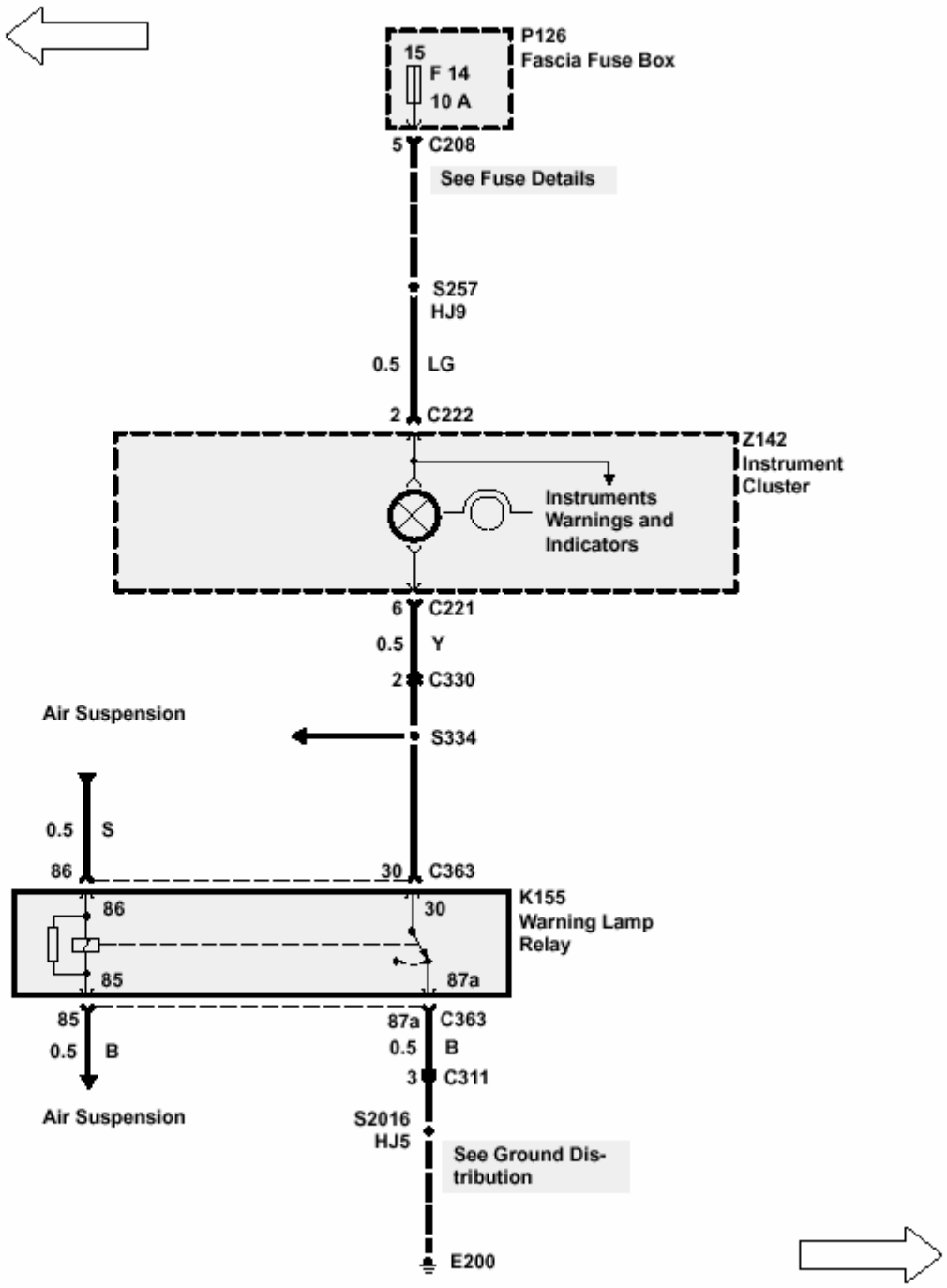
E2 ETM

1995 RANGE ROVER



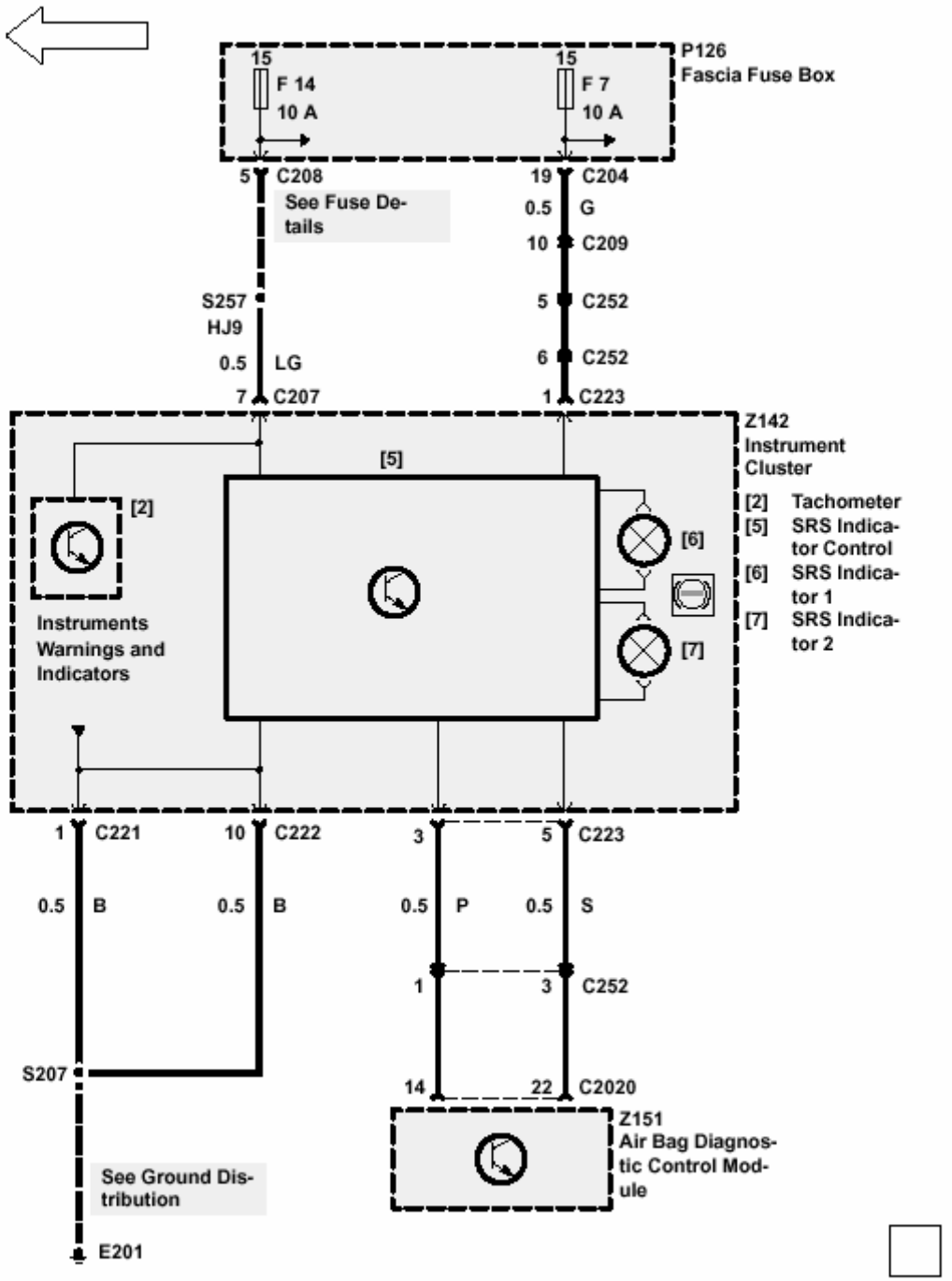

15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S257
HJ9
0.5
LG
2
C222
Not used
Instruments
Warnings and
Indicators
[8]
220 Ω
[10]
[9]
[3]
[4]
9.1 Ω
Instruments
Warnings and
Indicators
E2-3
Instruments
Z142
Instrument Cluster
[3] Fuel Gauge
[4] Temperature Gauge
[8] CPU
[9] 3–Sec. Timer
[10] Low Fuel Warning and Antislosh Control
1
C255
0.5
B
S207
See Ground Distribution
E201
5
C221
0.5
NY
11
C215
17
C217
0.7
NY
Petrol
1.0
NY
Diesel
D+
Z106
Generator


15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S252
S257
HJ9
0.5
LG
1
C207
0.5
LG
2
C222
Z142
Instrument
Cluster
Instruments
Warnings and
Indicators
2
C207
0.5
SG
10
C221
0.5
RB
7
13
C209
S317
Anti–Lock Brake
System
1.0
NK
30
85
C350
26
3
C312
30
85
K103
A.B.S. Warning
Relay
87a
86
Z108
Anti–Lock Brake
System ECU
87a
1.0
B
86
1.0
B
C350
27
C312
1.0
B
S327
See Ground Dis-
tribution
E302


P126
Fascia Fuse Box
15
F 14
10 A
5 C208
See Fuse Details
S257
HJ9
0.5 LG
2 C222
Z142
Instrument
Cluster
Instruments
Warnings and
Indicators
6 C221
0.5 Y
2 C330
Air Suspension
S334
0.5 S
86
30 C363
K155
Warning Lamp
Relay
86
30
85
87a
85
0.5 B
87a C363
0.5 B
3 C311
Air Suspension
S2016
HJ5
See Ground Dis-
tribution
E200

E2 ETM

1995 RANGE ROVER



TROUBLESHOOTING HINTS

If more than one warning light is out, check power and ground wires common to all affected warning lights. If they are OK, replace Instrument Cluster (Z142).

If the Brake Warning Light does not operate at all, check Instrument Cluster (Z142) and K Wire.

For Australian Vehicles:

If the Brake Warning Light, the Catalyst Warning Indicator, and the Transmission Box Oil Temperature Warning Light don't illuminate, as a bulb test, with ignition on, replace Instrument Cluster (Z142). If all three indicators don't turn off with the engine running, replace Instrument Cluster (Z142).

SYSTEM DIAGNOSIS

17. If the Charge Warning Light does not operate, go to Section B1.
18. If the Oil Pressure Warning Light remains illuminated with the oil pressure OK, do Test A.
19. If the Malfunction Indicator Lamp (Check Engine) does not operate, do Test B.
20. If the Glow Plug Indictor does not operate, do Test C.
21. If the Brake Warning Light does not operate with the brake fluid level low, do Test D.
22. If the Brake Warning Light does not operate with an ABS problem, do Test E.
23. If the Brake Warning Light does not operate with the handbrake applied, do Test F.
24. The Transmission/Transfer Box Oil Temperature Warning Light is illuminated as a bulb test with the Ignition Switch (X134) in position III. If the light does not illuminate, do Test G.
25. If the Transmission/Transfer Box Oil Temperature Warning Light is illuminated with both the Transfer Box Oil Temperature and the Automatic Oil Temperature OK, do Test H.
26. If the Fasten Seat Belt Indicator does not operate with the Ignition on, do Test I.
27. If a warning light exhibits any symptom not mentioned above, check the associated bulb, wires, switches, and components.

CIRCUIT OPERATION

Charge Warning Light

The charge warning light receives battery voltage with the Ignition Switch (X134) in position II. This warning light is grounded by the Generator (Z106) if the Generator is not producing normal power output or the Generator stops turning.

ABS Warning Light

The ABS warning light receives battery voltage with the Ignition Switch (X134) in position II. It is grounded by the Anti–Lock Brake System ECU (Z108) or the ABS Warning Relay (K103) in the event of an ABS problem.

Brake Warning Light

The brake warning light receives battery voltage with the Ignition Switch (X134) in position II. It is grounded by the Brake Fluid Level Switch (X111) when the brake fluid level is low. It may also be grounded through the Right Front and Right Rear Inboard Brake Pads (B129, B155), and the Handbrake Diode (Z197) when the Handbrake Switch (X191) is closed. The warning light is also grounded by the Anti–Lock Brake System ECU (Z108) or by the ABS Pressure Switch Unit (Z104) in the event of an ABS system problem.When the Right Front or Right Rear Inboard Brake Pad (B129, B135) is in need of replacement, the brake warning light is grounded through the Right Front or Right Rear Inboard Brake Pad (B129, B135). The brake warning light is grounded by a 3 second timer as a bulb check.

Oil Pressure Warning Light

The oil pressure warning light receives battery voltage with the Ignition Switch (X134) in position II. If the engine oil pressure is very low, the Oil Pressure Switch (X149) will apply ground to the warning light.

Transmission/Transfer Box Oil Temperature Warning Light

The transmission/transfer box oil temperature warning light is grounded by the Automatic Transmission Oil Temperature Switch (X108) when the temperature of the transmission fluid exceeds 130°C (266°F). The warning light is also grounded by the Transfer Box Oil Temperature Switch (X174) when the temperature of the transfer box fluid exceeds 145°C (266°F). The Bulb Check Relay (K173) will illuminate the warning light when the vehicle is first started to test the bulb.

Malfunction Indicator Lamp (Check Engine)

The Malfunction Indicator Lamp (Check Engine) is grounded by the Engine Control Module (ECM) (Z132) when a diagnostic trouble code is set.

Service Reminder Indicator

The Service Reminder Indicator receives battery voltage with the Ignition Switch (X134) in position II. The Service Reminder Unit (Z126) grounds the Service Reminder Indicator when the vehicle requires service. The Service Reminder Indicator is also grounded by a 3 second timer as a bulb check.

Hazard Indicator

If the Hazard Switch (X220) is depressed, a pulsing voltage is applied to the Hazard Indicator which is permanently grounded by ground E200.

Direction Indicator

If the Direction Indicator Switch (X116) is turned on, a pulsing voltage is applied from the Flasher Unit (Z128) to the Direction Indicator which is permanently grounded by ground E200.

Trailer Indicator

With the Direction Indicator Switch (X116) turned on, the Flasher Unit (Z128) also applies a pulsing voltage to the Trailer Indicator which is permanently grounded by ground E200.

SRS Indicators

The SRS Indicators are controlled by the Air Bag Diagnostic Control Unit (Z151) and the SRS Indicator Control Circuit of the Instrument Cluster (Z142) to indicate SRS System faults.

Low Fuel Warning Indicator

When the fuel gauge sender's resistance falls below approximately 25 Ohms (6 liters/1.5 US gallons), the Low Fuel Warning Indicator will illuminate to warn the driver. The Low Fuel Warning Indicator is grounded by a 3 second timer as a bulb check.

Main Beam Indicator

With the Headlamps turned on the Main Lighting Switch (X145), battery voltage is applied to the Main Beam Indicator which is also permanently grounded by ground E200.

ETC Warning Light

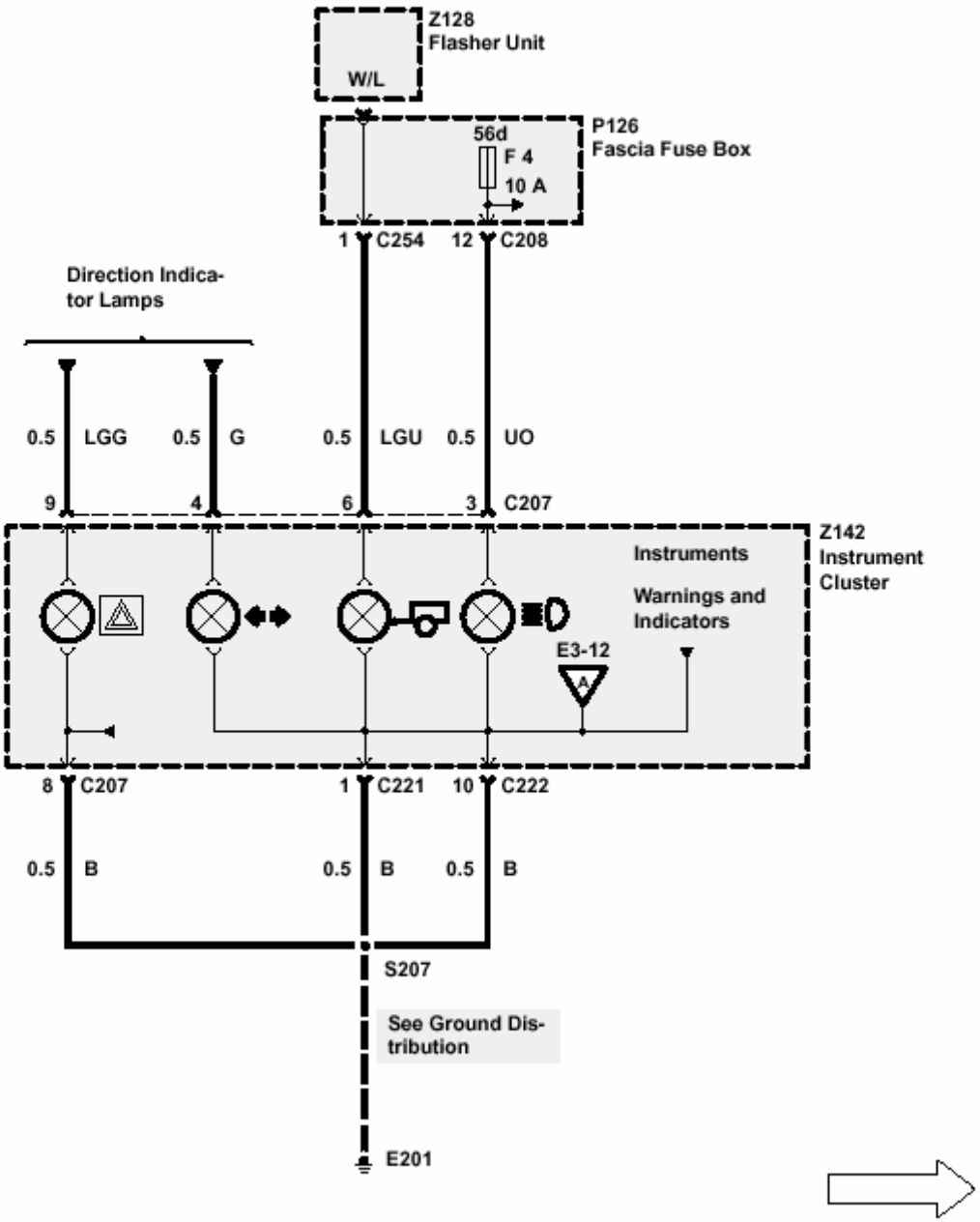
The ETC warning light will be on for up to 60 seconds while the system is active. After 60 seconds of ETC operation, the ETC warning light will begin to flash to inform the driver that the system has been shut down to allow the brakes to cool. If the ETC warning light stays on continuously for more than 60 seconds, a fault in the system is indicated.

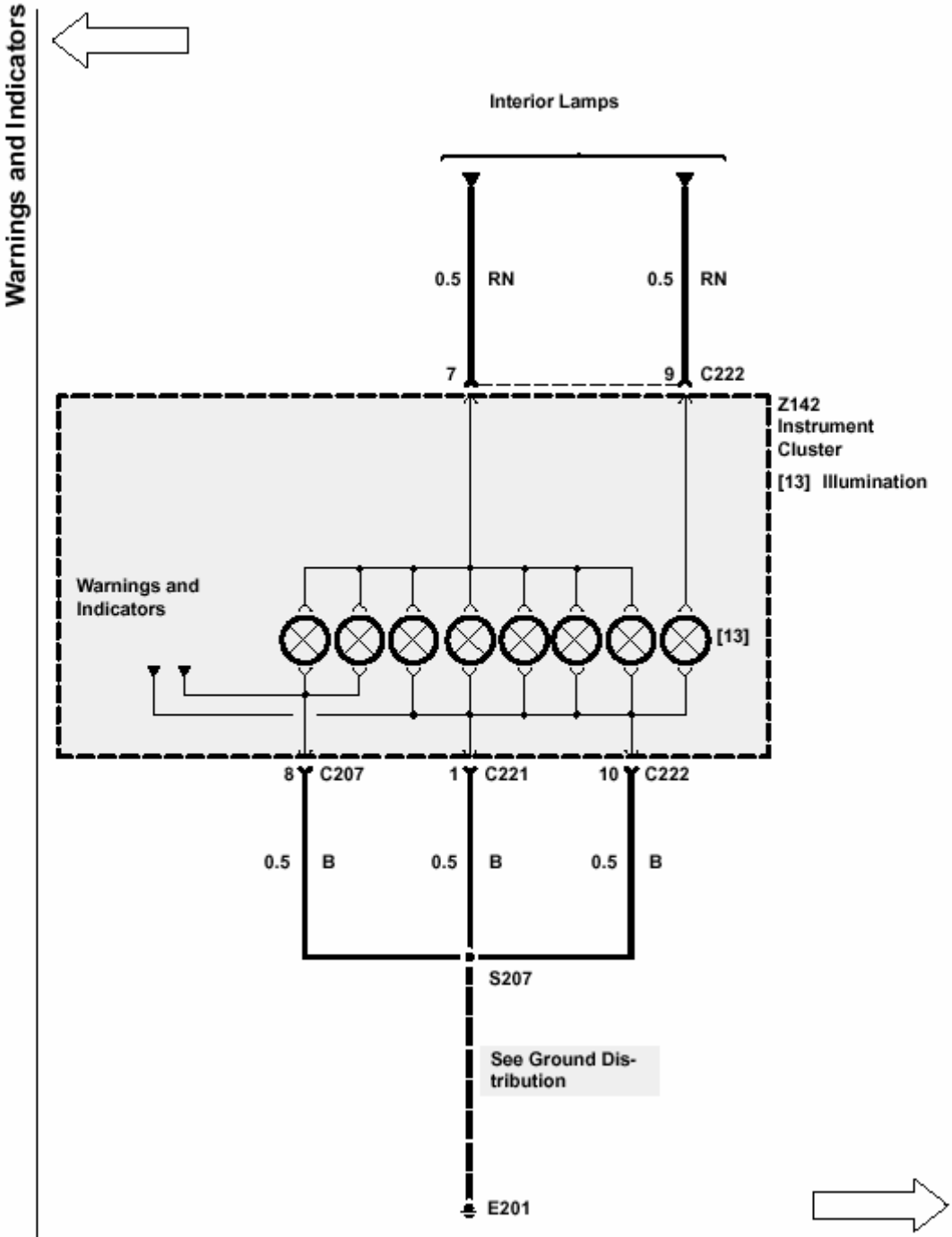
Air Suspension Indicator

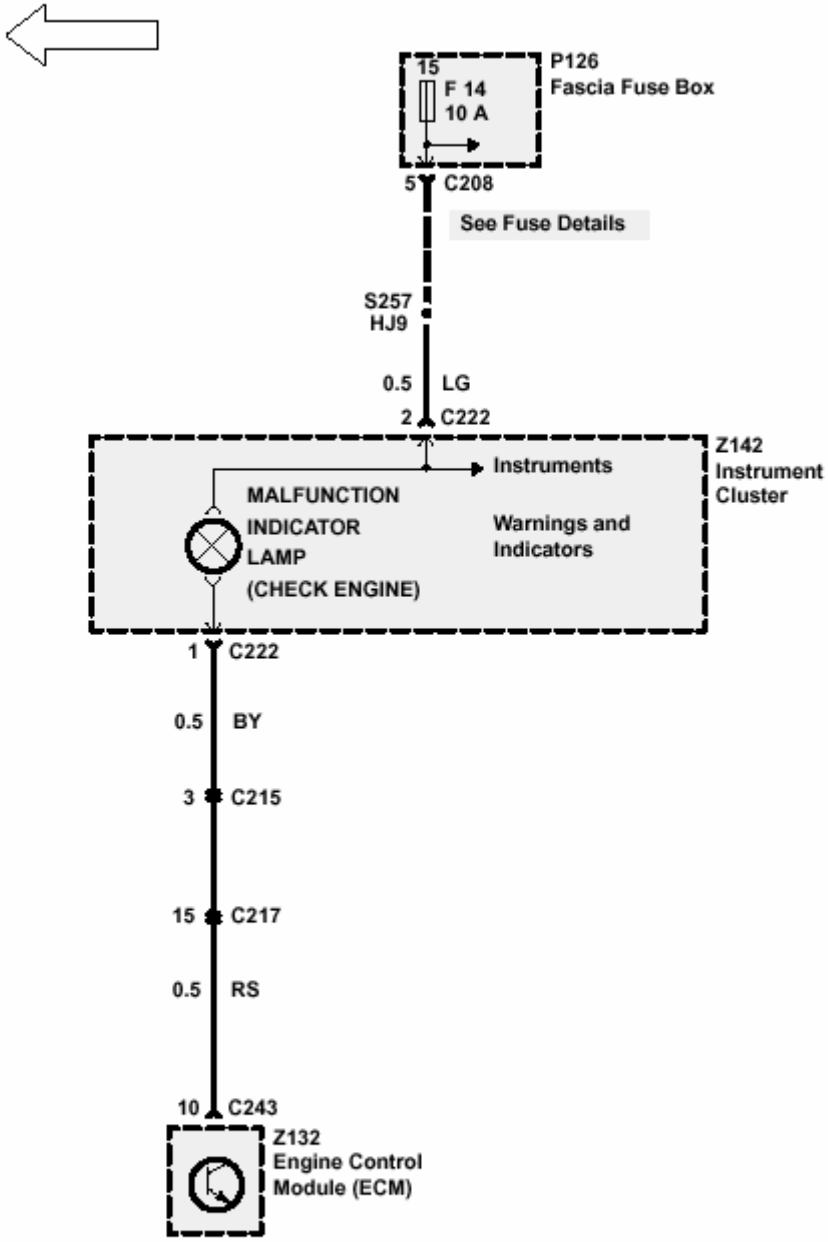
If the Air Suspension ECU (Z165) detects a fault in the system, the ECU will inform the driver by intermittently grounding the Warning Lamp Relay (K155) for 30 seconds. This causes the Air Suspension Indicator to flash for 30 seconds. After 30 seconds the indicator will remain on until the repair is made.

Fasten Seat Belt Indicator

The Fasten Seat Belt Indicator receives battery voltage with the Ignition Switch (X134) in position II. The indicator is also grounded through the Multifunction Unit (MFU) (Z148) and the Driver's Seat Buckle Switch (X120). If the Driver's Seat Belt is buckled the Driver's Seat Belt Buckle Switch opens and the Indicator turns off.

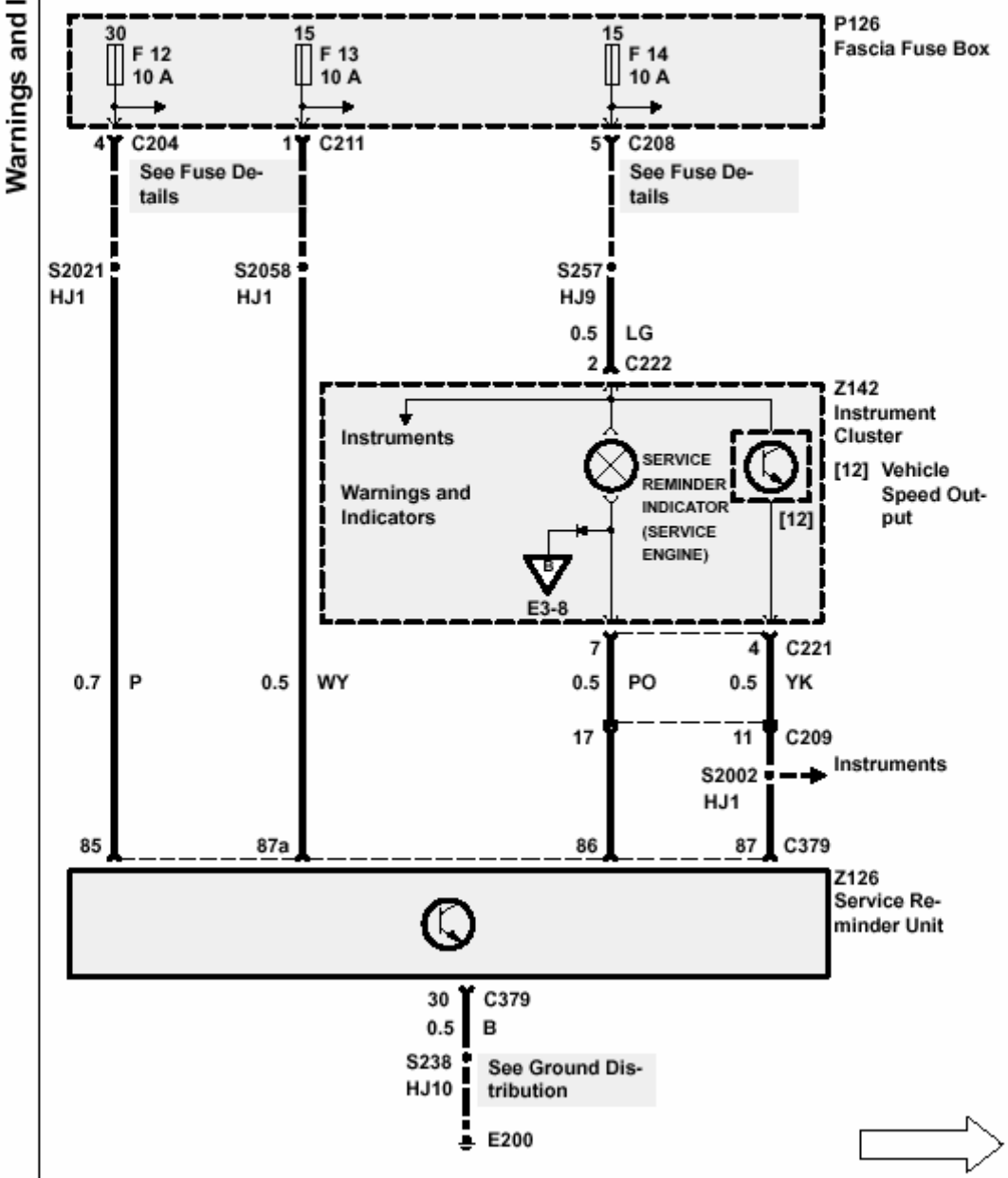

Z128
Flasher Unit
W/L
P126
Fascia Fuse Box
56d
F 4
10 A
1 C254
12 C208
Direction Indicator Lamps
0.5 LGG
0.5 G
0.5 LGU
0.5 UO
9
4
6
3 C207
Z142
Instrument Cluster
Instruments
Warnings and Indicators
E3-12
8 C207
1 C221
10 C222
0.5 B
0.5 B
0.5 B
S207
See Ground Distribution
E201

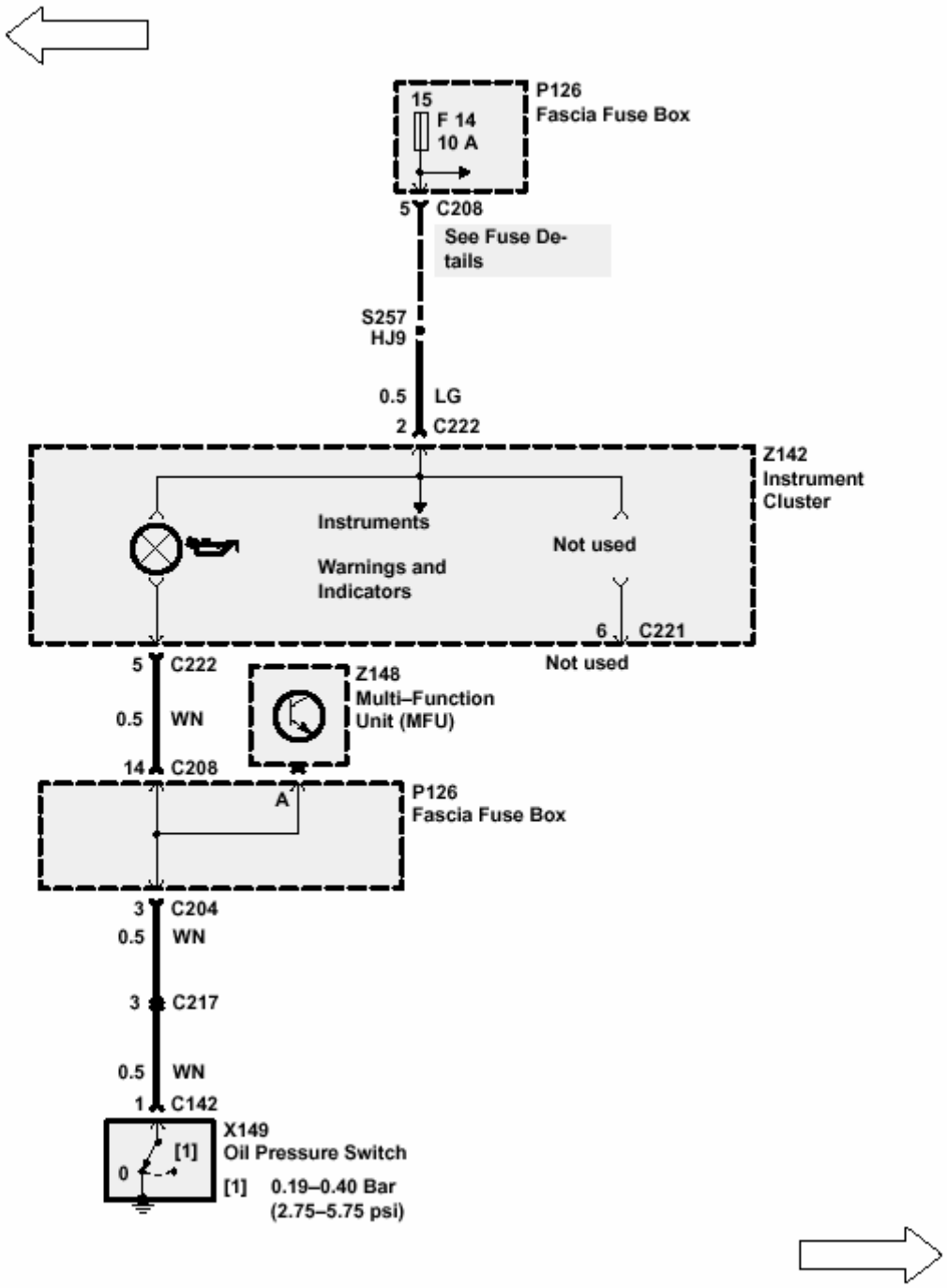

Interior Lamps
0.5 RN
0.5 RN
7
9 C222
Z142
Instrument
Cluster
[13] Illumination
Warnings and
Indicators
[13]
8 C207
1 C221
10 C222
0.5 B
0.5 B
0.5 B
S207
See Ground Dis-
tribution
E201


15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S257
HJ9
0.5
LG
2
C222
Z142
Instrument
Cluster
Instruments
MALFUNCTION
INDICATOR
LAMP
(CHECK ENGINE)
Warnings and
Indicators
1
C222
0.5
BY
3
C215
15
C217
0.5
RS
10
C243
Z132
Engine Control
Module (ECM)

E3 ETM

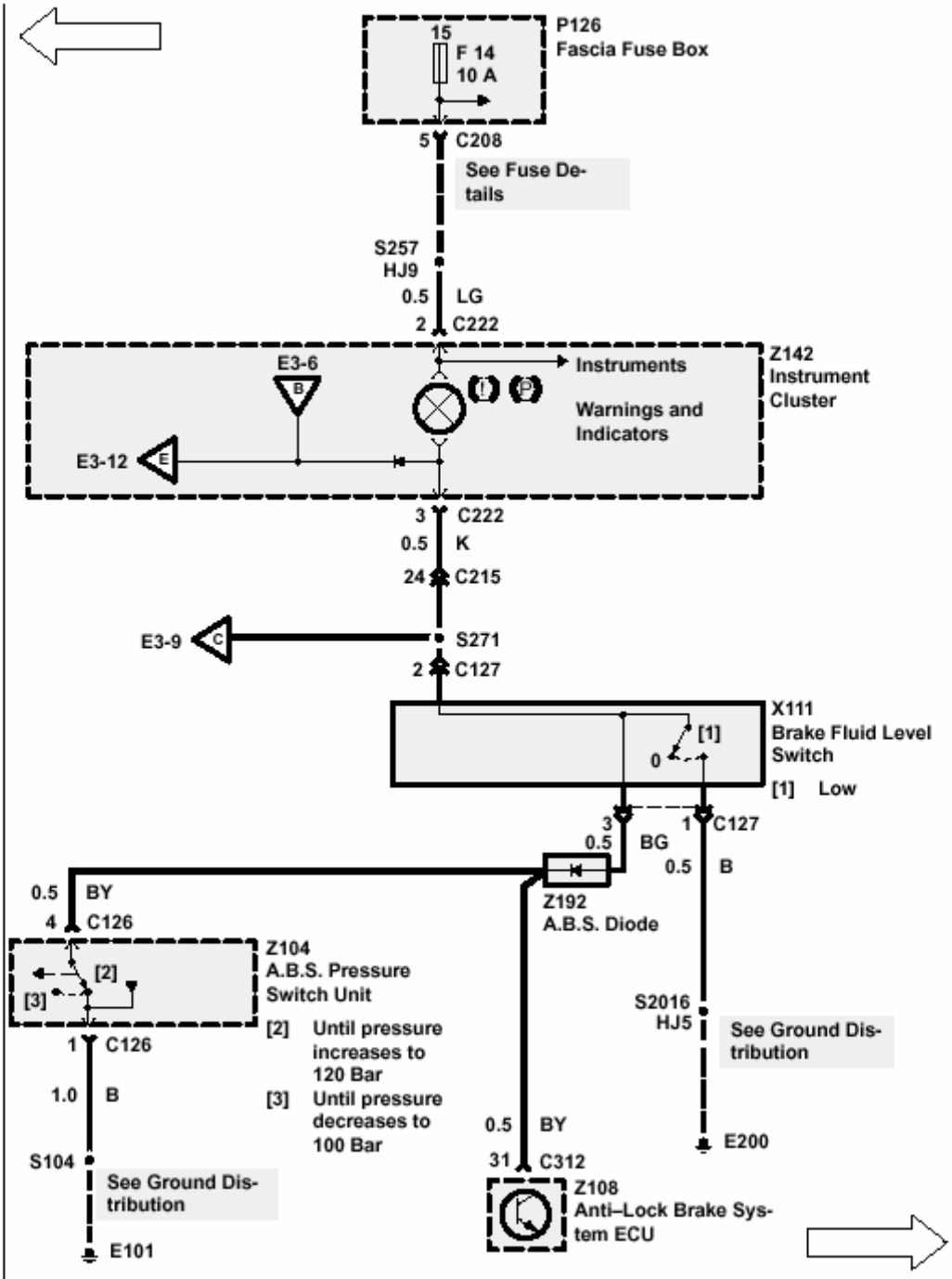
1995 RANGE ROVER

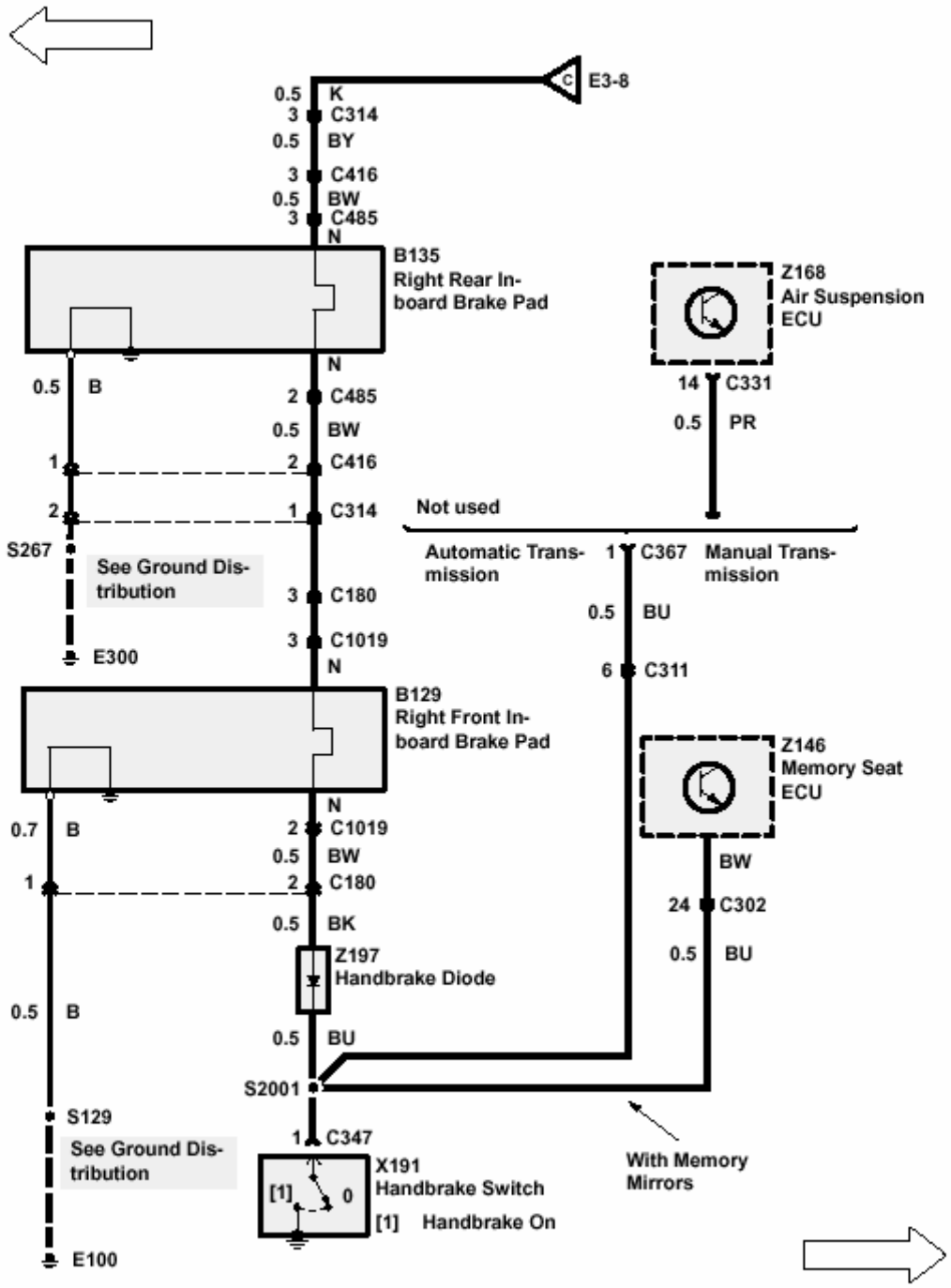


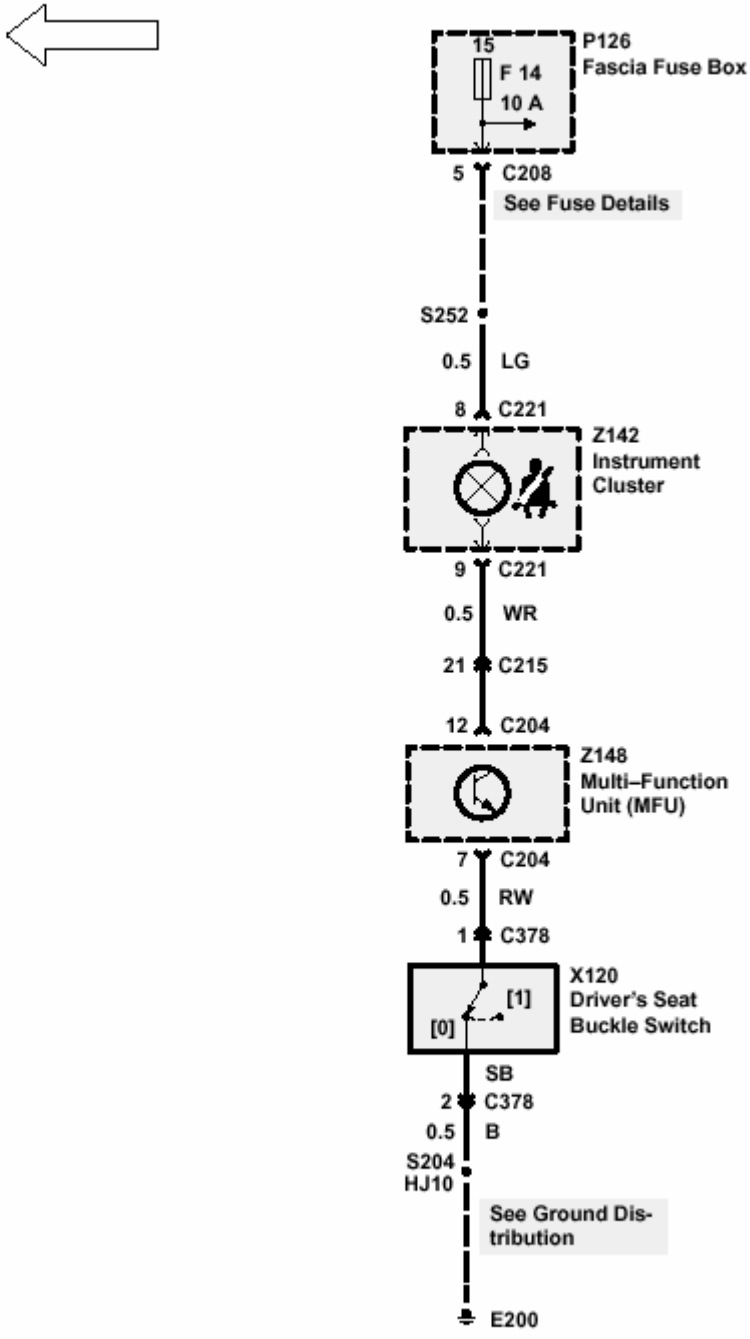

P126
Fascia Fuse Box
15
F 14
10 A
5 C208
See Fuse Details
S257
HJ9
0.5 LG
2 C222
Z142
Instrument Cluster
Instruments
Warnings and Indicators
Not used
6 C221
Not used
5 C222
0.5 WN
14 C208
Z148
Multi–Function Unit (MFU)
A
P126
Fascia Fuse Box
3 C204
0.5 WN
3 C217
0.5 WN
1 C142
X149
Oil Pressure Switch
[1]
0
[1] 0.19–0.40 Bar
(2.75–5.75 psi)

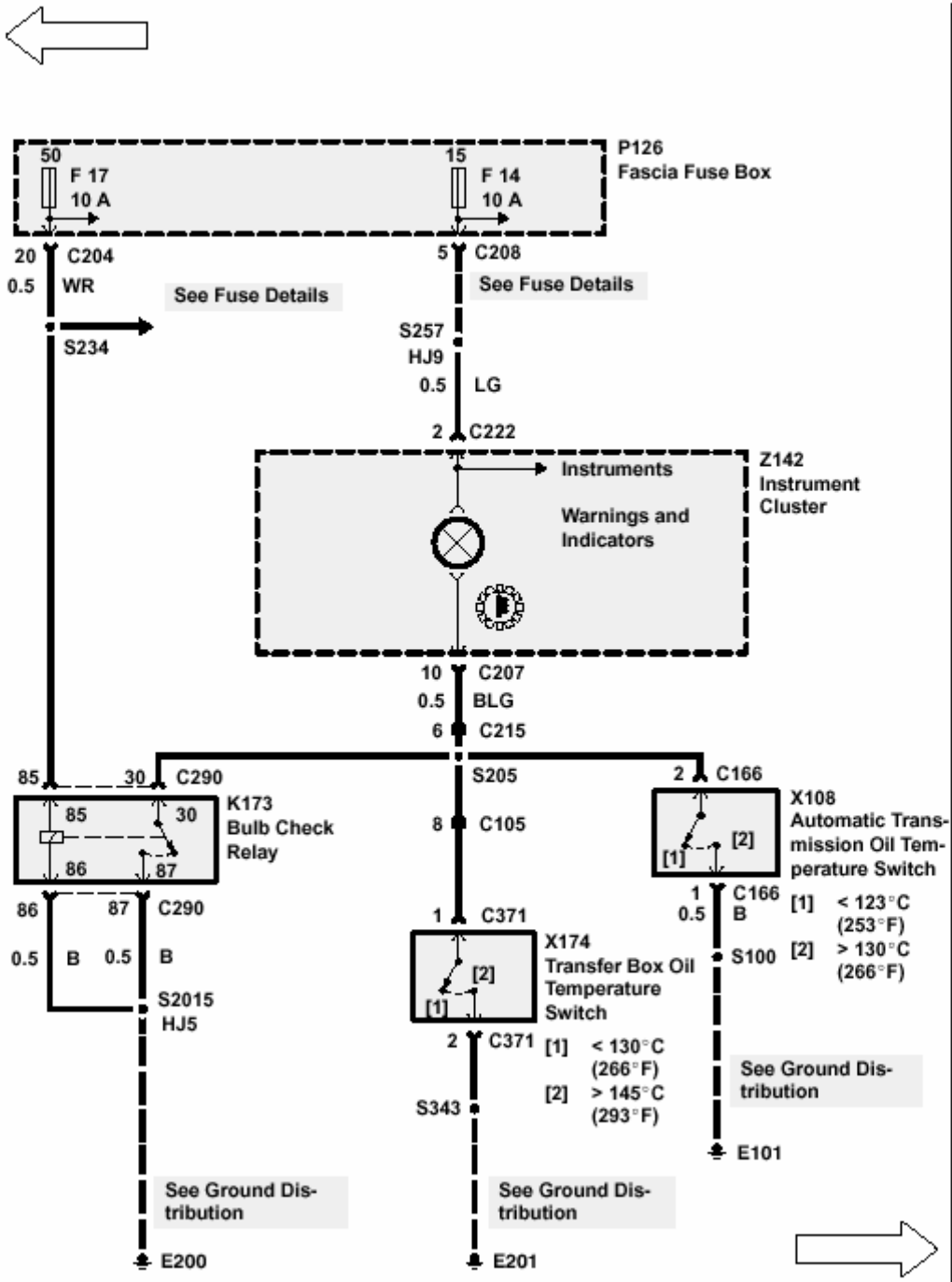
E3 ETM

1995 RANGE ROVER

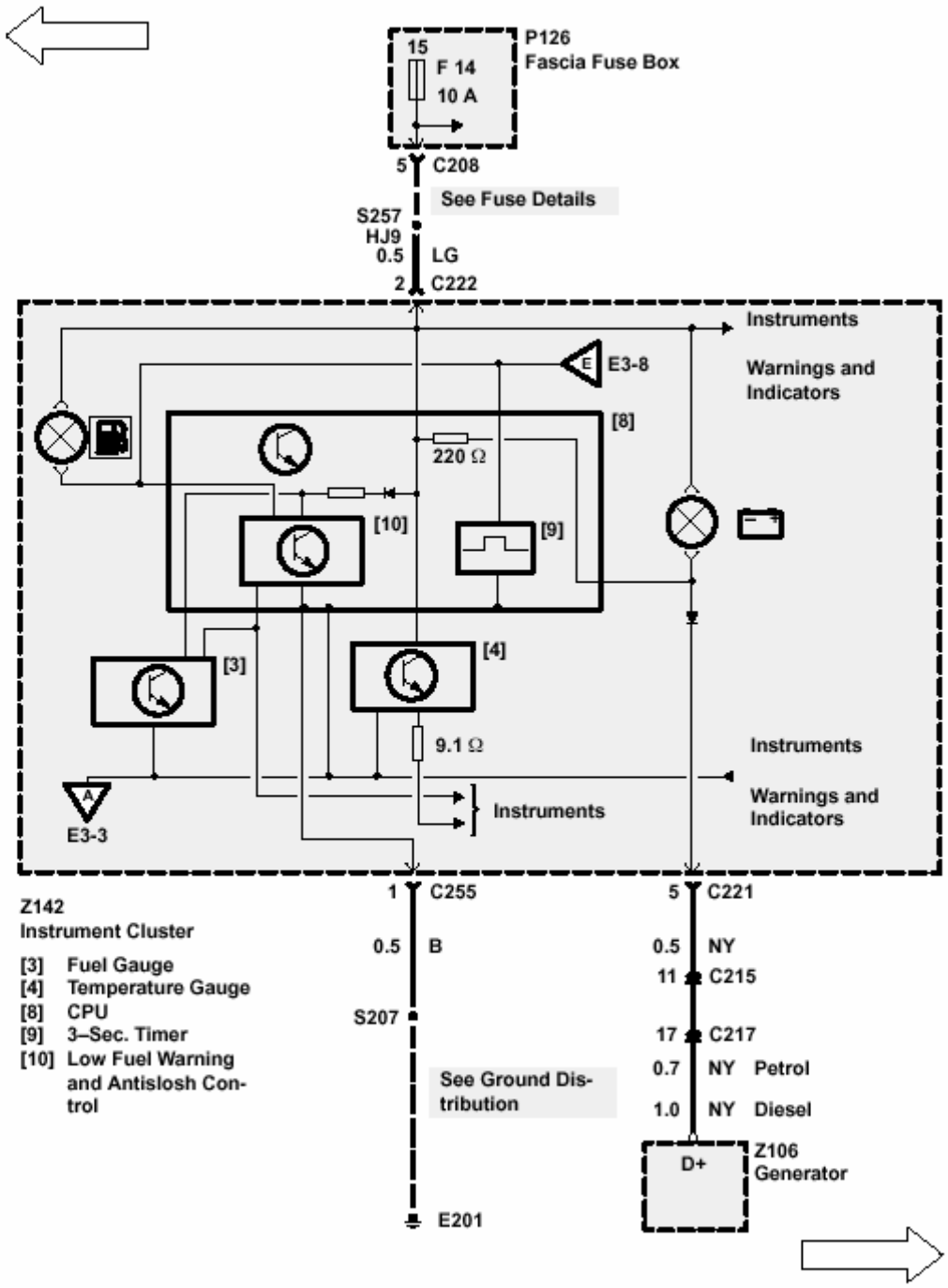


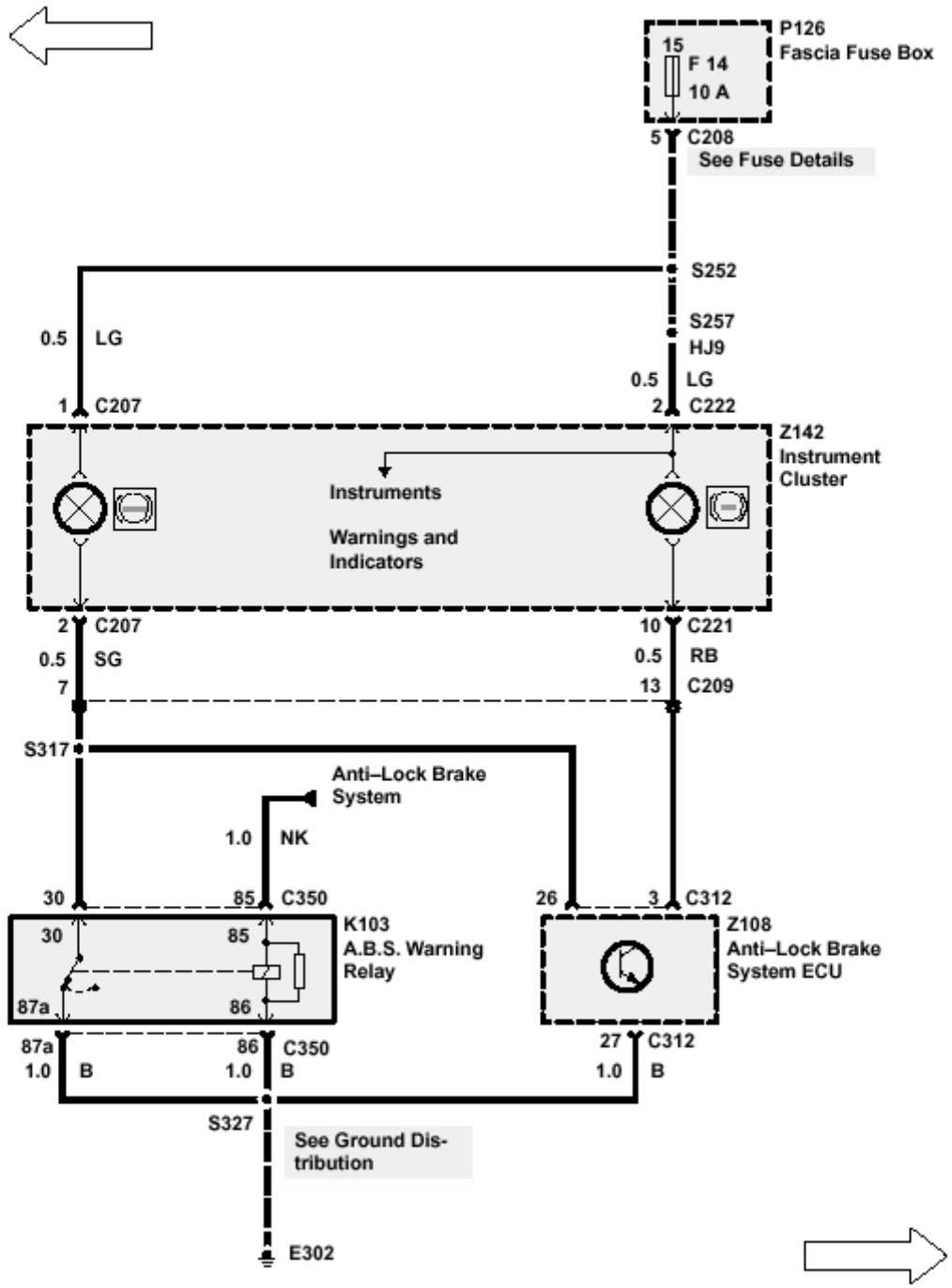

E3-8
0.5 K
3 C314
0.5 BY
3 C416
0.5 BW
3 C485
N
B135
Right Rear In-board Brake Pad
Z168
Air Suspension ECU
14 C331
0.5 PR
N
0.5 B
2 C485
0.5 BW
1
2 C416
2
1 C314
Not used
S267
See Ground Distribution
Automatic Transmission
1 C367
Manual Transmission
0.5 BU
3 C180
3 C1019
N
6 C311
E300
B129
Right Front In-board Brake Pad
Z146
Memory Seat ECU
N
0.7 B
2 C1019
0.5 BW
1
2 C180
BW
24 C302
0.5 BK
0.5 BU
Z197
Handbrake Diode
0.5 B
0.5 BU
S2001
S129
See Ground Distribution
1 C347
X191
Handbrake Switch
[1] 0
[1] Handbrake On
With Memory Mirrors
E100

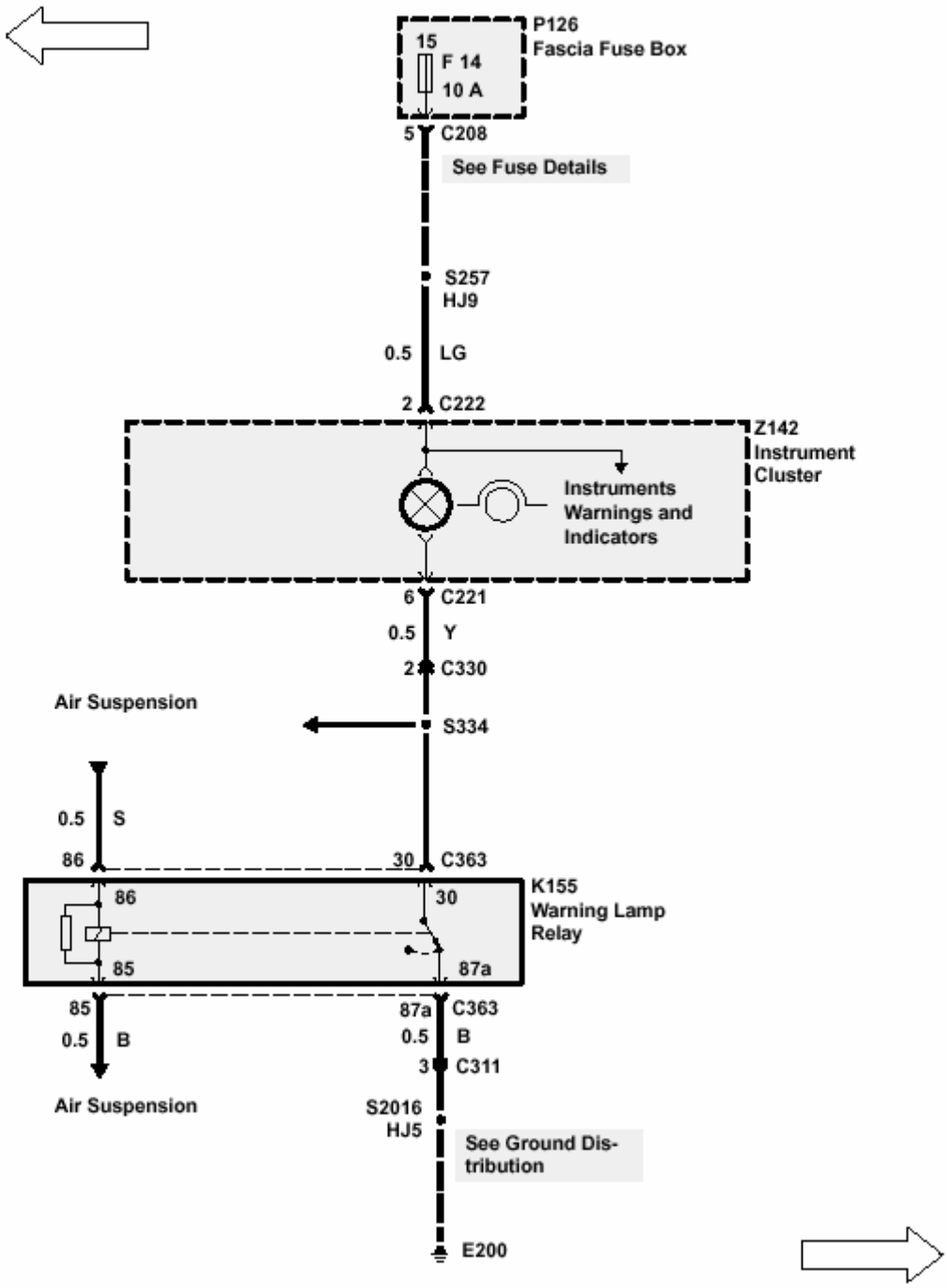

15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S252
0.5
LG
8
C221
Z142
Instrument
Cluster
9
C221
0.5
WR
21
C215
12
C204
Z148
Multi–Function
Unit (MFU)
7
C204
0.5
RW
1
C378
[1]
[0]
X120
Driver's Seat
Buckle Switch
SB
2
C378
0.5
B
S204
HJ10
See Ground Dis-
tribution
E200

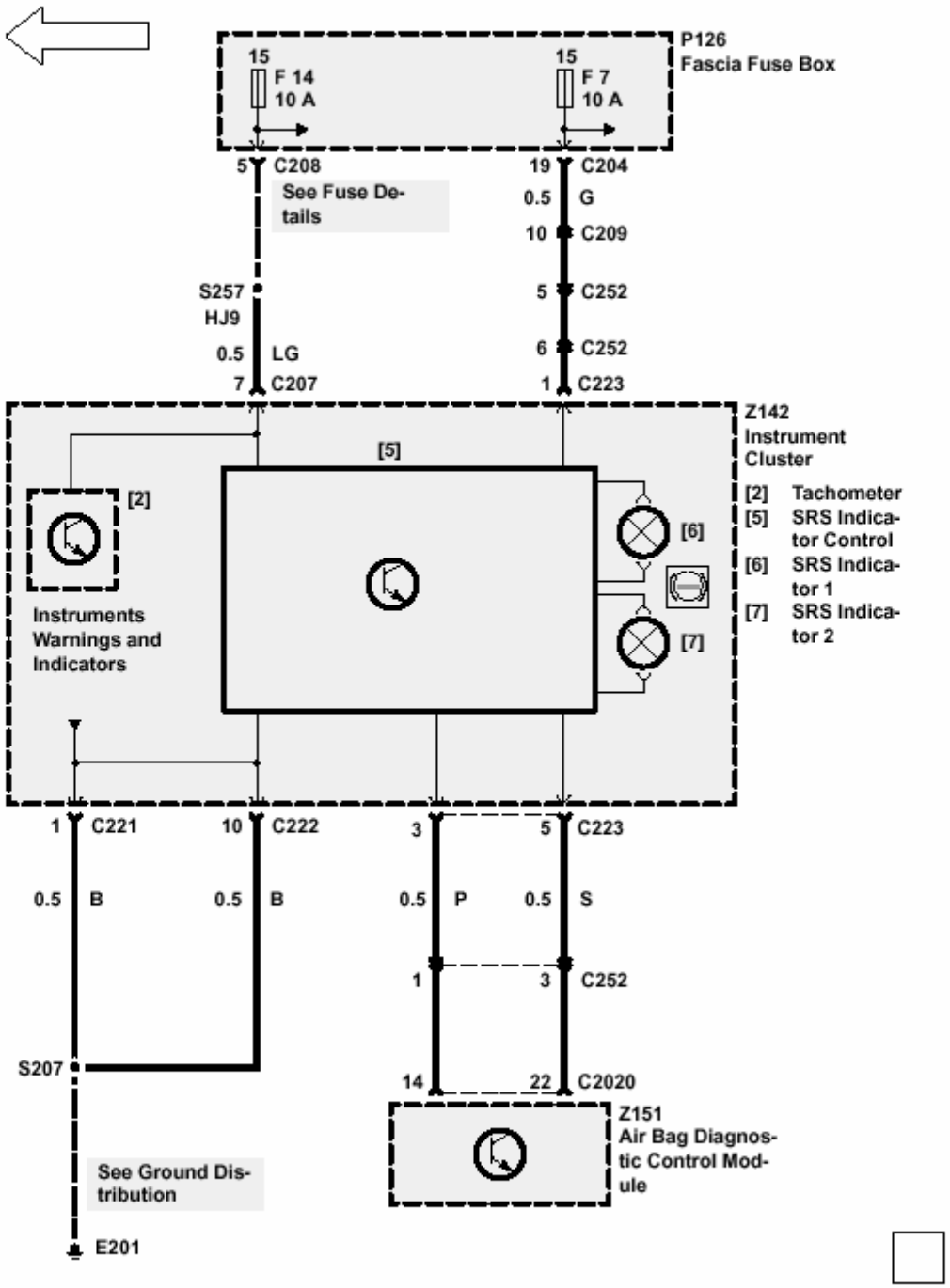

50
F 17
10 A
15
F 14
10 A
P126
Fascia Fuse Box
20
C204
0.5
WR
See Fuse Details
5
C208
See Fuse Details
S234
S257
HJ9
0.5
LG
2
C222
Z142
Instrument Cluster
Instruments
Warnings and Indicators
10
C207
0.5
BLG
6
C215
85
30
C290
K173
Bulb Check Relay
86
87
S205
8
C105
2
C166
X108
Automatic Transmission Oil Temperature Switch
[1]
[2]
1
C371
X174
Transfer Box Oil Temperature Switch
1
0.5
C166
B
S100
[1] < 123°C (253°F)
[2] > 130°C (266°F)
0.5
B
S2015
HJ5
[1] < 130°C (266°F)
[2] > 145°C (293°F)
S343
See Ground Distribution
E101
E200
E201

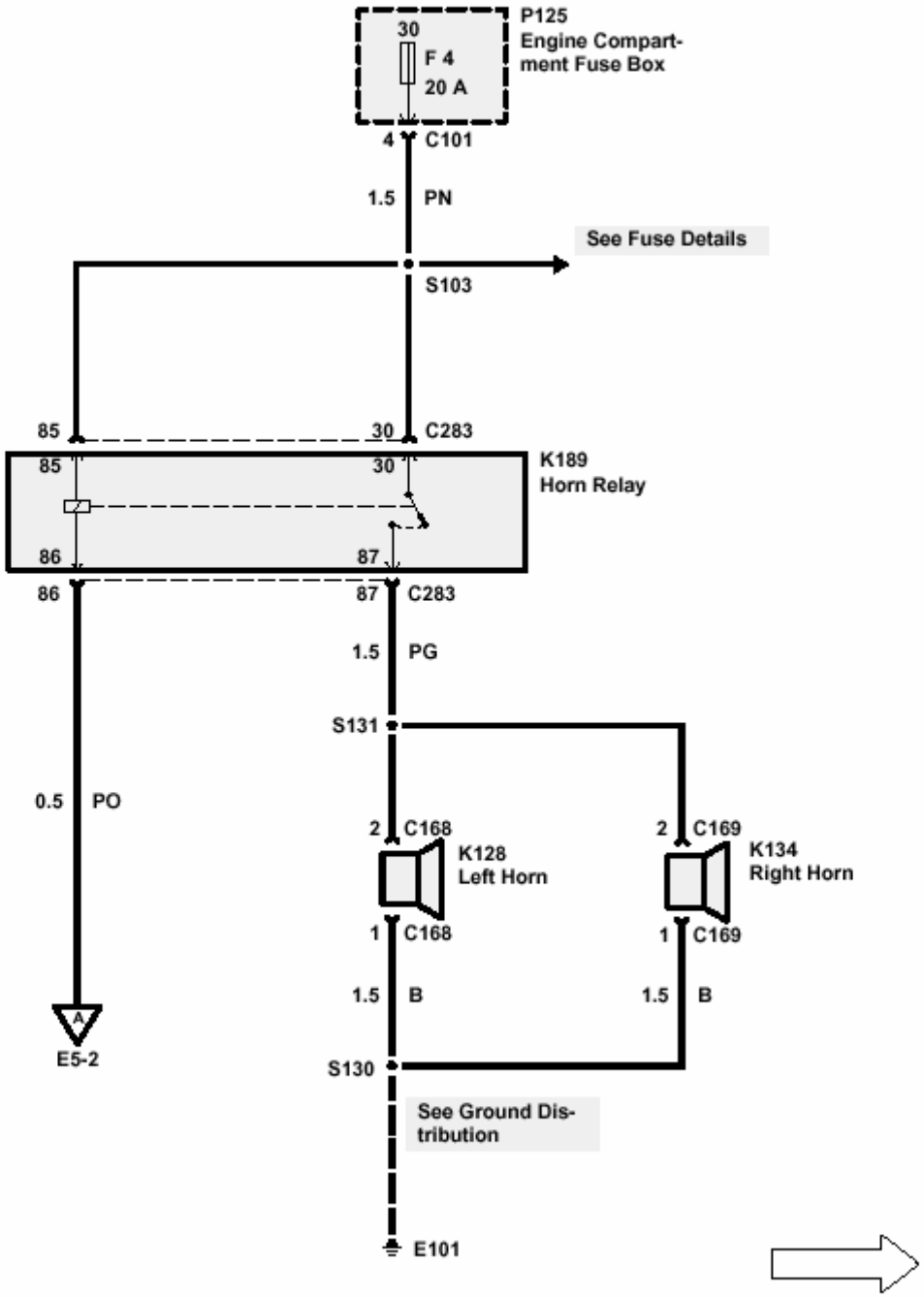
1995 RANGE ROVER

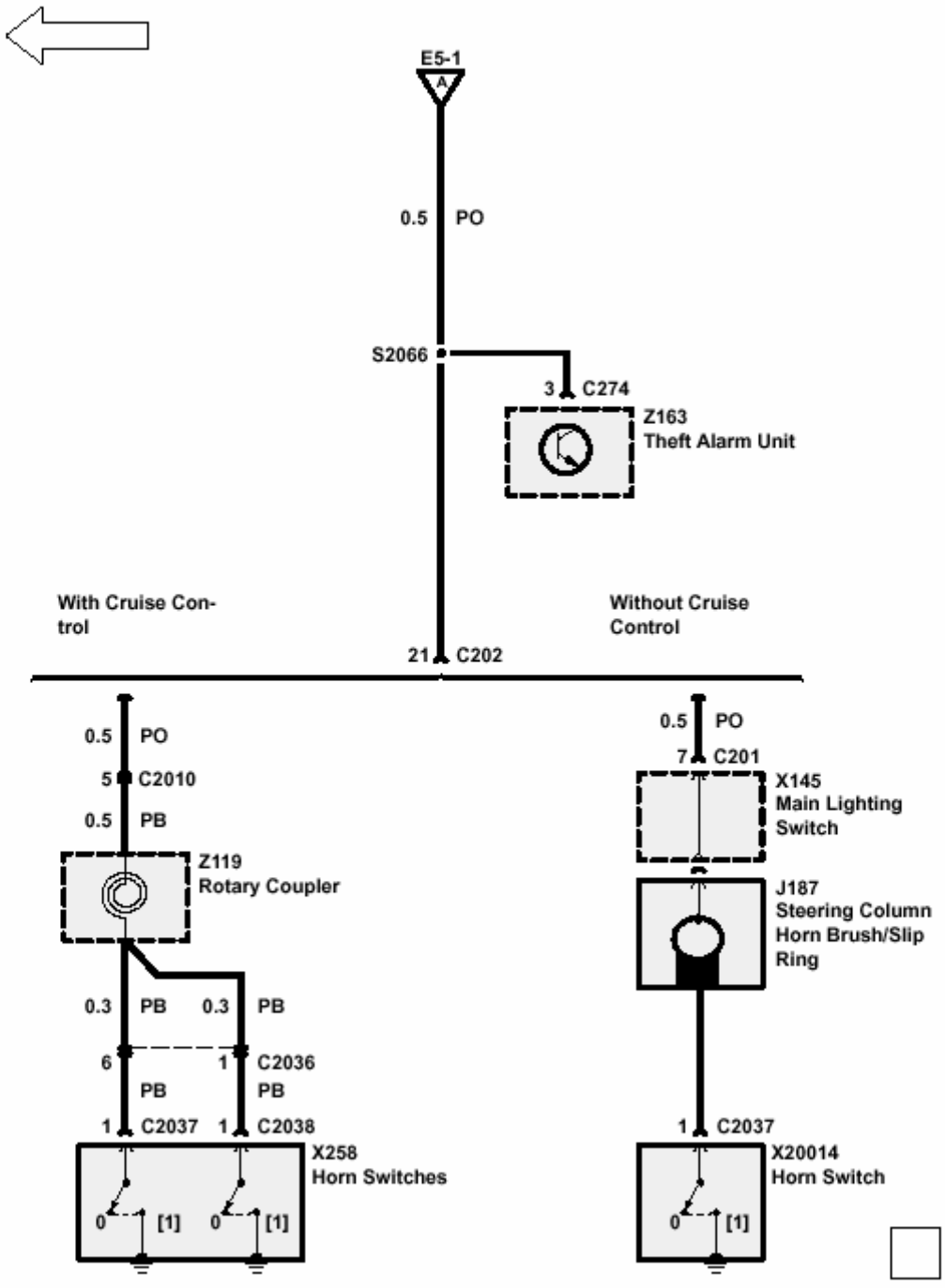


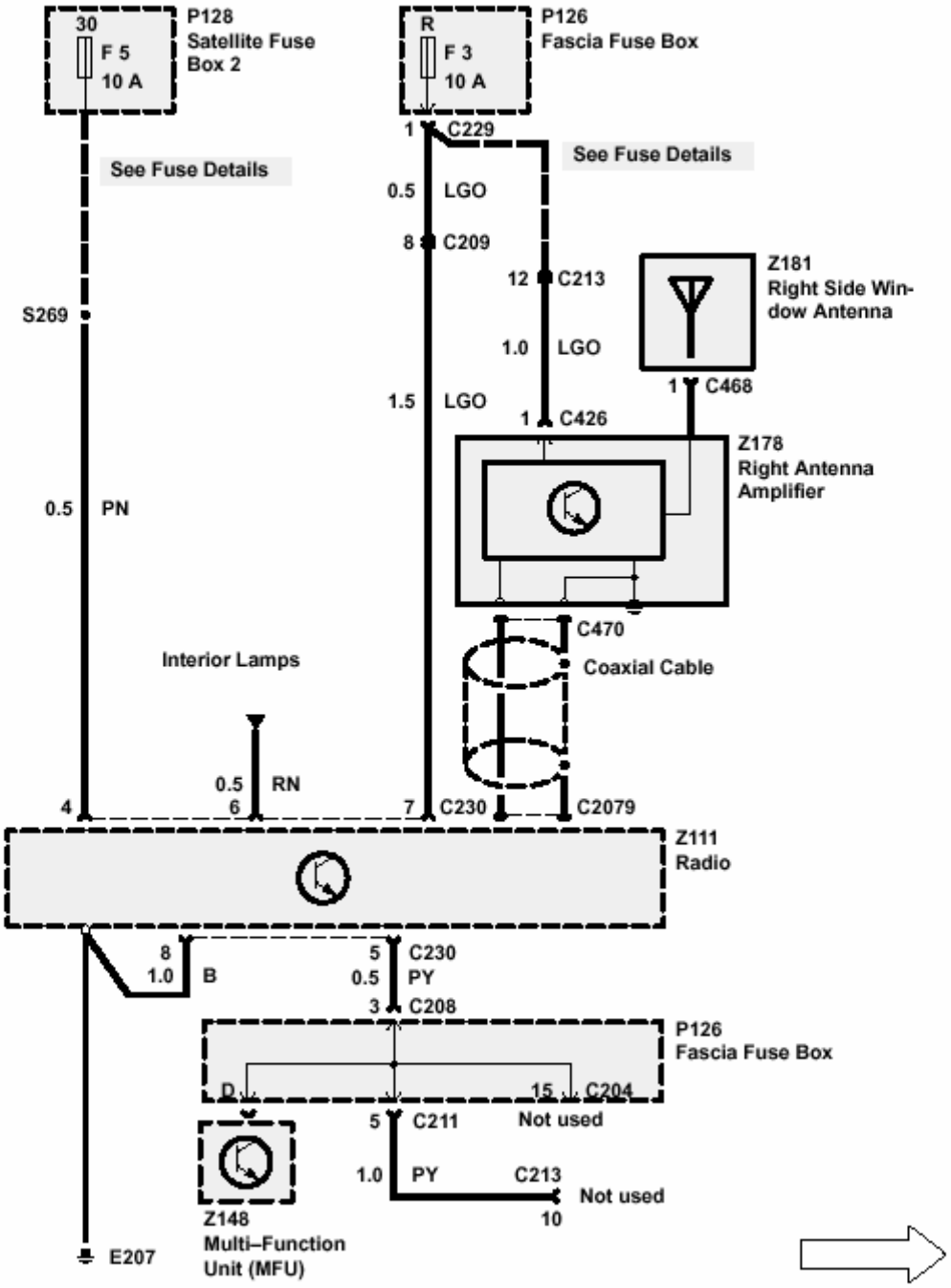

P126
Fascia Fuse Box
15
F 14
10 A
5 C208
See Fuse Details
S252
S257
HJ9
0.5 LG
1 C207
0.5 LG
2 C222
Z142
Instrument
Cluster
Instruments
Warnings and
Indicators
2 C207
0.5 SG
7
10 C221
0.5 RB
13 C209
S317
Anti–Lock Brake
System
1.0 NK
30
85 C350
26
3 C312
K103
A.B.S. Warning
Relay
30
85
87a
86
Z108
Anti–Lock Brake
System ECU
87a
1.0 B
86 C350
1.0 B
27 C312
1.0 B
S327
See Ground Dis-
tribution
E302


P126
Fascia Fuse Box
15
F 14
10 A
5
C208
See Fuse Details
S257
HJ9
0.5
LG
2
C222
Z142
Instrument
Cluster
Instruments
Warnings and
Indicators
6
C221
0.5
Y
2
C330
Air Suspension
S334
0.5
S
86
30
C363
K155
Warning Lamp
Relay
86
30
85
87a
85
0.5
B
Air Suspension
87a
C363
0.5
B
3
C311
S2016
HJ5
See Ground Dis-
tribution
E200

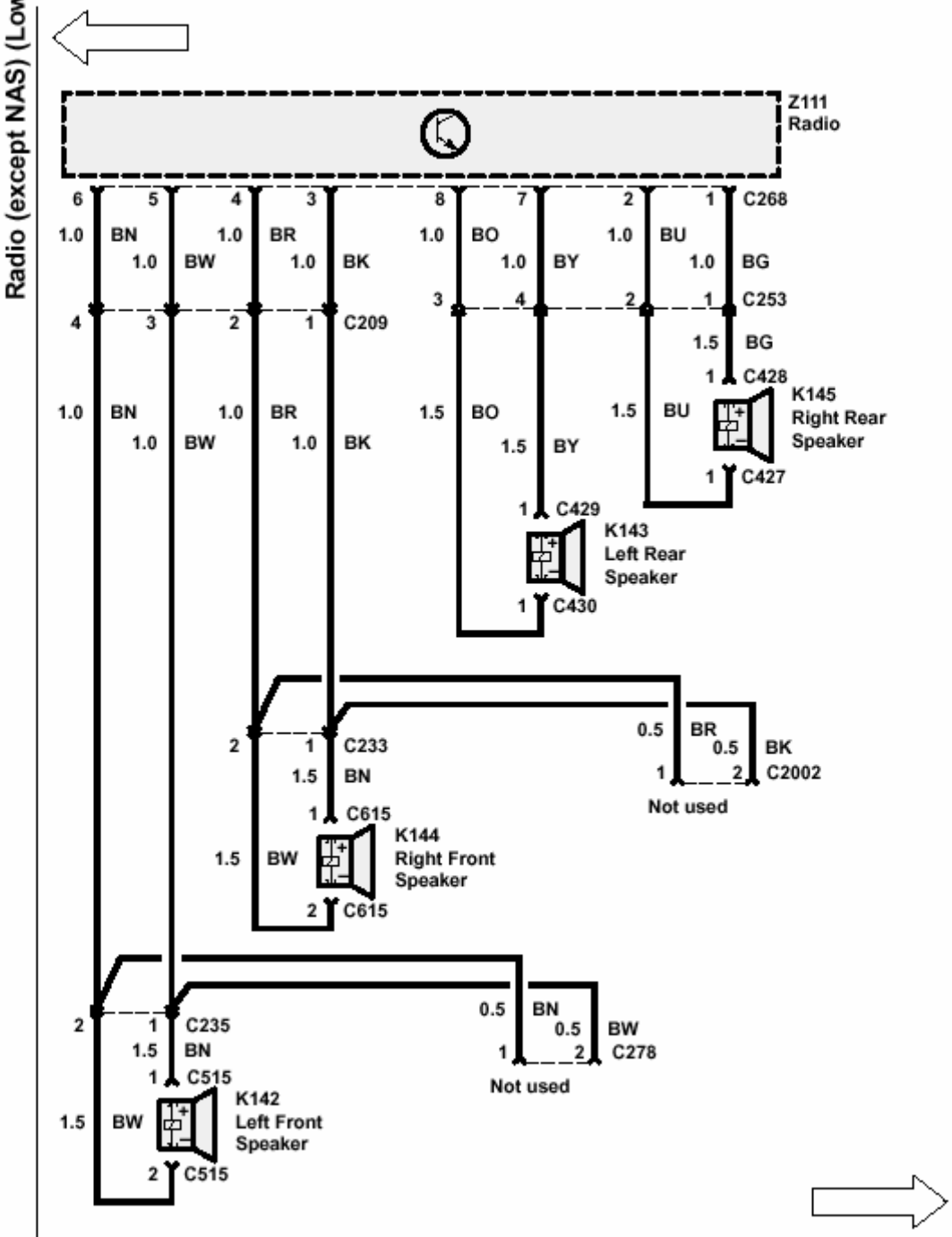

15
F 14
10 A
15
F 7
10 A
P126
Fascia Fuse Box
5 C208
See Fuse Details
19 C204
0.5 G
10 C209
S257
HJ9
5 C252
0.5 LG
6 C252
7 C207
1 C223
Z142
Instrument Cluster
[5]
[2]
[6]
[7]
Instruments Warnings and Indicators
[2] Tachometer
[5] SRS Indicator Control
[6] SRS Indicator 1
[7] SRS Indicator 2
1 C221
10 C222
3
5 C223
0.5 B
0.5 B
0.5 P
0.5 S
1
3 C252
S207
14
22 C2020
Z151
Air Bag Diagnostic Control Module
See Ground Distribution
E201

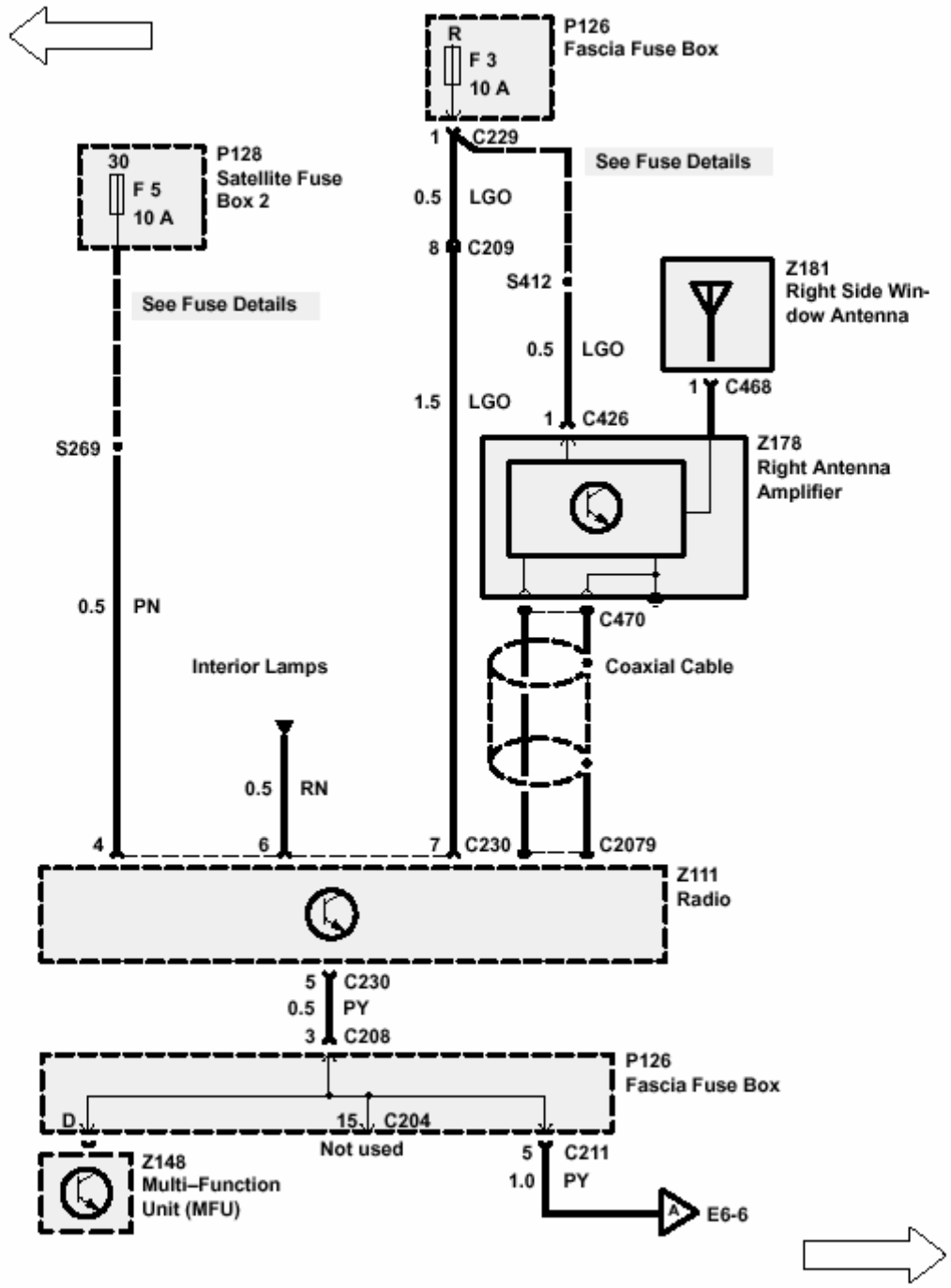

P125
Engine Compartment Fuse Box
30
F 4
20 A
4
C101
1.5
PN
See Fuse Details
S103
85
30
C283
K189
Horn Relay
85
30
86
87
86
87
C283
1.5
PG
S131
0.5
PO
2
C168
K128
Left Horn
2
C169
K134
Right Horn
1
C168
1
C169
1.5
B
1.5
B
A
E5-2
S130
See Ground Distribution
E101

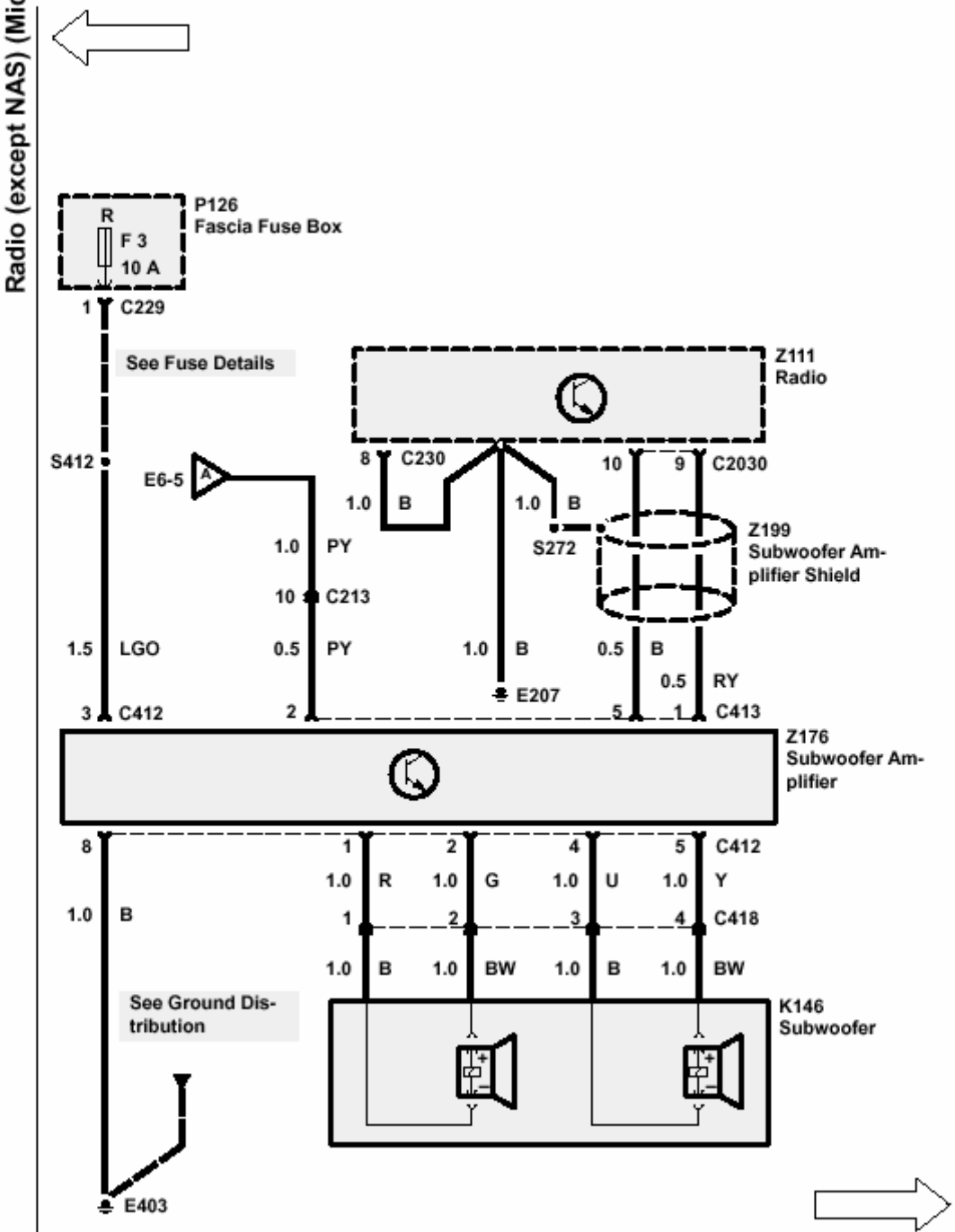

E5-1
0.5 PO
S2066
3 C274
Z163
Theft Alarm Unit
With Cruise Control
Without Cruise Control
21 C202
0.5 PO
5 C2010
0.5 PB
Z119
Rotary Coupler
0.3 PB
0.3 PB
6
1 C2036
PB
PB
1 C2037
1 C2038
X258
Horn Switches
0
[1]
0
[1]
0.5 PO
7 C201
X145
Main Lighting Switch
J187
Steering Column Horn Brush/Slip Ring
1 C2037
X20014
Horn Switch
0
[1]

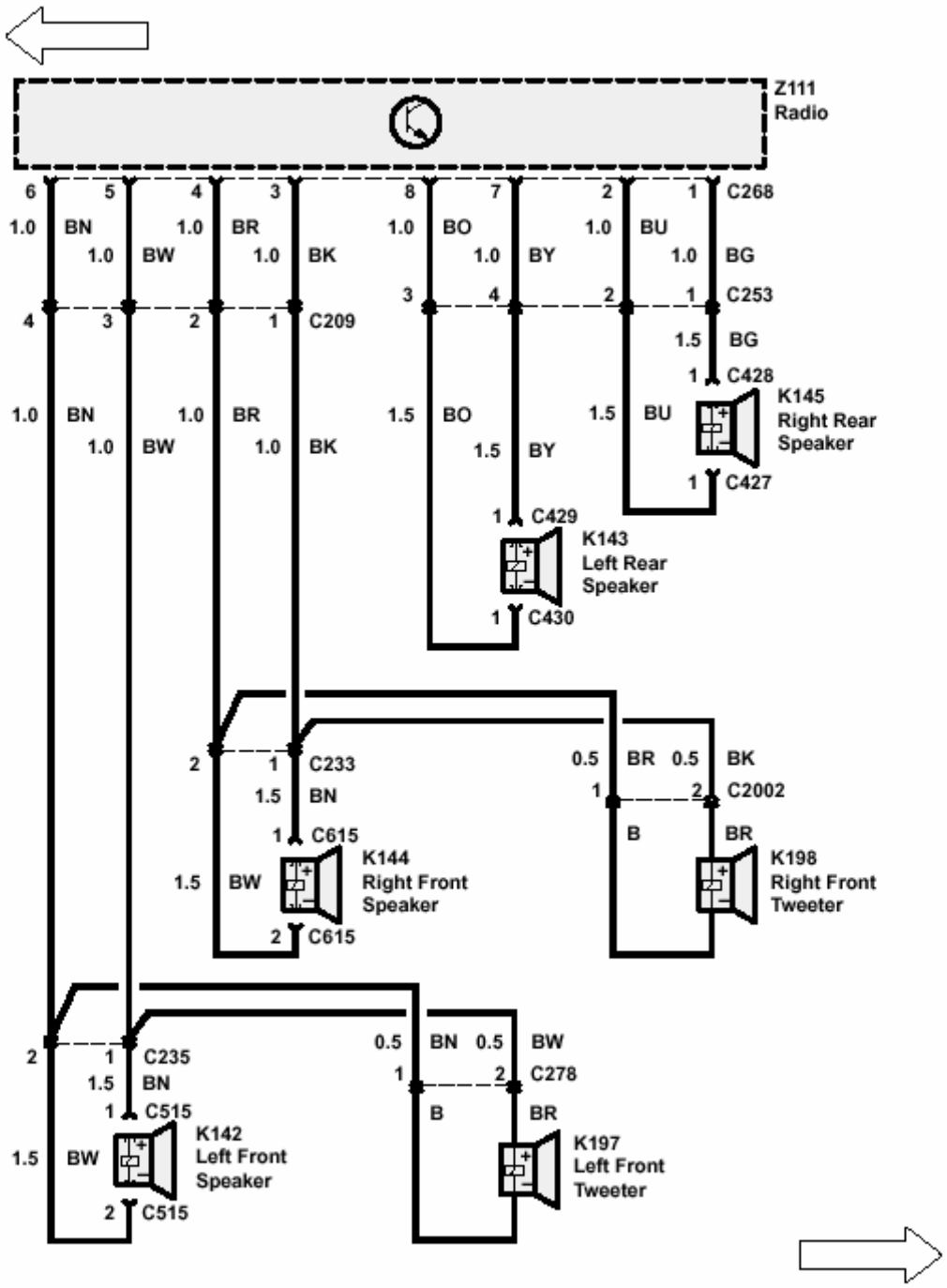

30
F 5
10 A
P128
Satellite Fuse
Box 2
See Fuse Details
S269
0.5 PN
4
R
F 3
10 A
P126
Fascia Fuse Box
1 C229
See Fuse Details
0.5 LGO
8 C209
12 C213
1.0 LGO
1.5 LGO
1 C426
Z181
Right Side Window Antenna
1 C468
Z178
Right Antenna
Amplifier
C470
Coaxial Cable
C2079
Interior Lamps
0.5 RN
6
7 C230
Z111
Radio
8
1.0 B
5 C230
0.5 PY
3 C208
P126
Fascia Fuse Box
D
15 C204
5 C211
Not used
1.0 PY C213
Not used
10
Z148
Multi–Function
Unit (MFU)
E207

Radio (except NAS) (Low Line)

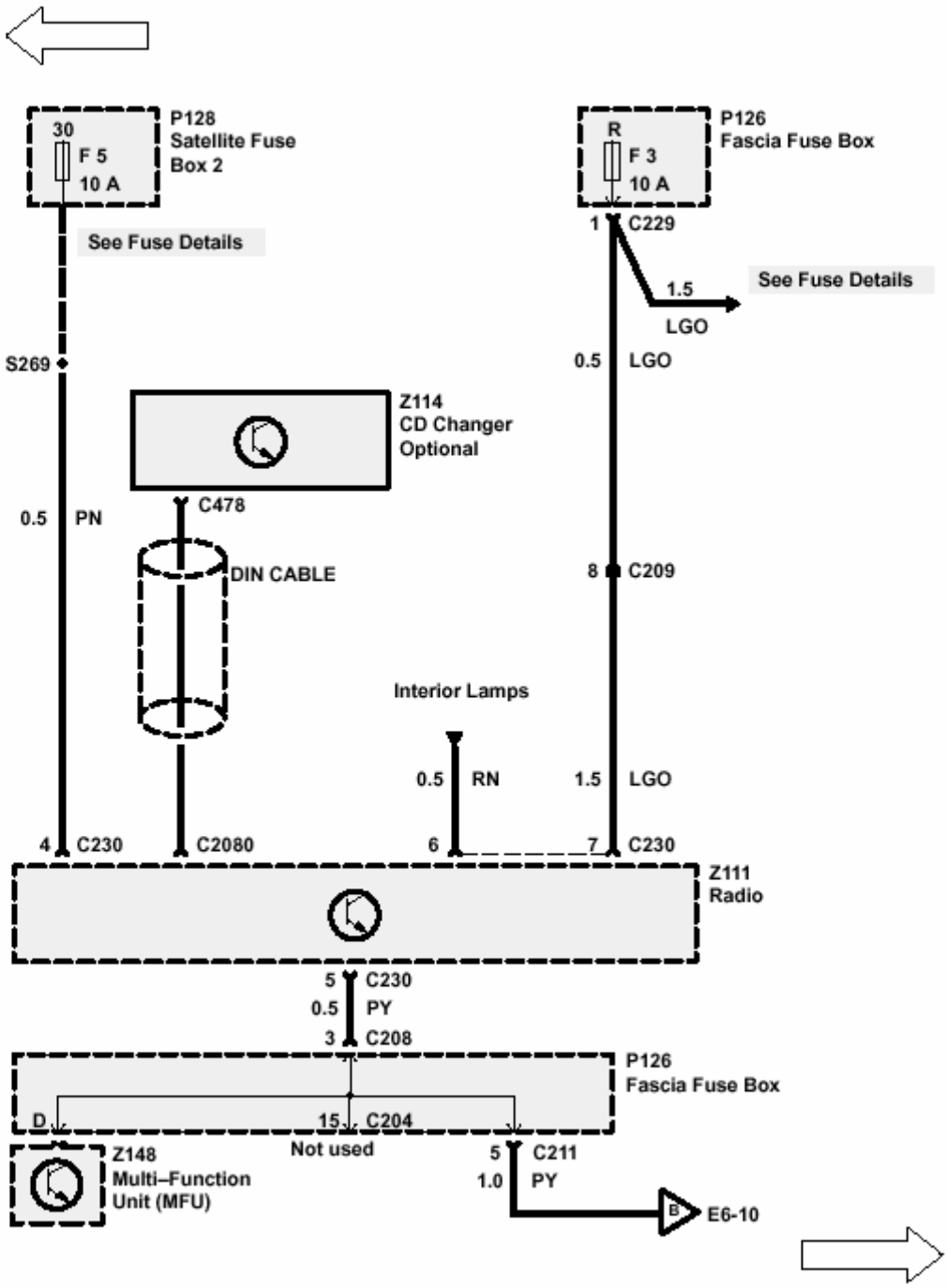


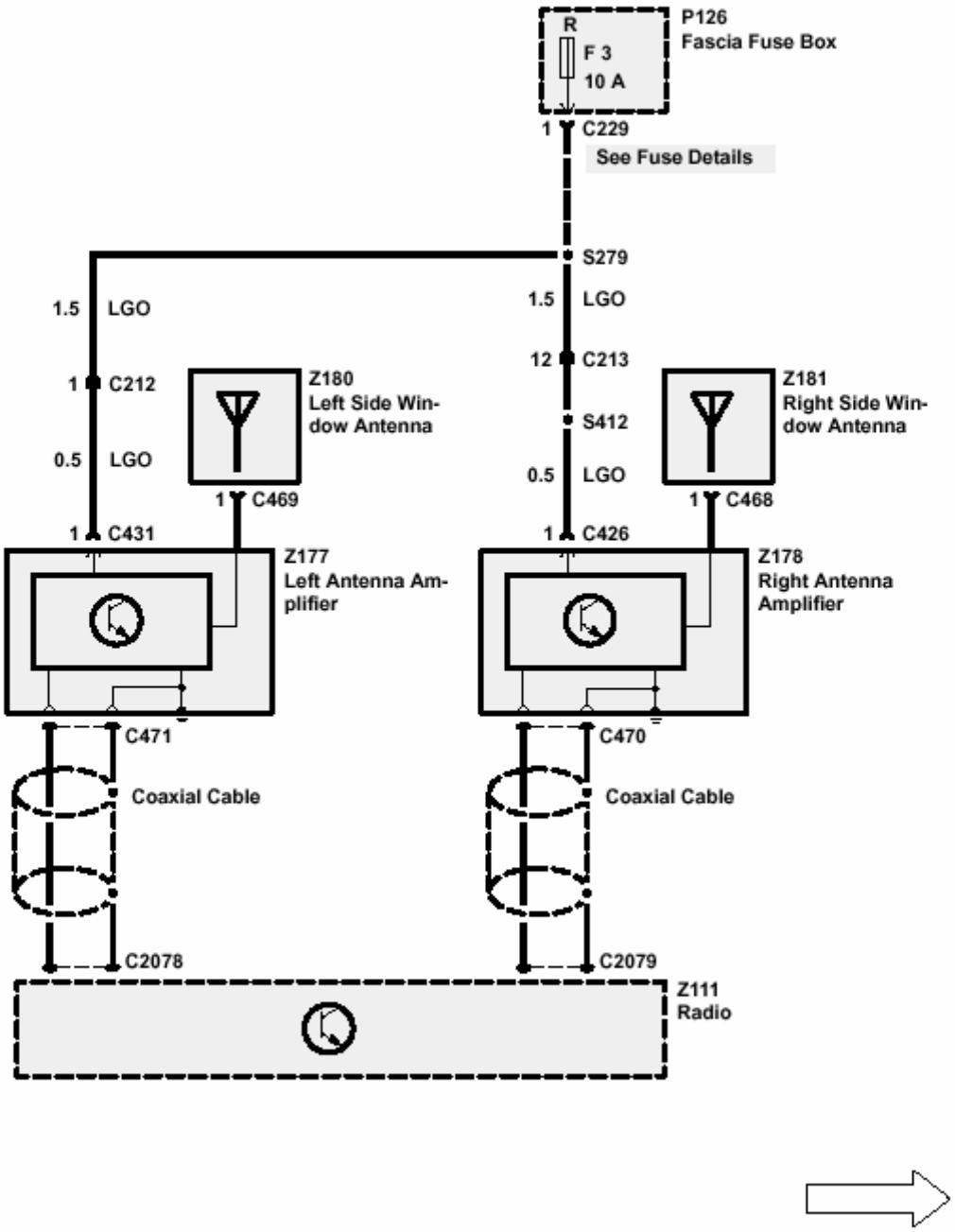

R
F 3
10 A
P126
Fascia Fuse Box
1
C229
See Fuse Details
0.5
LGO
8
C209
S412
0.5
LGO
1.5
LGO
1
C426
30
F 5
10 A
P128
Satellite Fuse
Box 2
See Fuse Details
S269
0.5
PN
Interior Lamps
0.5
RN
4
6
7
C230
Z181
Right Side Win-
dow Antenna
1
C468
Z178
Right Antenna
Amplifier
C470
Coaxial Cable
C2079
Z111
Radio
5
C230
0.5
PY
3
C208
P126
Fascia Fuse Box
D
15
C204
Not used
5
C211
1.0
PY
A
E6-6
Z148
Multi–Function
Unit (MFU)

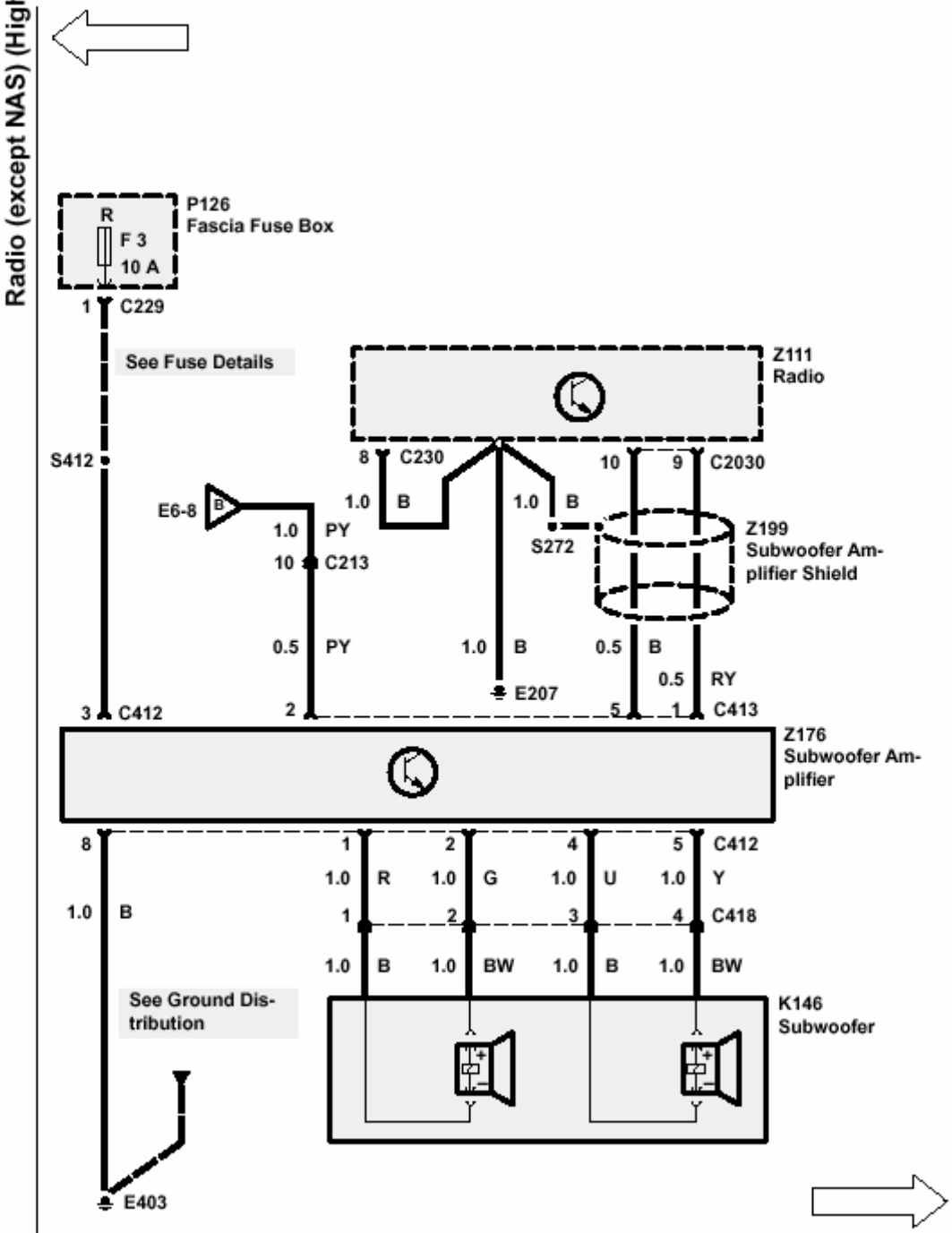

P126
Fascia Fuse Box
R
F 3
10 A
1 C229
See Fuse Details
S412
E6-5
A
Z111
Radio
8 C230
10 9 C2030
1.0 B
1.0 B
1.0 PY
S272
Z199
Subwoofer Amplifier Shield
10 C213
1.5 LGO
0.5 PY
1.0 B
0.5 B
0.5 RY
E207
3 C412
2
5
1 C413
Z176
Subwoofer Amplifier
8
1 2 4 5 C412
1.0 R 1.0 G 1.0 U 1.0 Y
1.0 B
1 2 3 4 C418
1.0 B 1.0 BW 1.0 B 1.0 BW
See Ground Distribution
K146
Subwoofer
E403

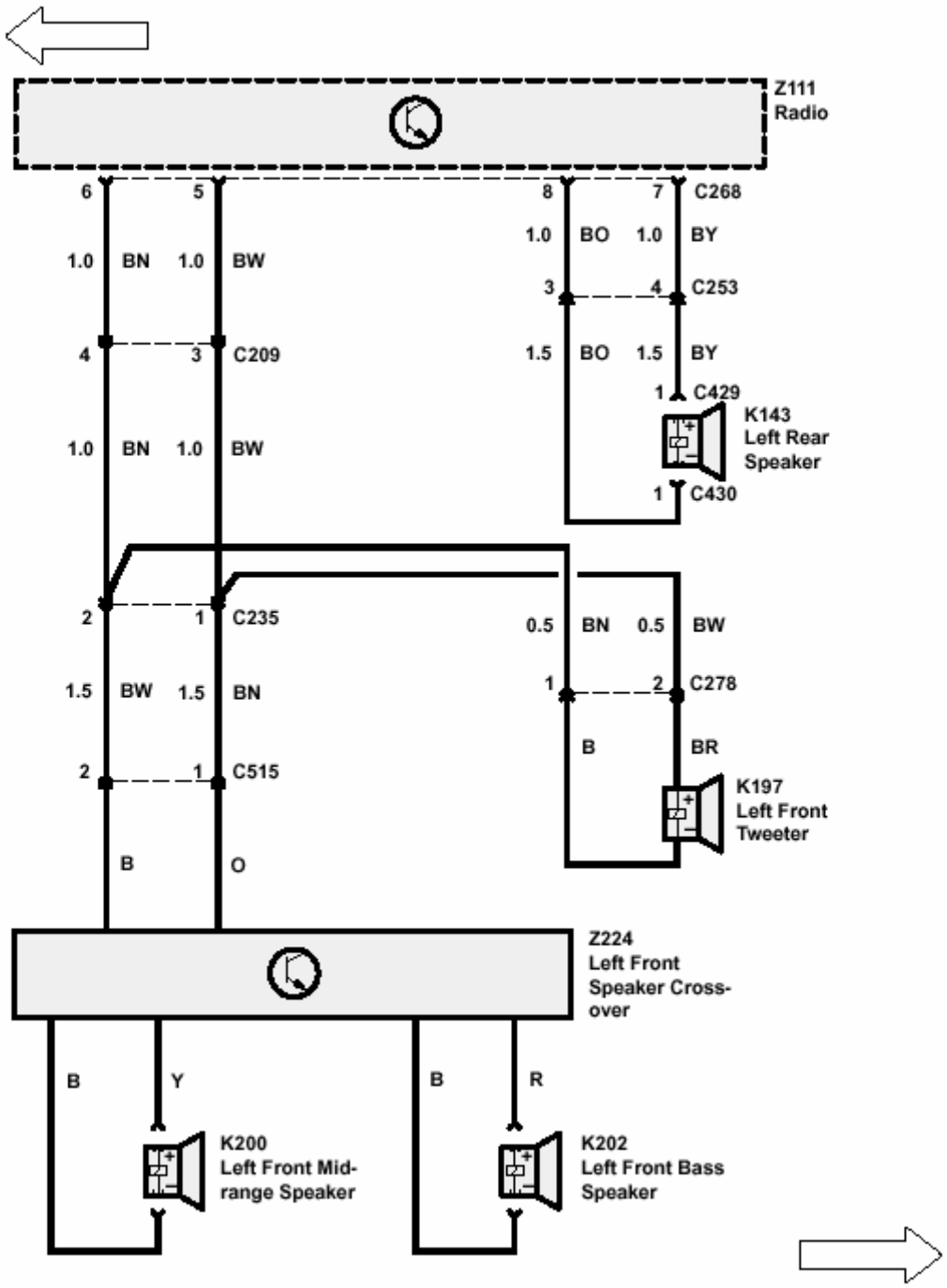

Z111
Radio
6 5 4 3 8 7 2 1 C268
1.0 BN 1.0 BW 1.0 BR 1.0 BK 1.0 BO 1.0 BY 1.0 BU 1.0 BG
4 3 2 1 C209 3 4 2 1 C253
1.5 BG
1 C428
K145
Right Rear
Speaker
1 C427
1.0 BN 1.0 BW 1.0 BR 1.0 BK 1.5 BO 1.5 BY 1.5 BU
1 C429
K143
Left Rear
Speaker
1 C430
2 1 C233
1.5 BN
1 C615
1.5 BW
K144
Right Front
Speaker
2 C615
0.5 BR 0.5 BK
1 2 C2002
B BR
K198
Right Front
Tweeter
2 1 C235
1.5 BN
1 C515
1.5 BW
K142
Left Front
Speaker
2 C515
0.5 BN 0.5 BW
1 2 C278
B BR
K197
Left Front
Tweeter

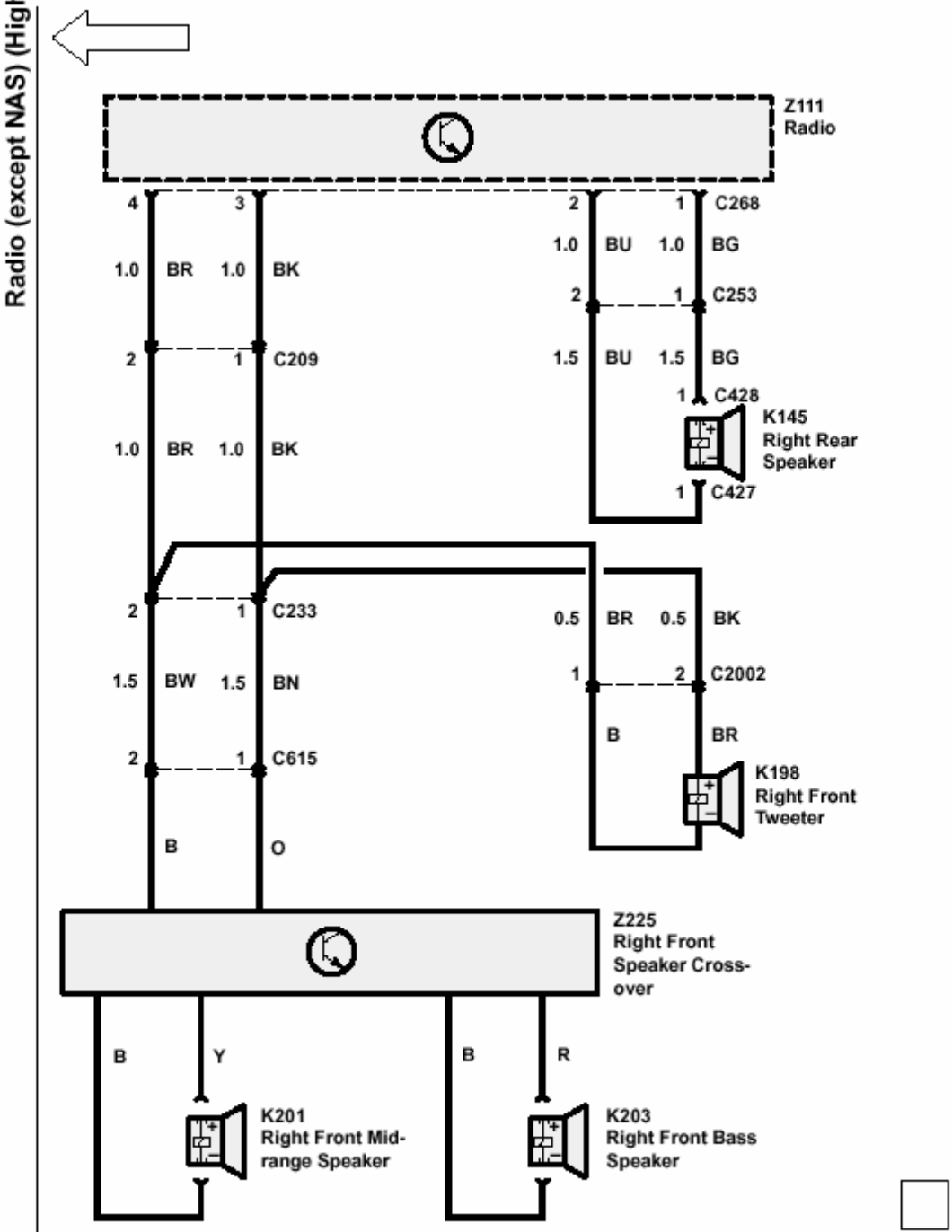
Radio (except NAS) (High Line)

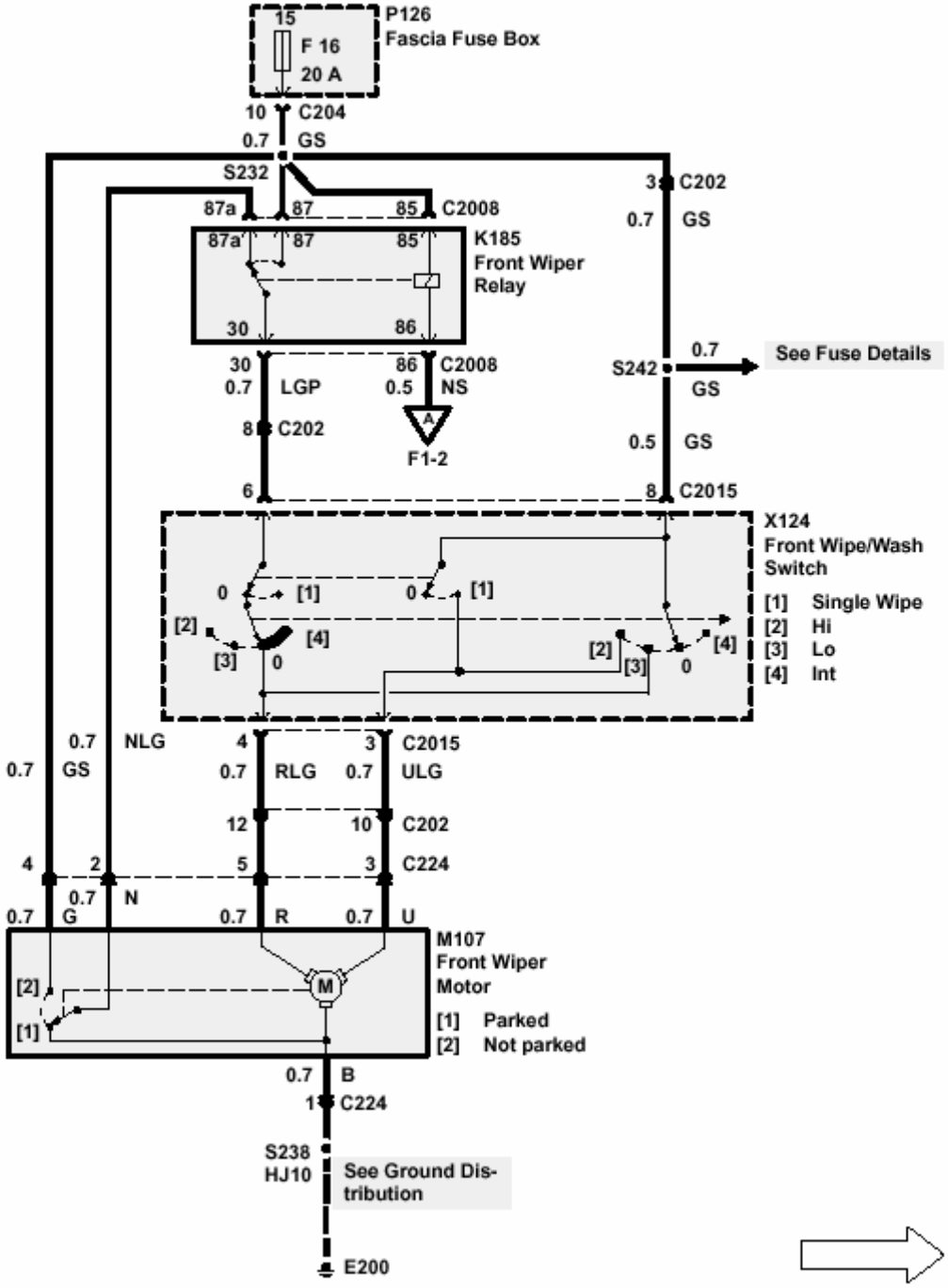



R
F 3
10 A
P126
Fascia Fuse Box
1
C229
See Fuse Details
S279
1.5
LGO
1.5
LGO
12
C213
1
C212
Z180
Left Side Window Antenna
Z181
Right Side Window Antenna
S412
0.5
LGO
0.5
LGO
1
C469
1
C468
1
C431
1
C426
Z177
Left Antenna Amplifier
Z178
Right Antenna Amplifier
C471
C470
Coaxial Cable
Coaxial Cable
C2078
C2079
Z111
Radio


P126
Fascia Fuse Box
R
F 3
10 A
1 C229
See Fuse Details
S412
Z111
Radio
8 C230
10 9 C2030
E6-8
B
1.0 B
1.0 B
1.0 PY
10 C213
S272
Z199
Subwoofer Amplifier Shield
0.5 PY
1.0 B
0.5 B
0.5 RY
E207
3 C412
2
5 1 C413
Z176
Subwoofer Amplifier
8
1 2 4 5 C412
1.0 R 1.0 G 1.0 U 1.0 Y
1.0 B
1 2 3 4 C418
1.0 B 1.0 BW 1.0 B 1.0 BW
See Ground Distribution
K146
Subwoofer
E403

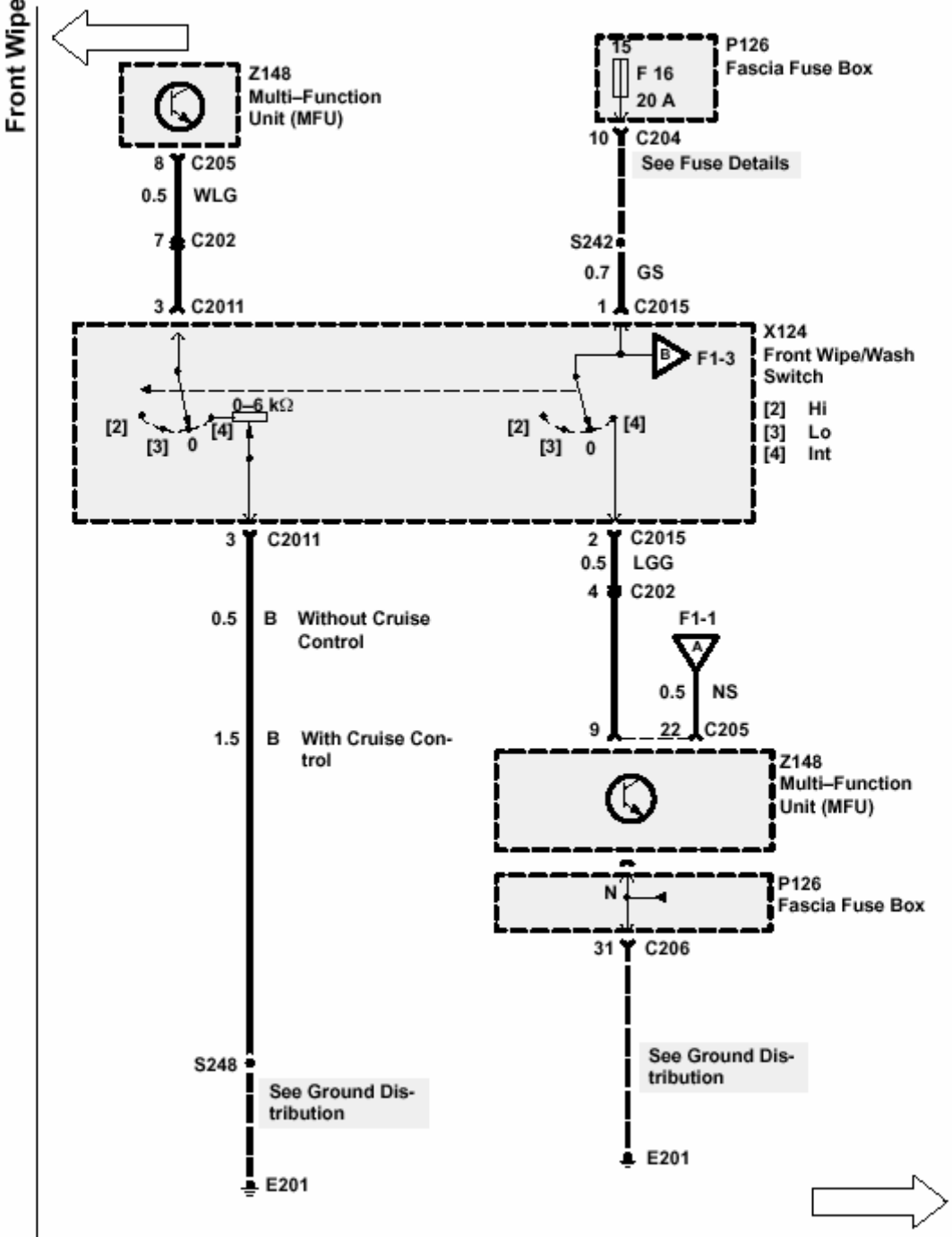

Z111
Radio
6
5
8
7
C268
1.0
BN
1.0
BW
1.0
BO
1.0
BY
3
4
C253
4
3
C209
1.5
BO
1.5
BY
1
C429
K143
Left Rear
Speaker
1.0
BN
1.0
BW
1
C430
2
1
C235
0.5
BN
0.5
BW
1.5
BW
1.5
BN
1
2
C278
2
1
C515
B
BR
K197
Left Front
Tweeter
B
O
Z224
Left Front
Speaker Cross-
over
B
Y
B
R
K200
Left Front Mid-
range Speaker
K202
Left Front Bass
Speaker

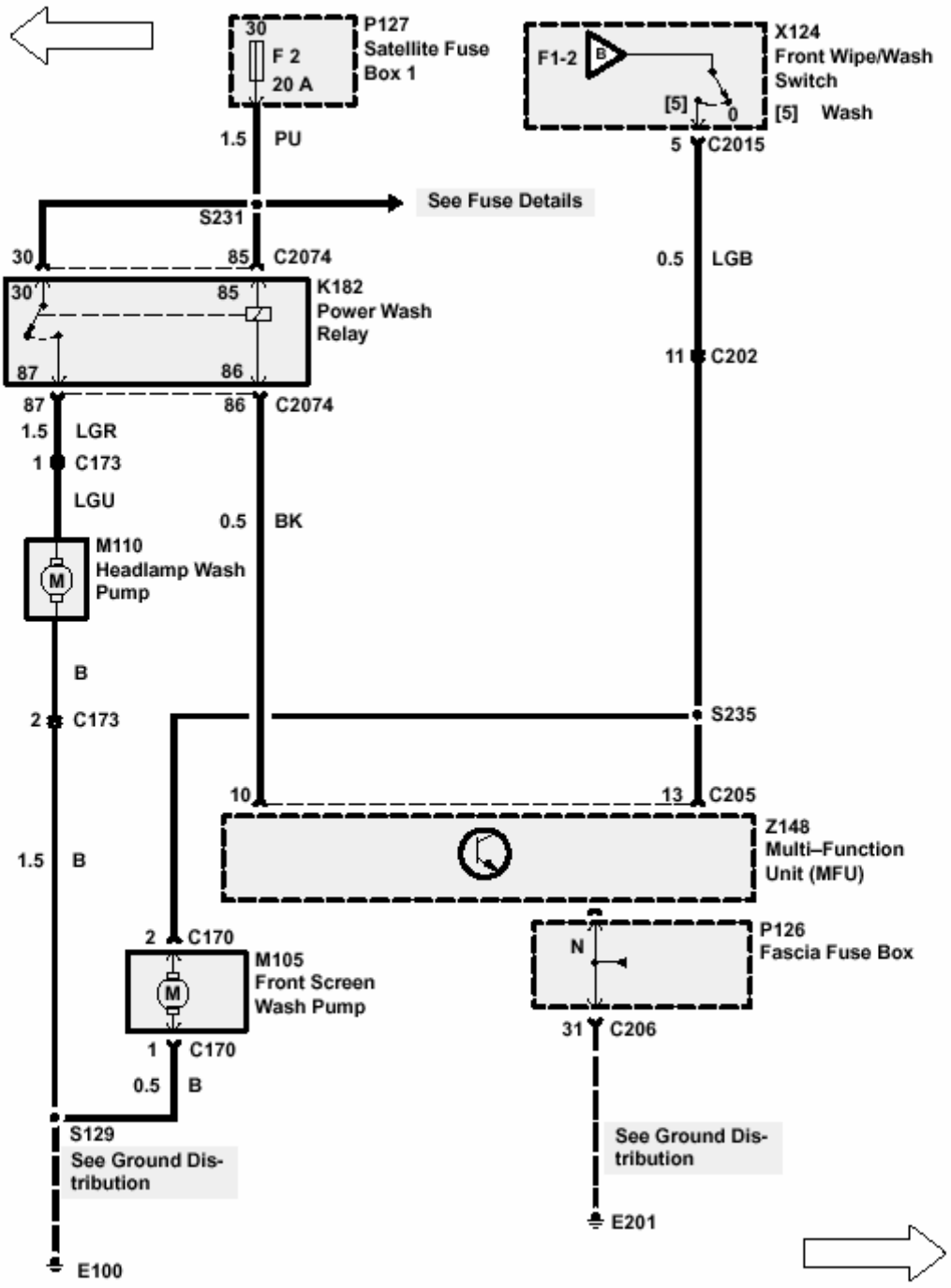

Z111
Radio
4
3
2
1
C268
1.0
BR
1.0
BK
1.0
BU
1.0
BG
2
1
C209
2
1
C253
1.5
BU
1.5
BG
1
C428
K145
Right Rear
Speaker
1.0
BR
1.0
BK
1
C427
2
1
C233
0.5
BR
0.5
BK
1.5
BW
1.5
BN
1
2
C2002
B
BR
2
1
C615
K198
Right Front
Tweeter
B
O
Z225
Right Front
Speaker Cross-
over
B
Y
B
R
K201
Right Front Mid-
range Speaker
K203
Right Front Bass
Speaker

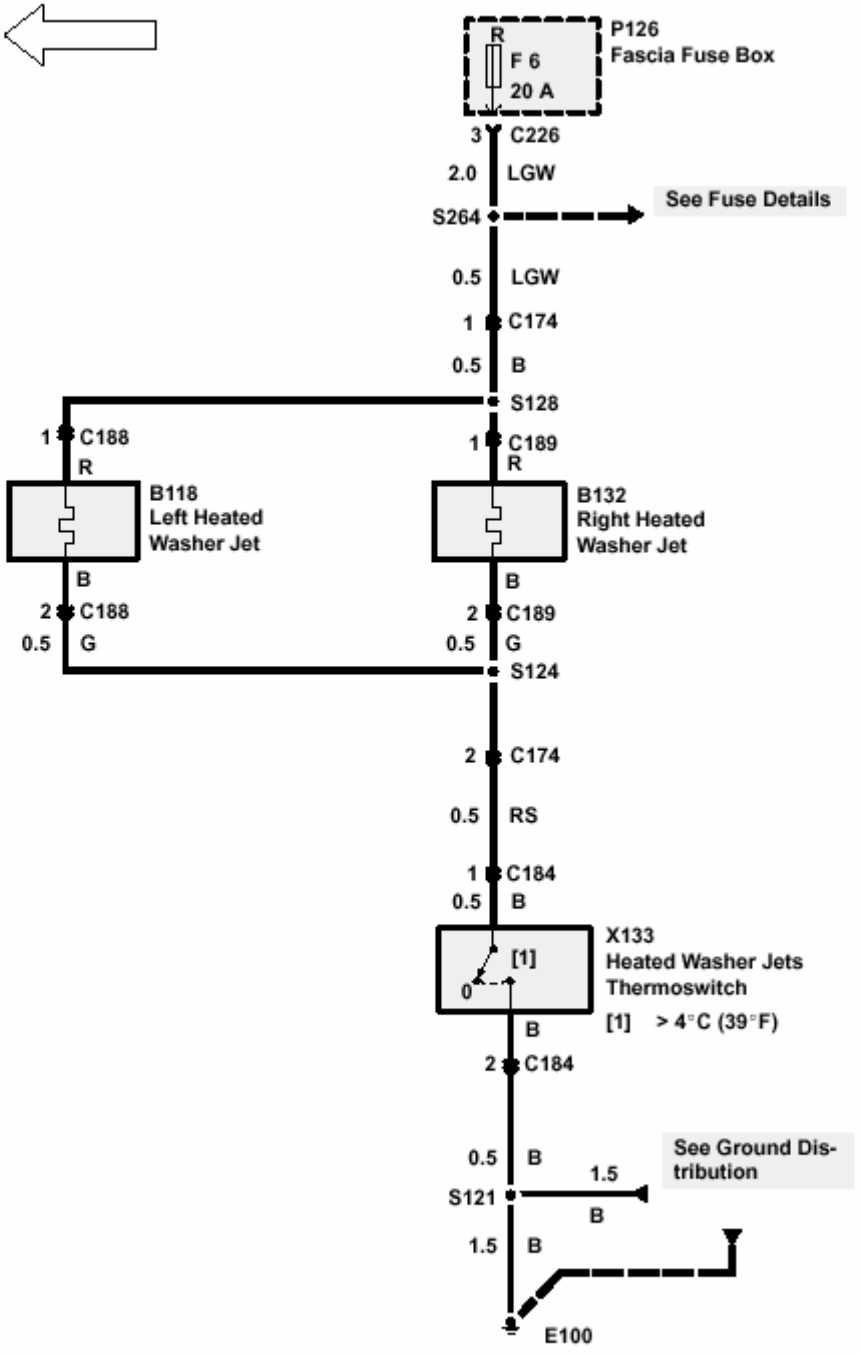

15
F 16
20 A
P126
Fascia Fuse Box
10 C204
0.7 GS
S232
87a 87 85 C2008
87a 87 85
K185
Front Wiper
Relay
30 86
30 0.7 LGP
86 C2008
0.5 NS
A
F1-2
8 C202
6
3 C202
0.7 GS
0.7
See Fuse Details
S242
GS
0.5 GS
8 C2015
X124
Front Wipe/Wash
Switch
[1] Single Wipe
[2] Hi
[3] Lo
[4] Int
0 [1] 0 [1]
[2] [4]
[3] 0
[2] [3] 0 [4]
0.7 NLG
0.7 GS
4
0.7 RLG
3
0.7 ULG
C2015
12
10 C202
4 2
5 3 C224
0.7 N
0.7 G
0.7 R
0.7 U
M107
Front Wiper
Motor
[2]
[1]
M
[1] Parked
[2] Not parked
0.7 B
1 C224
S238
HJ10
See Ground Dis-
tribution
E200

F1 ETM

1995 RANGE ROVER




30
F 2
20 A
P127
Satellite Fuse
Box 1
F1-2
B
X124
Front Wipe/Wash
Switch
[5]
0
[5] Wash
1.5 PU
5 C2015
See Fuse Details
S231
30
85 C2074
0.5 LGB
30
85
K182
Power Wash
Relay
87
86
11 C202
87
86 C2074
1.5 LGR
1 C173
LGU
0.5 BK
M110
Headlamp Wash
Pump
M
B
2 C173
S235
10
13 C205
Z148
Multi–Function
Unit (MFU)
1.5 B
2 C170
M105
Front Screen
Wash Pump
M
N
P126
Fascia Fuse Box
1 C170
31 C206
0.5 B
S129
See Ground Dis-
tribution
See Ground Dis-
tribution
E100
E201


R
F 6
20 A
P126
Fascia Fuse Box
3
C226
2.0
LGW
S264
See Fuse Details
0.5
LGW
1
C174
0.5
B
S128
1
C188
R
1
C189
R
B118
Left Heated
Washer Jet
B132
Right Heated
Washer Jet
B
2
C188
0.5
G
B
2
C189
0.5
G
S124
2
C174
0.5
RS
1
C184
0.5
B
X133
Heated Washer Jets
Thermoswitch
[1]
0
[1] > 4°C (39°F)
B
2
C184
0.5
B
See Ground Distribution
1.5
S121
B
1.5
B
E100

CIRCUIT OPERATION

Washer

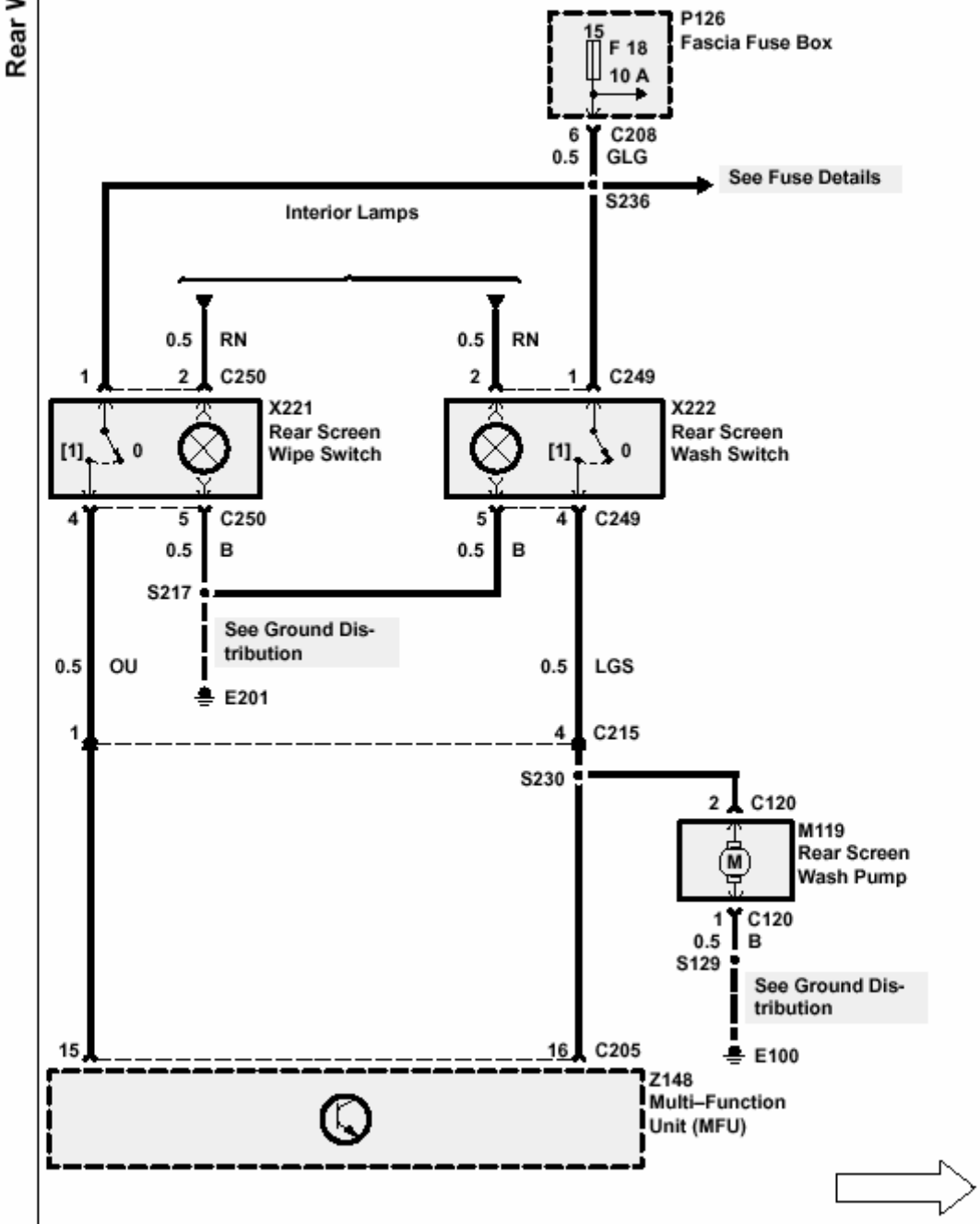
The Rear Screen Wash Pump (M119) motor is grounded at all times. The motor runs when battery voltage is applied to the motor through the Rear Wash Switch (X222) when the switch is switched to the WASH position.

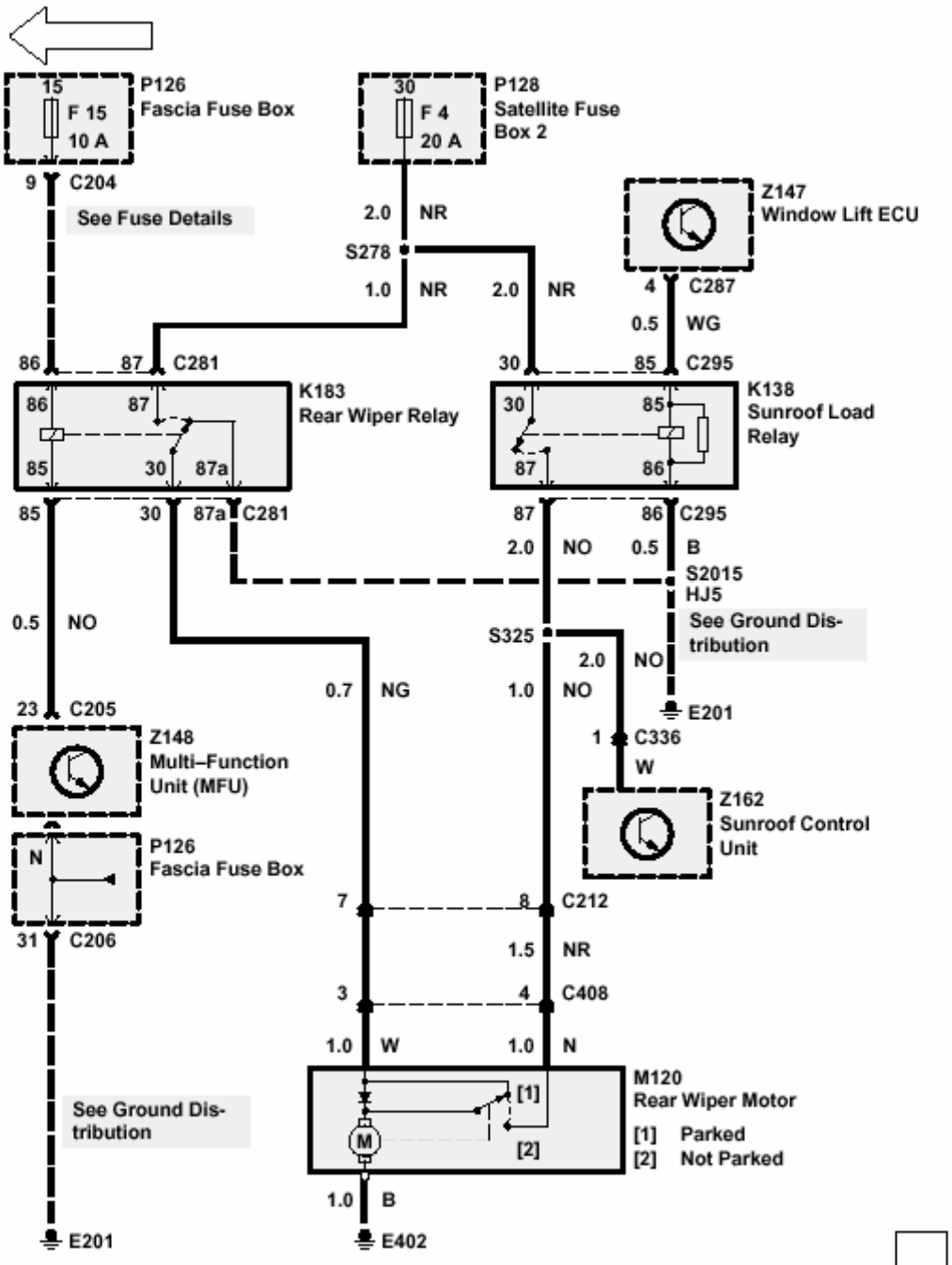
Wiper

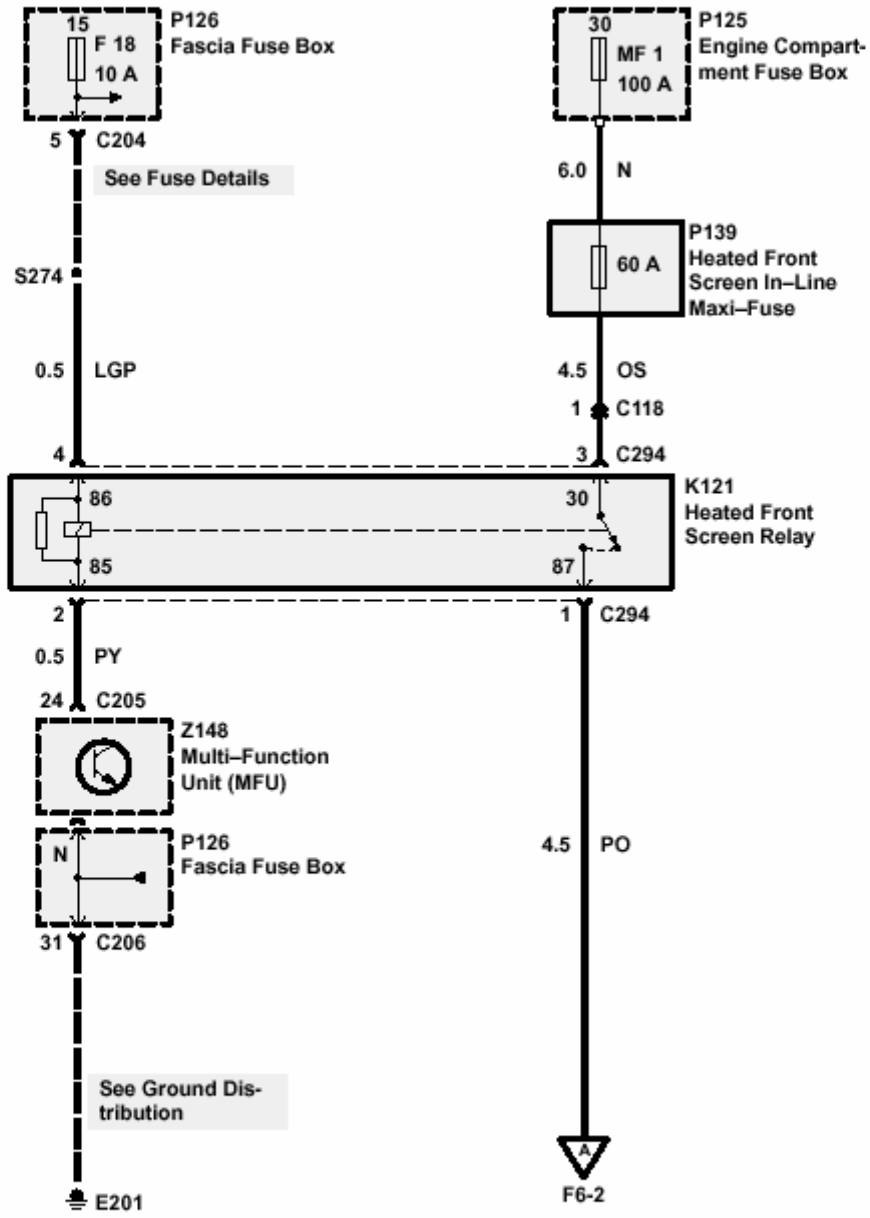
When the Rear Wipe Switch (X221) is pulled to the WIPE position, the Multifunction Unit (MFU) (Z148) applies ground to the Rear Wipe Relay (K183). Battery voltage is then applied to the Rear Wiper Motor (M120) from Fuse F4. If the wiper is turned off, battery voltage is no longer supplied from Fuse F4. To allow the wiper to return to his parked position, the windowlift ECU (Z147) supplies terminal 87a of the Rear Wiper Relay (K183) with battery voltage for 30 seconds after the Ignition has been turned off.

F3 ETM

1995 RANGE ROVER

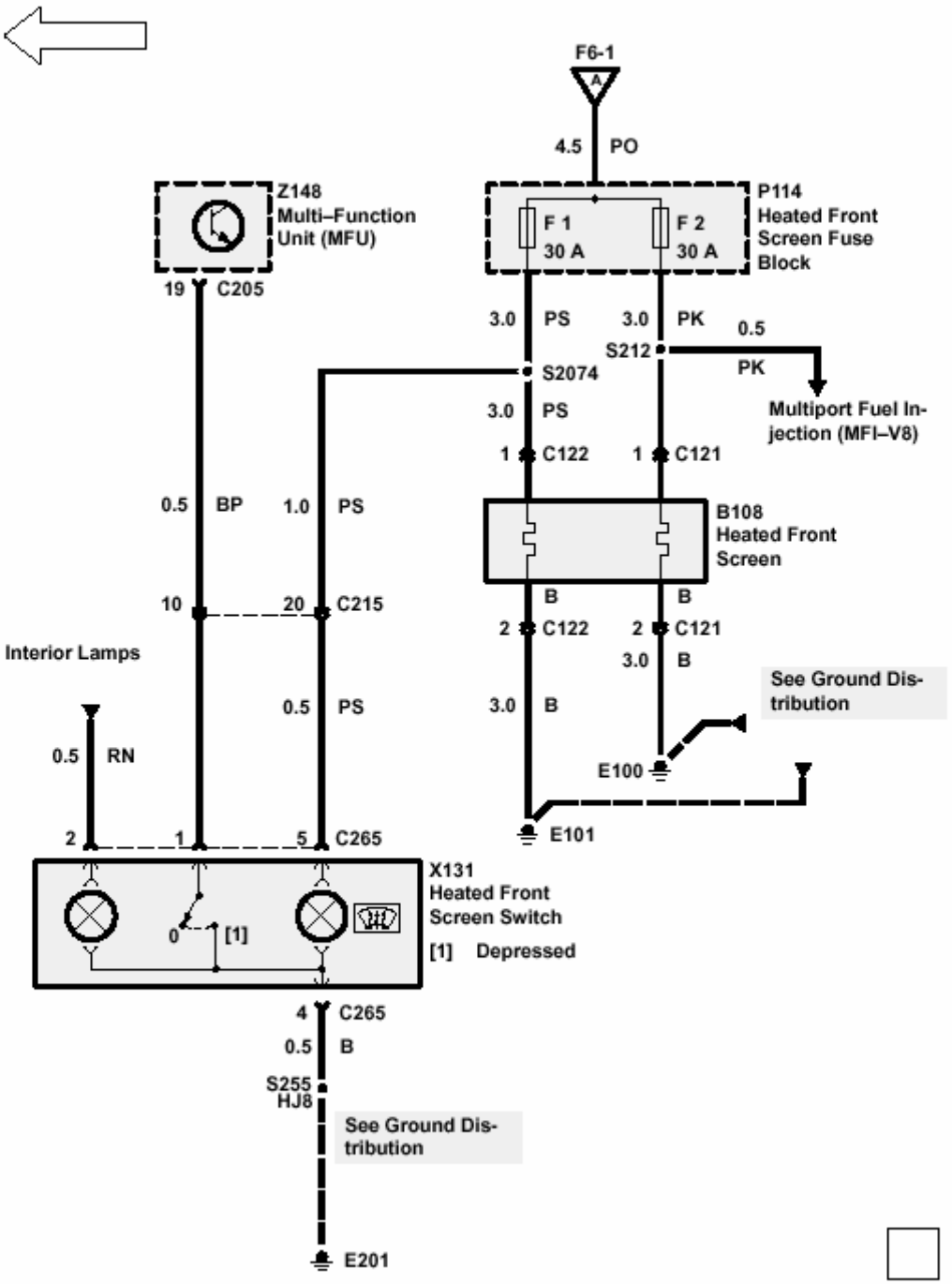


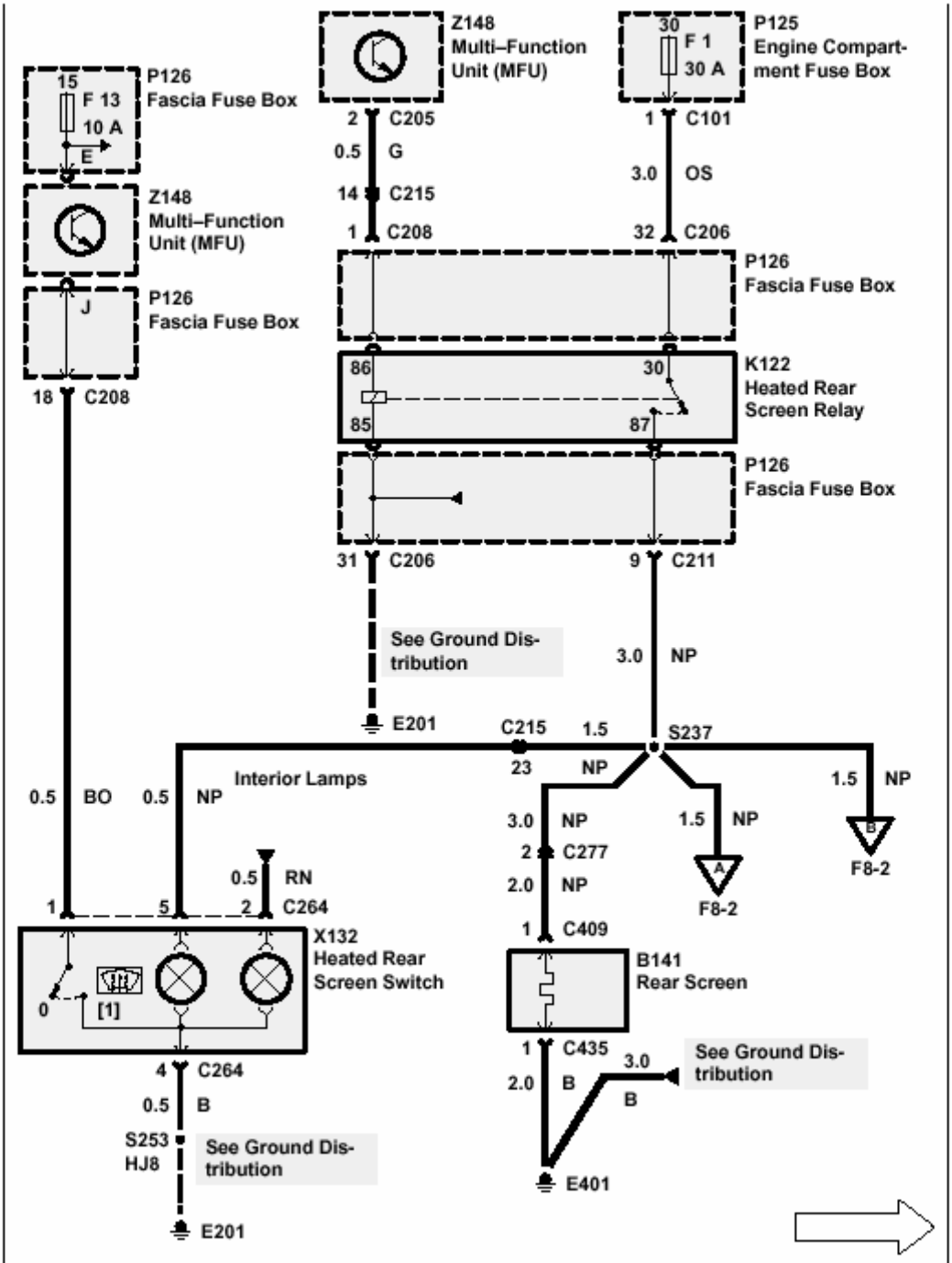

15
F 15
10 A
P126
Fascia Fuse Box
9
C204
See Fuse Details
30
F 4
20 A
P128
Satellite Fuse
Box 2
2.0
NR
S278
1.0
NR
2.0
NR
Z147
Window Lift ECU
4
C287
0.5
WG
86
87
C281
30
85
C295
K183
Rear Wiper Relay
K138
Sunroof Load
Relay
85
30
87a
C281
87
86
C295
2.0
NO
0.5
B
S2015
HJ5
See Ground Dis-
tribution
0.5
NO
S325
2.0
NO
0.7
NG
1.0
NO
23
C205
E201
1
C336
W
Z148
Multi–Function
Unit (MFU)
Z162
Sunroof Control
Unit
N
P126
Fascia Fuse Box
7
8
C212
31
C206
1.5
NR
3
4
C408
1.0
W
1.0
N
M120
Rear Wiper Motor
[1]
[2]
[1] Parked
[2] Not Parked
See Ground Dis-
tribution
1.0
B
E201
E402

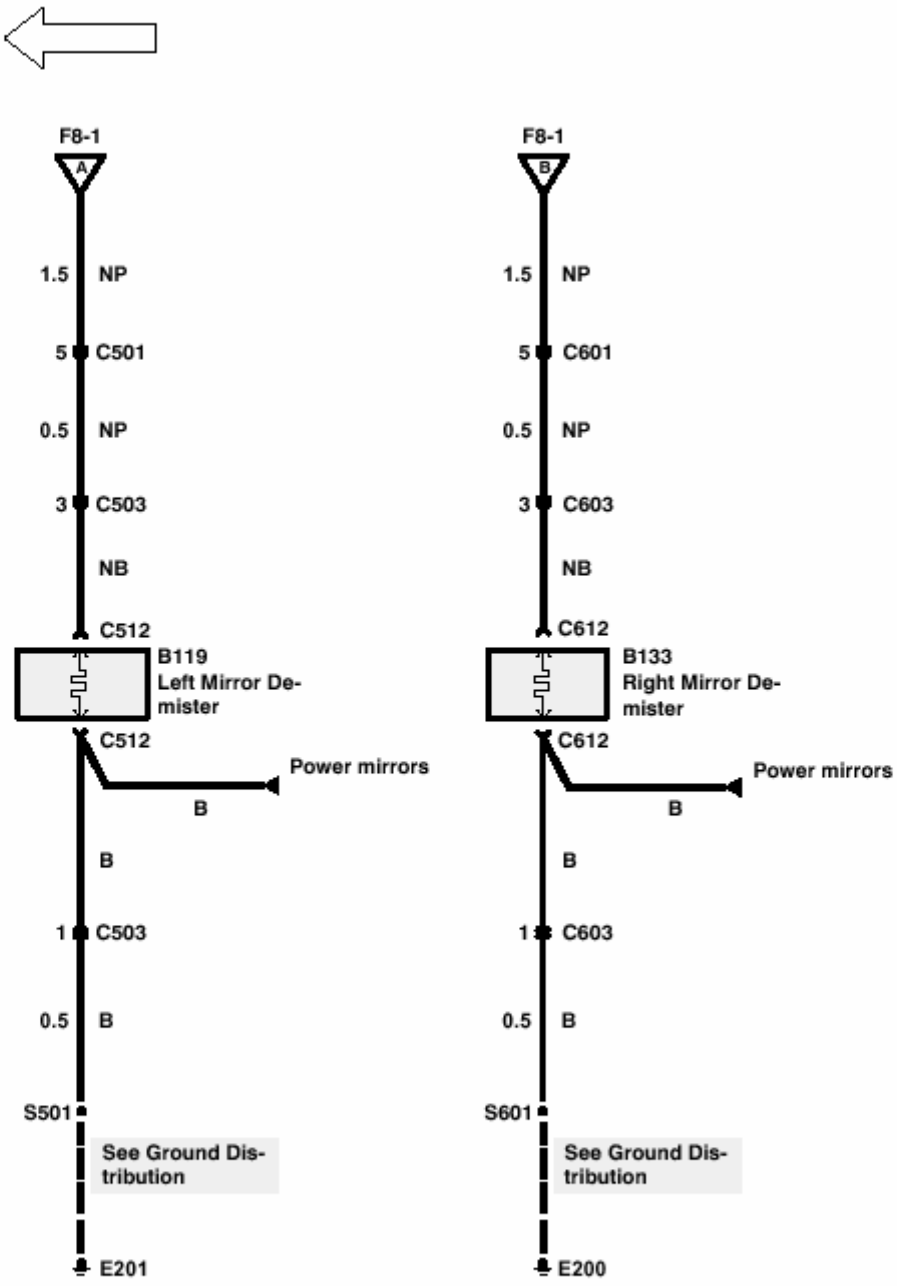

15
F 18
10 A
P126
Fascia Fuse Box
5
C204
See Fuse Details
S274
0.5
LGP
4
30
MF 1
100 A
P125
Engine Compart-
ment Fuse Box
6.0
N
P139
60 A
Heated Front
Screen In–Line
Maxi–Fuse
4.5
OS
1
C118
3
C294
86
85
30
87
K121
Heated Front
Screen Relay
2
1
C294
0.5
PY
24
C205
Z148
Multi–Function
Unit (MFU)
N
P126
Fascia Fuse Box
31
C206
4.5
PO
See Ground Dis-
tribution
E201
A
F6-2

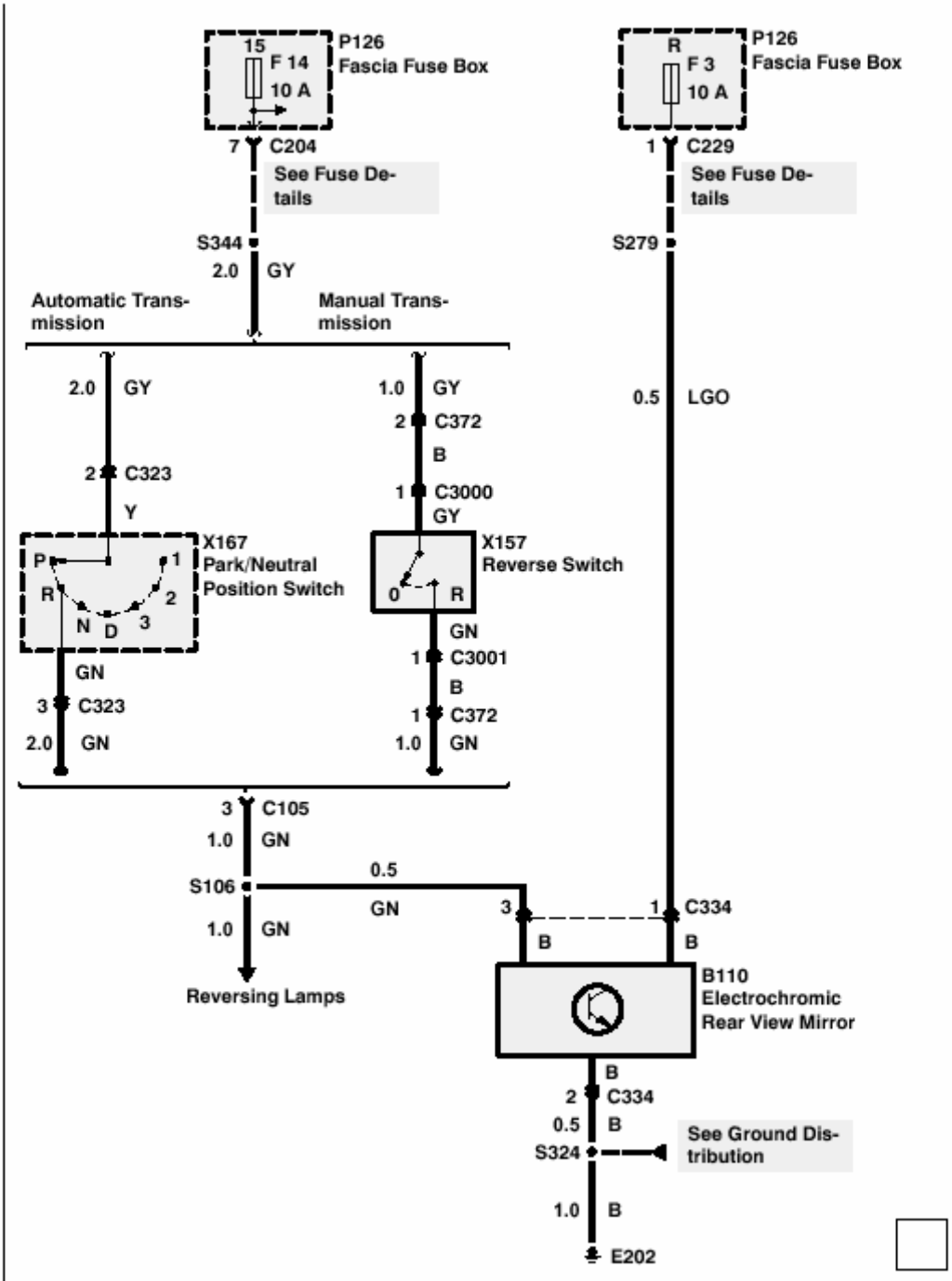
F6 ETM

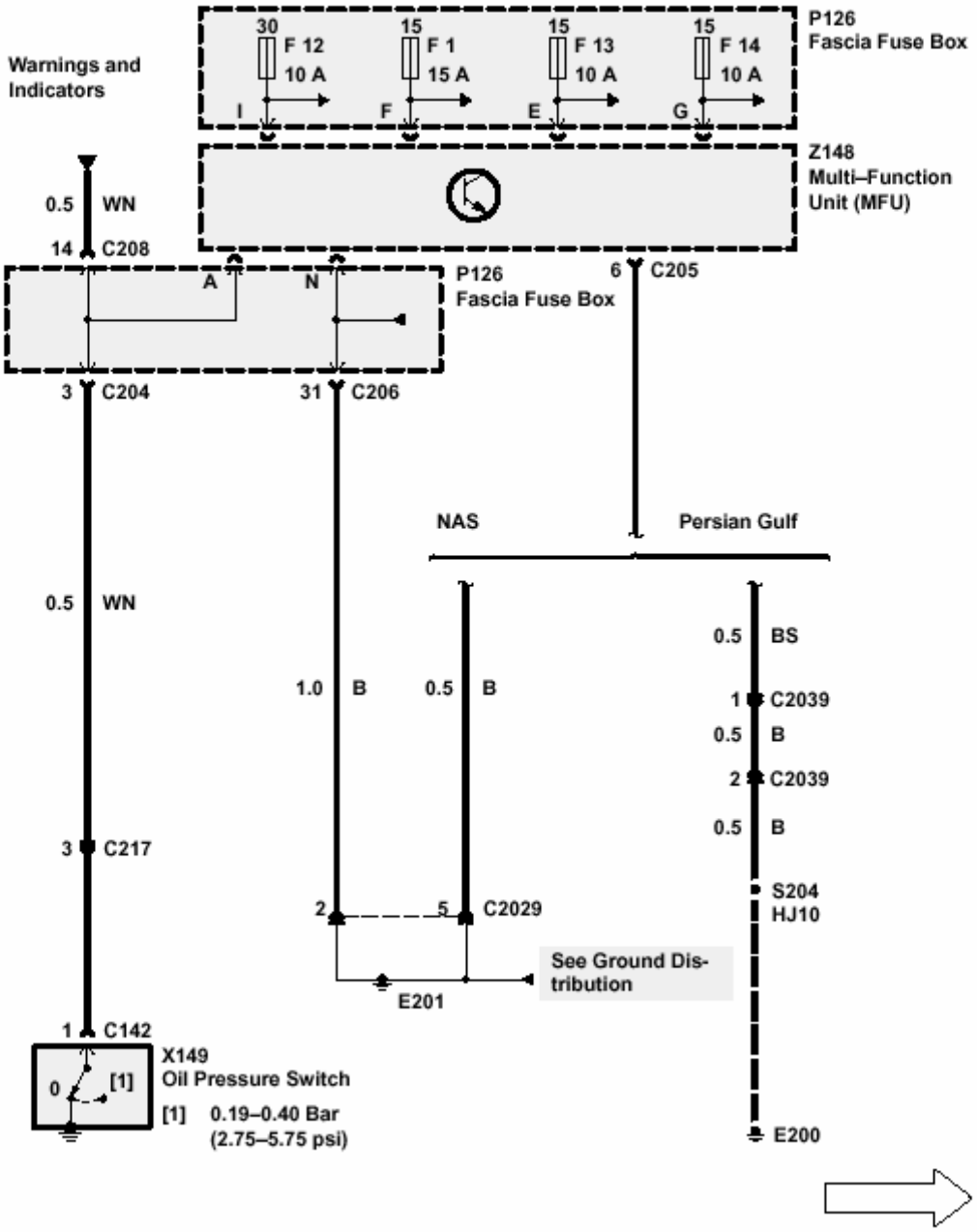
1995 RANGE ROVER

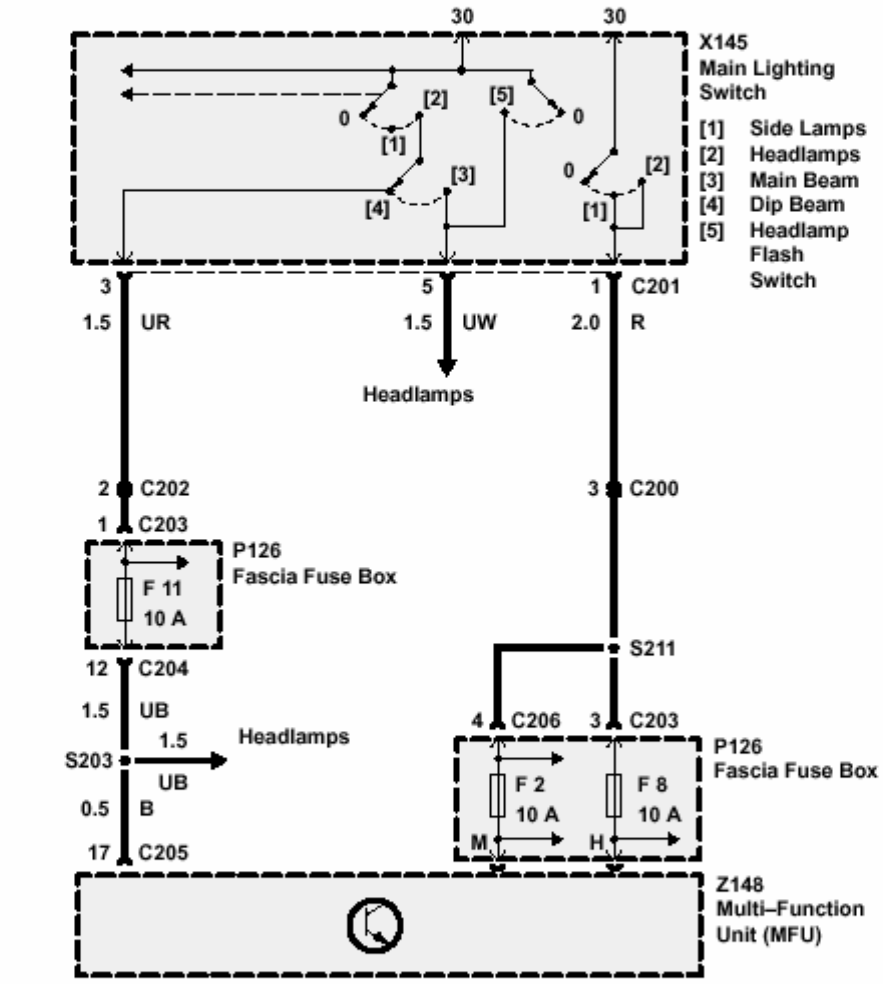


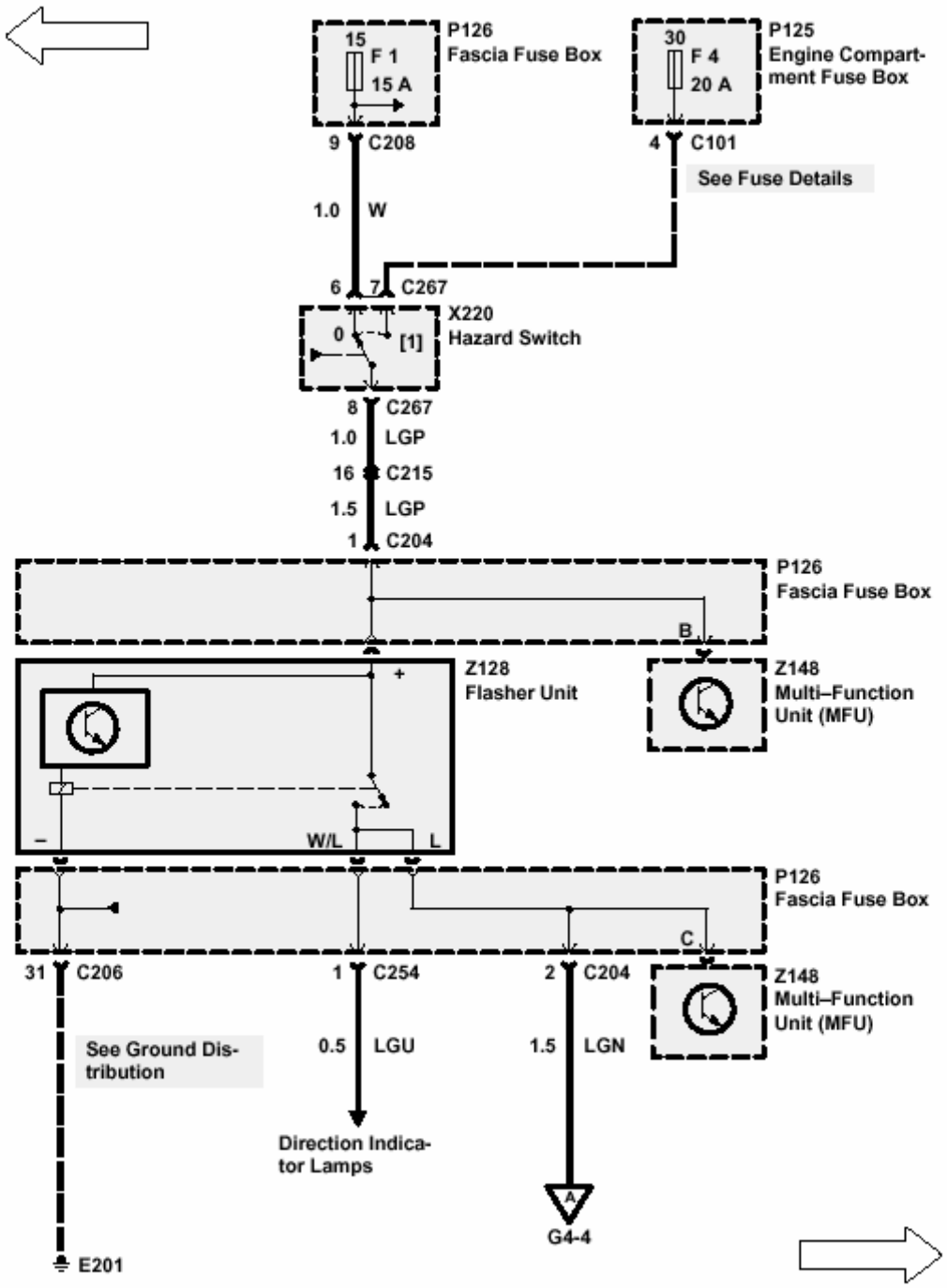

Z148
Multi–Function
Unit (MFU)
30
F 1
30 A
P125
Engine Compart-
ment Fuse Box
15
F 13
10 A
E
P126
Fascia Fuse Box
2
C205
1
C101
0.5
G
3.0
OS
14
C215
1
C208
32
C206
Z148
Multi–Function
Unit (MFU)
P126
Fascia Fuse Box
J
P126
Fascia Fuse Box
86
30
K122
Heated Rear
Screen Relay
85
87
18
C208
P126
Fascia Fuse Box
31
C206
9
C211
See Ground Dis-
tribution
3.0
NP
E201
C215
1.5
S237
23
NP
Interior Lamps
0.5
BO
0.5
NP
3.0
NP
1.5
NP
1.5
NP
2
C277
2.0
NP
A
F8-2
B
F8-2
0.5
RN
1
5
2
C264
1
C409
X132
Heated Rear
Screen Switch
B141
Rear Screen
0
[1]
1
C435
3.0
See Ground Dis-
tribution
2.0
B
B
4
C264
0.5
B
S253
HJ8
See Ground Dis-
tribution
E401
E201


F8-1
A
1.5 NP
5 C501
0.5 NP
3 C503
NB
C512
B119
Left Mirror De-mister
C512
Power mirrors
B
B
1 C503
0.5 B
S501
See Ground Dis-tribution
E201
F8-1
B
1.5 NP
5 C601
0.5 NP
3 C603
NB
C612
B133
Right Mirror De-mister
C612
Power mirrors
B
B
1 C603
0.5 B
S601
See Ground Dis-tribution
E200


15
F 14
10 A
P126
Fascia Fuse Box
7
C204
See Fuse Details
S344
2.0
GY
Automatic Transmission
Manual Transmission
2.0
GY
2
C323
Y
X167
Park/Neutral Position Switch
P
R
N
D
1
2
3
GN
3
C323
2.0
GN
1.0
GY
2
C372
B
1
C3000
GY
X157
Reverse Switch
0
R
GN
1
C3001
B
1
C372
1.0
GN
R
F 3
10 A
P126
Fascia Fuse Box
1
C229
See Fuse Details
S279
0.5
LGO
3
C105
1.0
GN
S106
0.5
GN
1.0
GN
Reversing Lamps
3
B
1
C334
B
B110
Electrochromic Rear View Mirror
B
2
C334
0.5
B
S324
See Ground Distribution
1.0
B
E202

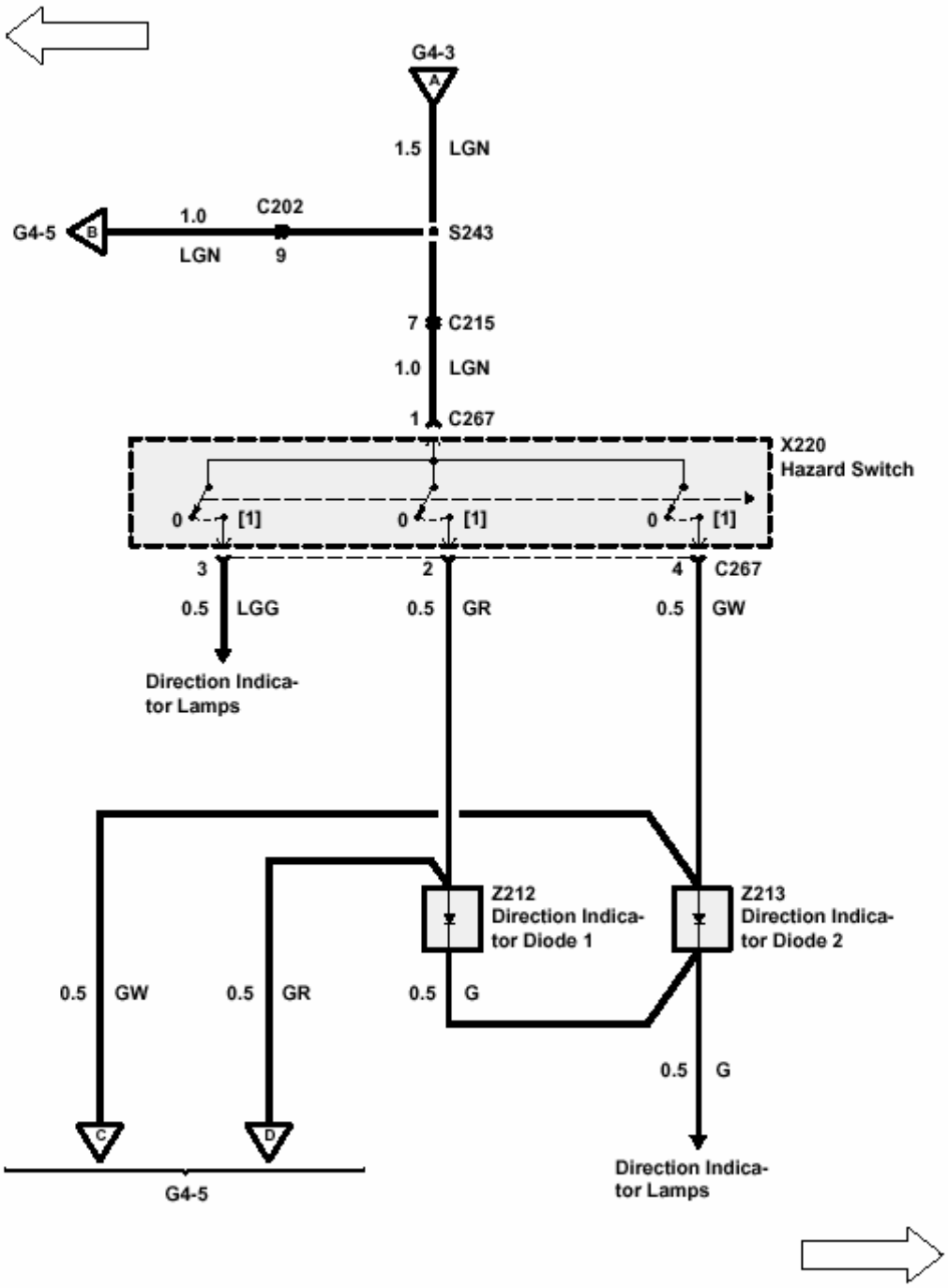

Warnings and Indicators
30
F 12
10 A
I
15
F 1
15 A
F
15
F 13
10 A
E
15
F 14
10 A
G
P126
Fascia Fuse Box
Z148
Multi–Function Unit (MFU)
0.5 WN
14 C208
A
N
P126
Fascia Fuse Box
6 C205
3 C204
31 C206
NAS
Persian Gulf
0.5 WN
1.0 B
0.5 B
0.5 BS
1 C2039
0.5 B
2 C2039
0.5 B
3 C217
2
5 C2029
S204
HJ10
See Ground Distribution
E201
1 C142
X149
Oil Pressure Switch
0
[1]
[1] 0.19–0.40 Bar
(2.75–5.75 psi)
E200

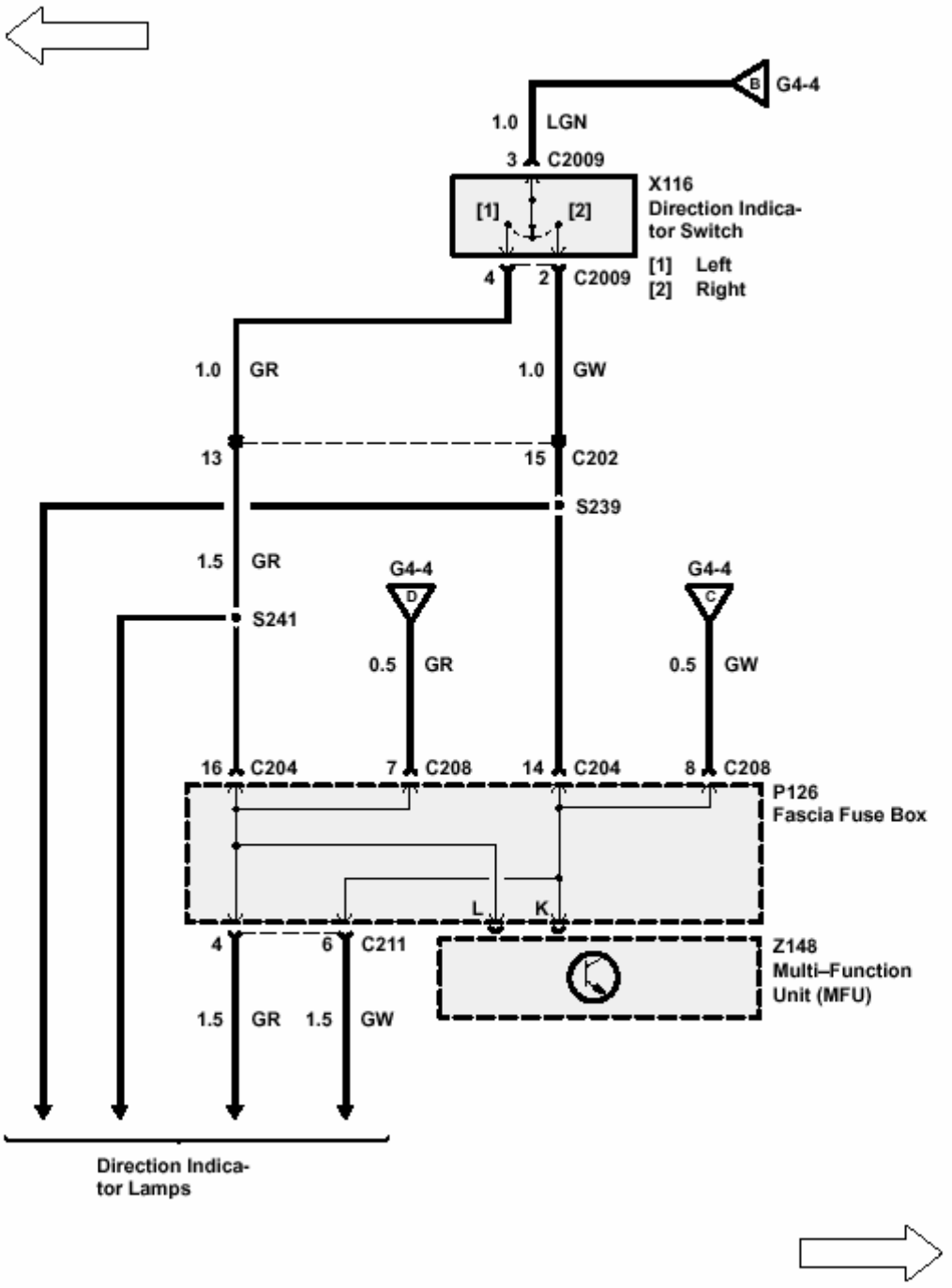

30
30
X145
Main Lighting
Switch
[1] Side Lamps
[2] Headlamps
[3] Main Beam
[4] Dip Beam
[5] Headlamp
Flash
Switch
0
[2]
[5]
0
[1]
[3]
[4]
0
[2]
[1]
3
1.5
UR
5
1.5
UW
1
2.0
R
C201
Headlamps
2
C202
1
C203
3
C200
P126
Fascia Fuse Box
F 11
10 A
S211
12
C204
1.5
UB
1.5
Headlamps
S203
UB
0.5
B
17
C205
4
C206
3
C203
P126
Fascia Fuse Box
F 2
10 A
F 8
10 A
M
H
Z148
Multi–Function
Unit (MFU)

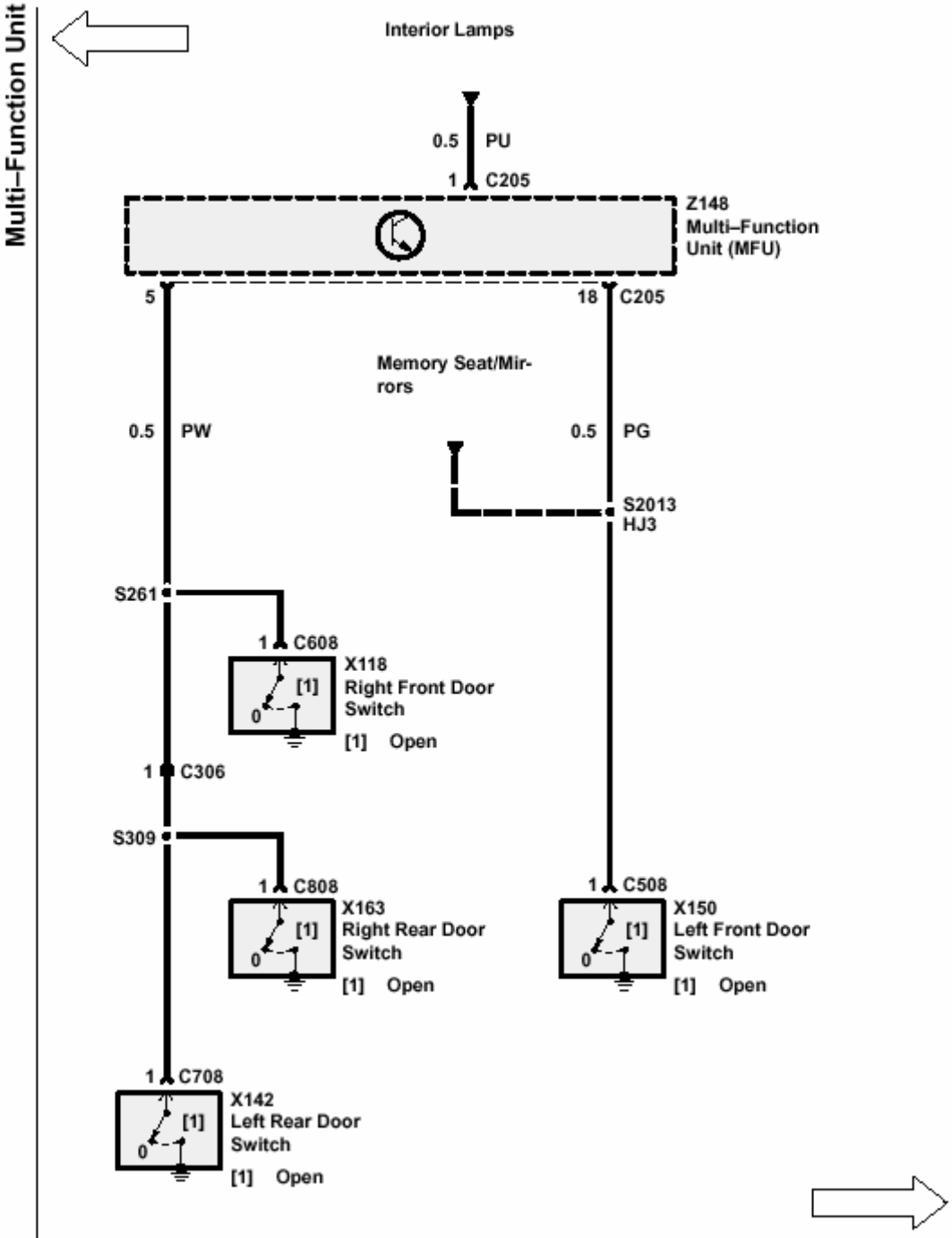

15
F 1
15 A
P126
Fascia Fuse Box
30
F 4
20 A
P125
Engine Compartment Fuse Box
9 C208
4 C101
See Fuse Details
1.0 W
6 7 C267
X220
0 [1]
Hazard Switch
8 C267
1.0 LGP
16 C215
1.5 LGP
1 C204
P126
Fascia Fuse Box
B
Z128
Flasher Unit
+
Z148
Multi–Function Unit (MFU)
–
W/L
L
P126
Fascia Fuse Box
C
31 C206
1 C254
2 C204
Z148
Multi–Function Unit (MFU)
See Ground Distribution
0.5 LGU
1.5 LGN
Direction Indicator Lamps
A
G4-4
E201

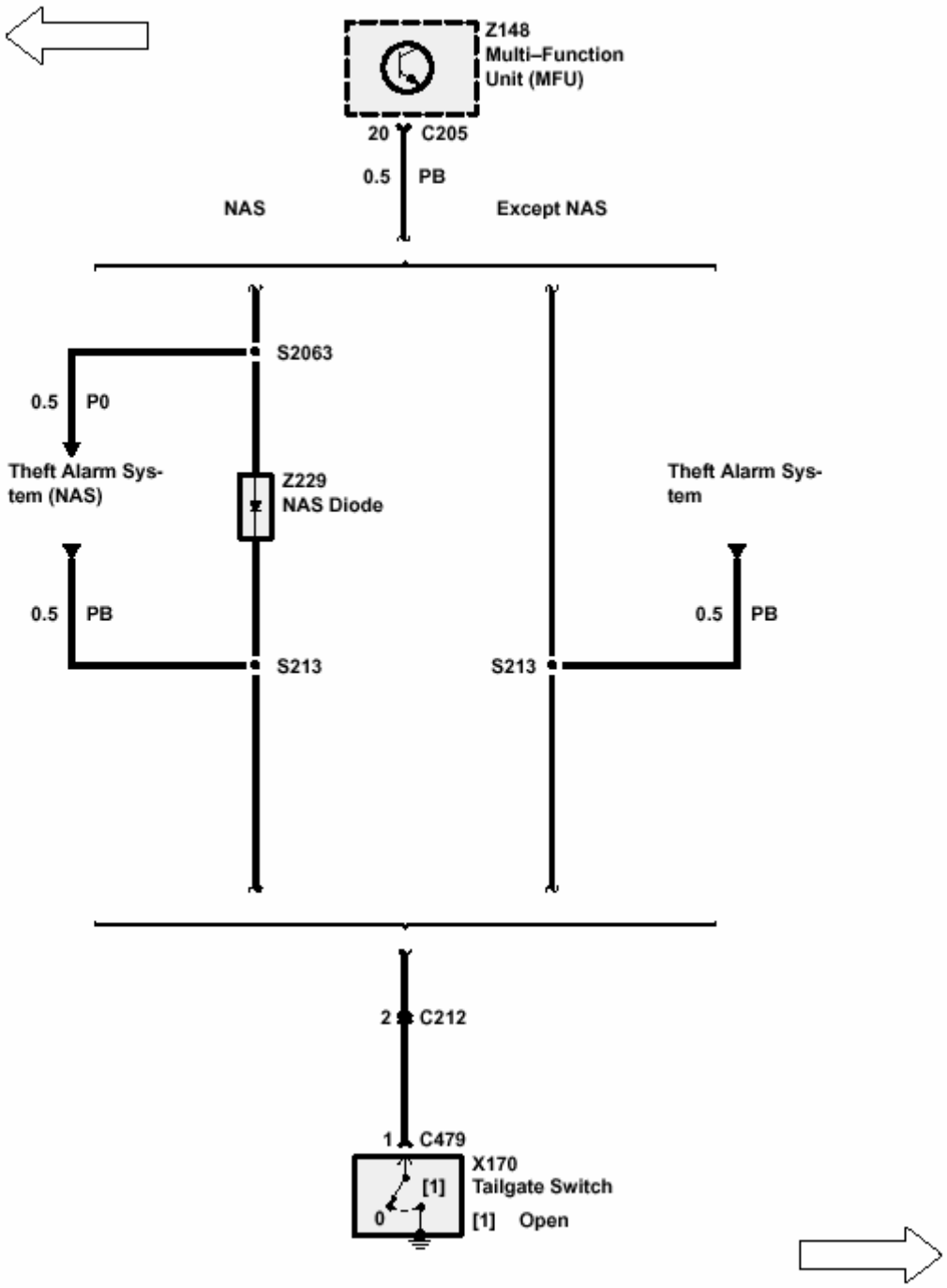
G4 ETM

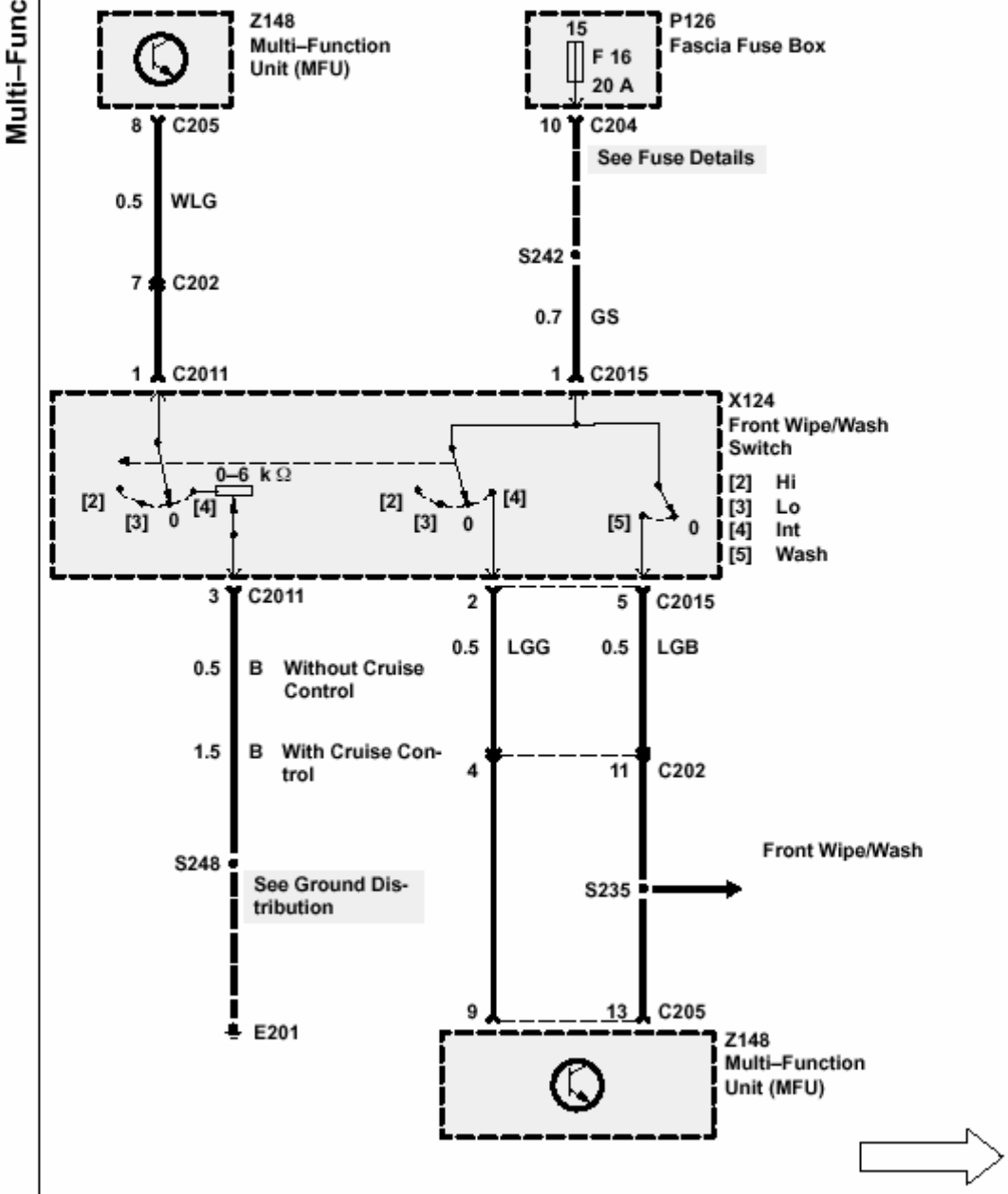
1995 RANGE ROVER

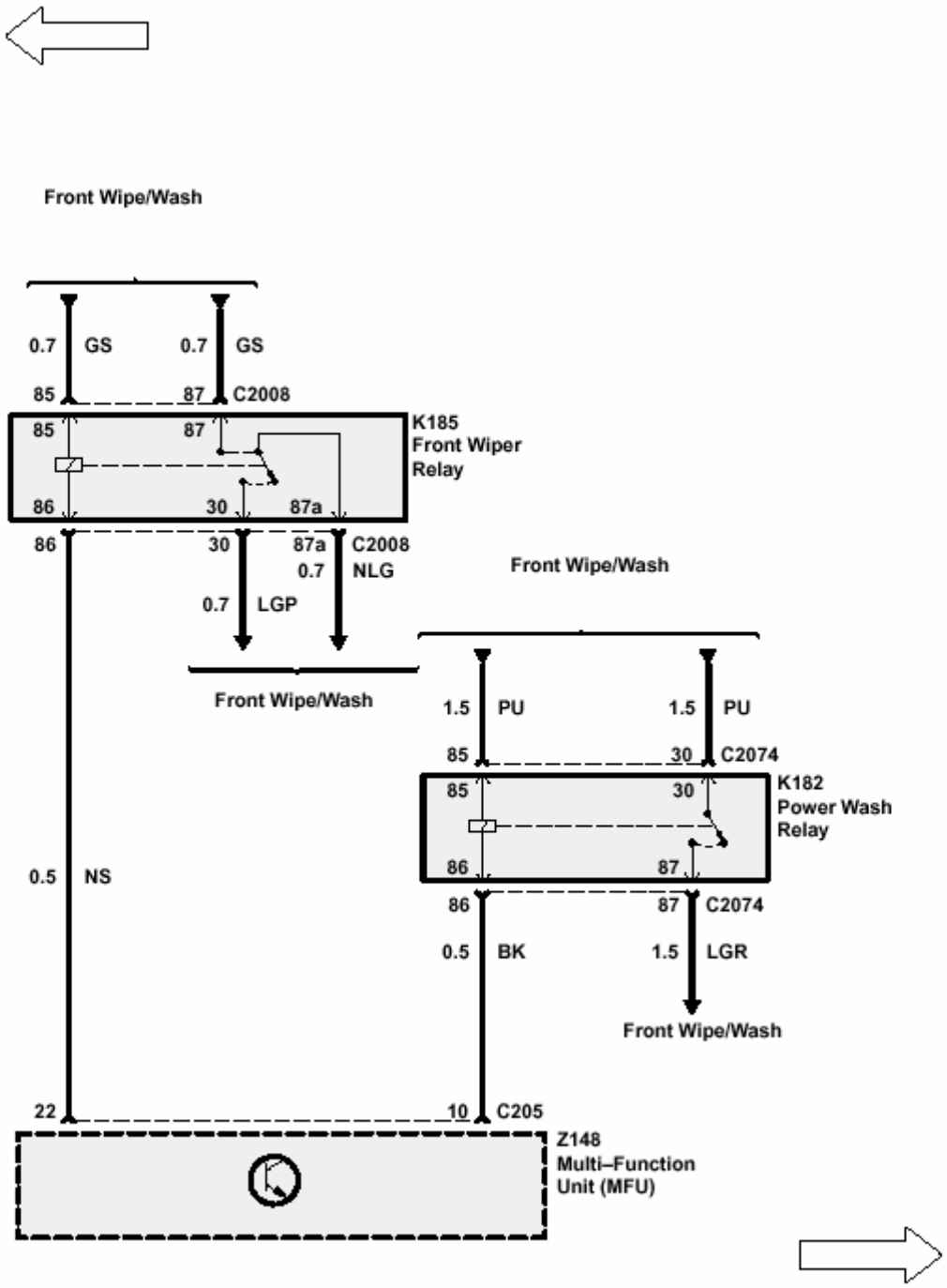



B G4-4
1.0 LGN
3 C2009
X116
Direction Indicator Switch
[1] [2]
[1] Left
[2] Right
4 2 C2009
1.0 GR
1.0 GW
13 15 C202
S239
1.5 GR
S241
G4-4 D
G4-4 C
0.5 GR
0.5 GW
16 C204 7 C208 14 C204 8 C208
P126
Fascia Fuse Box
L K
4 6 C211
Z148
Multi–Function Unit (MFU)
1.5 GR 1.5 GW
Direction Indicator Lamps


Interior Lamps
0.5 PU
1 C205
Z148
Multi–Function
Unit (MFU)
5
18 C205
Memory Seat/Mir-
rors
0.5 PW
0.5 PG
S2013
HJ3
S261
1 C608
X118
Right Front Door
Switch
[1] Open
1 C306
S309
1 C808
X163
Right Rear Door
Switch
[1] Open
1 C508
X150
Left Front Door
Switch
[1] Open
1 C708
X142
Left Rear Door
Switch
[1] Open

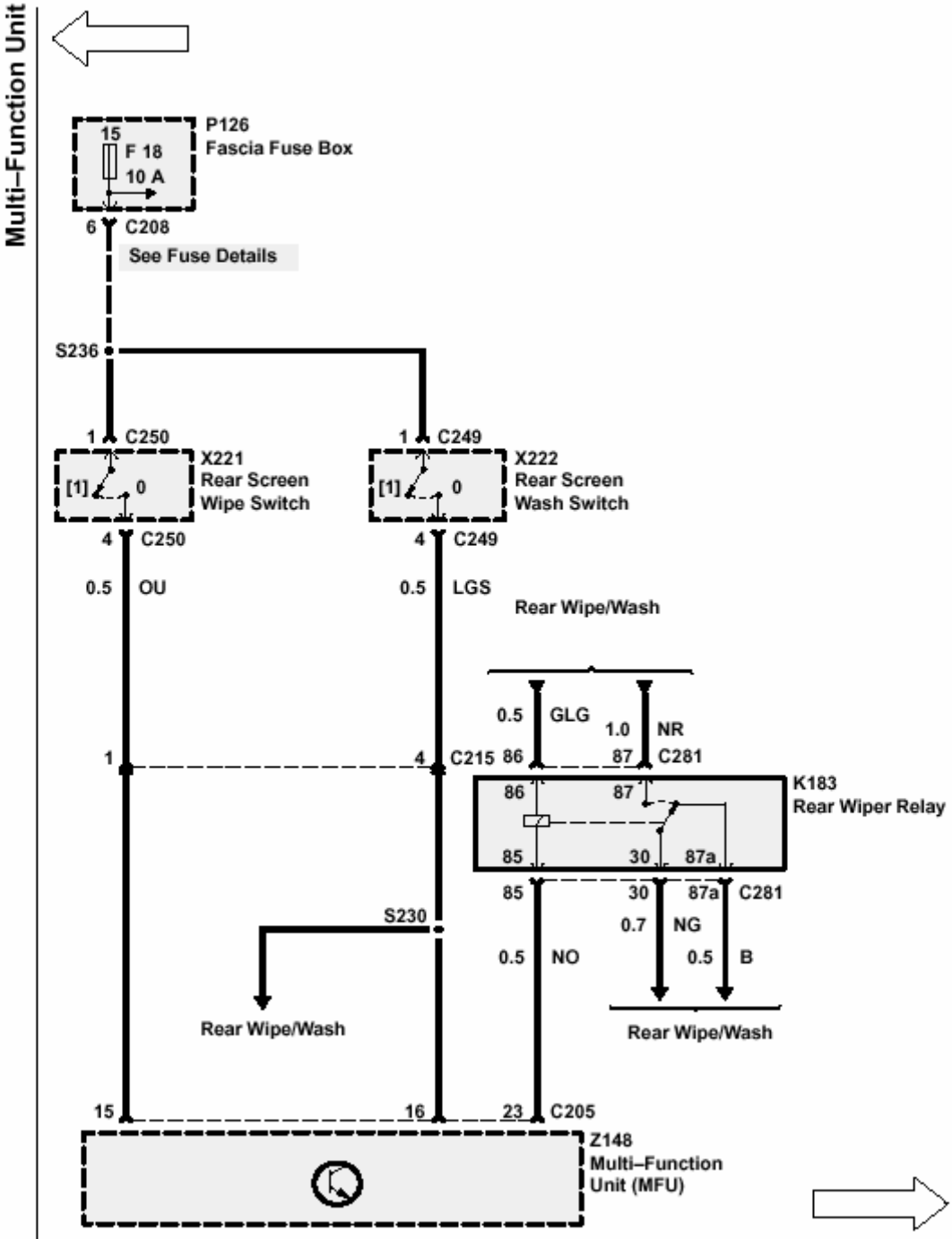

Z148
Multi–Function
Unit (MFU)
20
C205
0.5
PB
NAS
Except NAS
S2063
0.5
P0
Theft Alarm Sys-
tem (NAS)
Z229
NAS Diode
Theft Alarm Sys-
tem
0.5
PB
0.5
PB
S213
S213
2
C212
1
C479
X170
Tailgate Switch
[1]
0
[1] Open

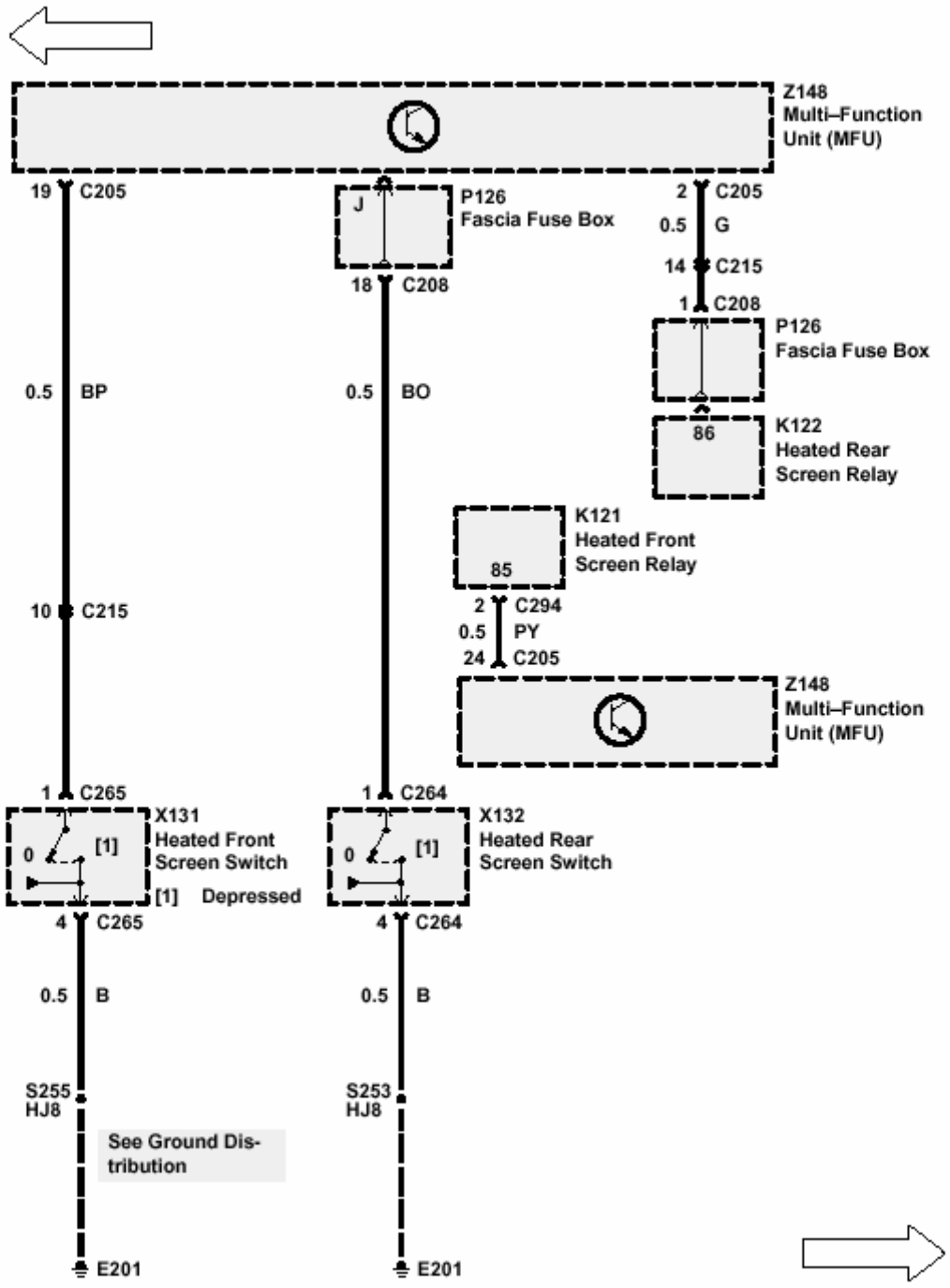

Z148
Multi–Function
Unit (MFU)
8 C205
0.5 WLG
7 C202
1 C2011
P126
Fascia Fuse Box
15
F 16
20 A
10 C204
See Fuse Details
S242
0.7 GS
1 C2015
X124
Front Wipe/Wash
Switch
[2] Hi
[3] Lo
[4] Int
[5] Wash
0–6 kΩ
[2] [3] 0 [4]
[2] [3] 0 [4]
[5] 0
3 C2011
0.5 B Without Cruise
Control
1.5 B With Cruise Con-
trol
S248
See Ground Dis-
tribution
E201
2 C2015
0.5 LGG
4
5 C2015
0.5 LGB
11 C202
Front Wipe/Wash
S235
9
13 C205
Z148
Multi–Function
Unit (MFU)


Front Wipe/Wash
0.7 GS
0.7 GS
85
87 C2008
85
87
K185
Front Wiper
Relay
86
30
87a
86
30
87a C2008
0.7 NLG
0.7 LGP
Front Wipe/Wash
Front Wipe/Wash
1.5 PU
1.5 PU
85
30 C2074
85
30
K182
Power Wash
Relay
86
87
0.5 NS
86
87 C2074
0.5 BK
1.5 LGR
Front Wipe/Wash
22
10 C205
Z148
Multi–Function
Unit (MFU)

G4 ETM

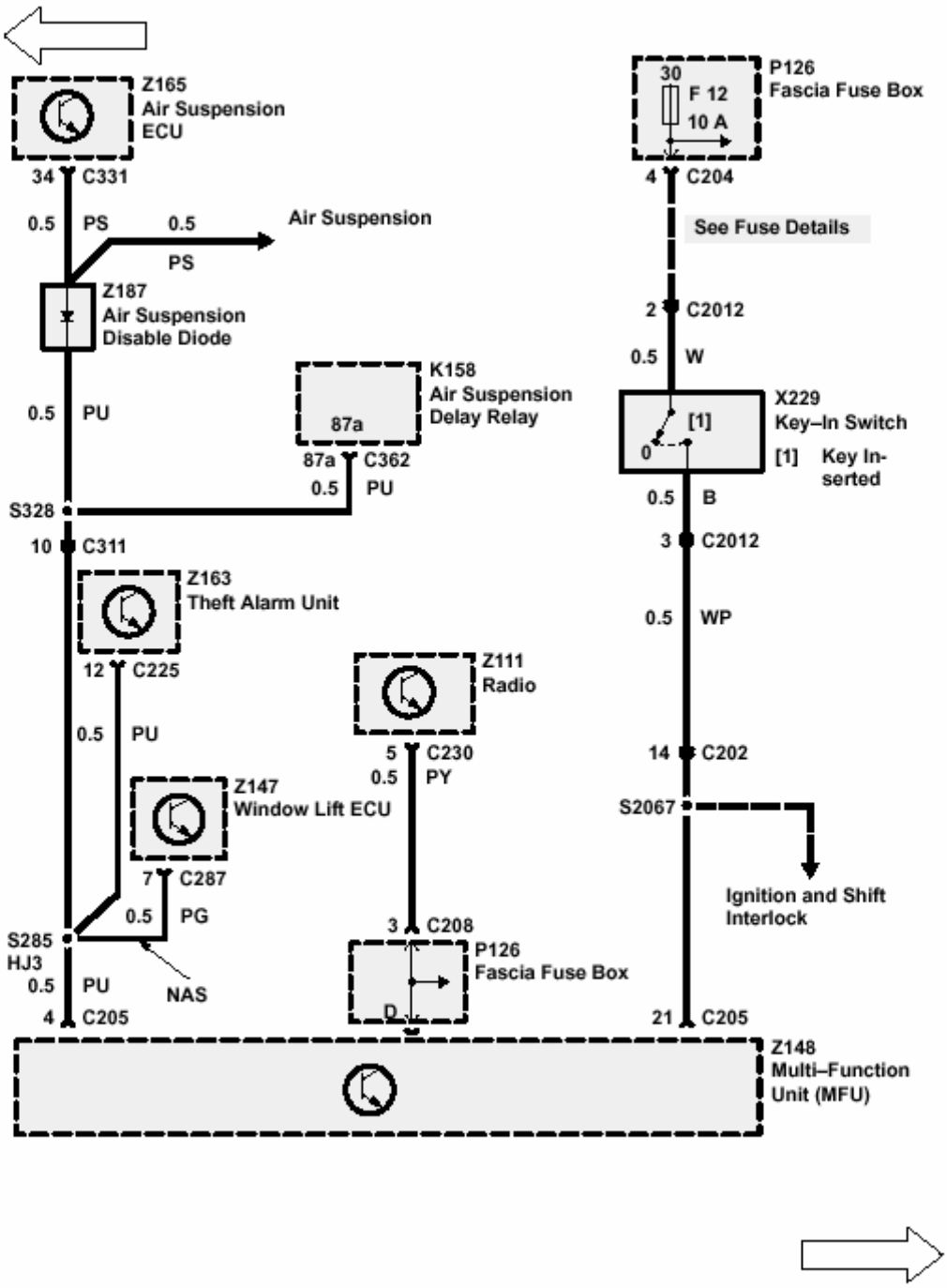
Multi–Function Unit (MFU)

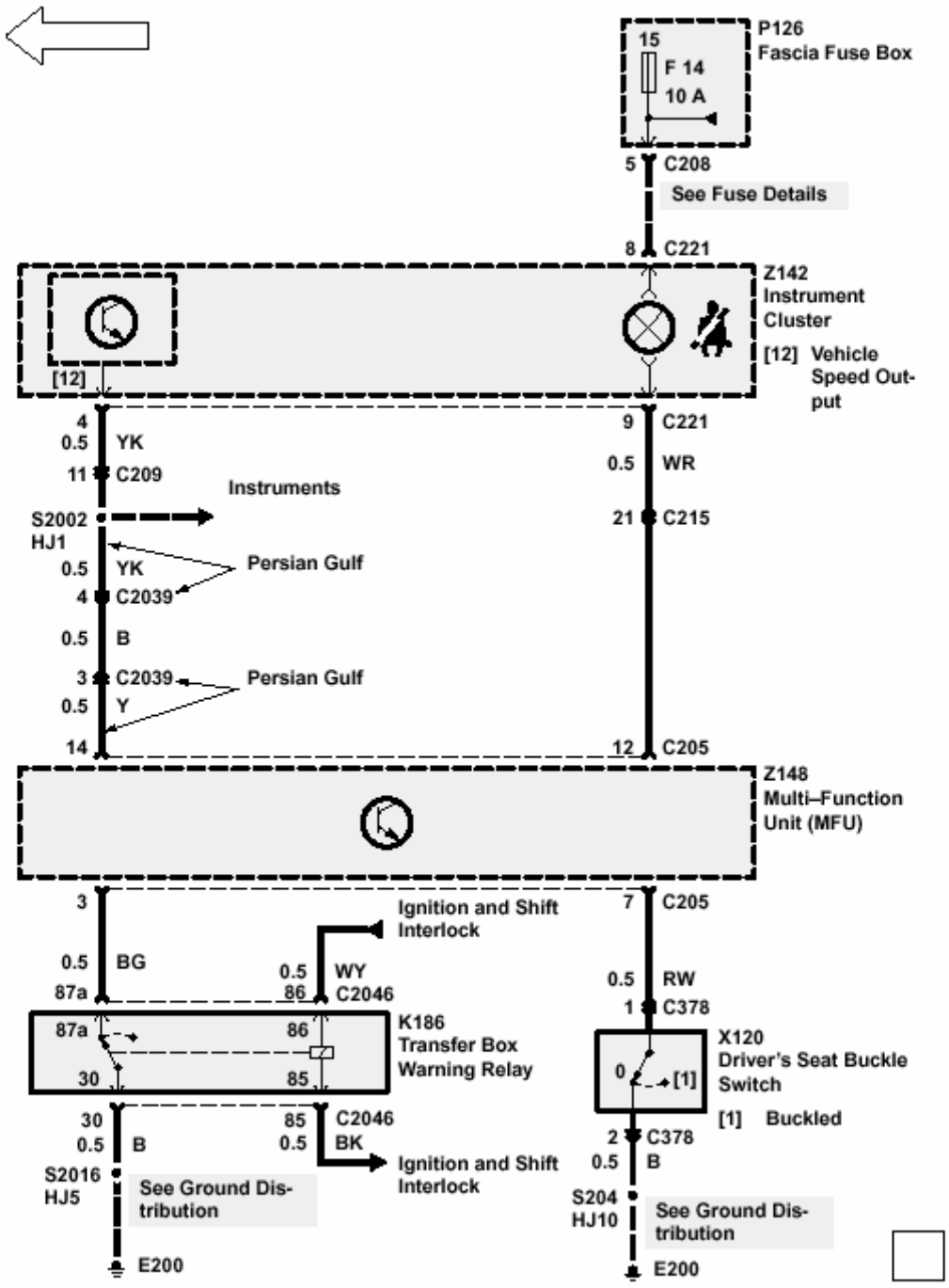


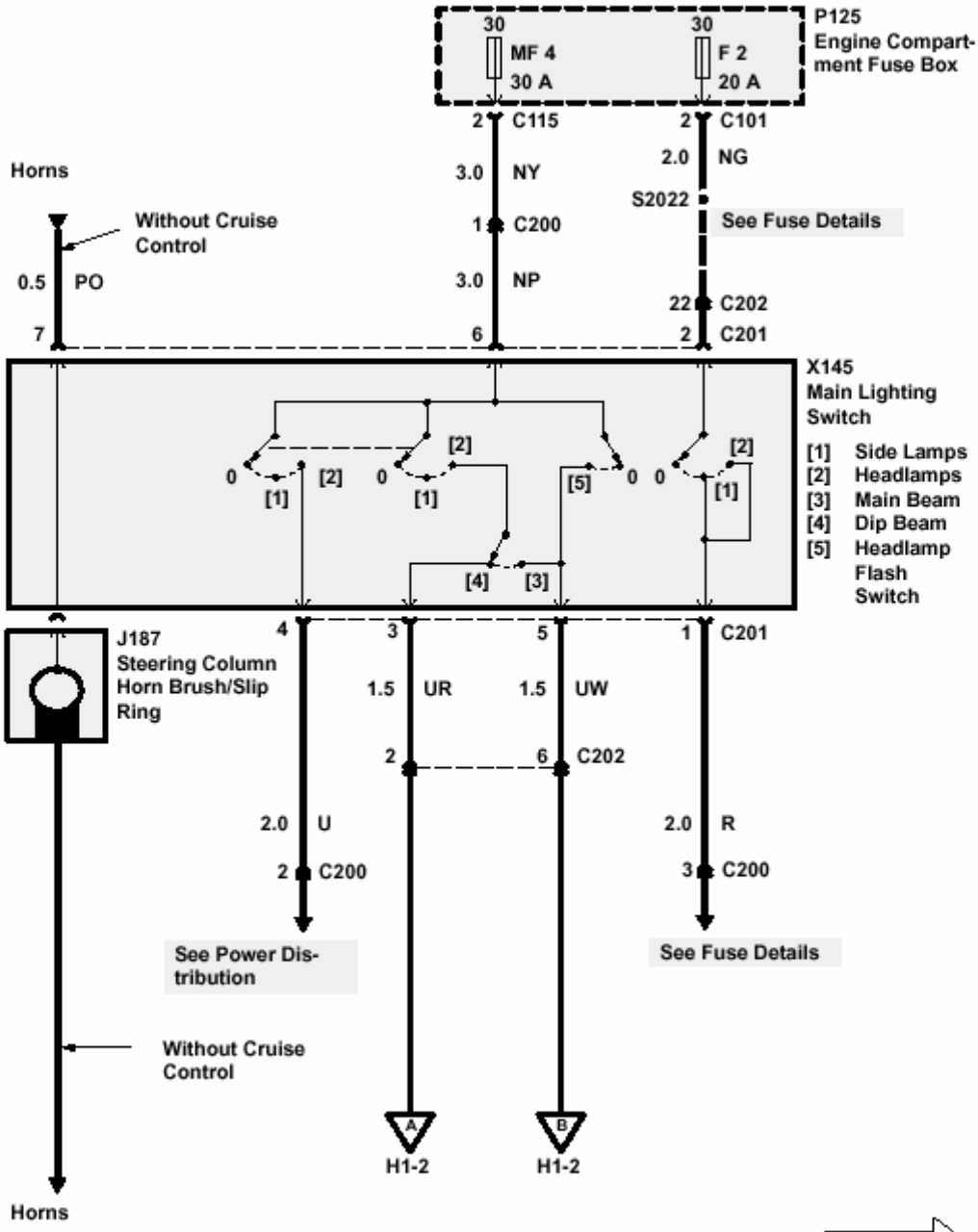

Z148
Multi–Function
Unit (MFU)
19 C205
0.5 BP
10 C215
1 C265
X131
Heated Front
Screen Switch
[1] Depressed
4 C265
0.5 B
S255
HJ8
See Ground Distribution
E201
J
P126
Fascia Fuse Box
18 C208
0.5 BO
1 C264
X132
Heated Rear
Screen Switch
4 C264
0.5 B
S253
HJ8
E201
2 C205
0.5 G
14 C215
1 C208
P126
Fascia Fuse Box
86
K122
Heated Rear
Screen Relay
85
K121
Heated Front
Screen Relay
2 C294
0.5 PY
24 C205
Z148
Multi–Function
Unit (MFU)

G4 ETM

1995 RANGE ROVER

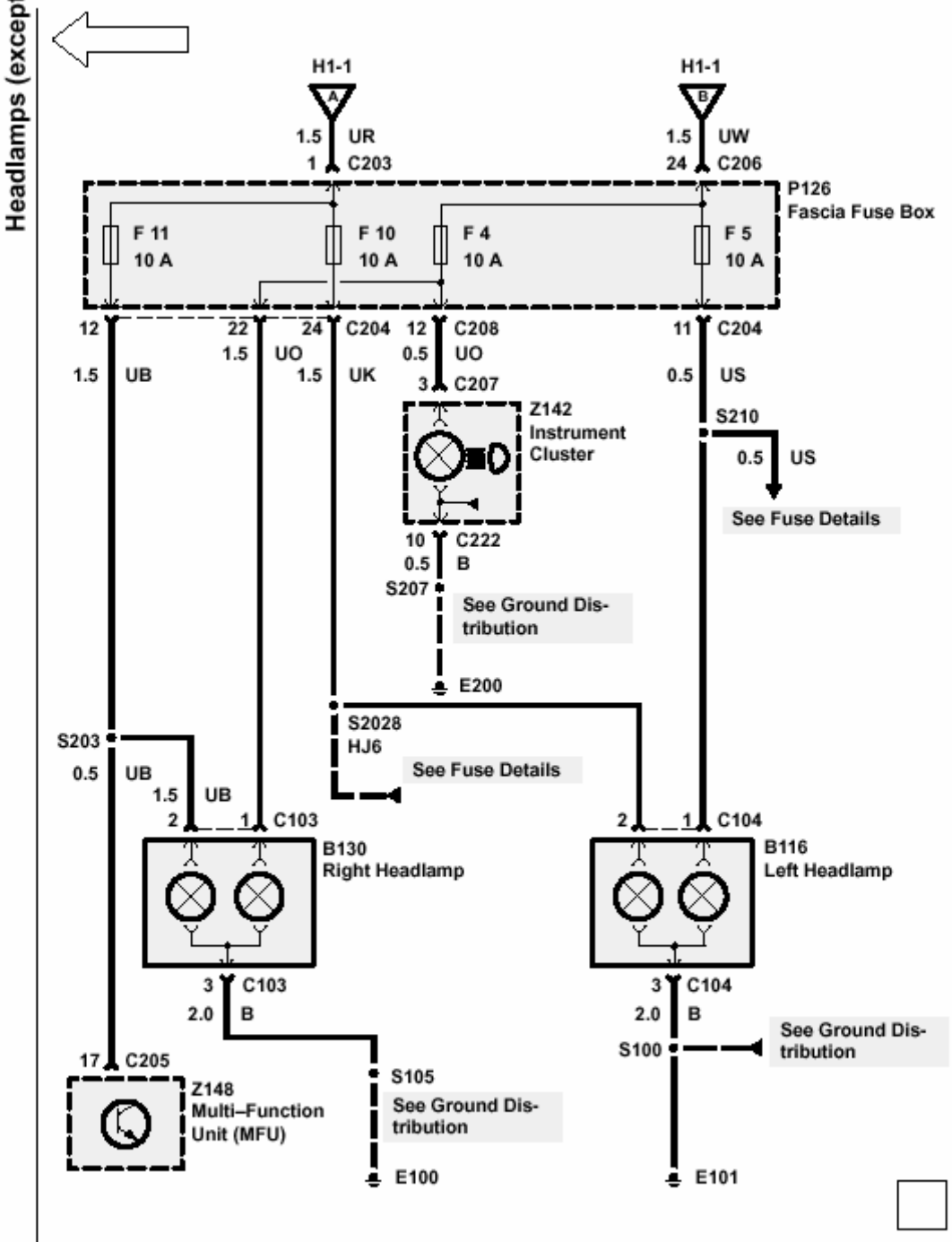


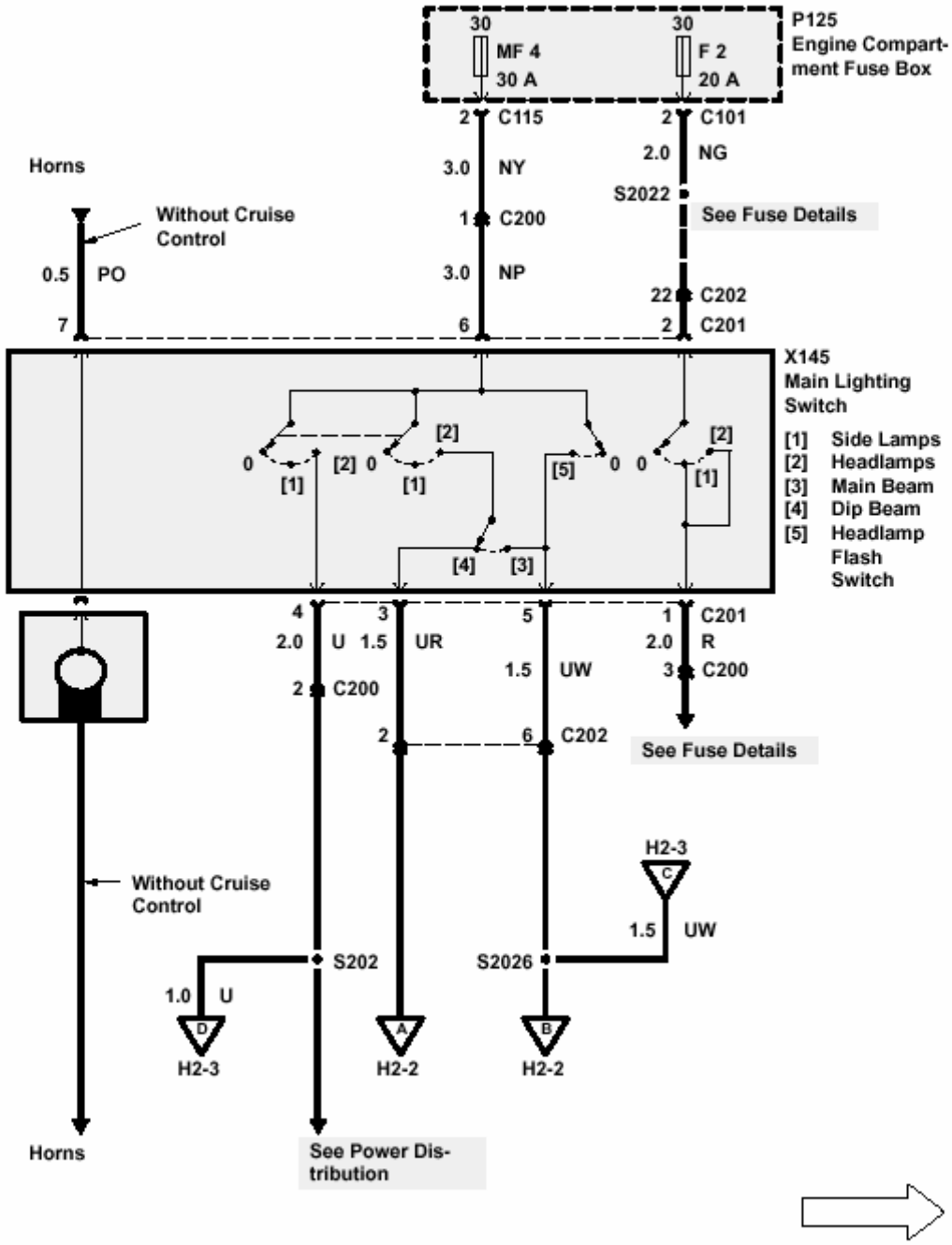

P126
Fascia Fuse Box
15
F 14
10 A
5 C208
See Fuse Details
8 C221
Z142
Instrument
Cluster
[12] Vehicle
Speed Out-
put
[12]
4
0.5 YK
11 C209
Instruments
S2002
HJ1
0.5 YK
Persian Gulf
4 C2039
0.5 B
3 C2039
Persian Gulf
0.5 Y
14
9 C221
0.5 WR
21 C215
12 C205
Z148
Multi–Function
Unit (MFU)
3
0.5 BG
87a
Ignition and Shift
Interlock
0.5 WY
86 C2046
87a
86
30
85
K186
Transfer Box
Warning Relay
30
0.5 B
S2016
HJ5
See Ground Dis-
tribution
E200
85 C2046
0.5 BK
Ignition and Shift
Interlock
7 C205
0.5 RW
1 C378
X120
Driver's Seat Buckle
Switch
0
[1]
[1] Buckled
2 C378
0.5 B
S204
HJ10
See Ground Dis-
tribution
E200


30
MF 4
30 A
30
F 2
20 A
P125
Engine Compartment Fuse Box
2 C115
2 C101
3.0 NY
2.0 NG
S2022
See Fuse Details
Horns
Without Cruise Control
1 C200
0.5 PO
3.0 NP
22 C202
7
6
2 C201
X145
Main Lighting Switch
[1] Side Lamps
[2] Headlamps
[3] Main Beam
[4] Dip Beam
[5] Headlamp Flash Switch
J187
Steering Column Horn Brush/Slip Ring
4
3
5
1 C201
1.5 UR
1.5 UW
2
6 C202
2.0 U
2.0 R
2 C200
3 C200
See Power Distribution
See Fuse Details
Without Cruise Control
A
B
H1-2
H1-2
Horns

H1 ETM

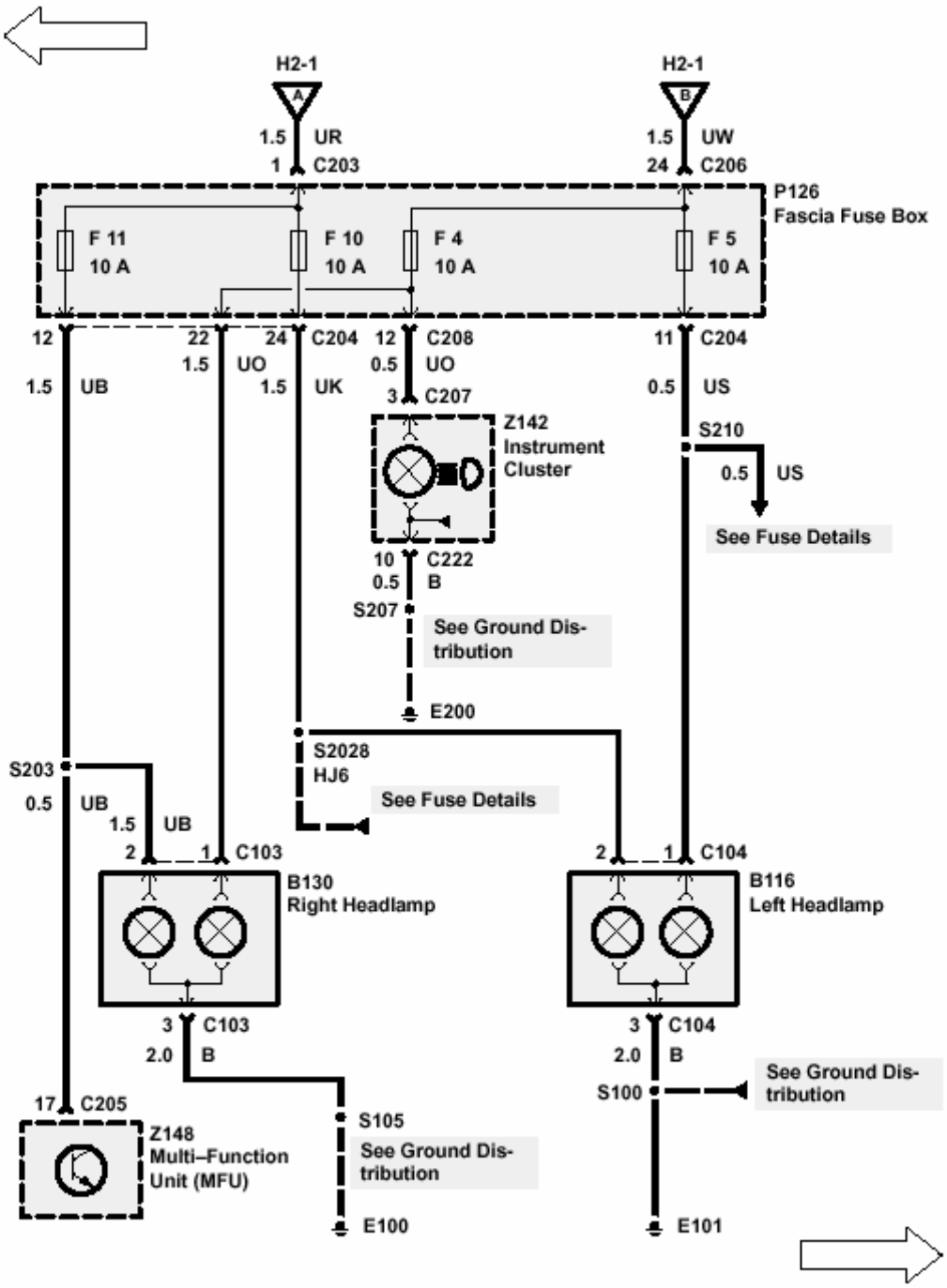
1995 RANGE ROVER

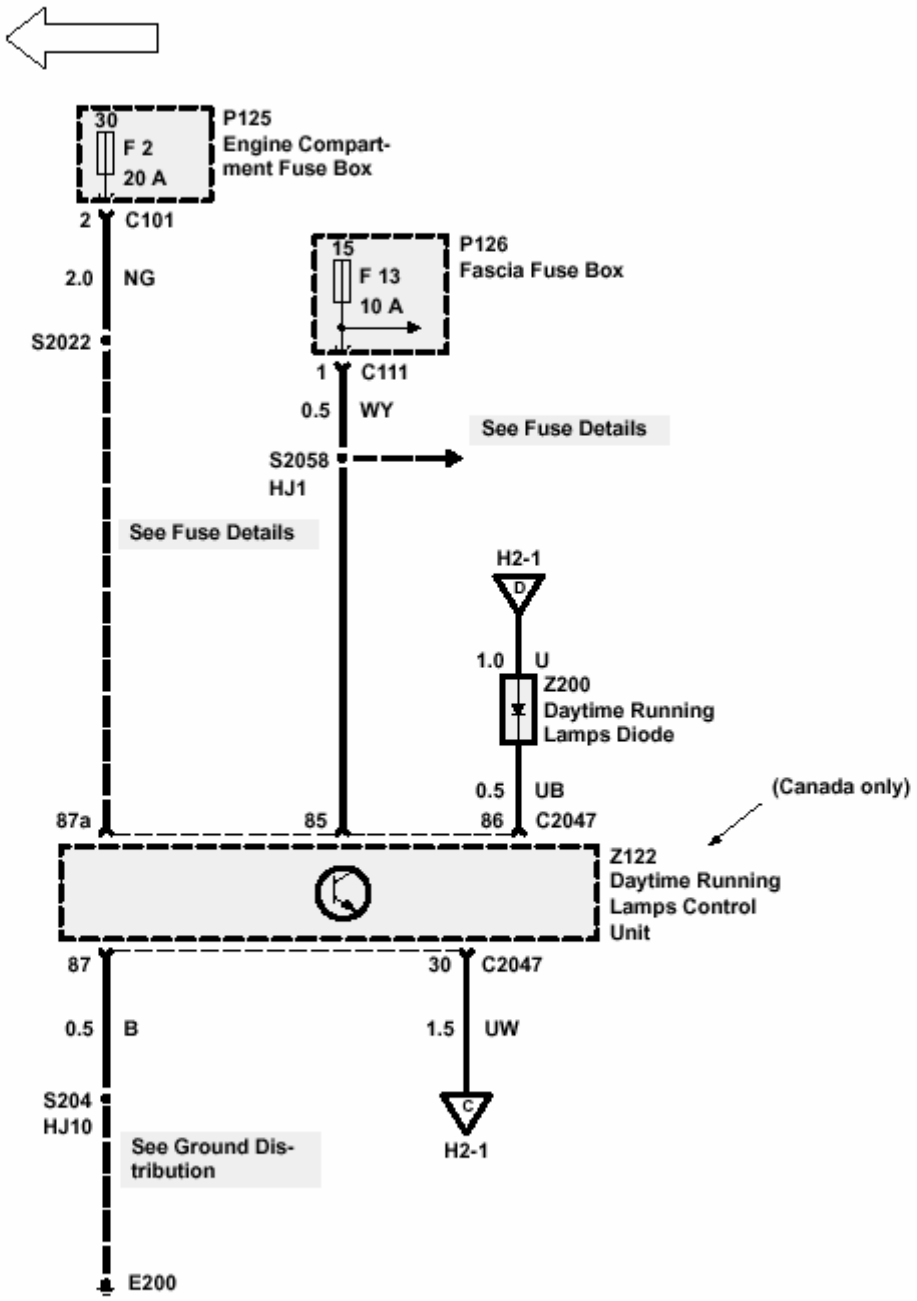


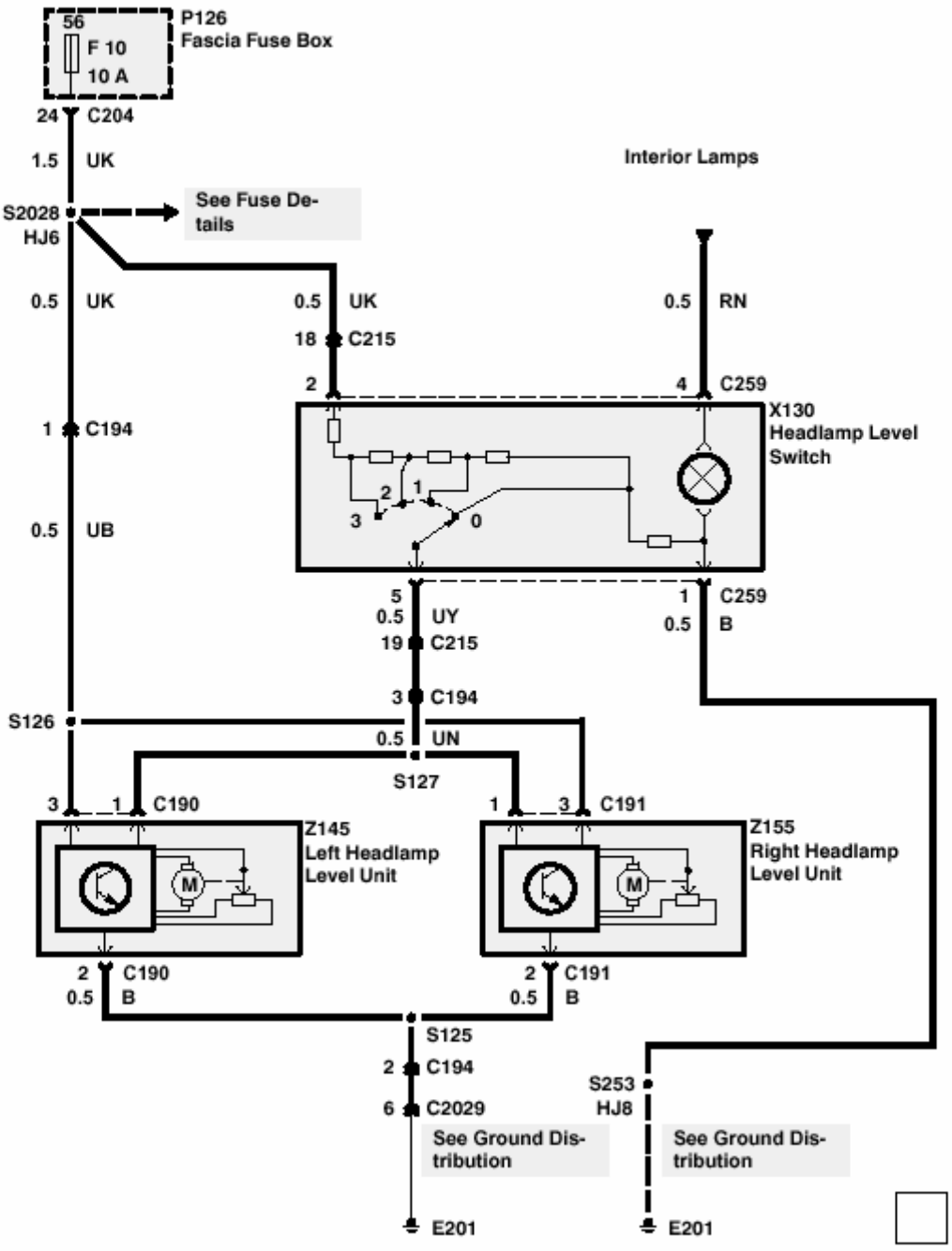

30
MF 4
30 A
30
F 2
20 A
P125
Engine Compartment Fuse Box
2 C115
2 C101
Horns
3.0 NY
2.0 NG
S2022
Without Cruise Control
1 C200
See Fuse Details
0.5 PO
3.0 NP
22 C202
7
6
2 C201
X145
Main Lighting Switch
[1] Side Lamps
[2] Headlamps
[3] Main Beam
[4] Dip Beam
[5] Headlamp Flash Switch
4
3
5
1 C201
2.0 U
1.5 UR
1.5 UW
2.0 R
2 C200
3 C200
2
6 C202
See Fuse Details
H2-3
C
1.5 UW
Without Cruise Control
S202
S2026
1.0 U
D
A
B
H2-3
H2-2
H2-2
Horns
See Power Distribution

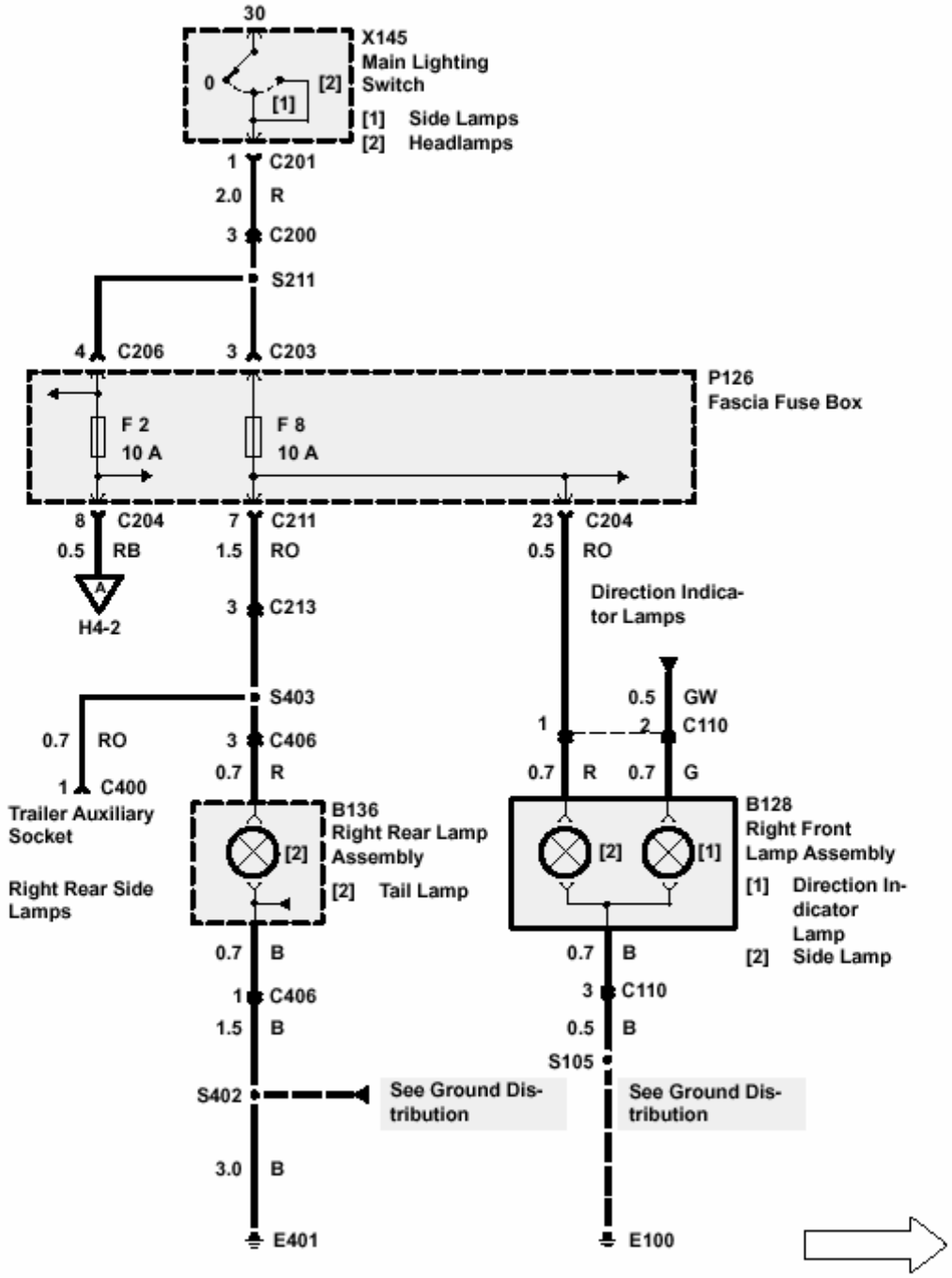
H2 ETM

1995 RANGE ROVER



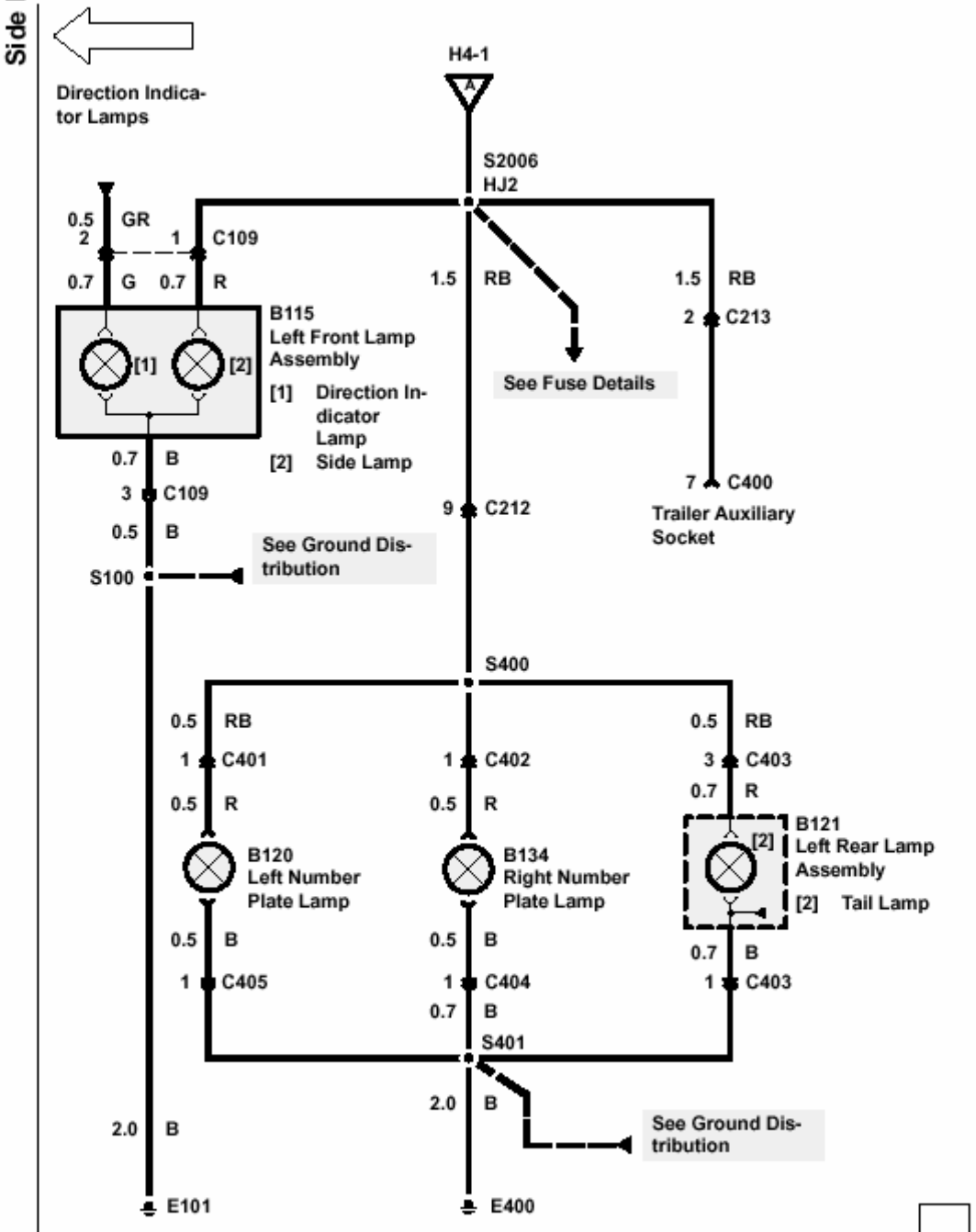

30
F 2
20 A
P125
Engine Compart-
ment Fuse Box
2
C101
2.0
NG
S2022
15
F 13
10 A
P126
Fascia Fuse Box
1
C111
0.5
WY
See Fuse Details
S2058
HJ1
See Fuse Details
H2-1
D
1.0
U
Z200
Daytime Running
Lamps Diode
0.5
UB
(Canada only)
87a
85
86
C2047
Z122
Daytime Running
Lamps Control
Unit
87
30
C2047
0.5
B
1.5
UW
S204
HJ10
See Ground Dis-
tribution
C
H2-1
E200

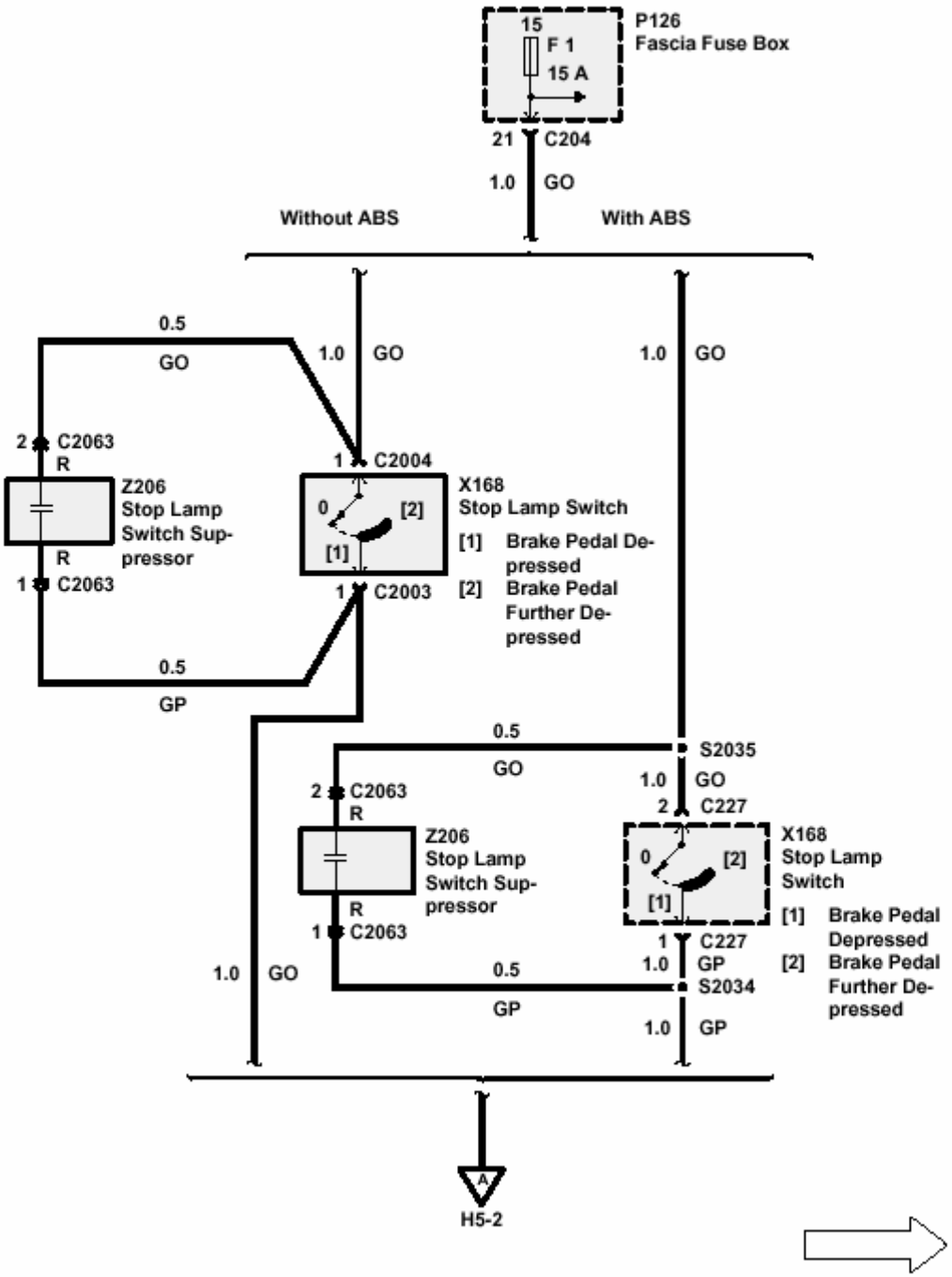

56
F 10
10 A
P126
Fascia Fuse Box
24 C204
1.5 UK
S2028
HJ6
See Fuse Details
Interior Lamps
0.5 UK
0.5 UK
18 C215
0.5 RN
2
4 C259
X130
Headlamp Level Switch
1 C194
0.5 UB
3
2
1
0
5
0.5 UY
19 C215
1 C259
0.5 B
3 C194
S126
0.5 UN
S127
3 1 C190
Z145
Left Headlamp Level Unit
1 3 C191
Z155
Right Headlamp Level Unit
M
2 C190
0.5 B
2 C191
0.5 B
S125
2 C194
6 C2029
See Ground Distribution
S253
HJ8
See Ground Distribution
E201
E201


30
X145
Main Lighting Switch
0
[2]
[1]
[1] Side Lamps
[2] Headlamps
1 C201
2.0 R
3 C200
S211
4 C206
3 C203
P126
Fascia Fuse Box
F 2
10 A
F 8
10 A
8 C204
0.5 RB
7 C211
1.5 RO
23 C204
0.5 RO
A
H4-2
3 C213
Direction Indicator Lamps
S403
0.5 GW
1
2 C110
0.7 RO
3 C406
0.7 R
0.7 R
0.7 G
1 C400
Trailer Auxiliary Socket
Right Rear Side Lamps
B136
Right Rear Lamp Assembly
[2]
[2] Tail Lamp
B128
Right Front Lamp Assembly
[2]
[1]
[1] Direction Indicator Lamp
[2] Side Lamp
0.7 B
0.7 B
1 C406
3 C110
1.5 B
0.5 B
S105
S402
See Ground Distribution
See Ground Distribution
3.0 B
E401
E100

H4 ETM

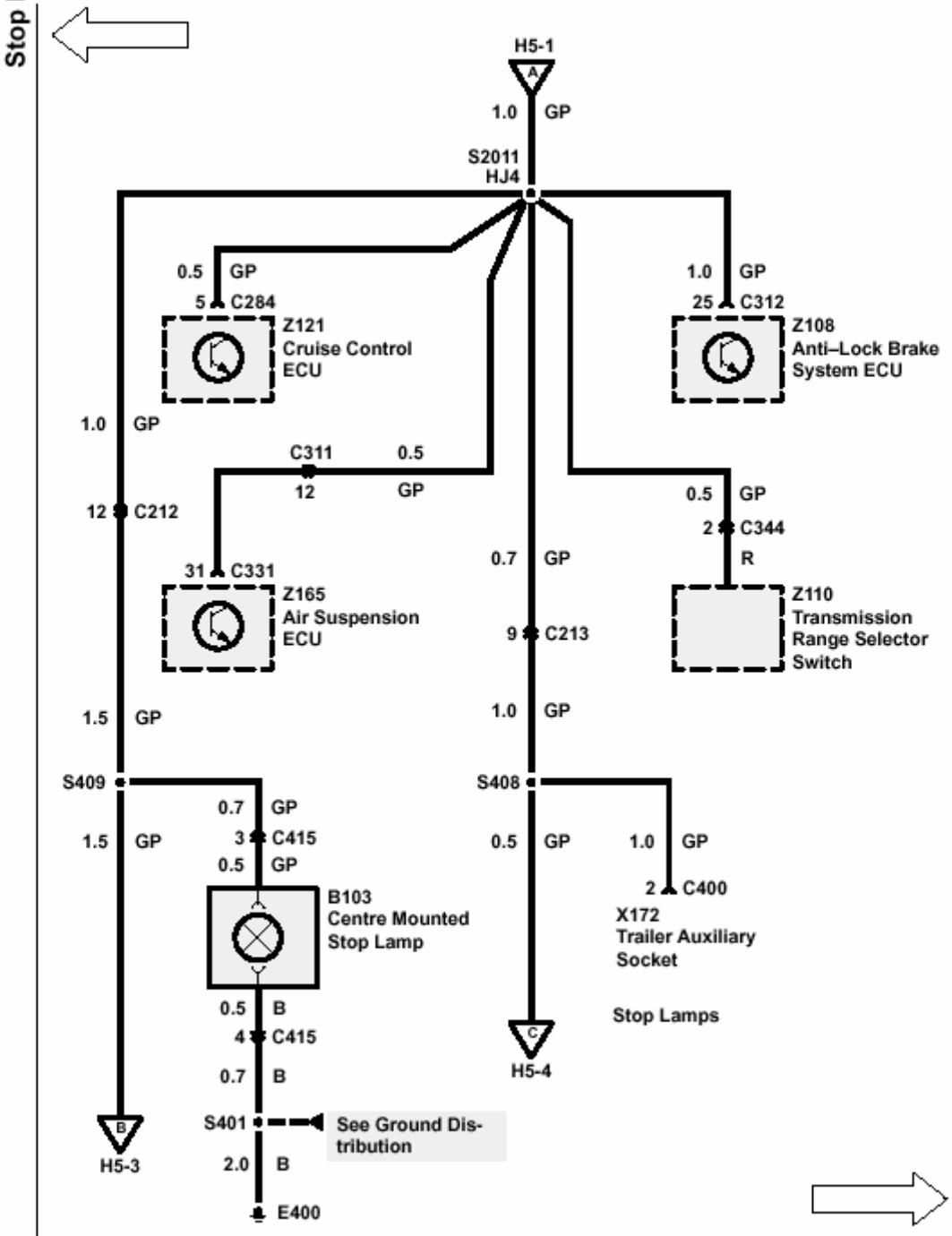
1995 RANGE ROVER

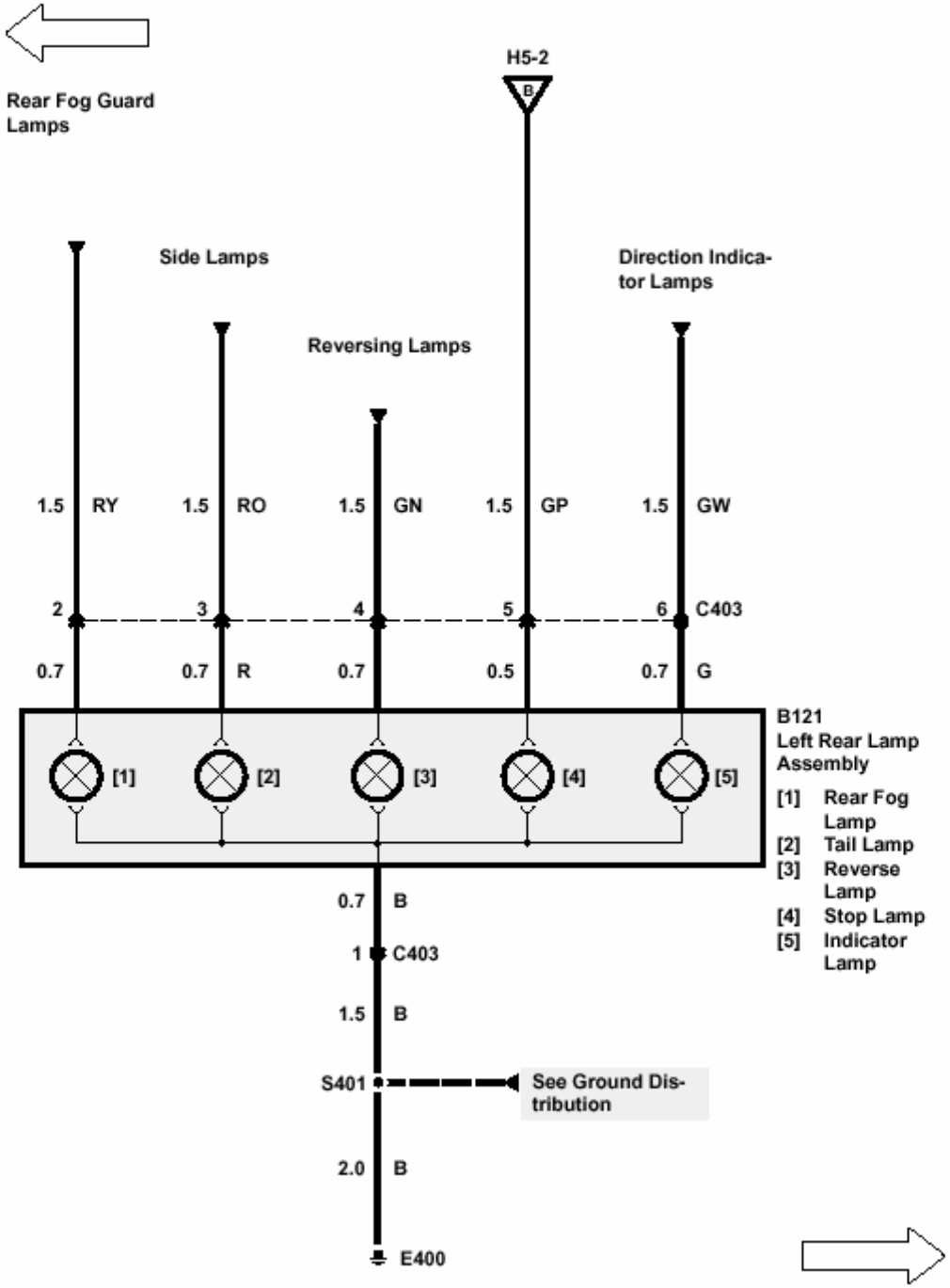



15
F 1
15 A
P126
Fascia Fuse Box
21 C204
1.0 GO
Without ABS
With ABS
0.5
GO
1.0 GO
1.0 GO
2 C2063
R
Z206
Stop Lamp
Switch Sup-
pressor
R
1 C2063
1 C2004
X168
Stop Lamp Switch
0
[2]
[1]
[1] Brake Pedal De-
pressed
[2] Brake Pedal
Further De-
pressed
1 C2003
0.5
GP
0.5
GO
S2035
1.0 GO
2 C227
2 C2063
R
Z206
Stop Lamp
Switch Sup-
pressor
R
1 C2063
X168
Stop Lamp
Switch
[1] Brake Pedal
Depressed
[2] Brake Pedal
Further De-
pressed
1 C227
1.0 GP
S2034
1.0 GO
0.5
GP
1.0 GP
A
H5-2

H5 ETM

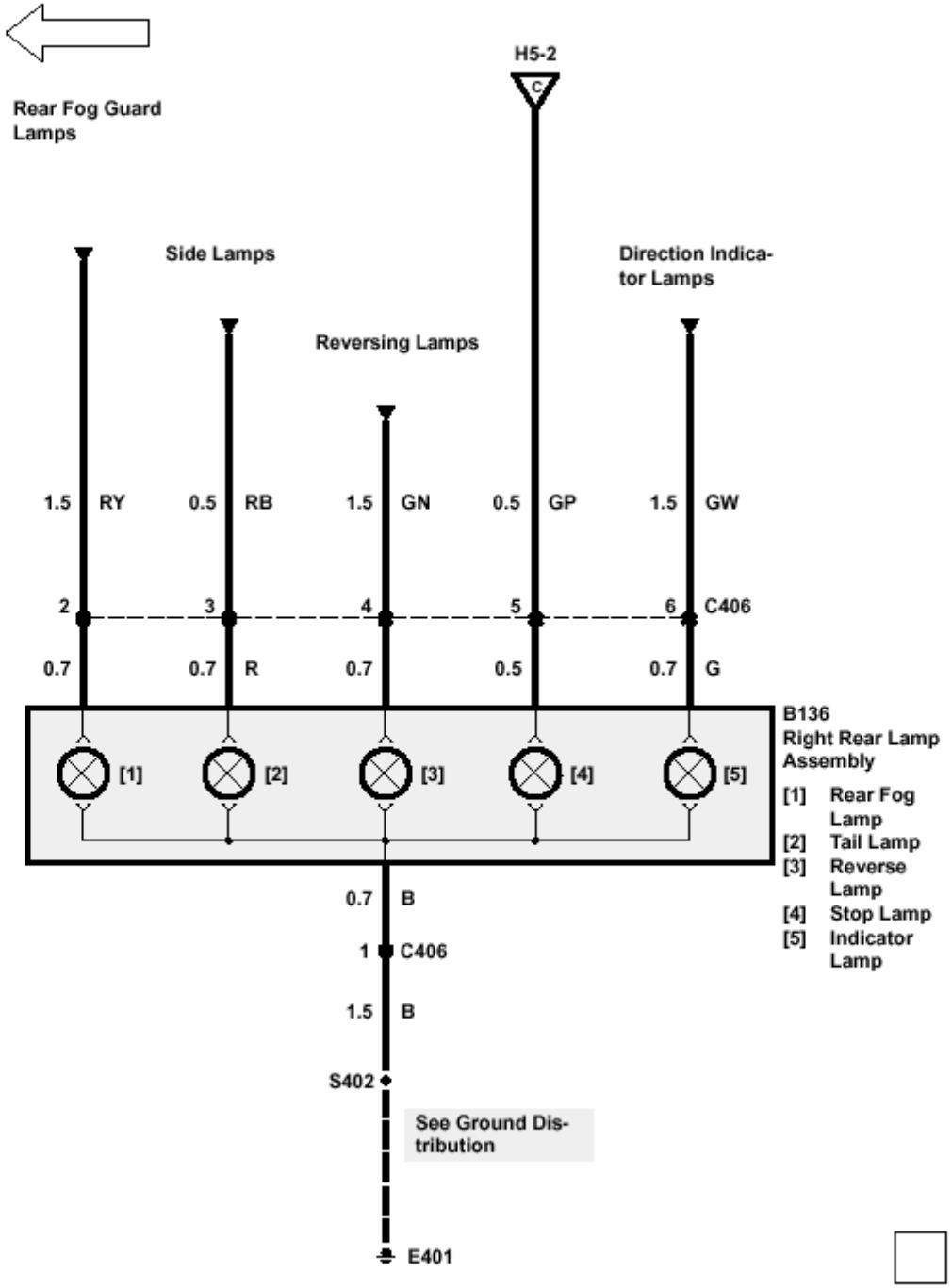
1995 RANGE ROVER

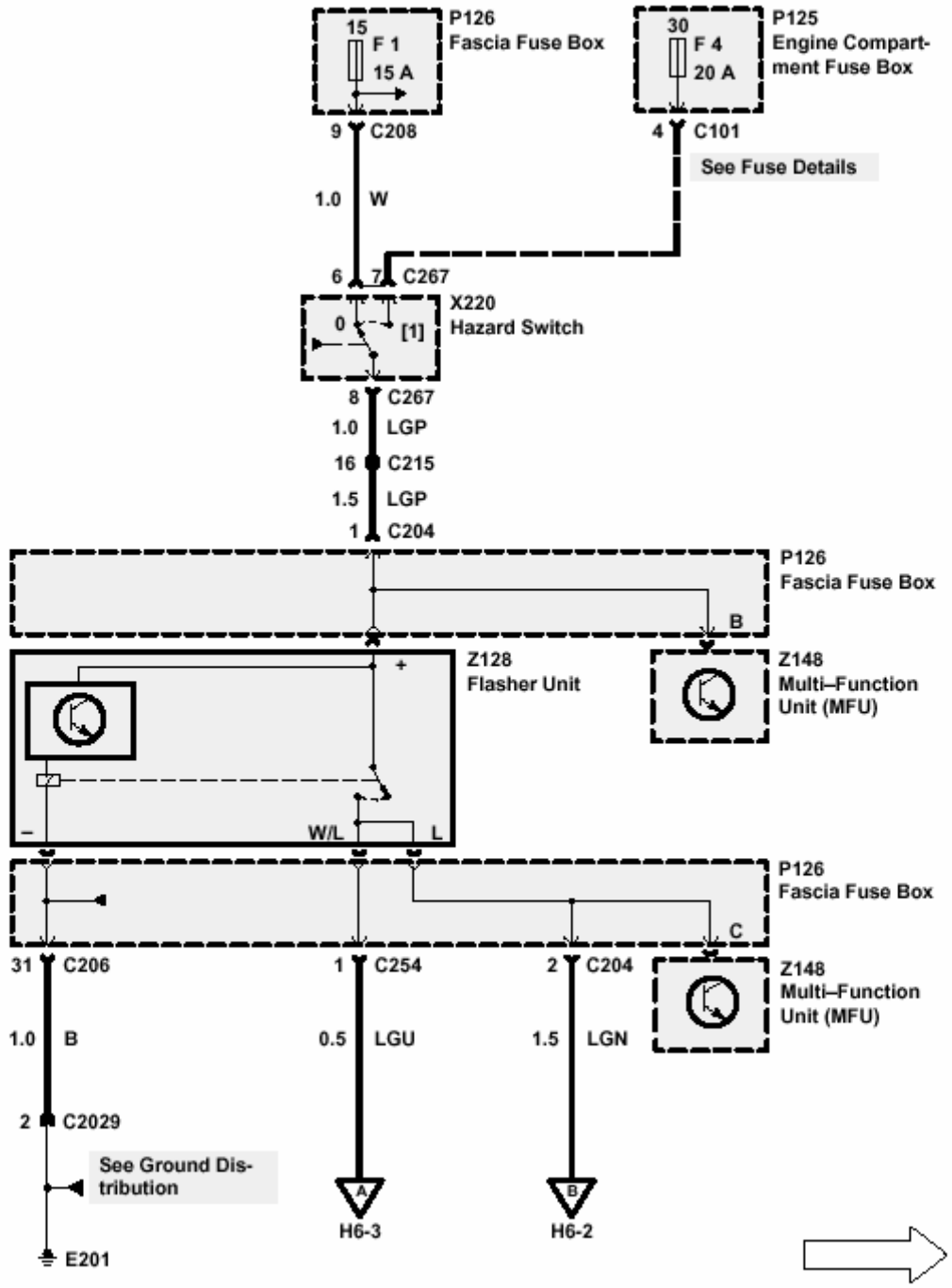



Rear Fog Guard Lamps
H5-2
B
Side Lamps
Direction Indicator Lamps
Reversing Lamps
1.5 RY
1.5 RO
1.5 GN
1.5 GP
1.5 GW
2
3
4
5
6
C403
0.7
0.7 R
0.7
0.5
0.7 G
[1]
[2]
[3]
[4]
[5]
B121
Left Rear Lamp Assembly
[1] Rear Fog Lamp
[2] Tail Lamp
[3] Reverse Lamp
[4] Stop Lamp
[5] Indicator Lamp
0.7 B
1 C403
1.5 B
S401
See Ground Distribution
2.0 B
E400

H5 ETM

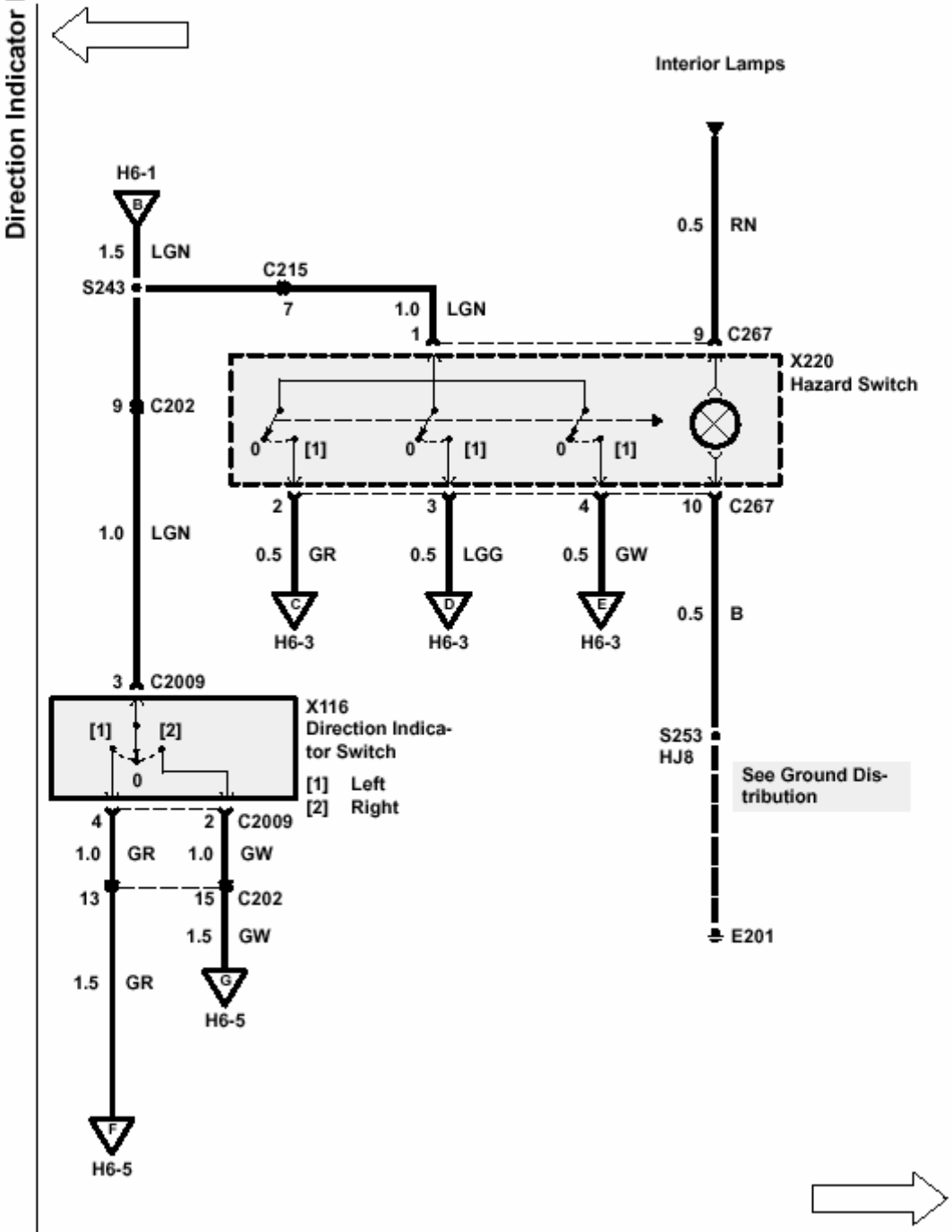
1995 RANGE ROVER

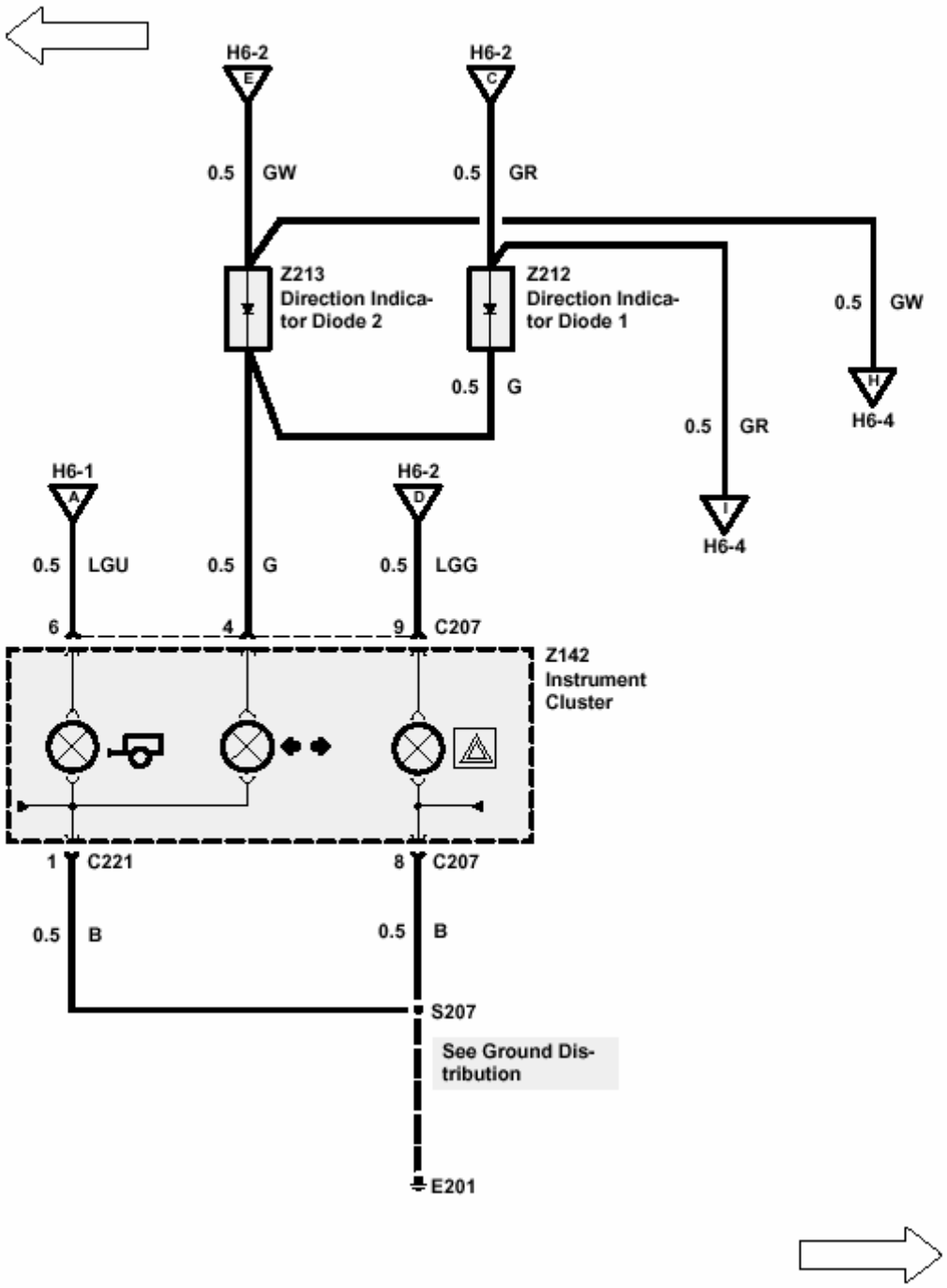



15
F 1
15 A
P126
Fascia Fuse Box
30
F 4
20 A
P125
Engine Compart-
ment Fuse Box
9 C208
4 C101
See Fuse Details
1.0 W
6 7 C267
X220
Hazard Switch
0 [1]
8 C267
1.0 LGP
16 C215
1.5 LGP
1 C204
P126
Fascia Fuse Box
B
Z128
Flasher Unit
+
–
W/L
L
Z148
Multi–Function
Unit (MFU)
P126
Fascia Fuse Box
C
31 C206
1.0 B
2 C2029
See Ground Dis-
tribution
E201
1 C254
0.5 LGU
A
H6-3
2 C204
1.5 LGN
B
H6-2
Z148
Multi–Function
Unit (MFU)

H6 ETM

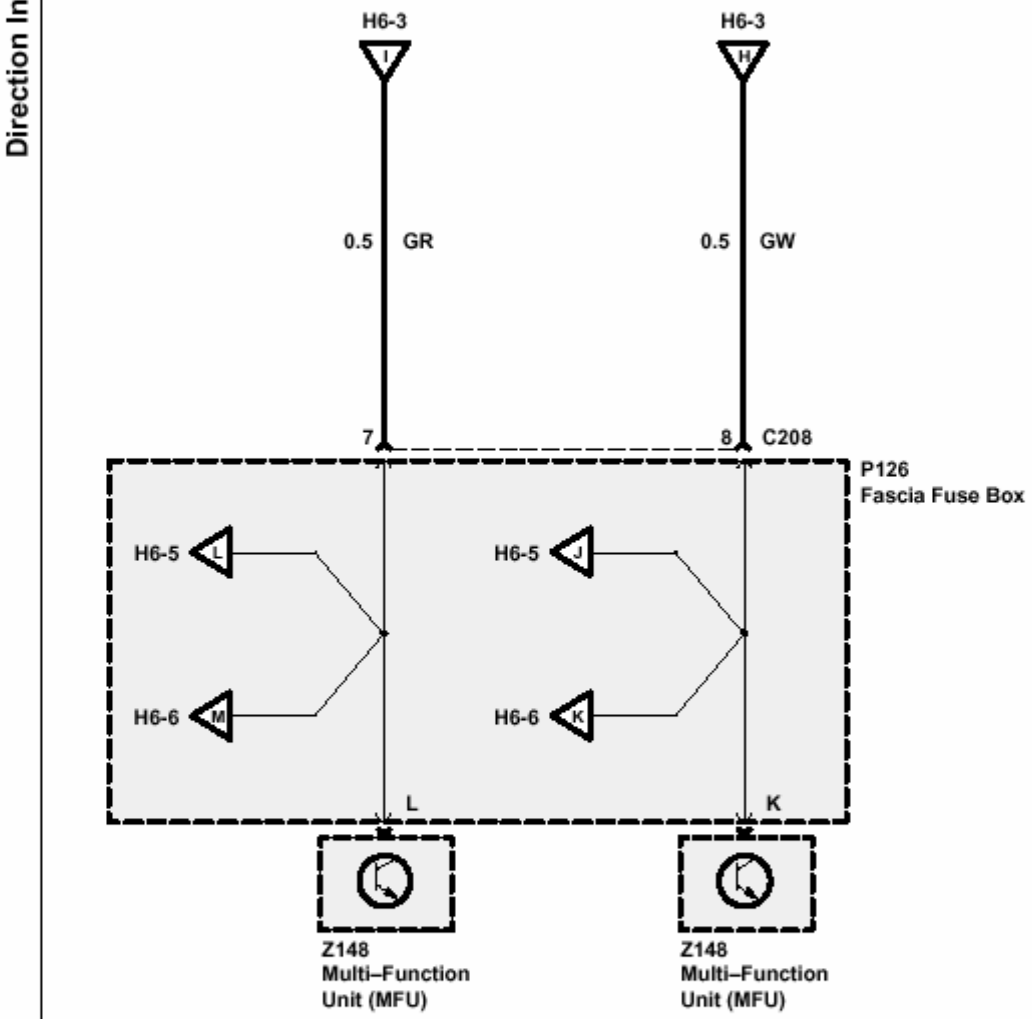
1995 RANGE ROVER

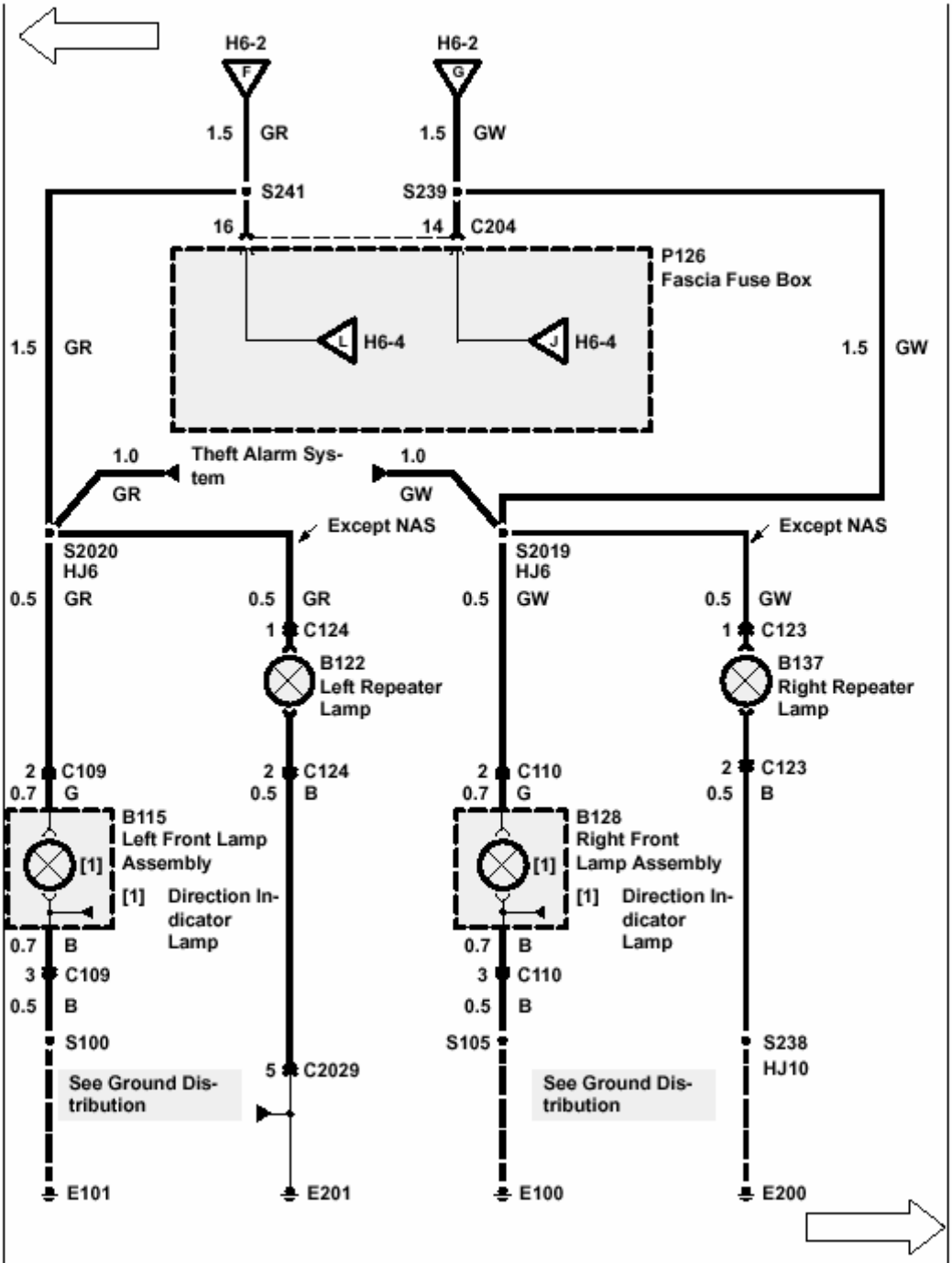



H6-2
E
0.5 GW
H6-2
C
0.5 GR
Z213
Direction Indicator Diode 2
Z212
Direction Indicator Diode 1
0.5 GW
H
H6-4
0.5 G
0.5 GR
I
H6-4
H6-1
A
0.5 LGU
6
0.5 G
4
H6-2
D
0.5 LGG
9
C207
Z142
Instrument Cluster
1
C221
8
C207
0.5 B
0.5 B
S207
See Ground Distribution
E201

H6 ETM

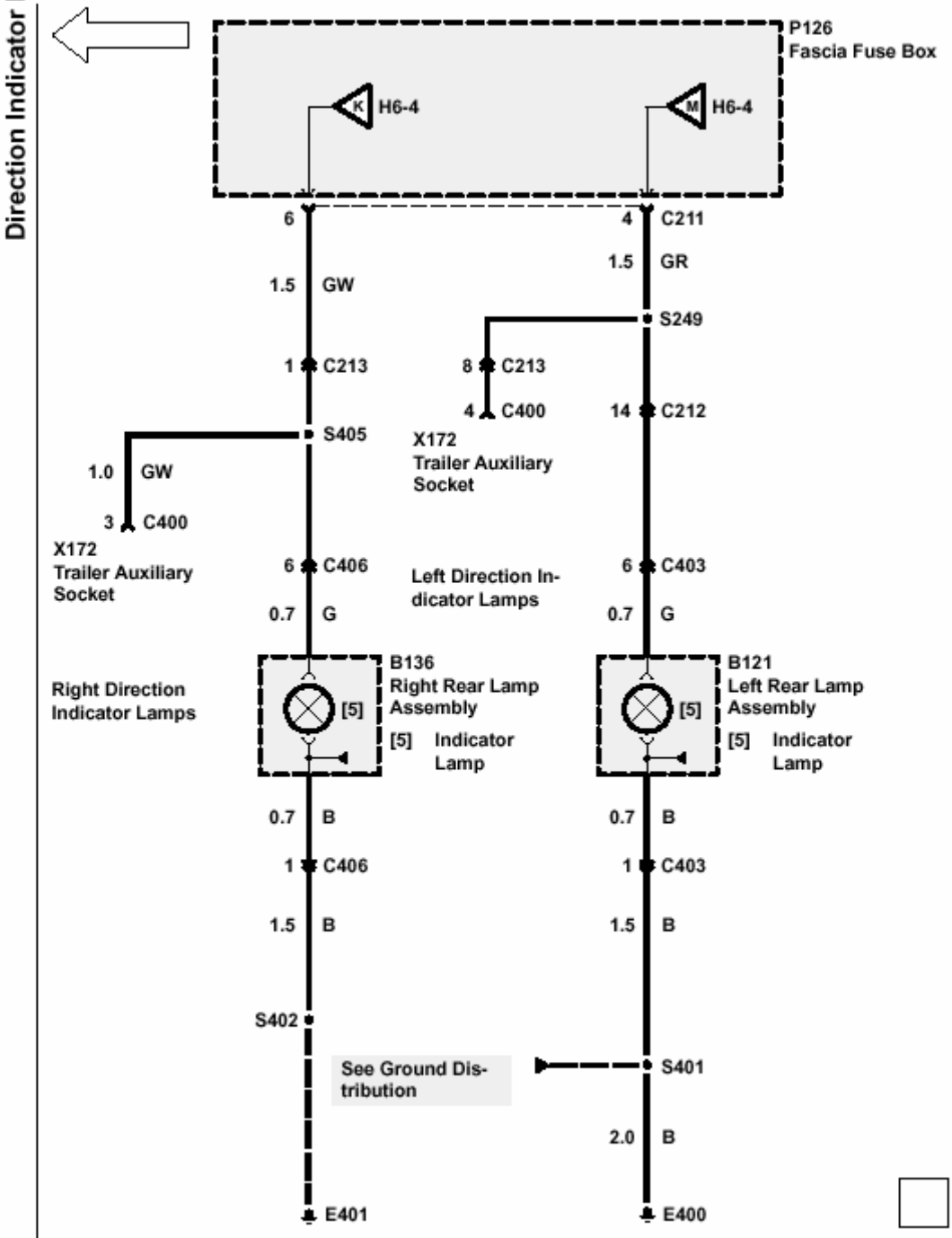
1995 RANGE ROVER

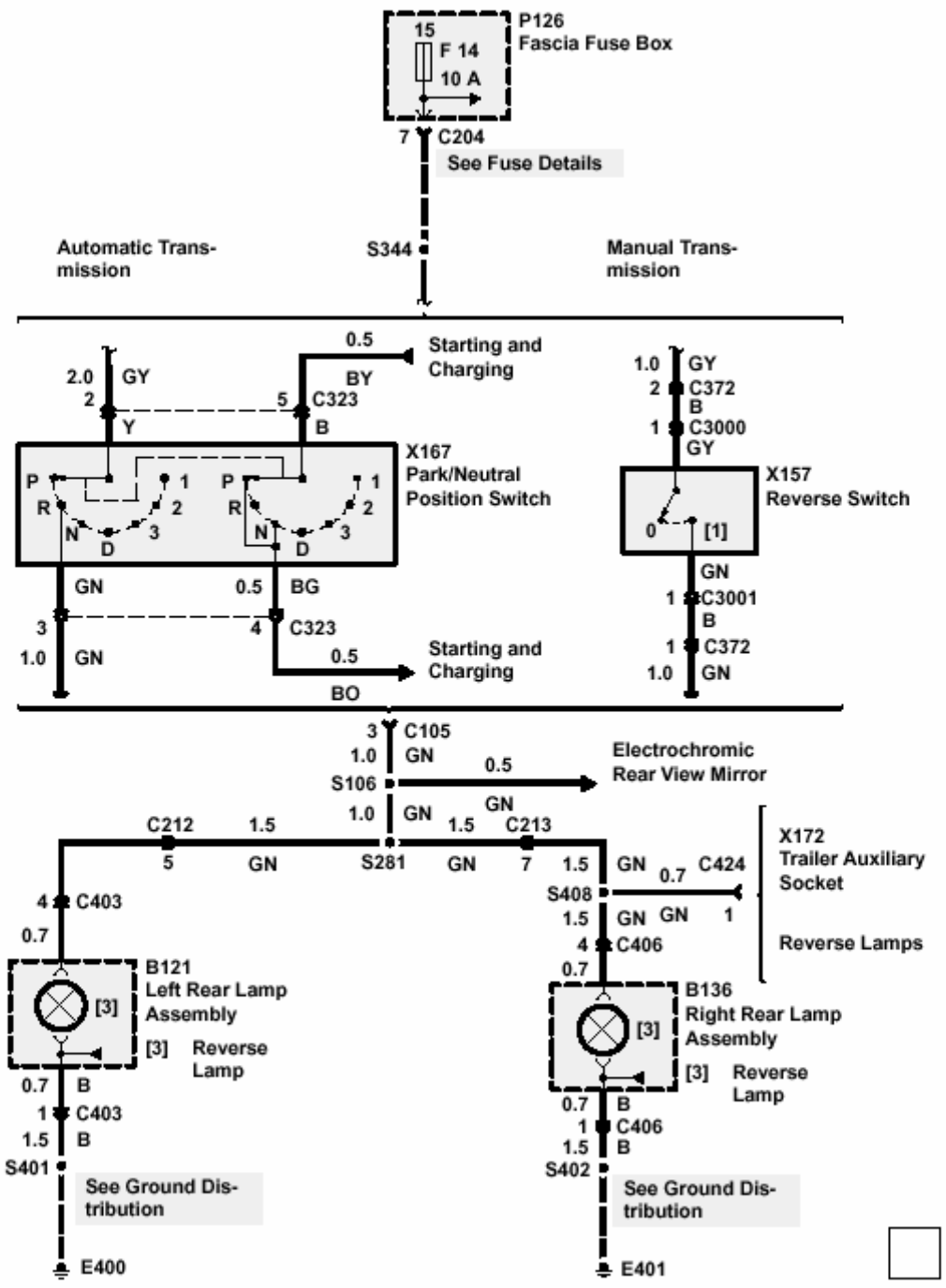


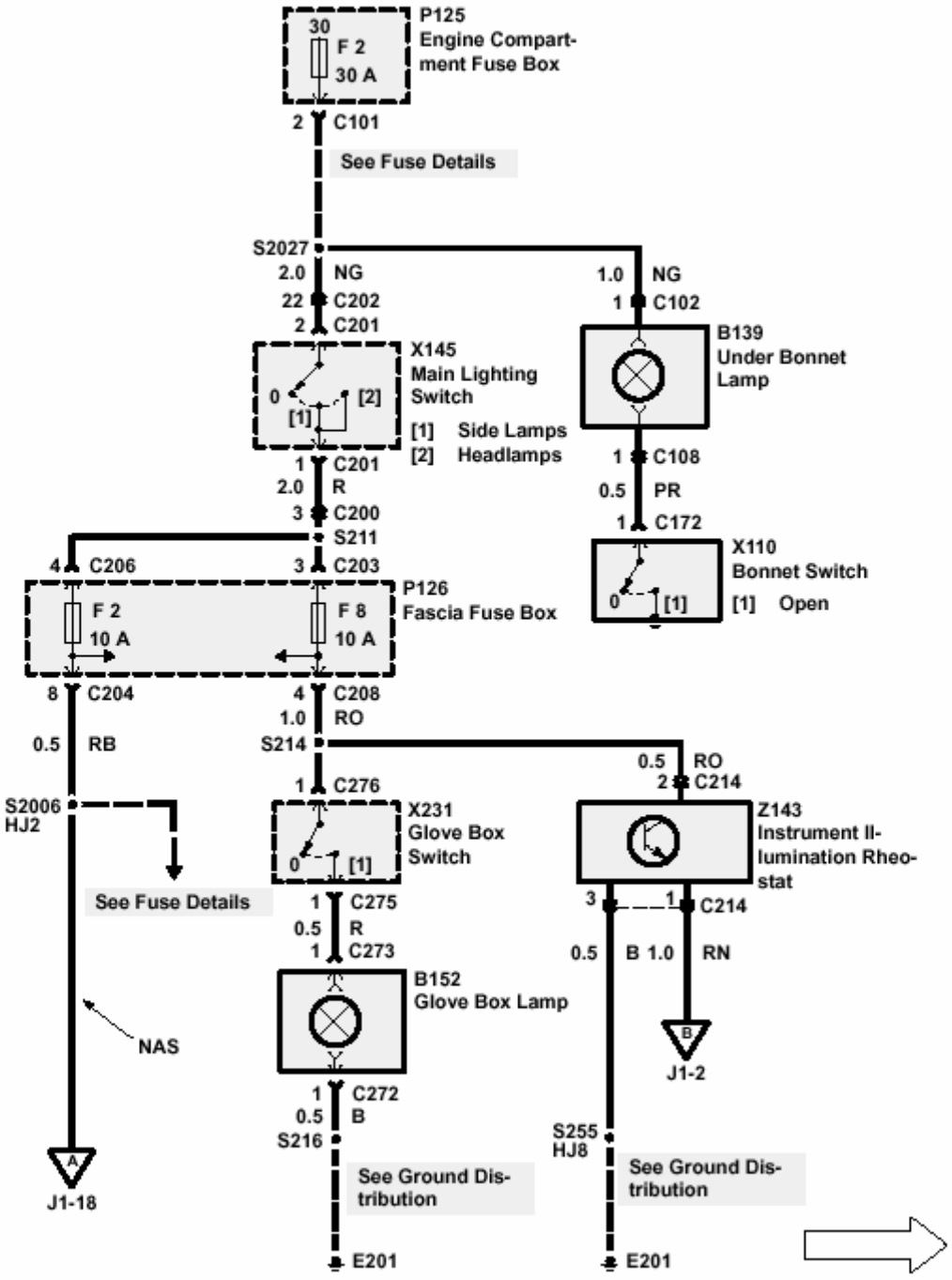

H6-2
F
1.5 GR
S241
16
H6-2
G
1.5 GW
S239
14 C204
P126
Fascia Fuse Box
L H6-4
J H6-4
1.5 GR
1.5 GW
1.0 GR
Theft Alarm System
1.0 GW
Except NAS
S2020
HJ6
0.5 GR
1 C124
B122
Left Repeater Lamp
2 C109
0.7 G
2 C124
0.5 B
B115
Left Front Lamp Assembly
[1]
[1] Direction Indicator Lamp
0.7 B
3 C109
0.5 B
S100
See Ground Distribution
5 C2029
E101
E201
Except NAS
S2019
HJ6
0.5 GW
1 C123
B137
Right Repeater Lamp
2 C110
0.7 G
2 C123
0.5 B
B128
Right Front Lamp Assembly
[1]
[1] Direction Indicator Lamp
0.7 B
3 C110
0.5 B
S105
See Ground Distribution
S238
HJ10
E100
E200

H6 ETM

1995 RANGE ROVER

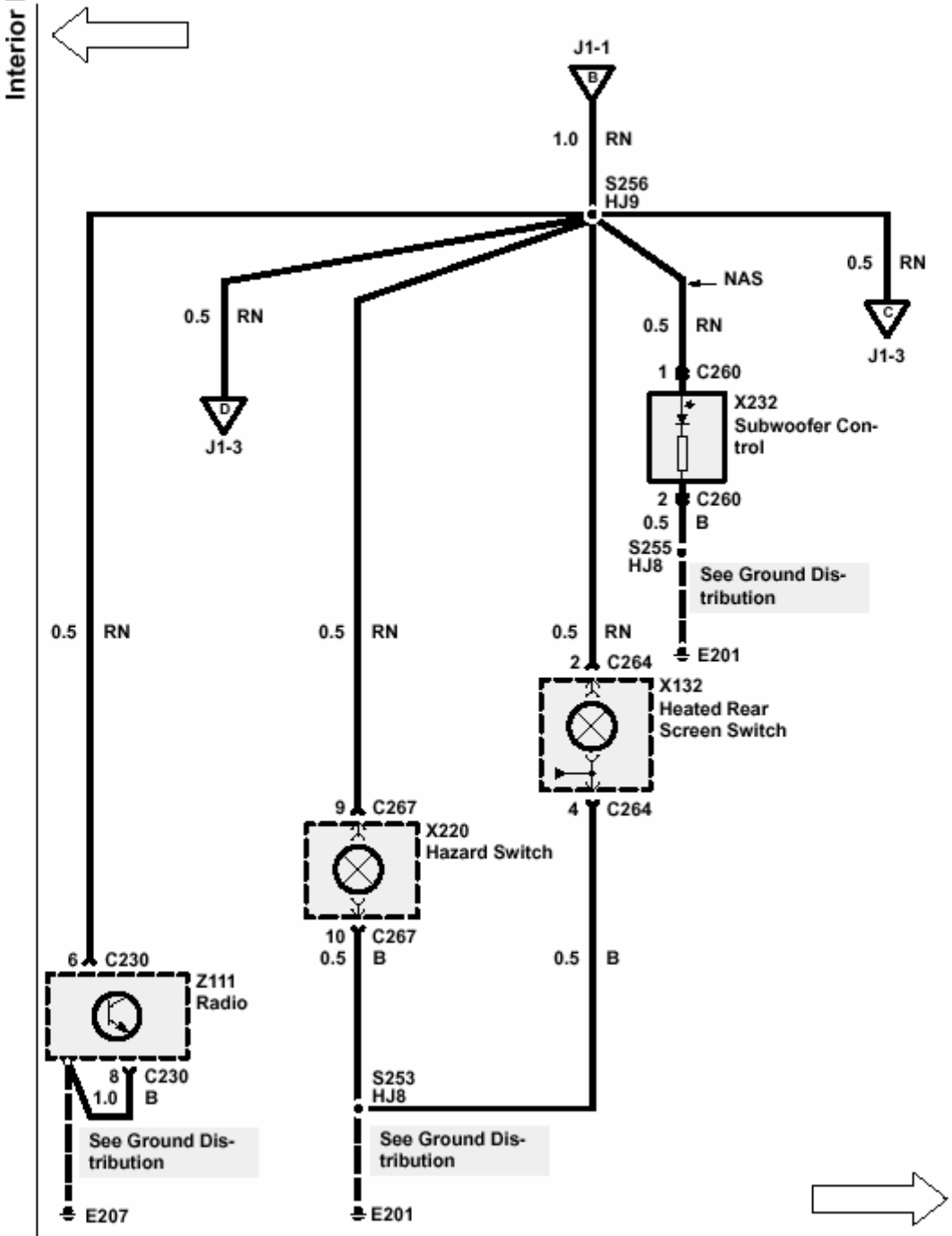


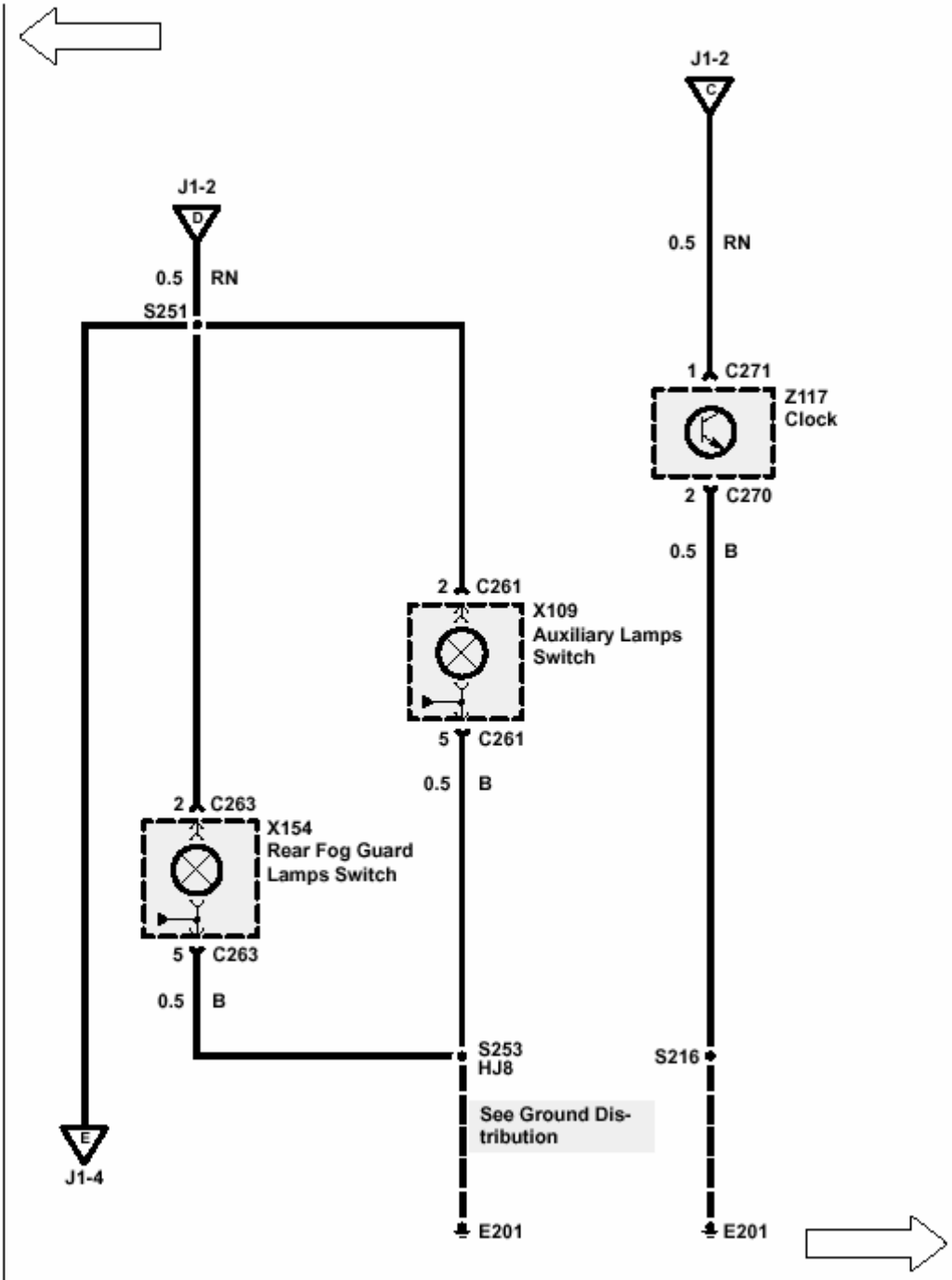

P126
Fascia Fuse Box
15
F 14
10 A
7 C204
See Fuse Details
Automatic Transmission
S344
Manual Transmission
0.5
Starting and Charging
2.0 GY
2
Y
5 C323
BY
B
X167
Park/Neutral Position Switch
P R N D 1 2 3
1.0 GY
2 C372
B
1 C3000
GY
X157
Reverse Switch
0 [1]
GN
0.5 BG
3
1.0 GN
4 C323
0.5
Starting and Charging
BO
1 C3001
B
1 C372
1.0 GN
3 C105
1.0 GN
S106
0.5
Electrochromic Rear View Mirror
C212 1.5 GN
5
S281
GN 1.5 C213
7
1.5 GN
S408
0.7 C424
X172
Trailer Auxiliary Socket
1.5 GN GN
4 C406
1
Reverse Lamps
4 C403
0.7
B121
Left Rear Lamp Assembly
[3]
[3] Reverse Lamp
0.7 B
1 C403
1.5 B
S401
See Ground Distribution
E400
0.7
B136
Right Rear Lamp Assembly
[3]
[3] Reverse Lamp
0.7 B
1 C406
1.5 B
S402
See Ground Distribution
E401


P125
Engine Compartment Fuse Box
30
F 2
30 A
2 C101
See Fuse Details
S2027
2.0 NG
22 C202
2 C201
X145
Main Lighting Switch
0 [1] [2]
[1] Side Lamps
[2] Headlamps
1 C201
2.0 R
3 C200
S211
4 C206
3 C203
P126
Fascia Fuse Box
F 2
10 A
F 8
10 A
8 C204
0.5 RB
4 C208
1.0 RO
S214
1 C276
S2006
HJ2
See Fuse Details
X231
Glove Box Switch
0 [1]
1 C275
0.5 R
1 C273
B152
Glove Box Lamp
NAS
1 C272
0.5 B
S216
See Ground Distribution
E201
J1-18
1.0 NG
1 C102
B139
Under Bonnet Lamp
1 C108
0.5 PR
1 C172
X110
Bonnet Switch
0 [1]
[1] Open
0.5 RO
2 C214
Z143
Instrument Illumination Rheostat
3 1 C214
0.5 B 1.0 RN
J1-2
S255
HJ8
See Ground Distribution
E201

J1 ETM

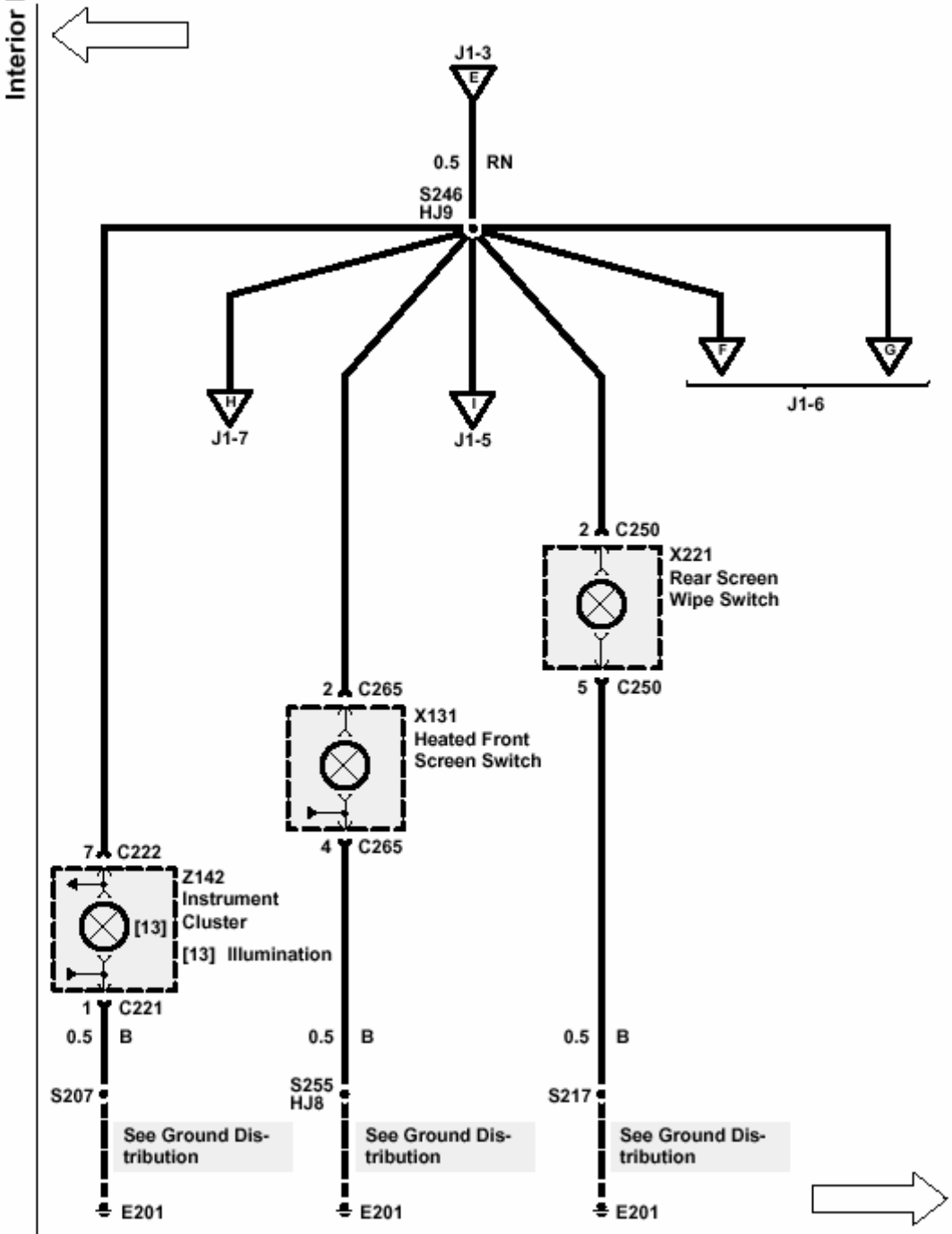
1995 RANGE ROVER

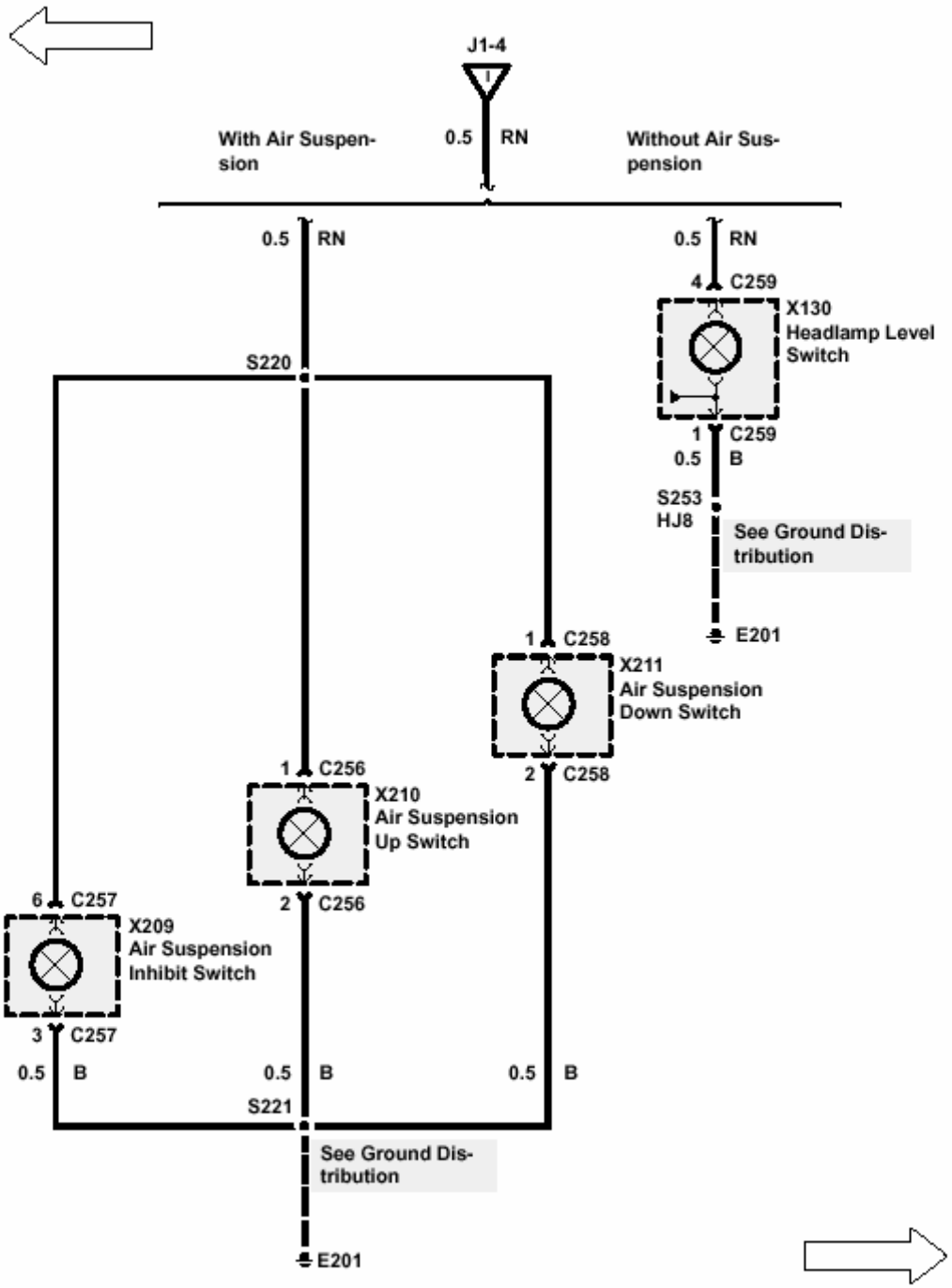


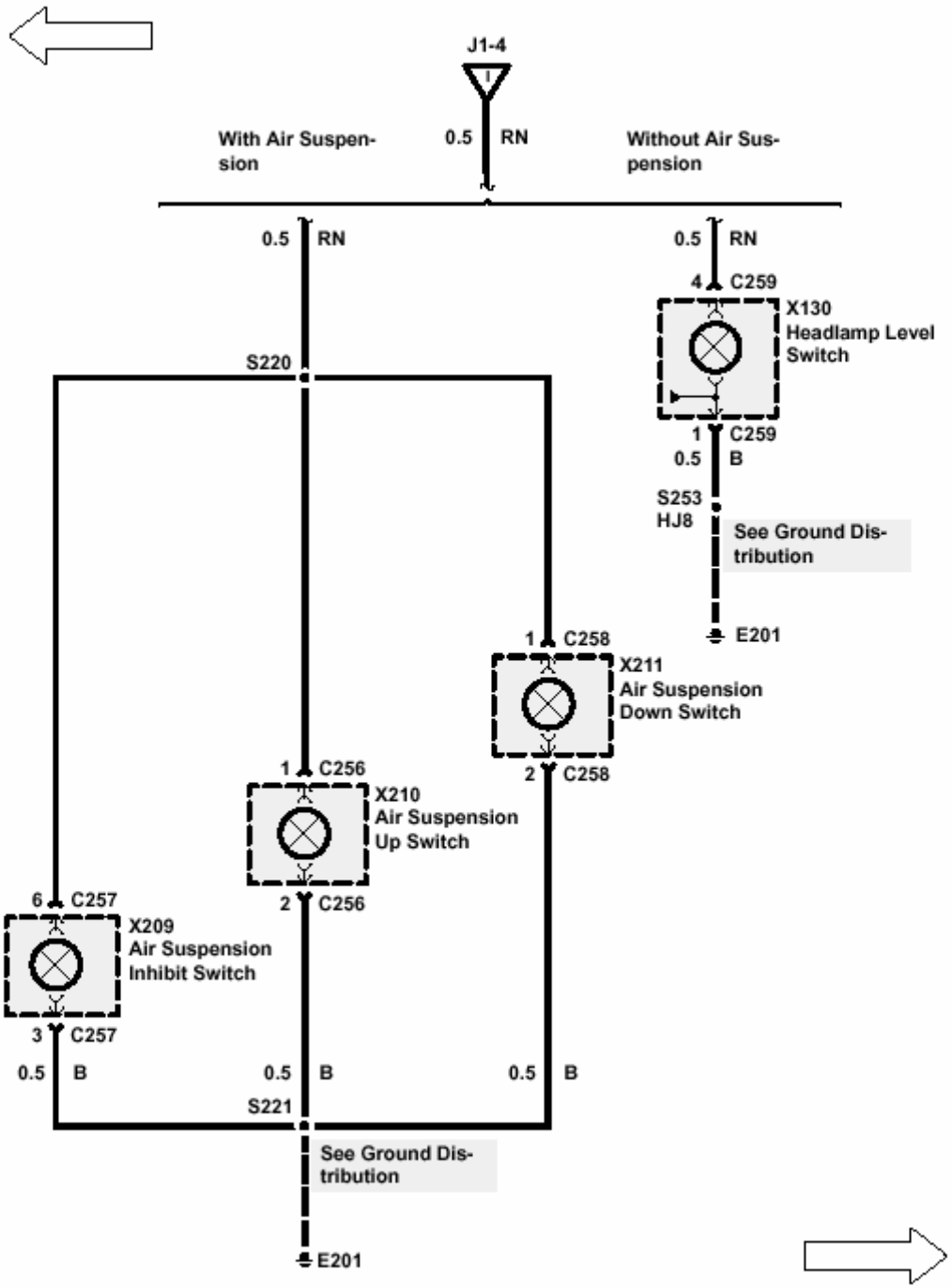

J1-2
C
0.5 RN
1 C271
Z117
Clock
2 C270
0.5 B
S216
E201
J1-2
D
0.5 RN
S251
2 C261
X109
Auxiliary Lamps
Switch
5 C261
0.5 B
2 C263
X154
Rear Fog Guard
Lamps Switch
5 C263
0.5 B
S253
HJ8
See Ground Dis-
tribution
E201
E
J1-4

J1 ETM

1995 RANGE ROVER

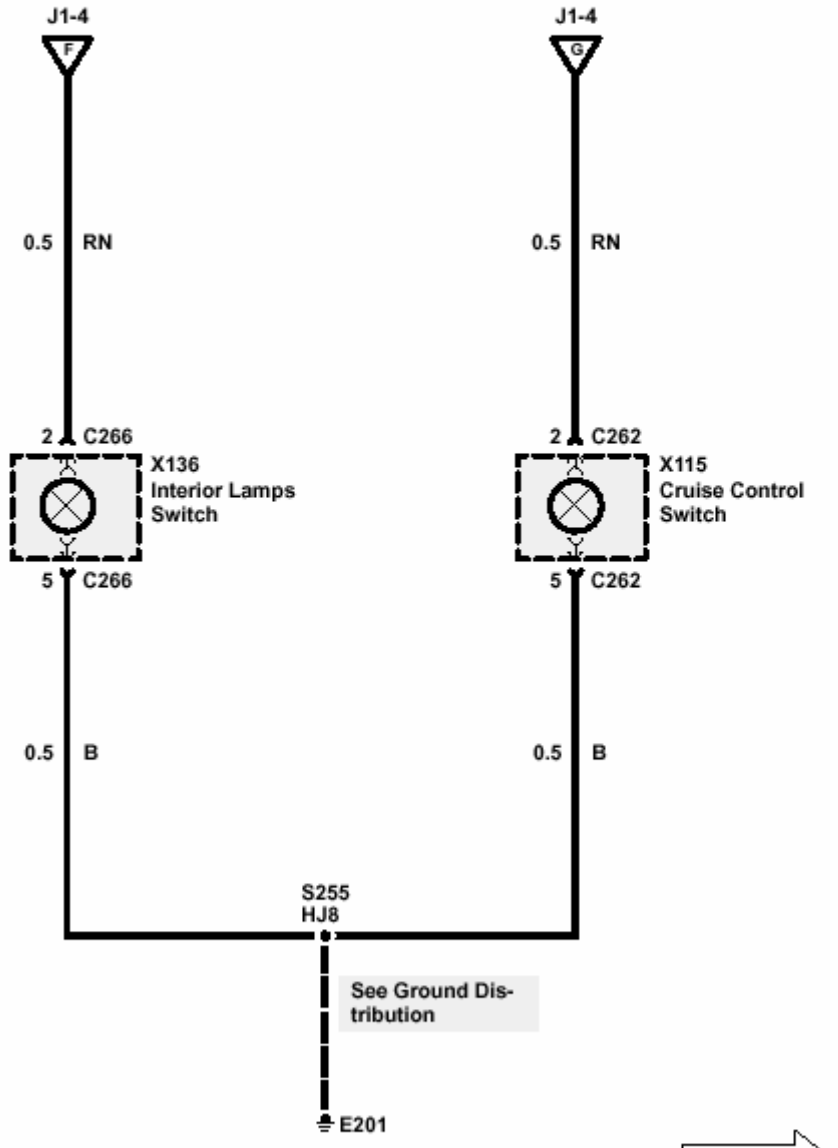


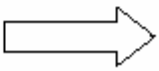

J1-4
0.5 RN
With Air Suspension
Without Air Suspension
0.5 RN
0.5 RN
4 C259
X130
Headlamp Level Switch
S220
1 C259
0.5 B
S253
HJ8
See Ground Distribution
E201
1 C258
X211
Air Suspension Down Switch
2 C258
1 C256
X210
Air Suspension Up Switch
2 C256
6 C257
X209
Air Suspension Inhibit Switch
3 C257
0.5 B
0.5 B
0.5 B
S221
See Ground Distribution
E201

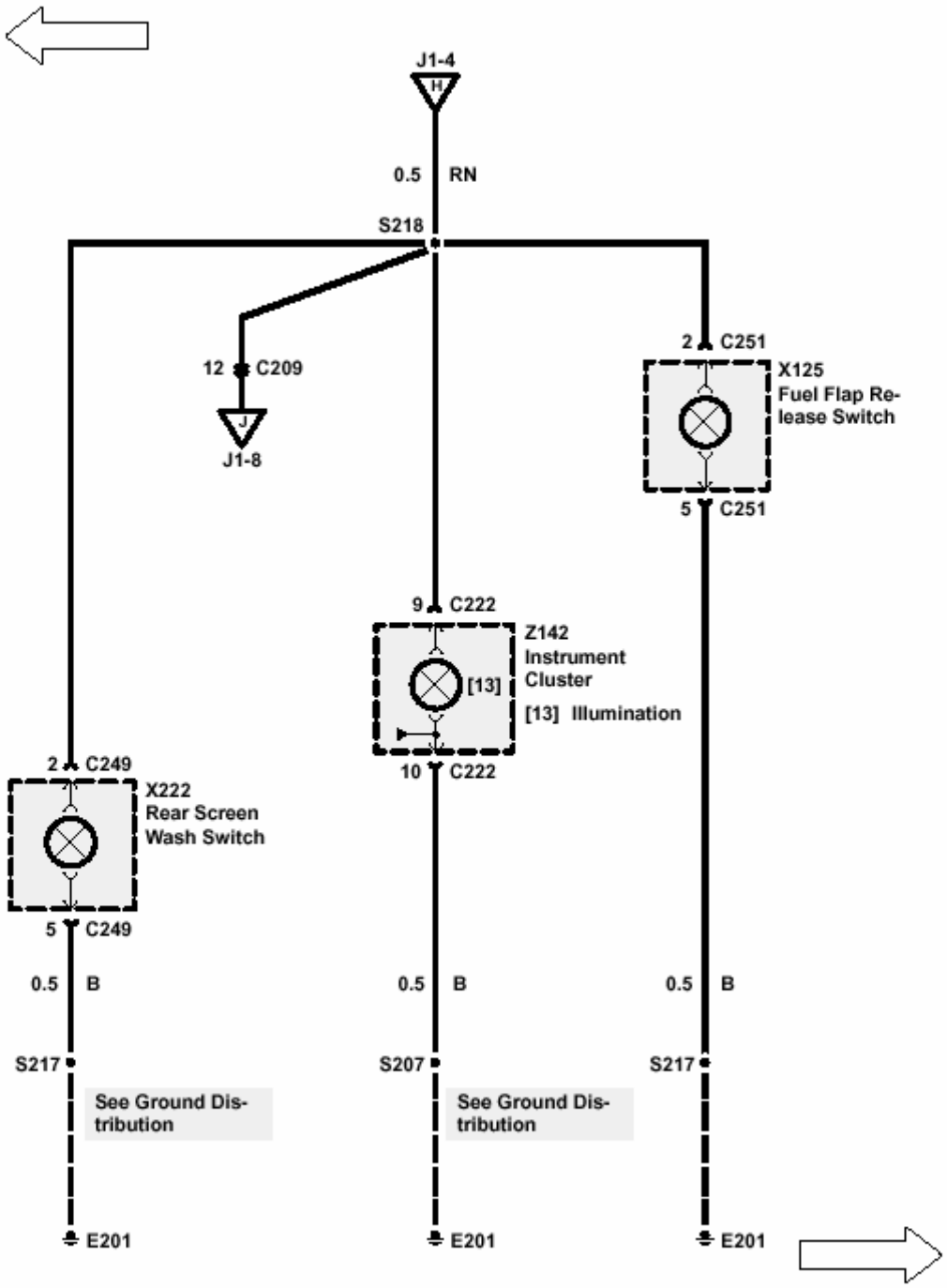

J1-4
0.5 RN
With Air Suspension
Without Air Suspension
0.5 RN
0.5 RN
4 C259
X130
Headlamp Level Switch
S220
1 C259
0.5 B
S253
HJ8
See Ground Distribution
E201
1 C258
X211
Air Suspension Down Switch
2 C258
1 C256
X210
Air Suspension Up Switch
2 C256
6 C257
X209
Air Suspension Inhibit Switch
3 C257
0.5 B
0.5 B
0.5 B
S221
See Ground Distribution
E201

J1 ETM

1995 RANGE ROVER

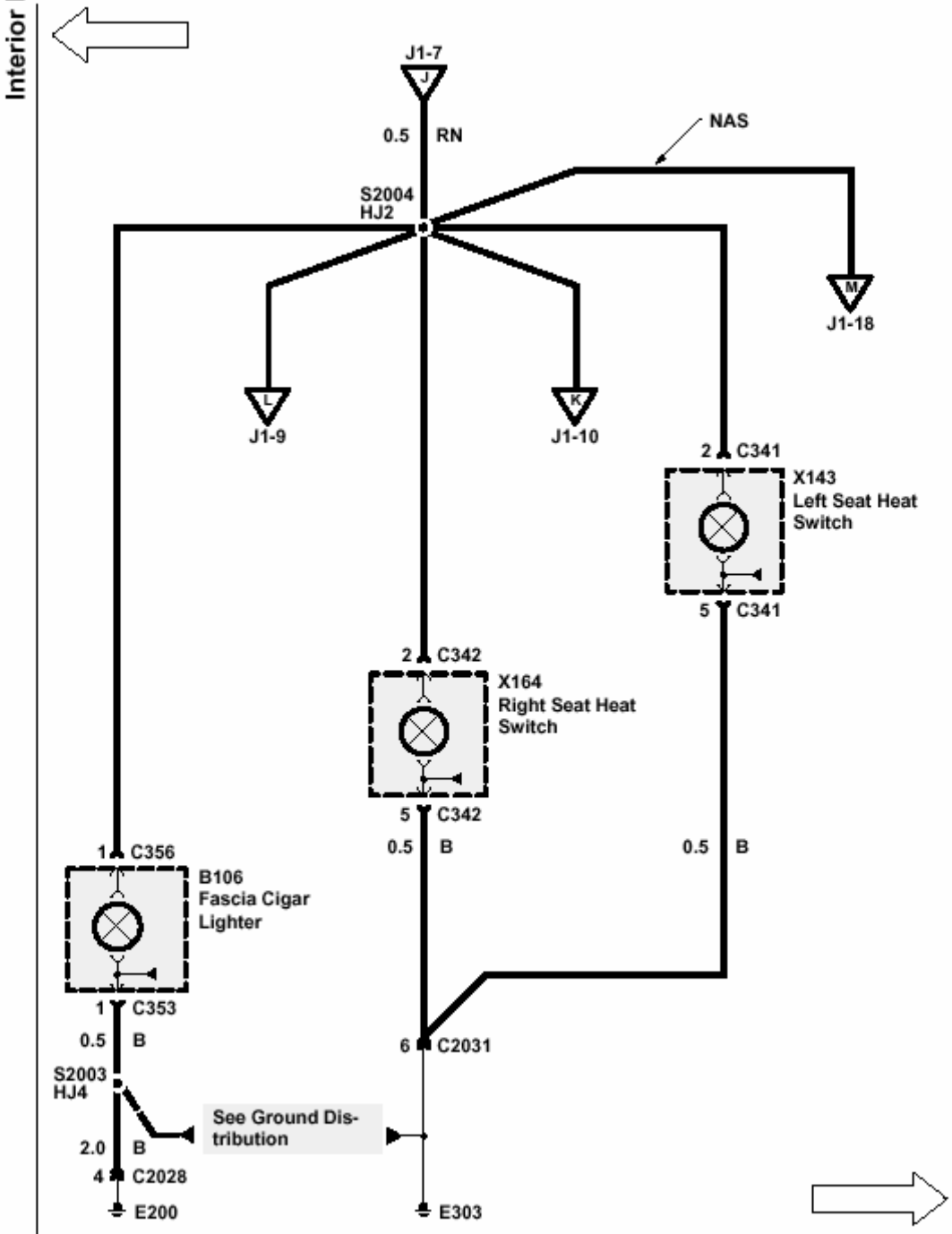


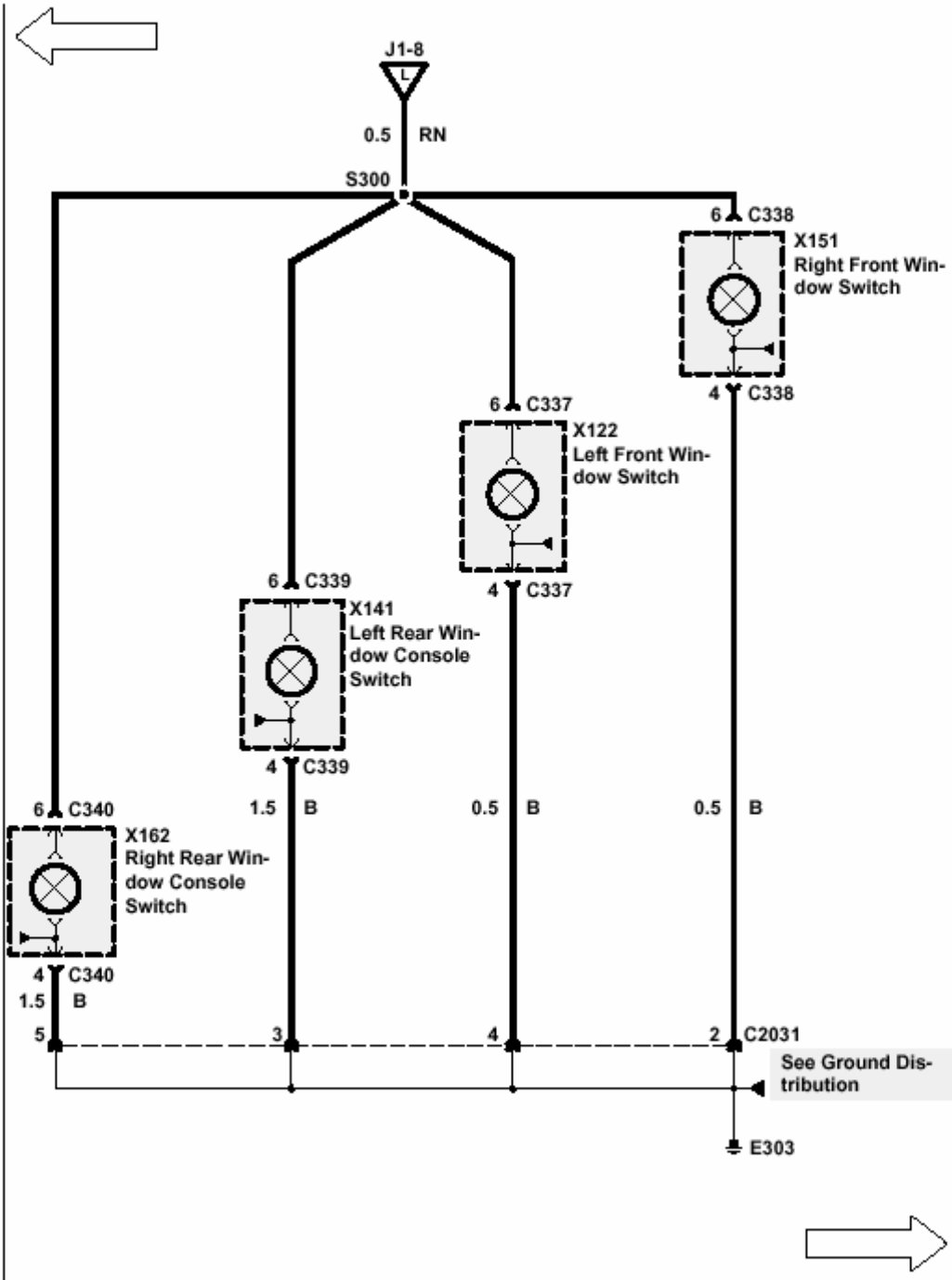



J1-4
H
0.5 RN
S218
12 C209
J
J1-8
2 C251
X125
Fuel Flap Release Switch
5 C251
9 C222
Z142
Instrument Cluster
[13]
[13] Illumination
10 C222
2 C249
X222
Rear Screen Wash Switch
5 C249
0.5 B
0.5 B
0.5 B
S217
S207
S217
See Ground Distribution
See Ground Distribution
E201
E201
E201

J1 ETM

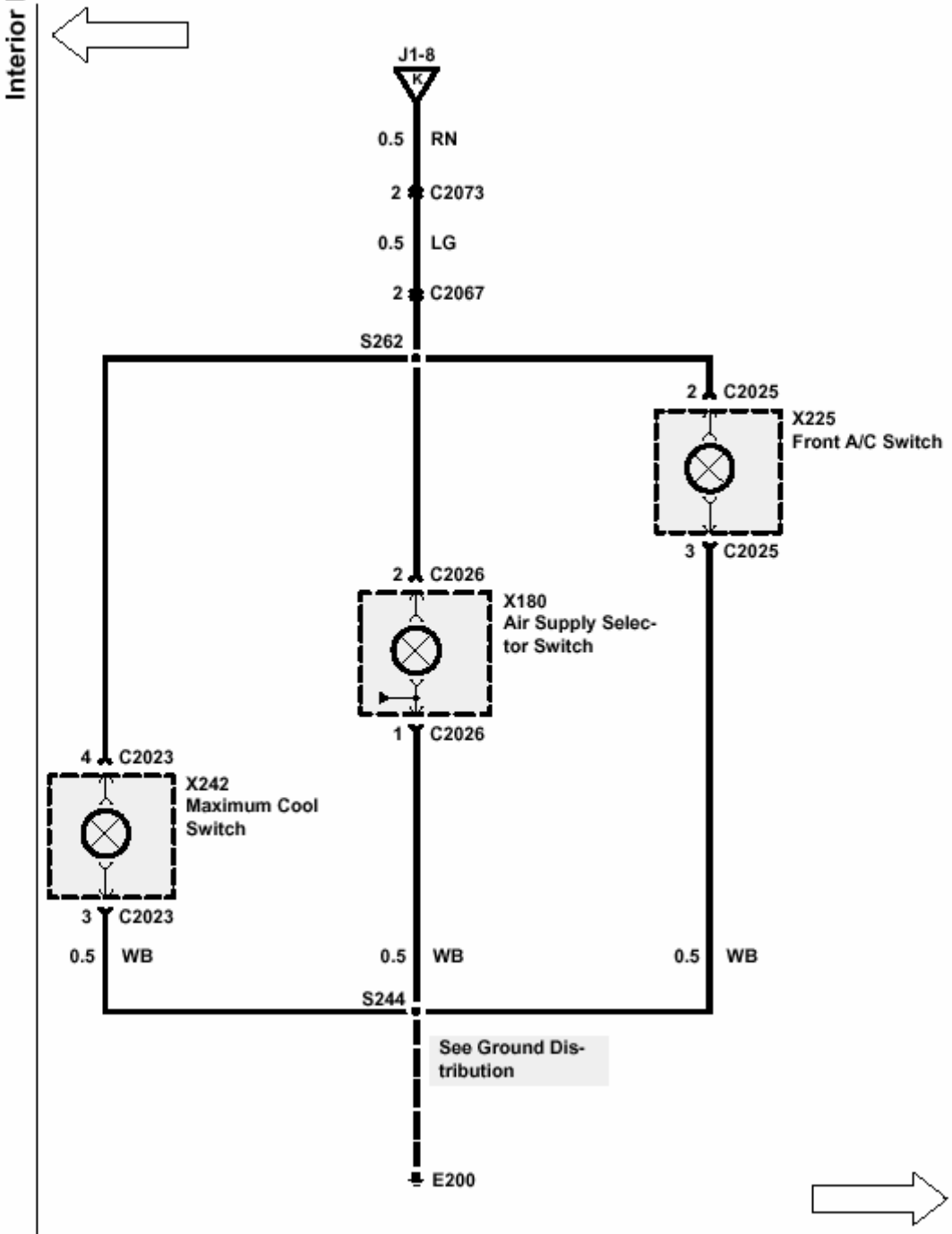
1995 RANGE ROVER

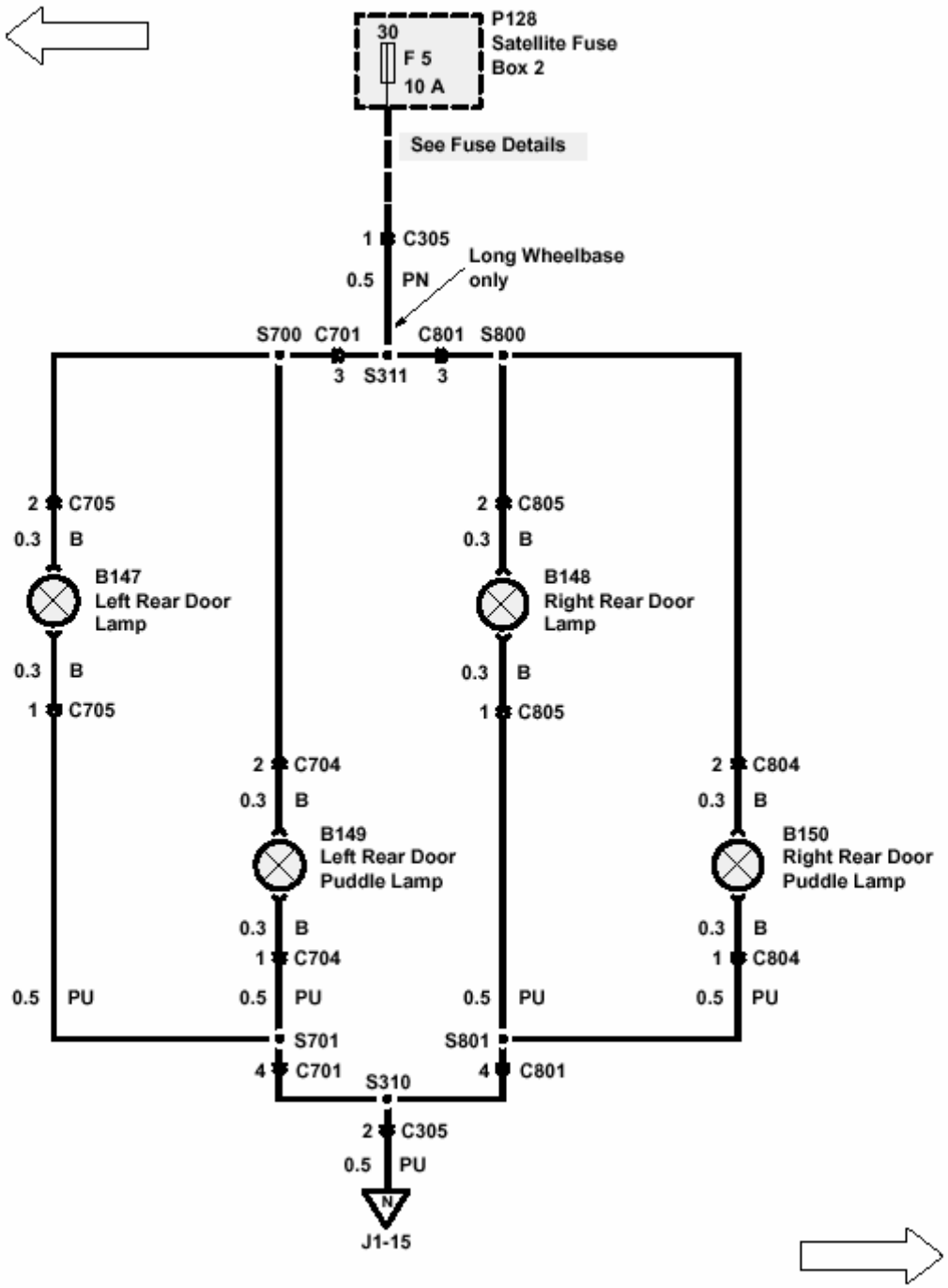



J1-8
L
0.5 RN
S300
6 C338
X151
Right Front Window Switch
4 C338
6 C337
X122
Left Front Window Switch
4 C337
6 C339
X141
Left Rear Window Console Switch
4 C339
6 C340
X162
Right Rear Window Console Switch
4 C340
1.5 B
5
1.5 B
3
0.5 B
4
0.5 B
2 C2031
See Ground Distribution
E303

J1 ETM

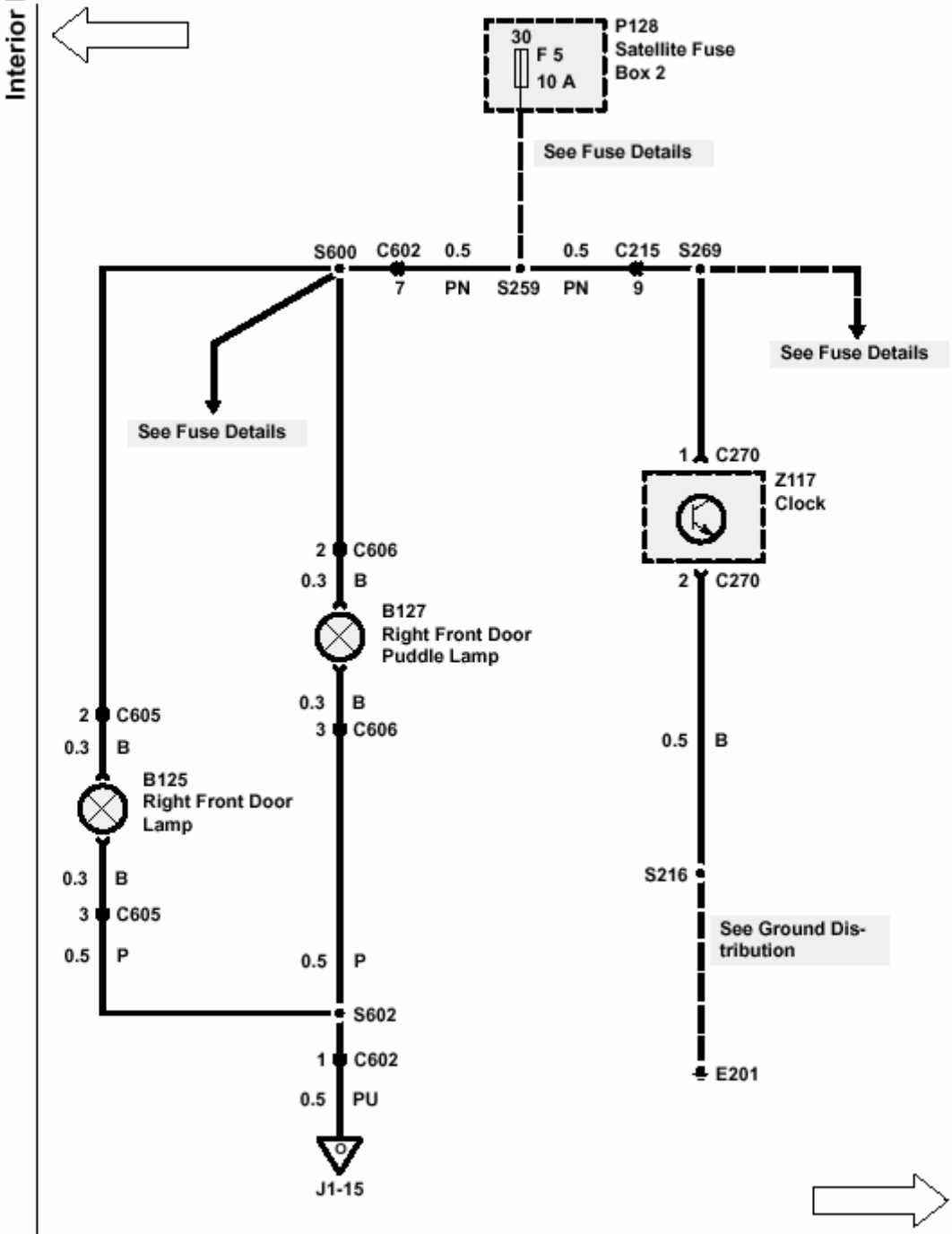
1995 RANGE ROVER

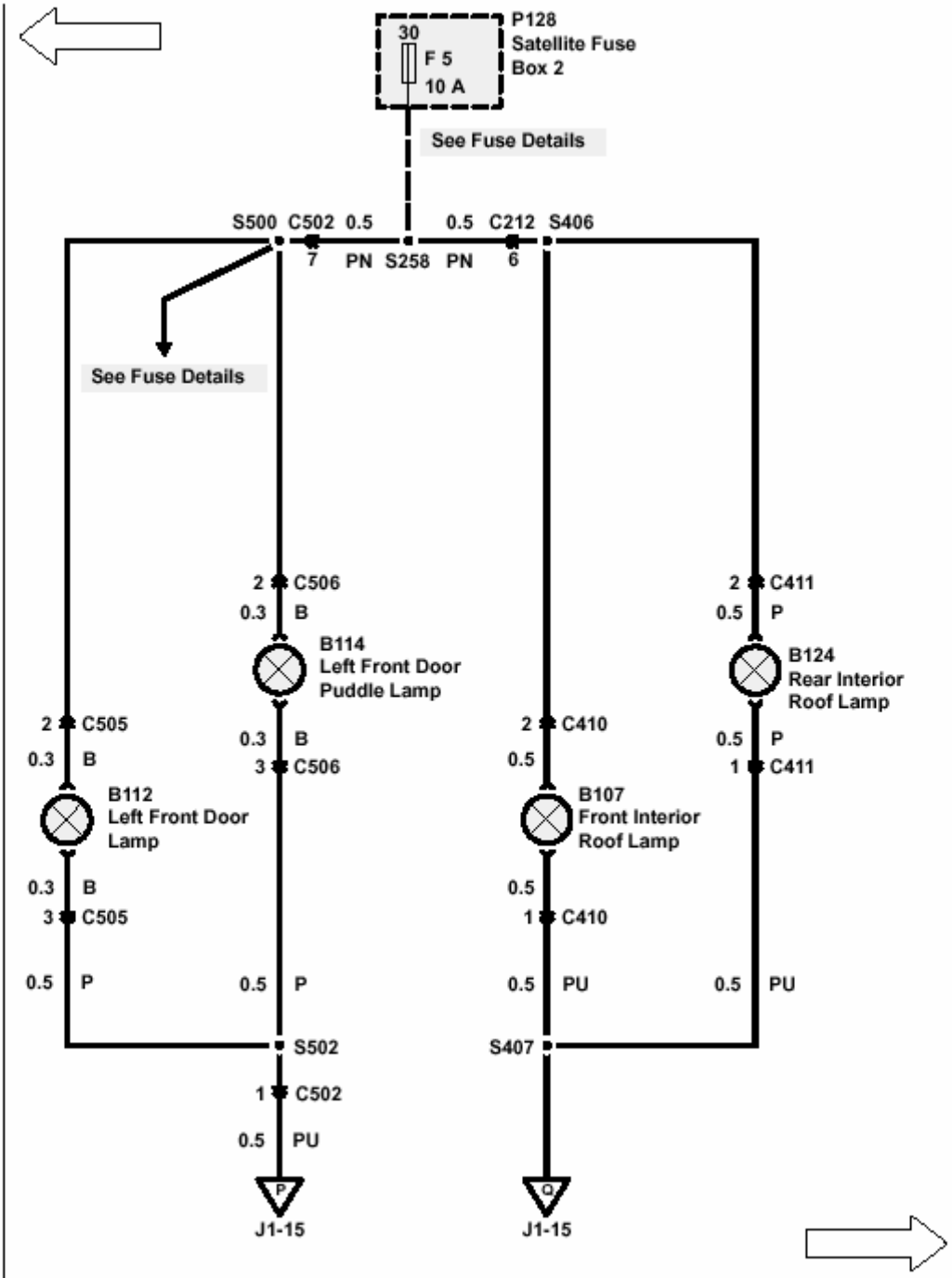



30
F 5
10 A
P128
Satellite Fuse
Box 2
See Fuse Details
1 C305
0.5 PN
Long Wheelbase
only
S700 C701
3 S311
C801 S800
3
2 C705
0.3 B
B147
Left Rear Door
Lamp
0.3 B
1 C705
2 C805
0.3 B
B148
Right Rear Door
Lamp
0.3 B
1 C805
2 C704
0.3 B
B149
Left Rear Door
Puddle Lamp
0.3 B
1 C704
2 C804
0.3 B
B150
Right Rear Door
Puddle Lamp
0.3 B
1 C804
0.5 PU
0.5 PU
0.5 PU
0.5 PU
S701
4 C701
S801
4 C801
S310
2 C305
0.5 PU
N
J1-15

J1 ETM

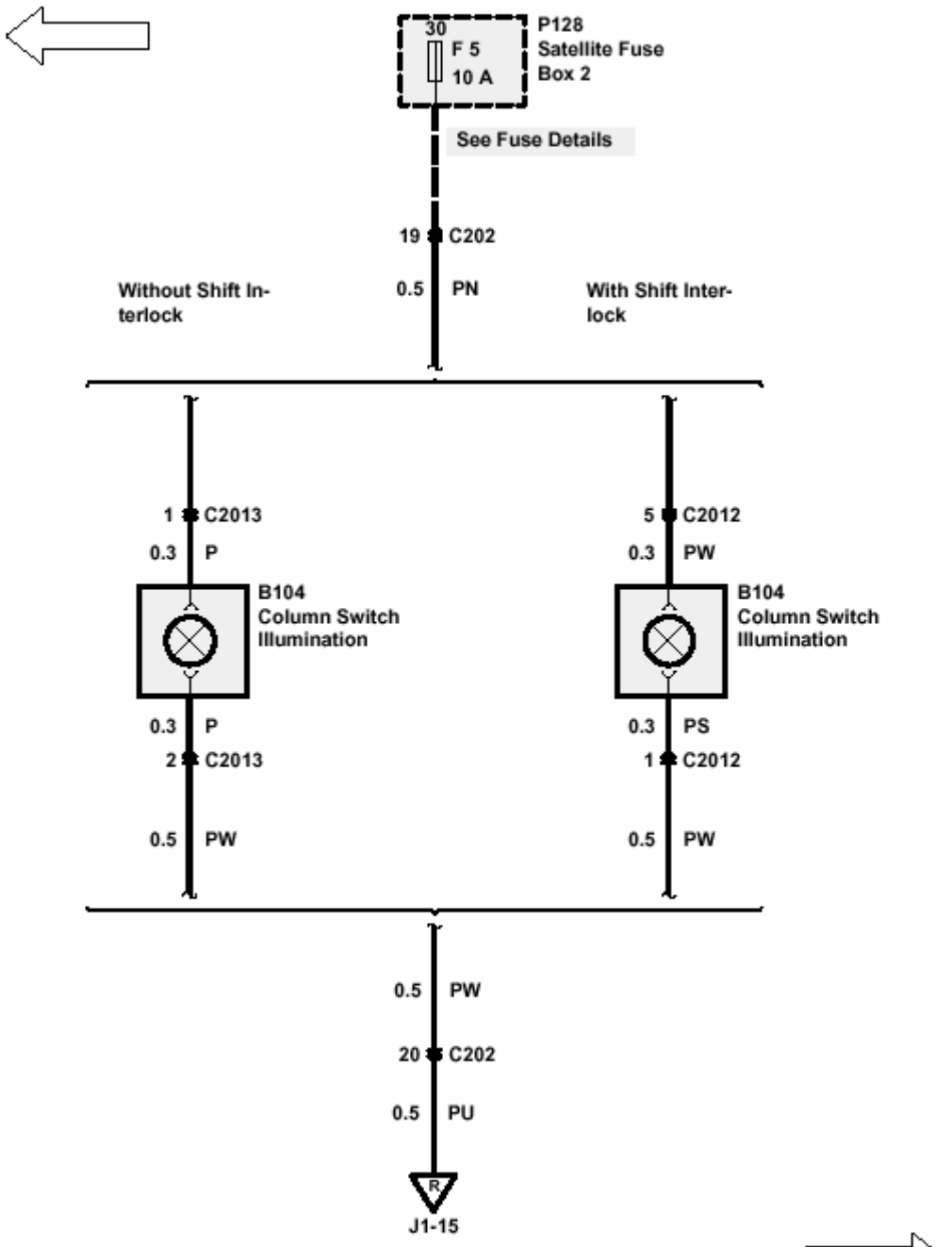
1995 RANGE ROVER

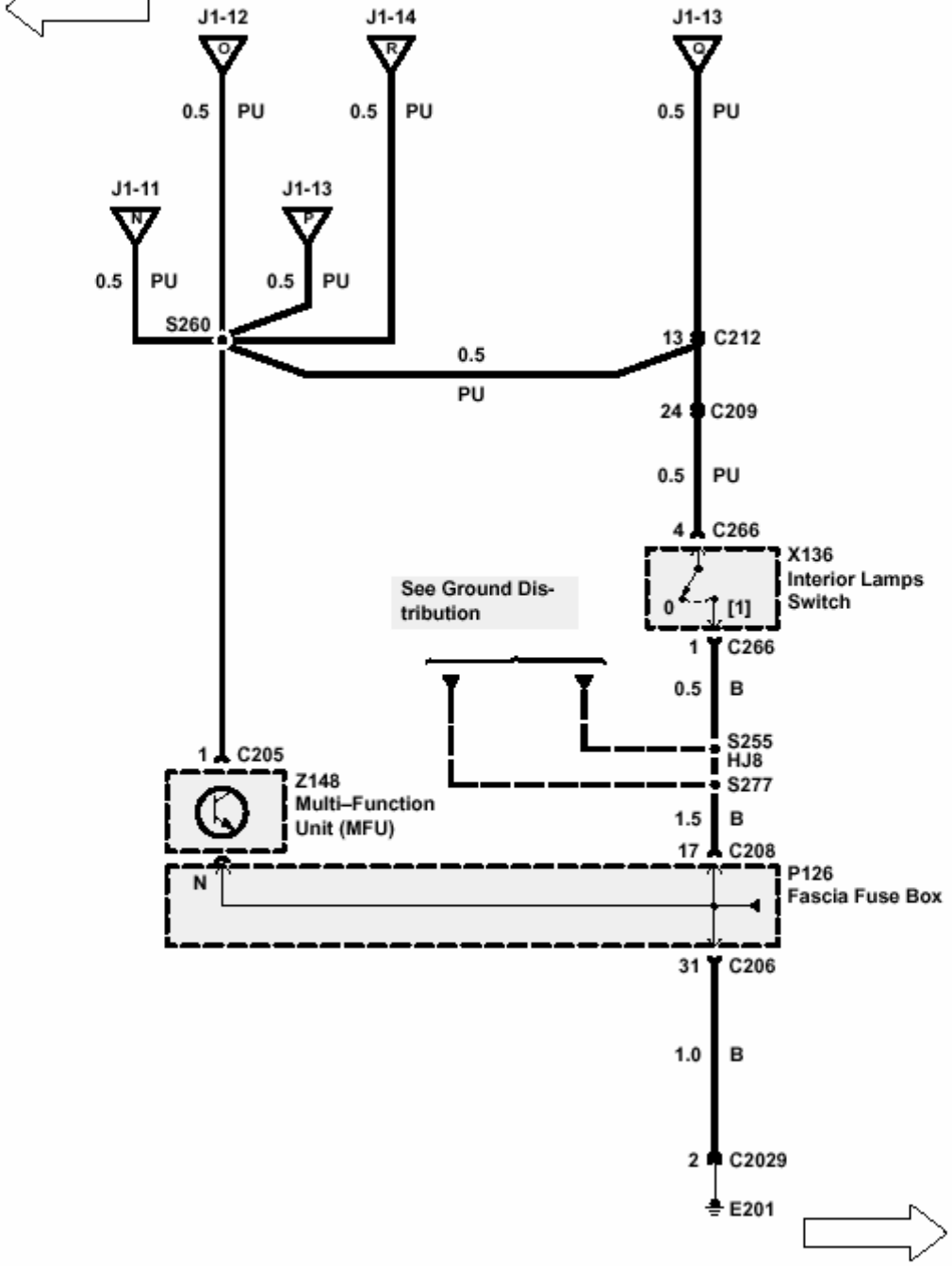


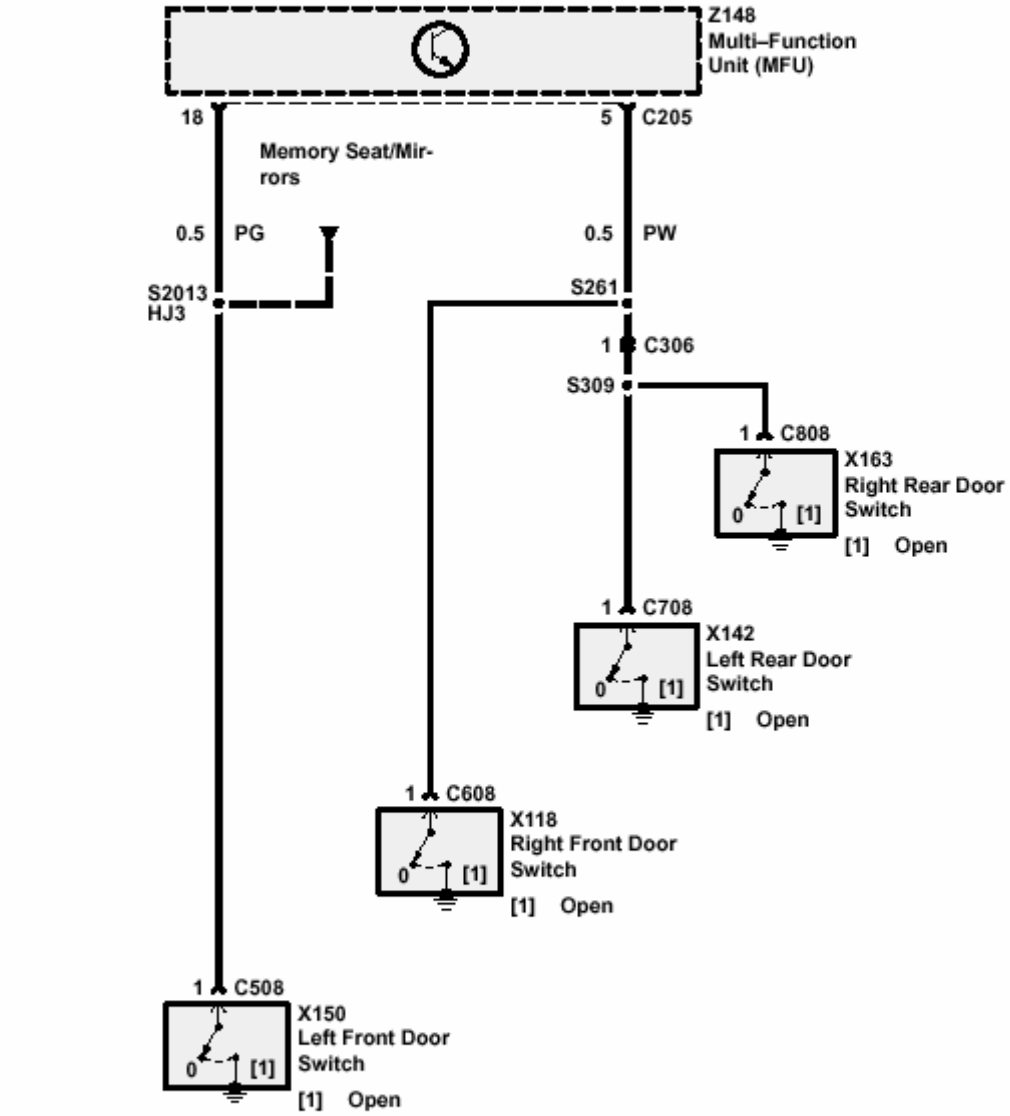

P128
Satellite Fuse
Box 2
30
F 5
10 A
See Fuse Details
S500 C502 0.5
7 PN S258 PN
0.5 C212 S406
6
See Fuse Details
2 C506
0.3 B
B114
Left Front Door
Puddle Lamp
0.3 B
3 C506
2 C411
0.5 P
B124
Rear Interior
Roof Lamp
0.5 P
1 C411
2 C505
0.3 B
B112
Left Front Door
Lamp
0.3 B
3 C505
2 C410
0.5
B107
Front Interior
Roof Lamp
0.5
1 C410
0.5 P
0.5 P
0.5 PU
0.5 PU
S502
S407
1 C502
0.5 PU
P
J1-15
Q
J1-15

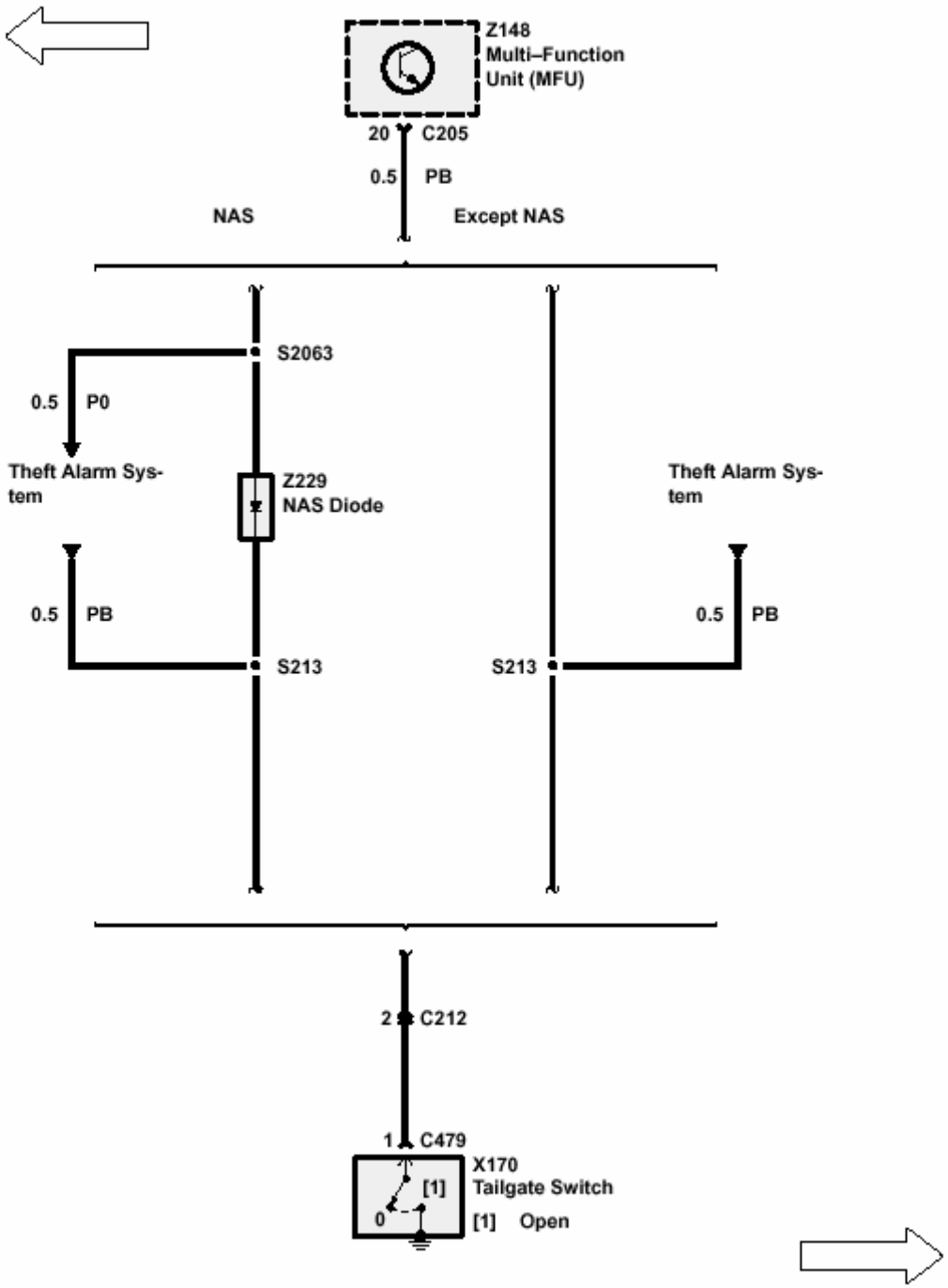
J1 ETM

1995 RANGE ROVER



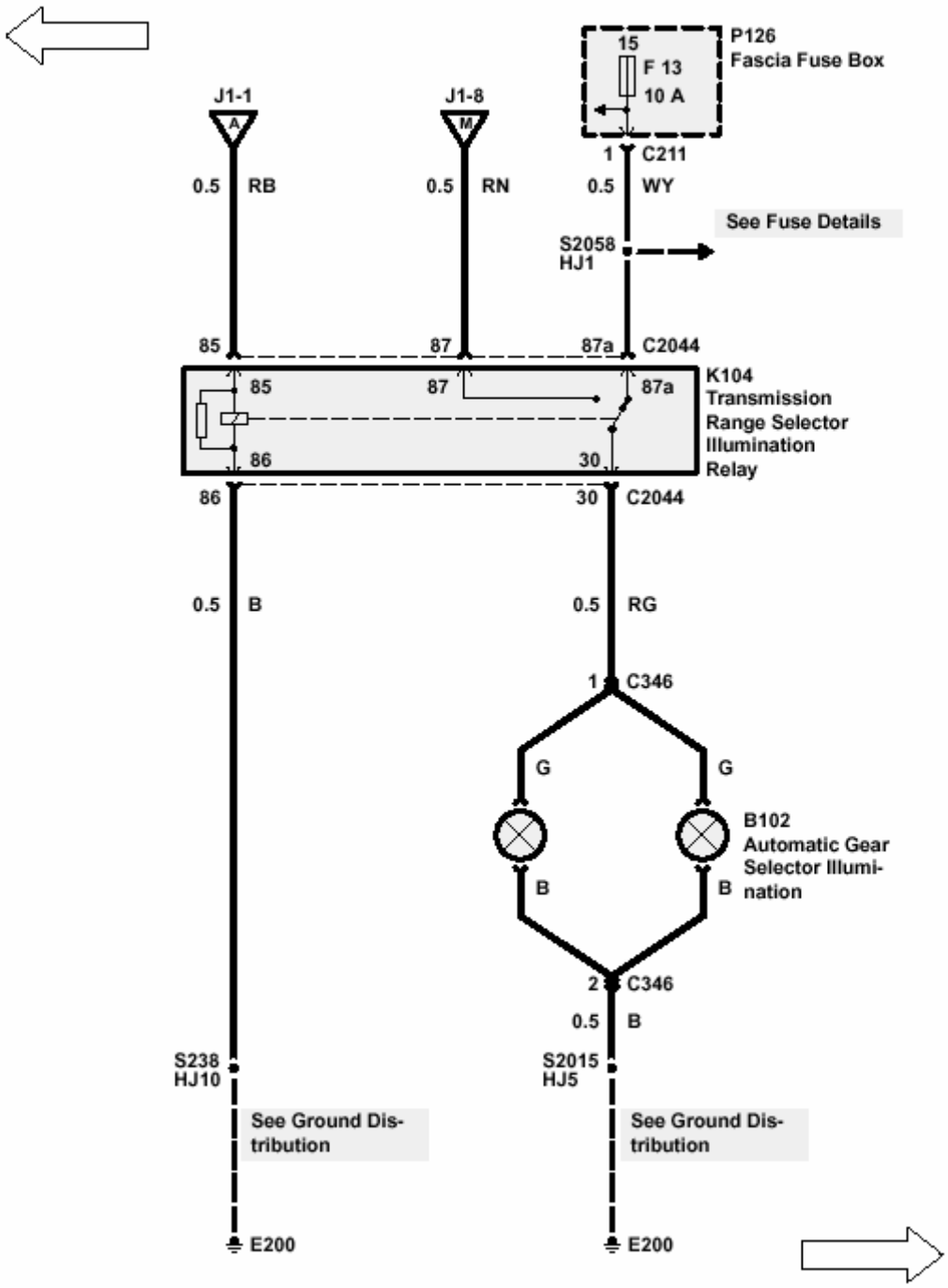

J1-12
O
J1-14
R
J1-13
O
0.5 PU
0.5 PU
0.5 PU
J1-11
N
J1-13
P
0.5 PU
0.5 PU
S260
13
C212
0.5
PU
24
C209
0.5 PU
4
C266
X136
Interior Lamps
Switch
0
[1]
See Ground Distribution
1
C266
0.5 B
S255
HJ8
S277
1
C205
Z148
Multi–Function
Unit (MFU)
1.5 B
17
C208
P126
Fascia Fuse Box
N
31
C206
1.0 B
2
C2029
E201

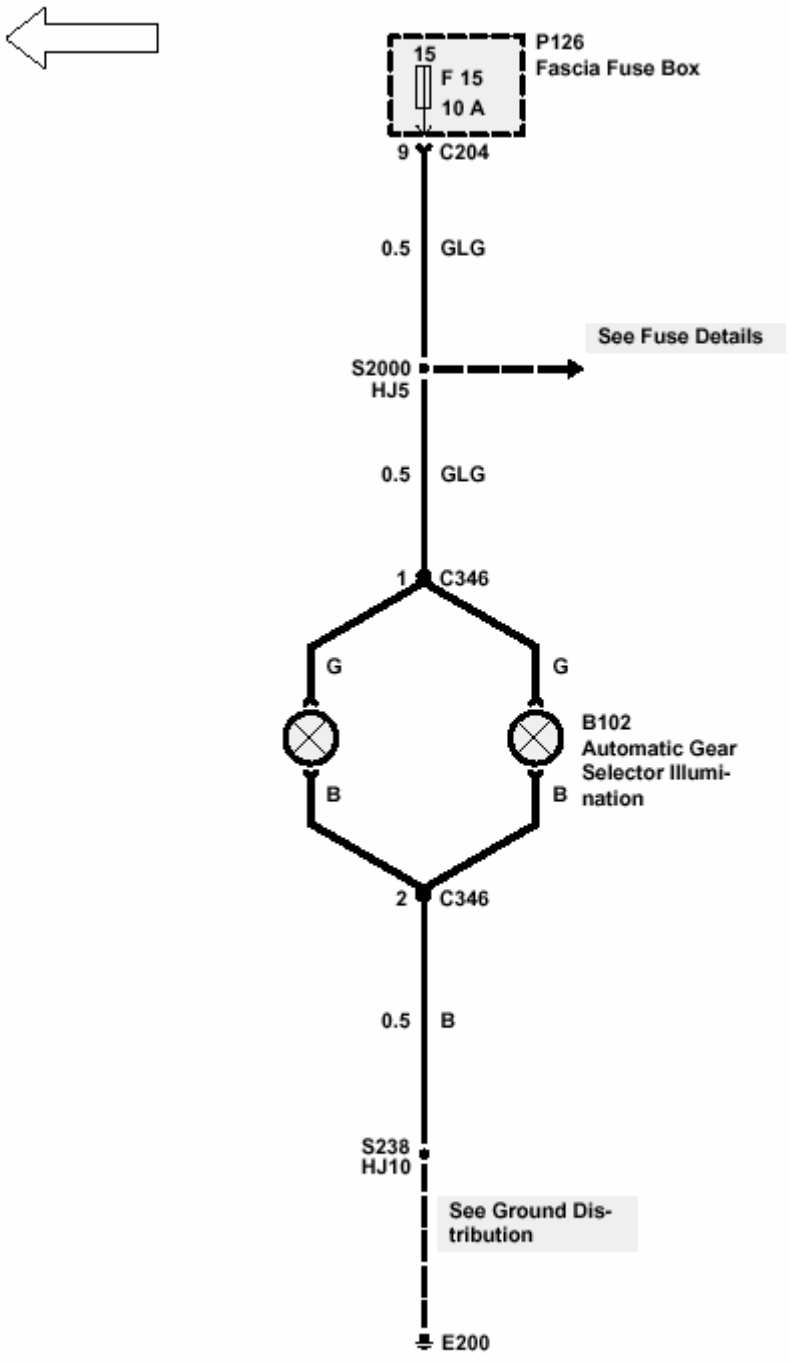

Z148
Multi–Function Unit (MFU)
18
5
C205
Memory Seat/Mir-rors
0.5
PG
0.5
PW
S2013
HJ3
S261
1
C306
S309
1
C808
X163
Right Rear Door Switch
0
[1]
[1] Open
1
C708
X142
Left Rear Door Switch
0
[1]
[1] Open
1
C608
X118
Right Front Door Switch
0
[1]
[1] Open
1
C508
X150
Left Front Door Switch
0
[1]
[1] Open

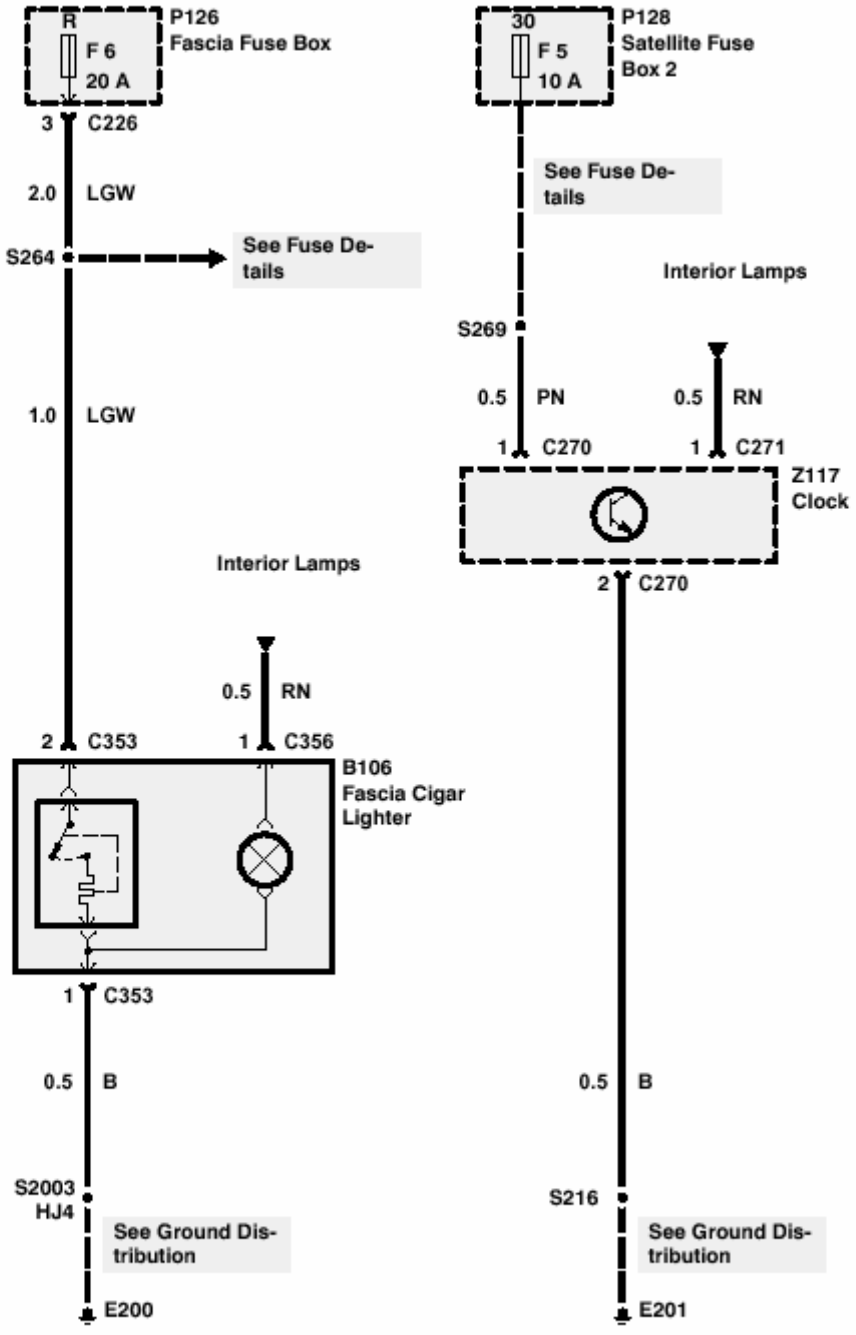

Z148
Multi–Function
Unit (MFU)
20
C205
0.5
PB
NAS
Except NAS
S2063
0.5
P0
Theft Alarm Sys-
tem
Z229
NAS Diode
Theft Alarm Sys-
tem
0.5
PB
0.5
PB
S213
S213
2
C212
1
C479
X170
Tailgate Switch
[1]
0
[1] Open

J1 ETM

1995 RANGE ROVER




15
F 15
10 A
P126
Fascia Fuse Box
9
C204
0.5
GLG
See Fuse Details
S2000
HJ5
0.5
GLG
1
C346
G
G
B102
Automatic Gear
Selector Illumi-
nation
B
B
2
C346
0.5
B
S238
HJ10
See Ground Dis-
tribution
E200


R
F 6
20 A
P126
Fascia Fuse Box
3
C226
2.0
LGW
S264
See Fuse Details
1.0
LGW
Interior Lamps
0.5
RN
2
C353
1
C356
B106
Fascia Cigar Lighter
1
C353
0.5
B
S2003
HJ4
See Ground Distribution
E200
30
F 5
10 A
P128
Satellite Fuse Box 2
See Fuse Details
Interior Lamps
S269
0.5
PN
0.5
RN
1
C270
1
C271
Z117
Clock
2
C270
0.5
B
S216
See Ground Distribution
E201

CIRCUIT OPERATION

Front Blower

With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Blower Motor Relay (K188).

When the Fan Speed Switch (X179) is turned to position I, ground is applied to terminal 85 of the Blower Motor Relay (K188). The relay is energized, applying battery voltage to terminal 2 of the Front Blower Motor (M101). Ground is applied to the Front Blower Motor (M101) through all three resistors of the Blower Resistor Unit (Z112). The Front Blower Motor (M101) then runs at low speed. When the Fan Speed Switch (X179) is turned to position II, the Blower Motor Relay (K188) remains energized. Battery voltage is still applied to terminal 2 of the Front Blower Motor (M101). Ground is now applied to the Front Blower Motor (M101) through two resistors of the Blower Resistor Unit (Z112) and the Fan Speed Switch (X179). The motor then runs at the low–medium speed. When the Fan Speed Switch (X179) is turned to position III, the Blower Motor Relay (K188) remains energized. Ground is now applied to the Front Blower Motor (M101) through one resistor of the Blower Resistor Unit (Z112) and the Fan Speed Switch (X179). The motor then runs at the medium–high speed. When the Fan Speed Switch (X179) is turned to position IV, the Blower Motor Relay (K188) remains energized. Ground is now applied directly to the Front Blower Motor (M101) through the Fan Speed Switch (X179). The motor then runs at high speed.

Fresh Air Mode

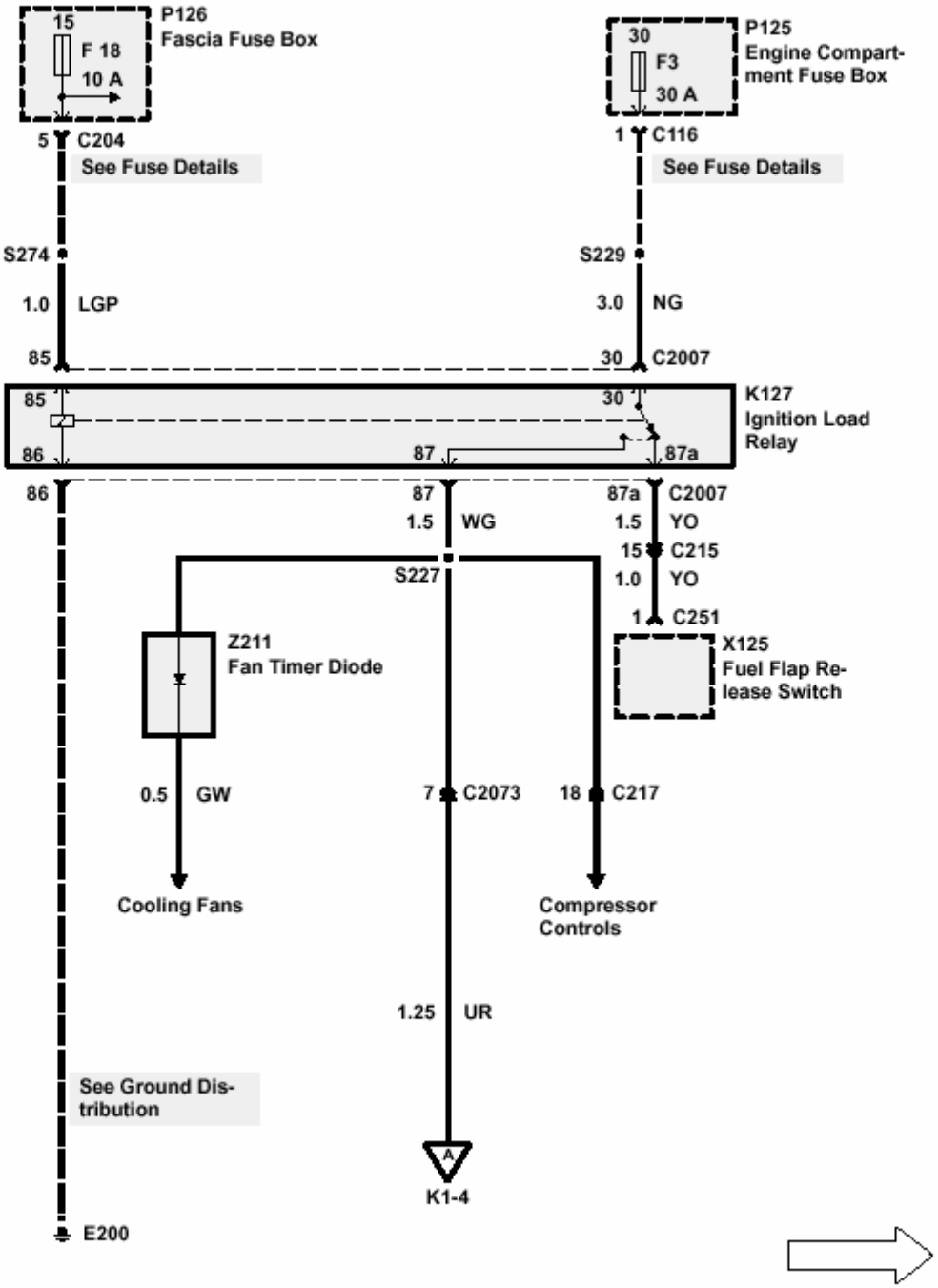
With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Air Recirculation Solenoid In–Line Fuse (P138) and Air Recirculation Solenoid (K123). The solenoid now opens the fresh air intake flap allowing fresh air to enter the vehicle cabin. When the fresh air intake flap has been fully opened, the microswitch inside the Air Recirculation Solenoid (K123) moves to the Fresh Air position interrupting the ground supply. The solenoid now stops and remains in the Fresh Air position.

Recirculated Air Mode

With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Air Recirculation Solenoid In–Line Fuse (P138) and Air Recirculation Solenoid (K123). When the Air Supply Selector Switch is moved to Recirculate Air position, ground is applied to the Air Recirculation Solenoid (K123). The solenoid now closes the fresh air intake flap allowing only the air inside the vehicle cabin to circulate. When the fresh air intake flap has been fully closed, the microswitch inside the Air Recirculation Solenoid (K123) moves to the Recirculate Air position interrupting the ground supply. The solenoid now stops and remains in the Recirculate Air position.

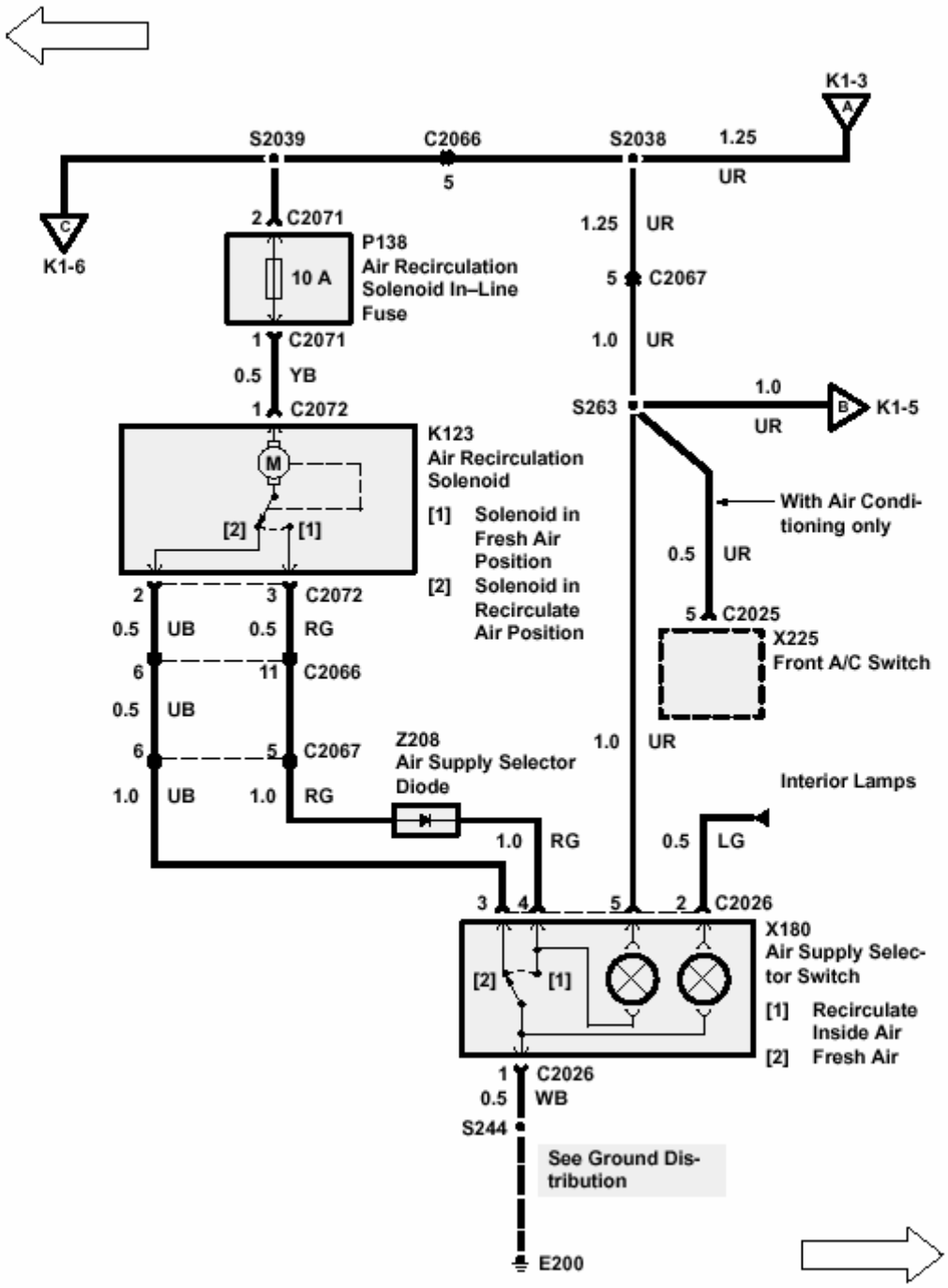
Heated Air

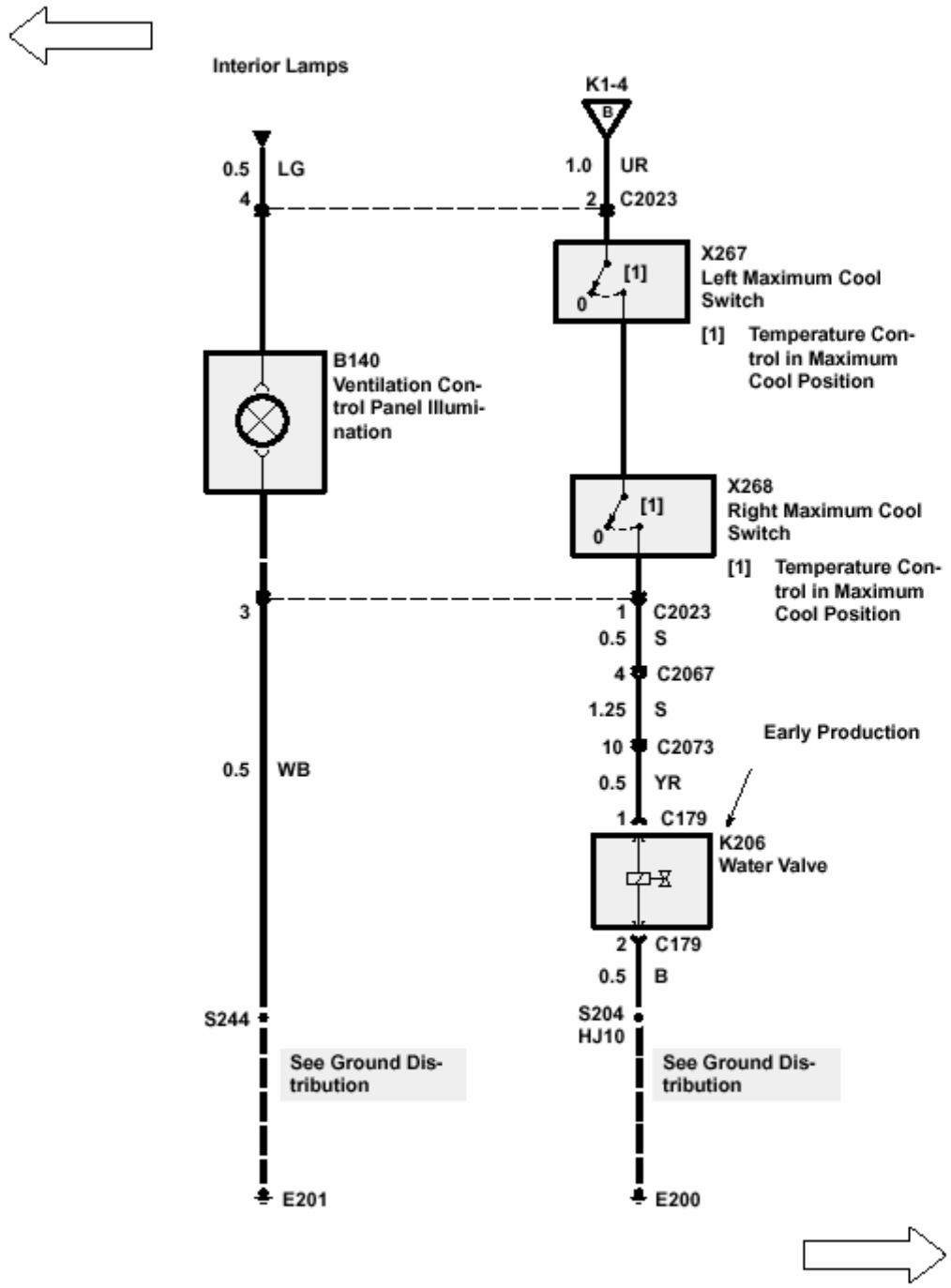
With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Left Maximun Cool Switch (X267). When the Left and Right Temperature Controls are turned to the maximum cool position, the Left Maximum Cool Switch (X267) and Right Maximum Cool Switch (X268) close. Battery voltage is now applied to the Water Valve (K206). The Water Valve (K206) closes and prevents heated engine coolant from entering the heater matrix. When one or both of the Temperature Controls are not in the maximum cool position, battery voltage is not applied to the Water Valve (K206). The valve then opens and allows heated engine coolant to enter the heater matrix.


15
F 18
10 A
P126
Fascia Fuse Box
30
F3
30 A
P125
Engine Compartment Fuse Box
5 C204
See Fuse Details
1 C116
See Fuse Details
S274
S229
1.0 LGP
3.0 NG
85
30 C2007
85
30
K127
Ignition Load Relay
86
87
87a
86
87
87a C2007
1.5 WG
1.5 YO
15 C215
S227
1.0 YO
1 C251
Z211
Fan Timer Diode
X125
Fuel Flap Release Switch
0.5 GW
7 C2073
18 C217
Cooling Fans
Compressor Controls
1.25 UR
See Ground Distribution
A
K1-4
E200

K1 ETM

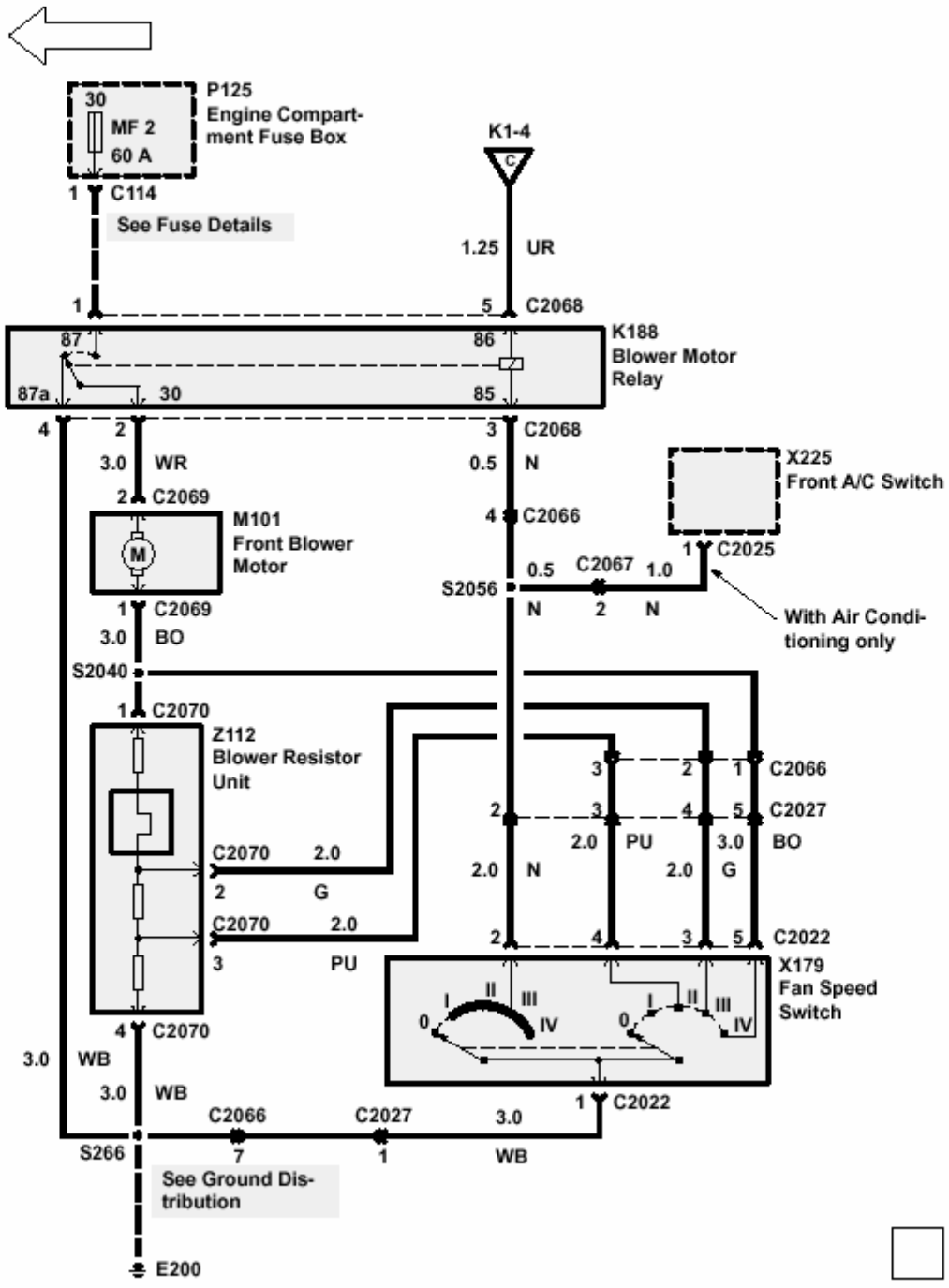
1995 RANGE ROVER




Interior Lamps
K1-4
B
0.5 LG
4
1.0 UR
2 C2023
X267
Left Maximum Cool Switch
[1]
0
[1] Temperature Control in Maximum Cool Position
B140
Ventilation Control Panel Illumination
X268
Right Maximum Cool Switch
[1]
0
[1] Temperature Control in Maximum Cool Position
3
1 C2023
0.5 S
4 C2067
1.25 S
10 C2073
0.5 WB
0.5 YR
1 C179
Early Production
K206
Water Valve
2 C179
0.5 B
S244
S204
HJ10
See Ground Distribution
See Ground Distribution
E201
E200

K1 ETM

1995 RANGE ROVER



CIRCUIT OPERATION

Compressor Control (Petrol)

With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Compressor Clutch Relay (K108) and the A/C Logic Relay (K170). When the Fan Speed Switch (X179) is turned to positions I, II, III, or IV and the Front A/C Switch (X225) is turned On, ground is provided to terminal 86 of the A/C Logic Relay (K170) through the closed contacts of the A/C Dual Pressure Switch (X102) and the Front A/C Evaporator Temperature Switch (X101).

The relay is energized, applying battery voltage to terminal 21 of the Engine Control Module (ECM) (Z132), signalling the ECM that compressor operation has been requested. The ECM then provides ground to the coil of the Compressor Clutch Relay (K108). The relay is energized, applying battery voltage to the Compressor Clutch (K107). Compressor Clutch operation is now controlled by the status of the A/C Dual Pressure Switch (X102) and the Front A/C Evaporator Temperature Switch (X101).

The Front A/C Evaporator Temperature Switch (X101) is fitted in the airflow out of the front evaporator to sense the temperaure of the exterior fins. Should ice begin to form, due to low temperature, the switch will open. The A/C Dual Pressure Switch (X102) monitors refrigerant pressure in the high pressure line, should pressure become too high or too low the switch will open. When one or both of these switches open the ground supply to terminal 86 of the A/C Logic Relay (K170) will be interrupted. The relay de–energizes, removing battery voltage from the Engine Control Module (ECM) (Z132), signalling the ECM that compressor operation should be turned off. The ECM removes the ground supply to the coil of the Compressor Clutch Relay (K108). The relay then de–energizes, removing battery voltage from the Compressor Clutch (K107), disengaging the Compressor.

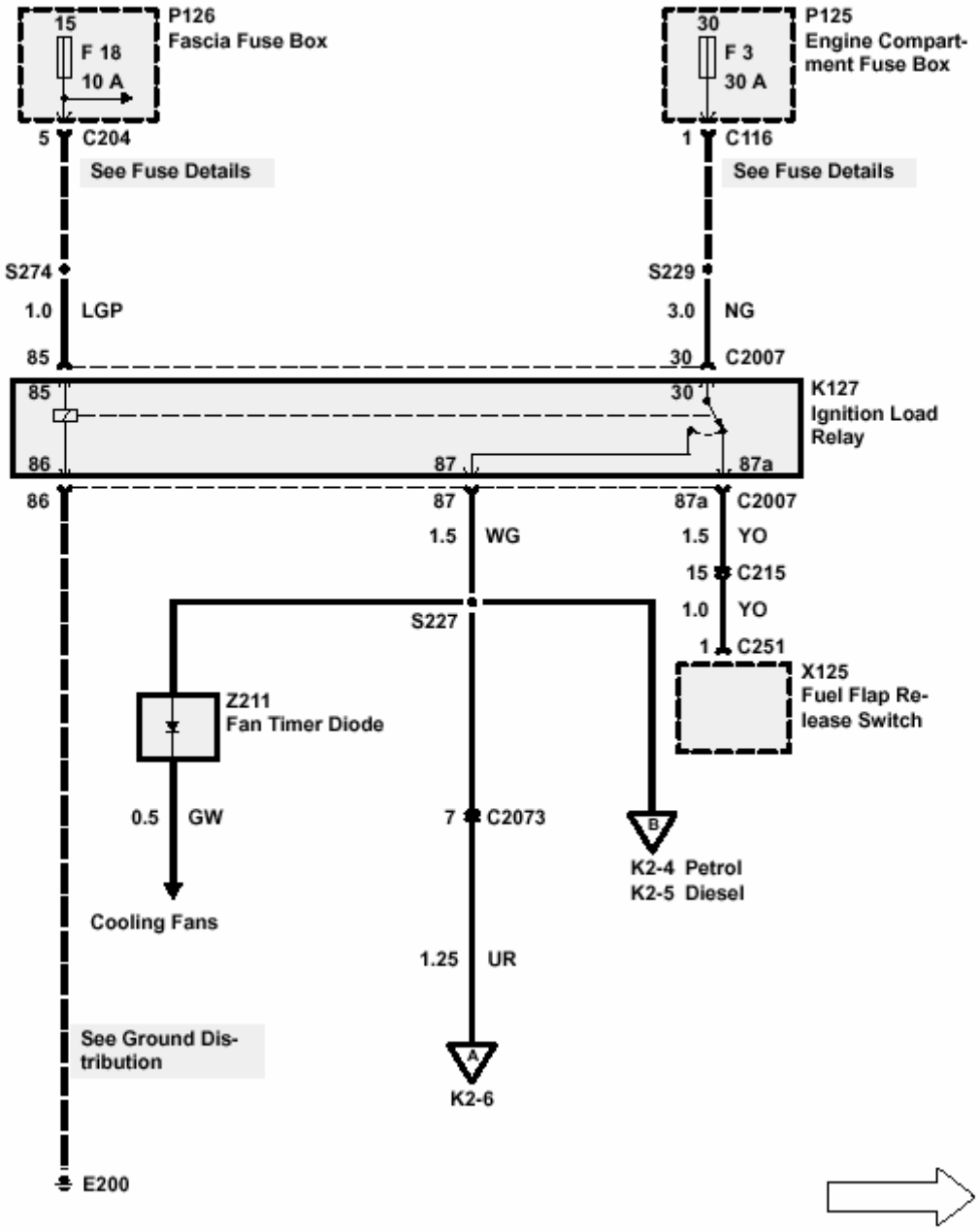
Compressor Control (Diesel)

With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Compressor Clutch Relay (K108).

When the Fan Speed Switch (X179) is turned to positions I, II, III, or IV and the Front A/C Switch (X225) is turned On, ground is provided to terminal 86 of the Compressor Clutch Relay (K108) through the closed contacts of the A/C Dual Pressure Switch (X102), The Front A/C Evaporator Temperature Switch (X101), and the Compressor Clutch Cut–out Switch (X259).

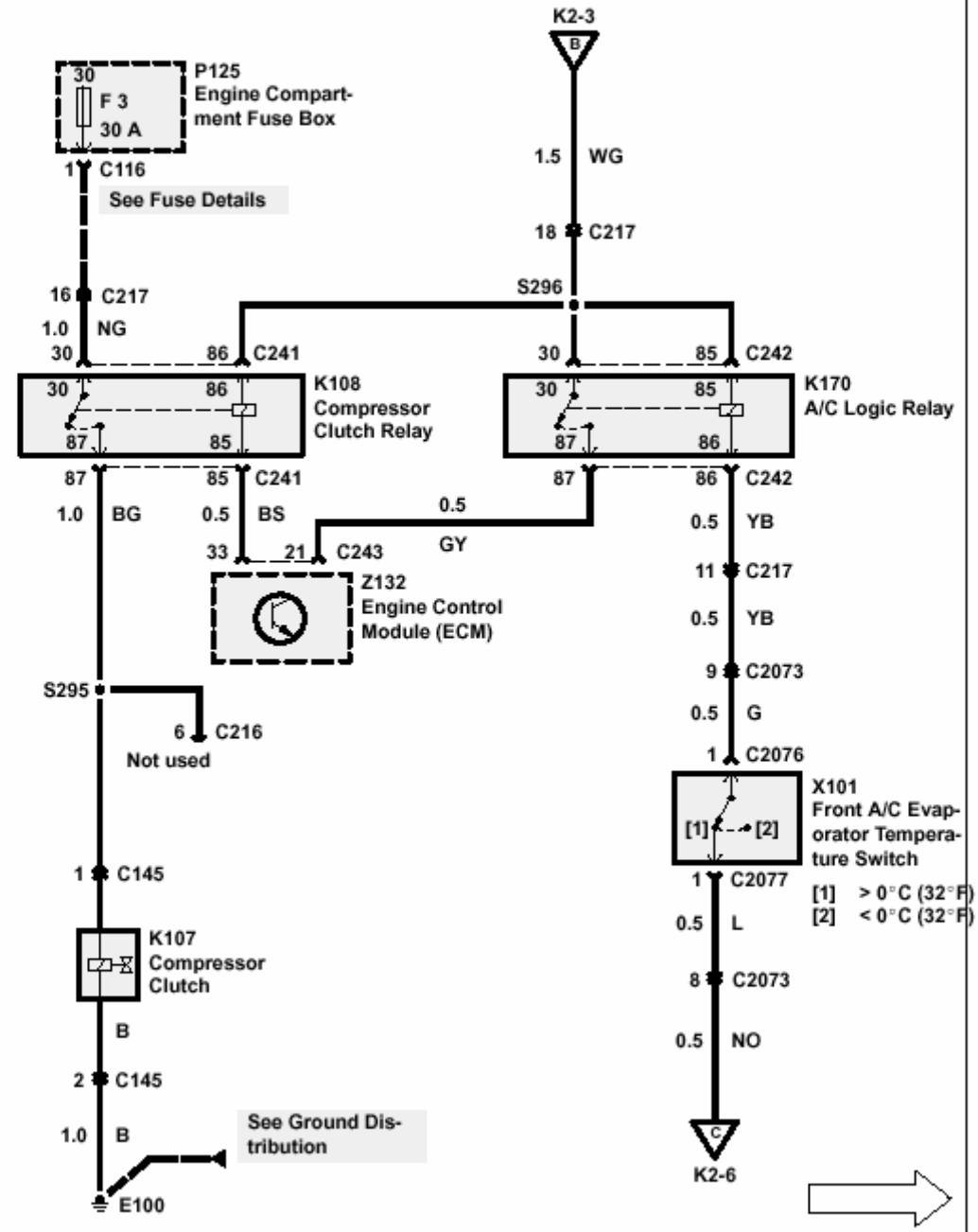
The relay is energized, applying battery voltage to the Compressor Clutch (K107). Compressor Clutch operation is now controlled by the status of the A/C Dual Pressure Switch (X102), the Front A/C Evaporator Temperature Switch (X101) and the Compressor Clutch Cut–out Switch (X259).

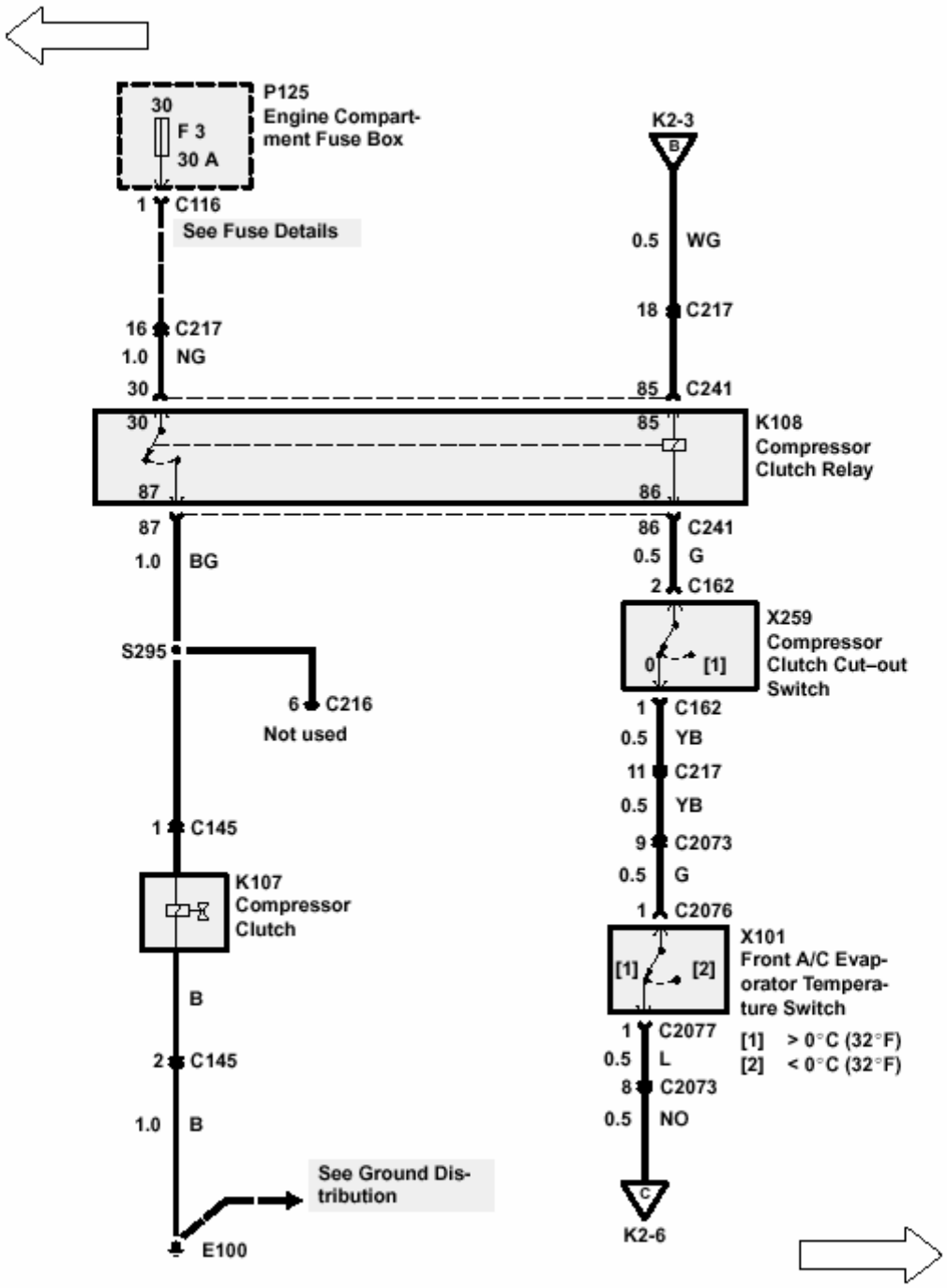
The Front A/C Evaporator Temperature Switch (X101) is fitted in the airflow out of the front evaporator to sense the temperaure of the exterior fins. Should ice begin to form, due to low temperature, the switch will open. The A/C Dual Pressure Switch (X102) monitors refrigerant pressure in the high pressure line, should pressure become too high or too low the switch will open. When one or more of these switches open, the ground supply to terminal 86 of the Compressor Clutch Relay (K108) will be interrupted. The relay de–energizes, removing battery voltage from the Compressor Clutch (K107), disengaging the Compressor.


15
F 18
10 A
P126
Fascia Fuse Box
5
C204
See Fuse Details
30
F 3
30 A
P125
Engine Compartment Fuse Box
1
C116
See Fuse Details
S274
1.0
LGP
85
S229
3.0
NG
30
C2007
85
86
87
30
87a
K127
Ignition Load Relay
86
87
87a
C2007
1.5
WG
1.5
YO
15
C215
1.0
YO
1
C251
S227
X125
Fuel Flap Release Switch
Z211
Fan Timer Diode
0.5
GW
7
C2073
B
K2-4 Petrol
K2-5 Diesel
Cooling Fans
1.25
UR
See Ground Distribution
A
K2-6
E200

K2 ETM

1995 RANGE ROVER




P125
Engine Compartment Fuse Box
30
F 3
30 A
1 C116
See Fuse Details
16 C217
1.0 NG
30
K2-3
B
0.5 WG
18 C217
85 C241
30
85
K108
Compressor Clutch Relay
87
86
87
1.0 BG
86 C241
0.5 G
2 C162
S295
6 C216
Not used
X259
Compressor Clutch Cut–out Switch
0
[1]
1 C162
0.5 YB
11 C217
0.5 YB
9 C2073
0.5 G
1 C2076
1 C145
K107
Compressor Clutch
X101
Front A/C Evaporator Temperature Switch
[1]
[2]
[1] > 0°C (32°F)
[2] < 0°C (32°F)
B
1 C2077
0.5 L
8 C2073
0.5 NO
2 C145
1.0 B
See Ground Distribution
E100
C
K2-6

K2 ETM

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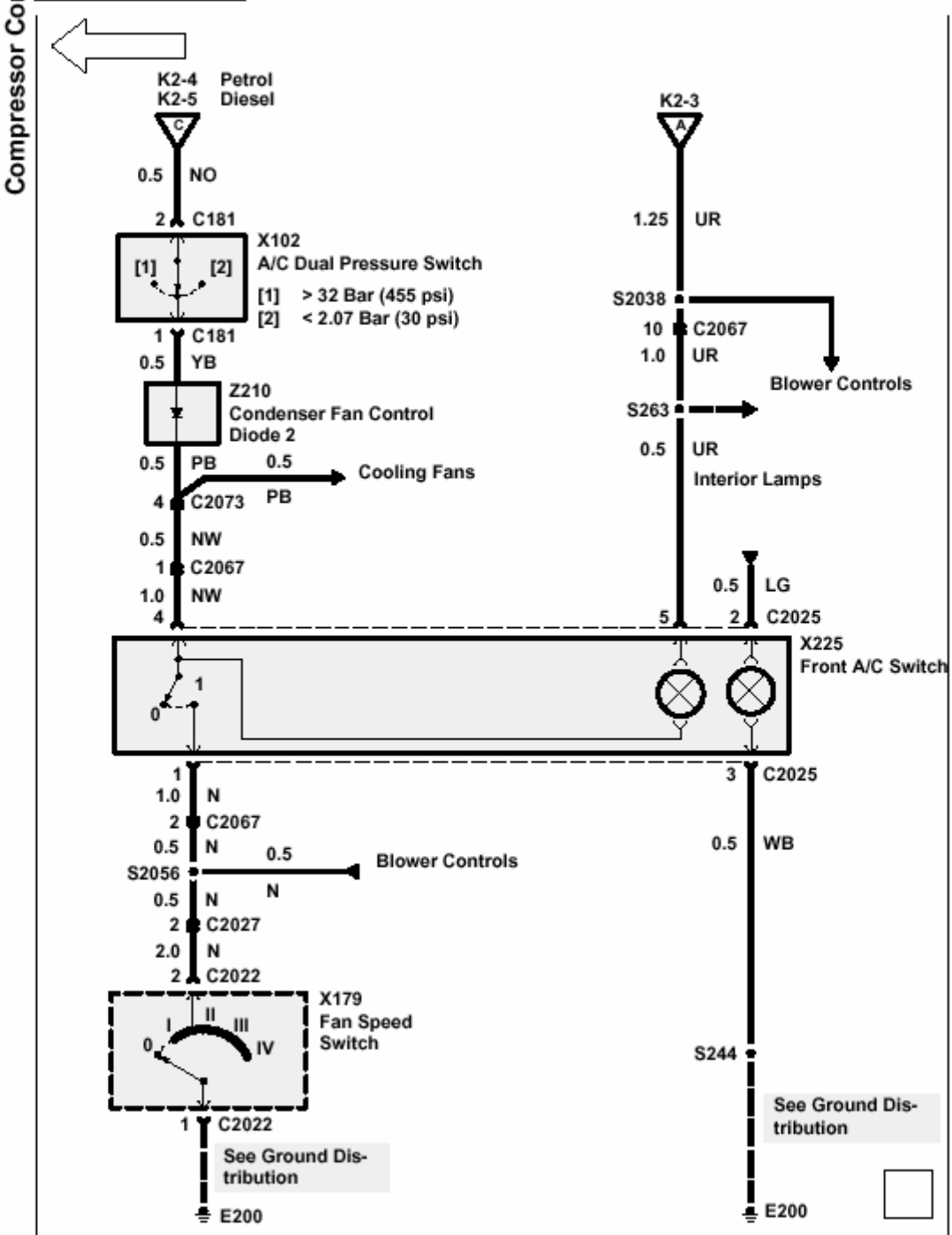


CIRCUIT OPERATION

Condenser Fan Operation (Petrol)

The Condenser Fans Motors (M113, M121) on vehicles equipped with Petrol engines operate when any of the following conditions occur:

3. Coolant temperature exceeds 100°C (212°F).
4. The air conditioning system is operating.
5. The Engine Control Module (ECM) (Z132) determines that fuel temperature exceeds 70°C and coolant temperature exceeds 110°C after engine shutdown. When this occurs, the fans are turned on for approximately 10 minutes after the engine is shut off.

Operation with High Coolant Temperature (Petrol)

When the Ignition Switch (X134) is in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Condenser Fan Relay (K109) and the Fan Control Module (Z118). If the coolant temperature exceeds 100°C (212°F), the Condenser Fan Coolant Temperature Switch (X113) closes and energizes the Condenser Fan Relay (K109) by applying ground to the relay's coil. When the relay is energized, voltage from fuse F3 is applied to the Condenser Fan Motors (M113, M121) through the relay's contacts.

Fan Operation with A/C (Petrol)

With the Ignition Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Condenser Fan Relay (K109). When the Front A/C Switch (X225) is turned on and the Fan Speed Switch (X179) is turned to positions I, II, III, or IV, ground is applied to terminal 86 of the Condenser Fan Relay. The relay energizes, applying battery voltage from fuse F3 to the Condenser Fan Motors (M113, M121).

Operation with the Engine Off (Petrol)

The Engine Control Module (Z132) monitors fuel temperature and coolant temperature through sensors. When the ECM determines than fuel temperature is above 70°C and coolant temperature exceeds 110°C after engine shutdown, the ECM will command fan operation for approximately10 minutes. The ECM turns on the fans by momentarily grounding the Fan Control Module (Z118) through the BG wire. When the timer unit is grounded, it starts a solid state timer and begins to apply ground from its terminal 9 to the Condenser Fan Relay (K109) through the BP wire. With the Condenser Fan Relay energized, voltage from fuse F3 is applied to the Condenser Fan Motors (M113, M121) through the relay contacts.

Condenser Fan Operation (Diesel)

The Condenser Fan Motors (M113, M121) on vehicles equipped with diesel engines operate when any one of the following conditions occur:

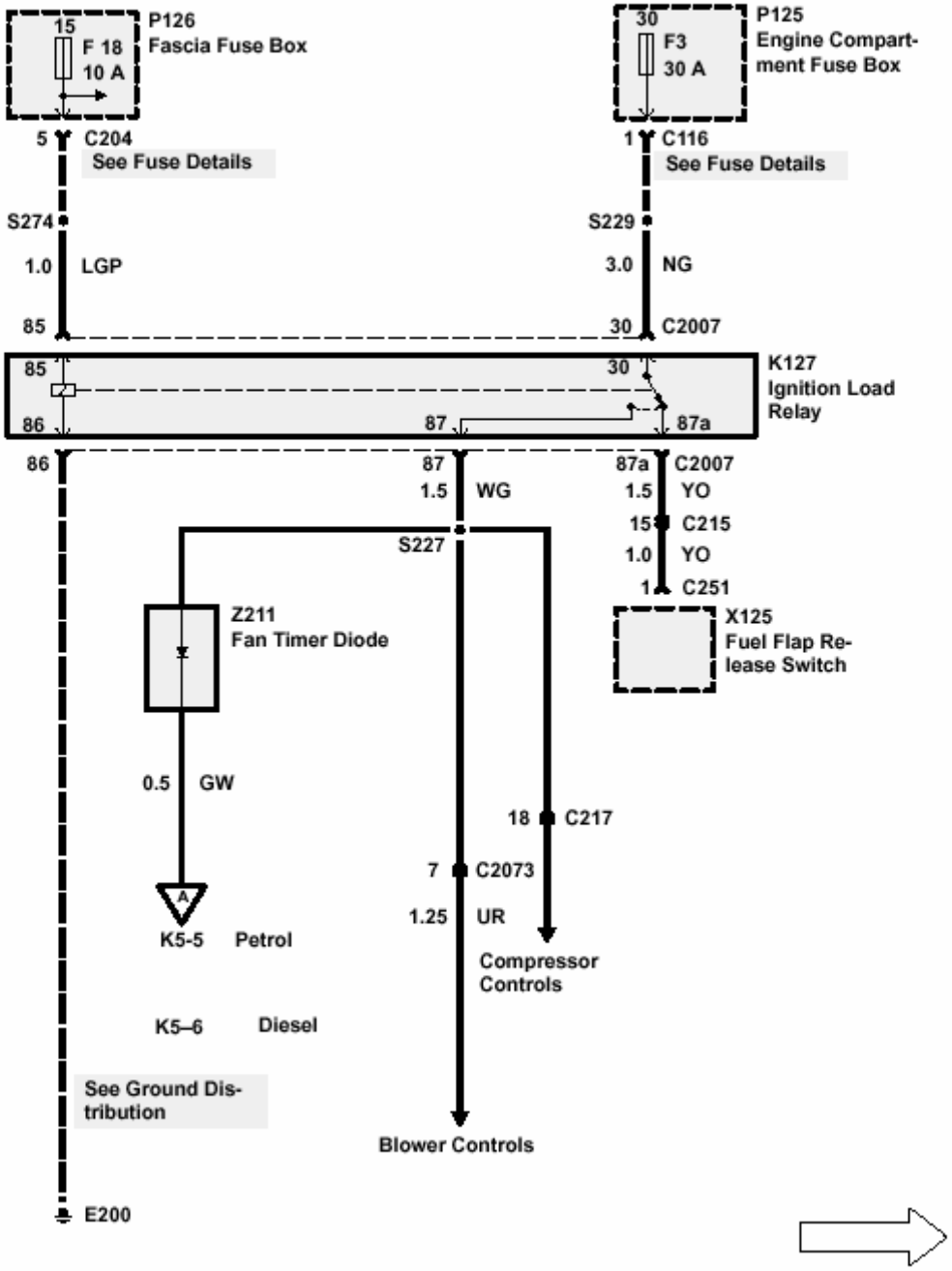
1. Coolant temperature exceeds 100°C (212°F).
2. The A/C is operating.

Condenser Fan with High Coolant Temperature Operation (Diesel)

When the Ignition Switch (X134) is in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Condenser Fan Relay (K109). If the coolant temperature exceeds 100°C (212°F), the Condenser Fan Coolant Temperature Switch (X113) closes and energizes the Condenser Fan Relay (K109) by applying ground to the relay's coil. When the relay is energized, voltage from fuse F3 is applied to the Condenser Fan Motors (M113, M121) through the relay's contacts.

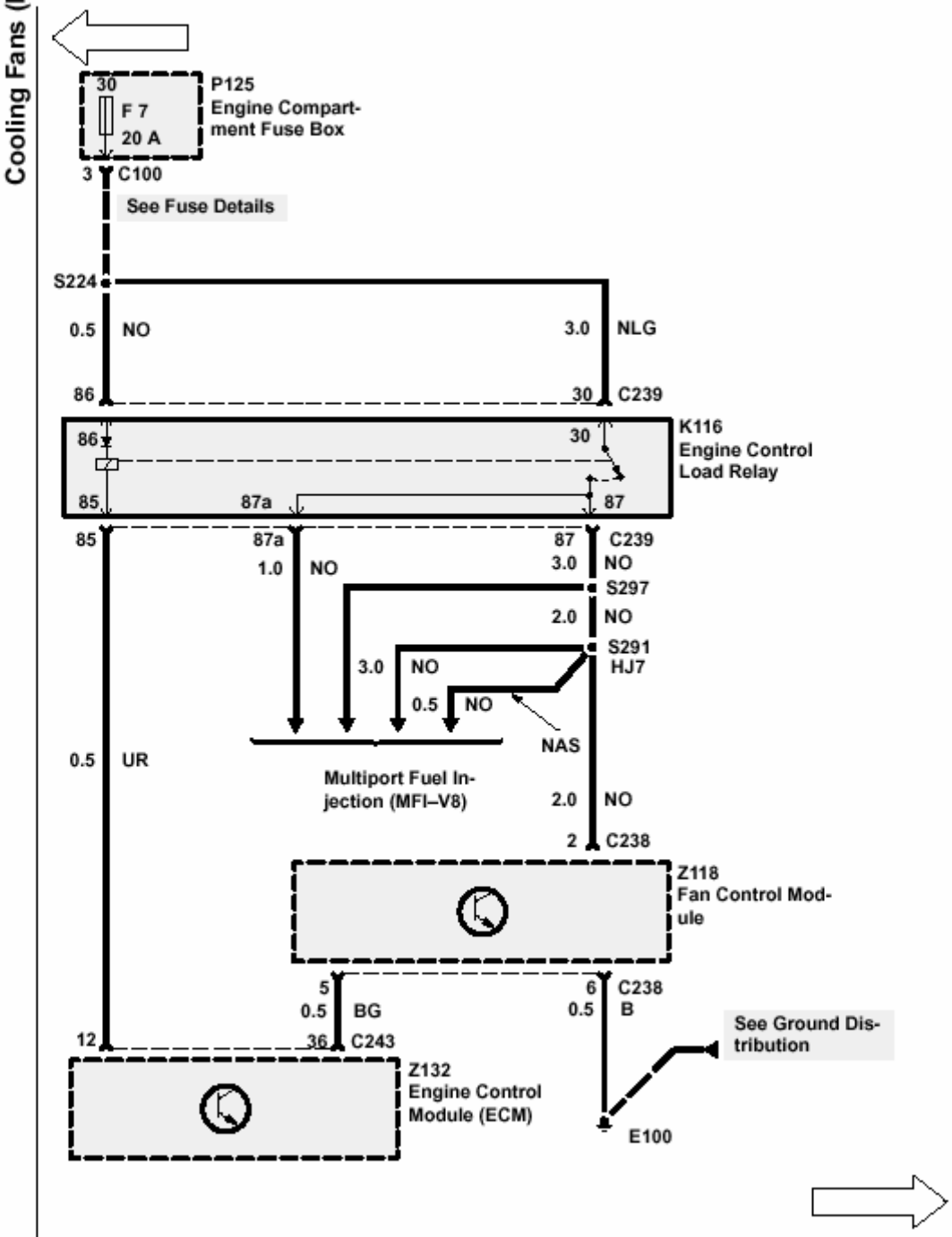
Fan Operation with A/C (Diesel)

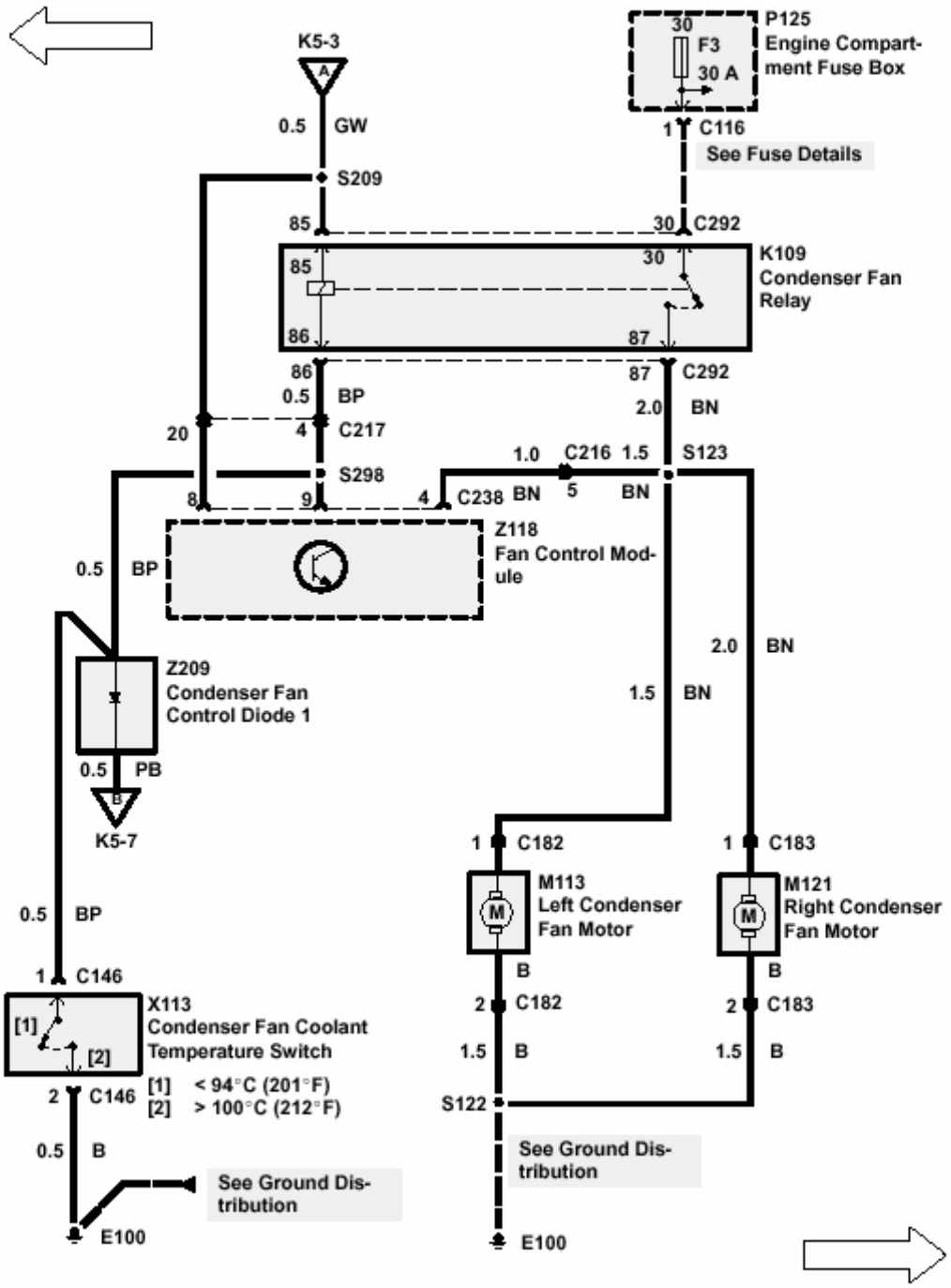
With the Igntion Switch (X134) in position II, battery voltage is applied to the Ignition Load Relay (K127). The relay is energized, applying battery voltage to the Condenser Fan Relay (K109) when the Front A/C Switch (X225) is turned on and the Fan Speed Switch (X179) is turned to positions I, II, II, or IV, ground is applied to terminal 86 of the Condenser Fan Relay (K109). The relay energizes, applying battery voltage from fuse F3 to the Condenser Fan Motors (M113, M121).


15
F 18
10 A
P126
Fascia Fuse Box
30
F3
30 A
P125
Engine Compartment Fuse Box
5
C204
See Fuse Details
1
C116
See Fuse Details
S274
S229
1.0
LGP
3.0
NG
85
30
C2007
85
30
86
87
87a
K127
Ignition Load Relay
86
87
87a
C2007
1.5
WG
1.5
YO
15
C215
S227
1.0
YO
1
C251
Z211
Fan Timer Diode
X125
Fuel Flap Release Switch
0.5
GW
18
C217
7
C2073
1.25
UR
A
K5-5
Petrol
Compressor Controls
K5–6
Diesel
See Ground Distribution
Blower Controls
E200

K5 ETM

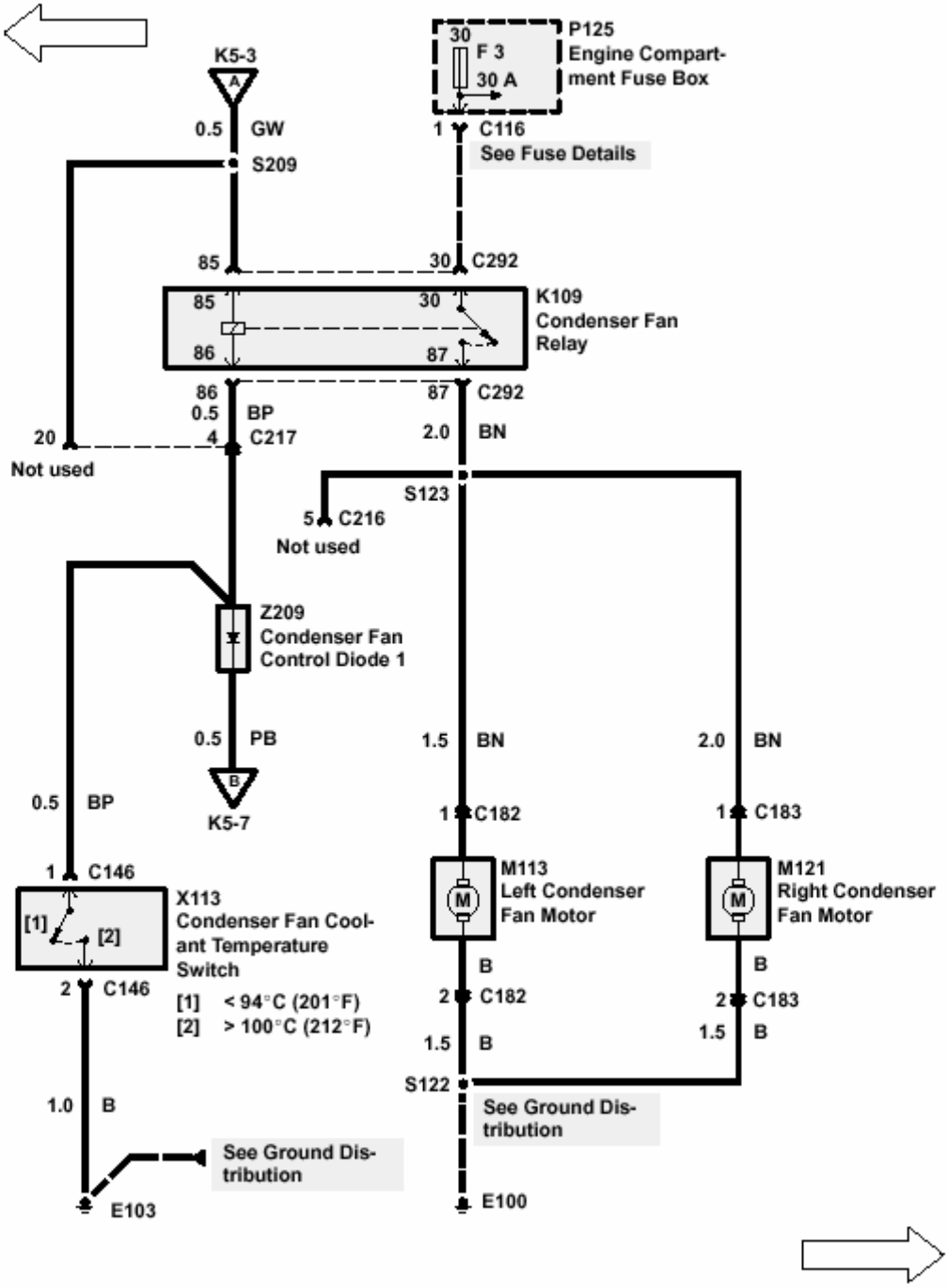
1995 RANGE ROVER

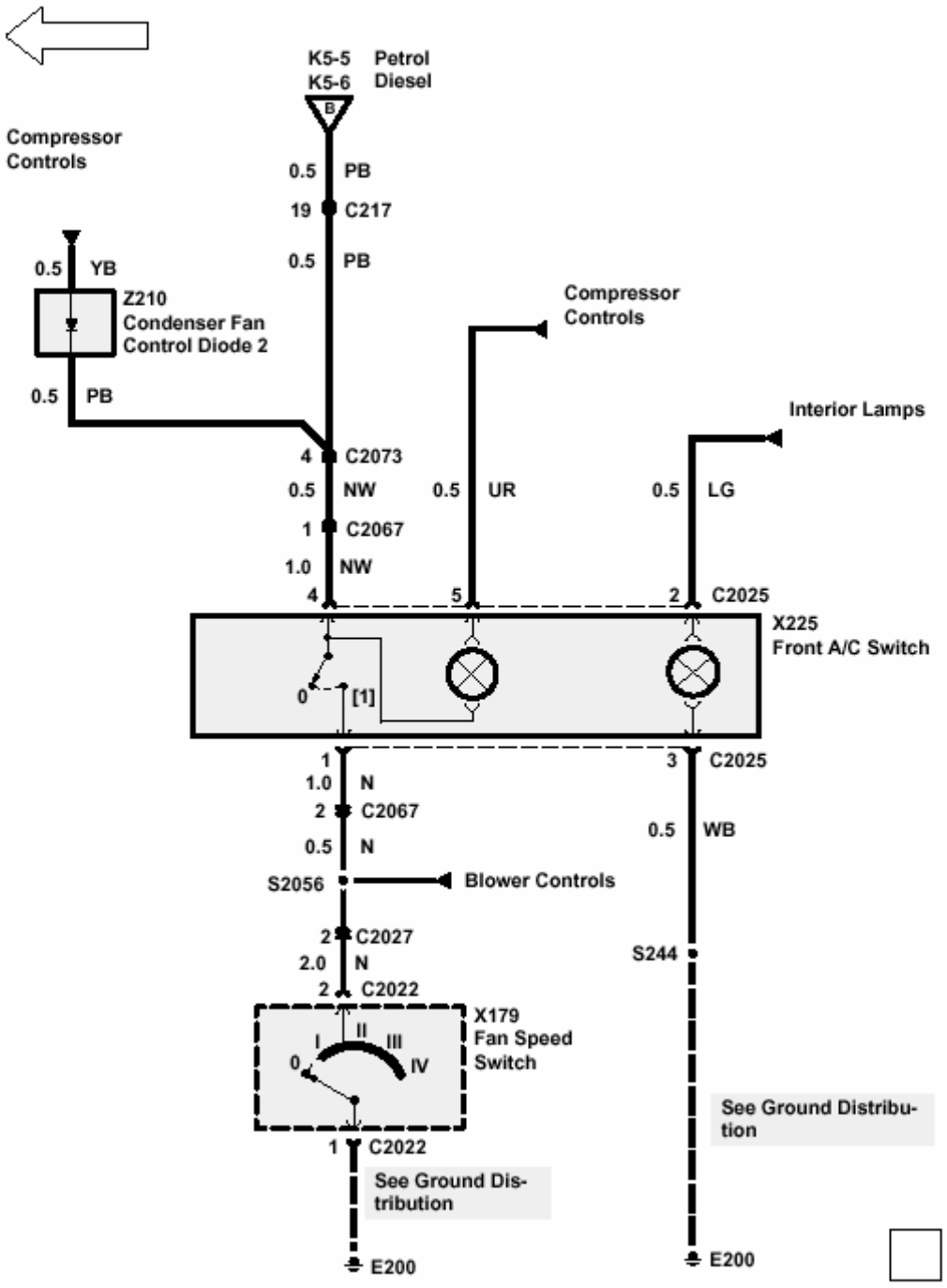



K5-3
A
0.5 GW
S209
85
30 C292
P125
Engine Compartment Fuse Box
30
F3
30 A
1 C116
See Fuse Details
K109
Condenser Fan Relay
85
30
86
87
86
87 C292
0.5 BP
2.0 BN
20
4 C217
1.0 C216 1.5 S123
S298
8
9
4 C238 BN
5 BN
Z118
Fan Control Module
0.5 BP
2.0 BN
1.5 BN
Z209
Condenser Fan Control Diode 1
0.5 PB
B
K5-7
1 C182
1 C183
M113
Left Condenser Fan Motor
M121
Right Condenser Fan Motor
M
B
0.5 BP
1 C146
2 C182
2 C183
X113
Condenser Fan Coolant Temperature Switch
[1]
[2]
[1] < 94°C (201°F)
[2] > 100°C (212°F)
2 C146
1.5 B
1.5 B
S122
0.5 B
See Ground Distribution
See Ground Distribution
E100
E100

K5 ETM

1995 RANGE ROVER




K5-5 Petrol
K5-6 Diesel
B
Compressor Controls
0.5 PB
19 C217
0.5 PB
0.5 YB
Z210
Condenser Fan Control Diode 2
0.5 PB
Compressor Controls
Interior Lamps
4 C2073
0.5 NW
0.5 UR
0.5 LG
1 C2067
1.0 NW
4
5
2 C2025
X225
Front A/C Switch
0
[1]
1
1.0 N
2 C2067
0.5 N
3 C2025
0.5 WB
S2056
Blower Controls
2 C2027
2.0 N
2 C2022
S244
X179
Fan Speed Switch
I
II
III
IV
0
1 C2022
See Ground Distribution
See Ground Distribution
E200
E200

CIRCUIT OPERATION

Voltage for window lift and sunroof operation is provided to the Window Lift ECU (Z147) from fuses F2 and F3. The Window Lift ECU is grounded through the B wire at ground E200.

Timeout Feature

Fuse F18 applies voltage to the Window Lift ECU terminal 3 when the ignition switch is on. When the ignition switch is turned off, the absence of voltage at terminal 3 signals the Window Lift ECU to start the timeout feature. When the timeout feature is activated, the Window Lift ECU will allow window and sunroof operation for an additional 45 seconds.

The timeout feature will be cancelled if the driver's door is opened and then closed. The Window Lift ECU monitors the driver's door position at terminal 7.

Front Window Operation

When a Front Window Switch is operated, the switch grounds one of four Window Lift ECU input terminals. This signals the Window Lift ECU to apply voltage and ground to the respective window motor. If the front window switch is held in the down position for more than 1/2 second, the express down feature is activated. The Window Lift ECU will operate the window motor until it is completely lowered.

Rear Window

The Window Lift ECU terminal E supplies voltage to the Rear Window Console and door switches for rear window operation.

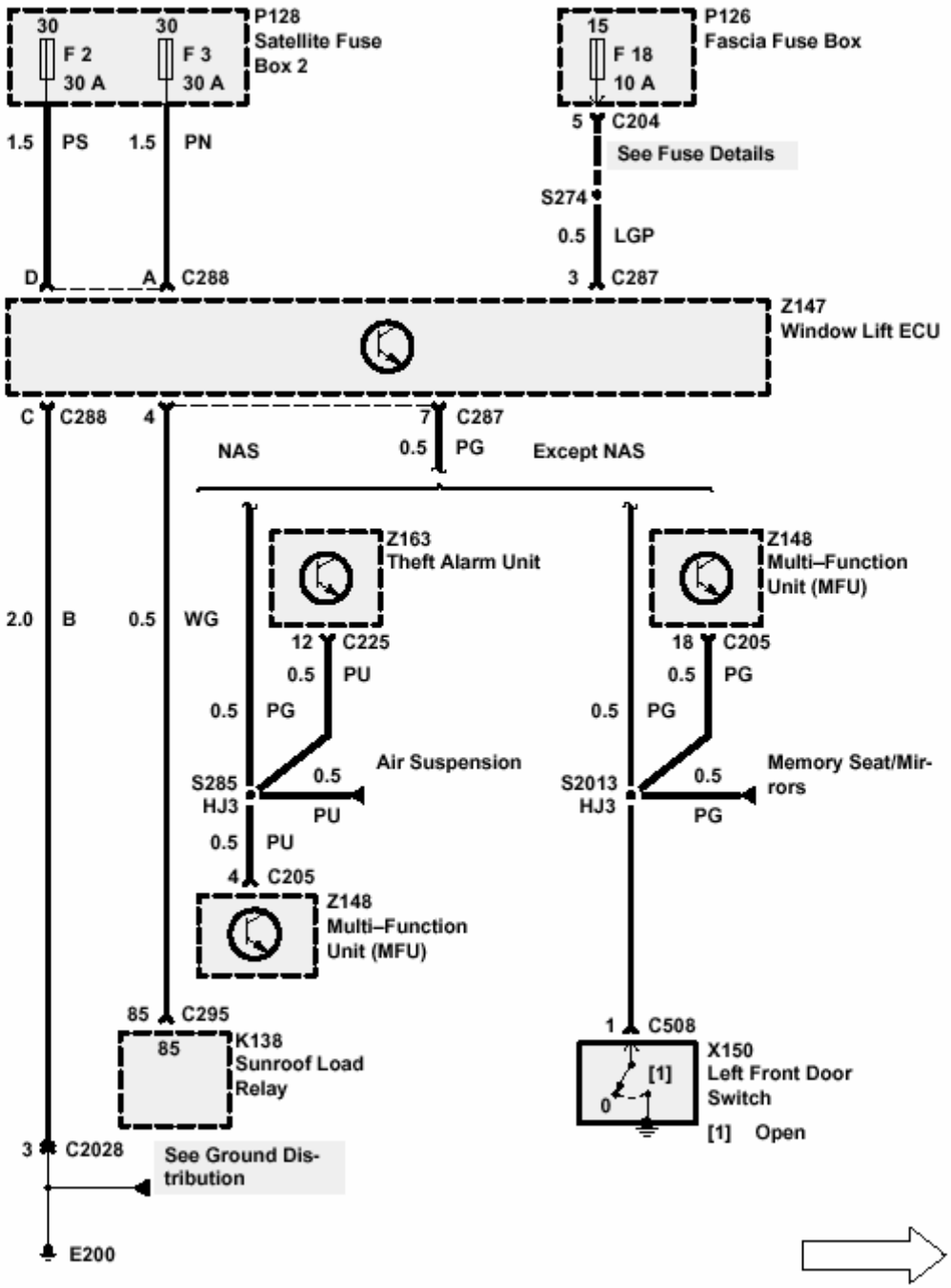
When a window console switch is in the 'DOWN' position, voltage is applied to the window motor through the 'up' switch contacts. The window motors operate because they are grounded through the 'down' contacts of the window console switch. When a switch is in the UP position, the polarity applied to the window motor is reversed, causing the motor to run in the opposite direction and the window to close.

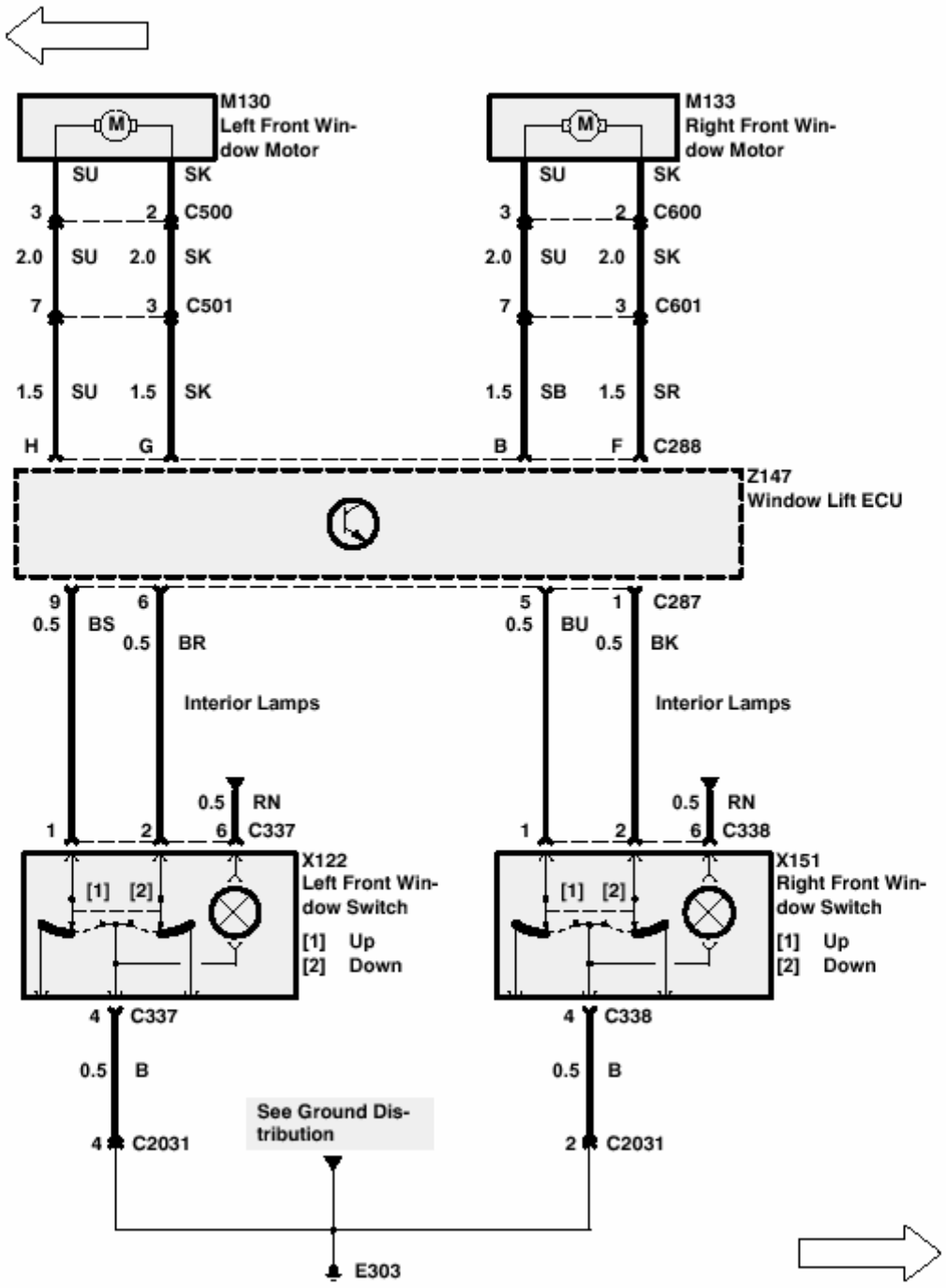
Rear Window Isolation Switch (X187)

The Rear Window Isolation Switch (X187) is placed in series with the ground supply to the Rear Window Door Switches (X188, X189). If the isolation switch is opened, the ground supply is interrupted, preventing rear window operation using the rear door switches.

L1 ETM

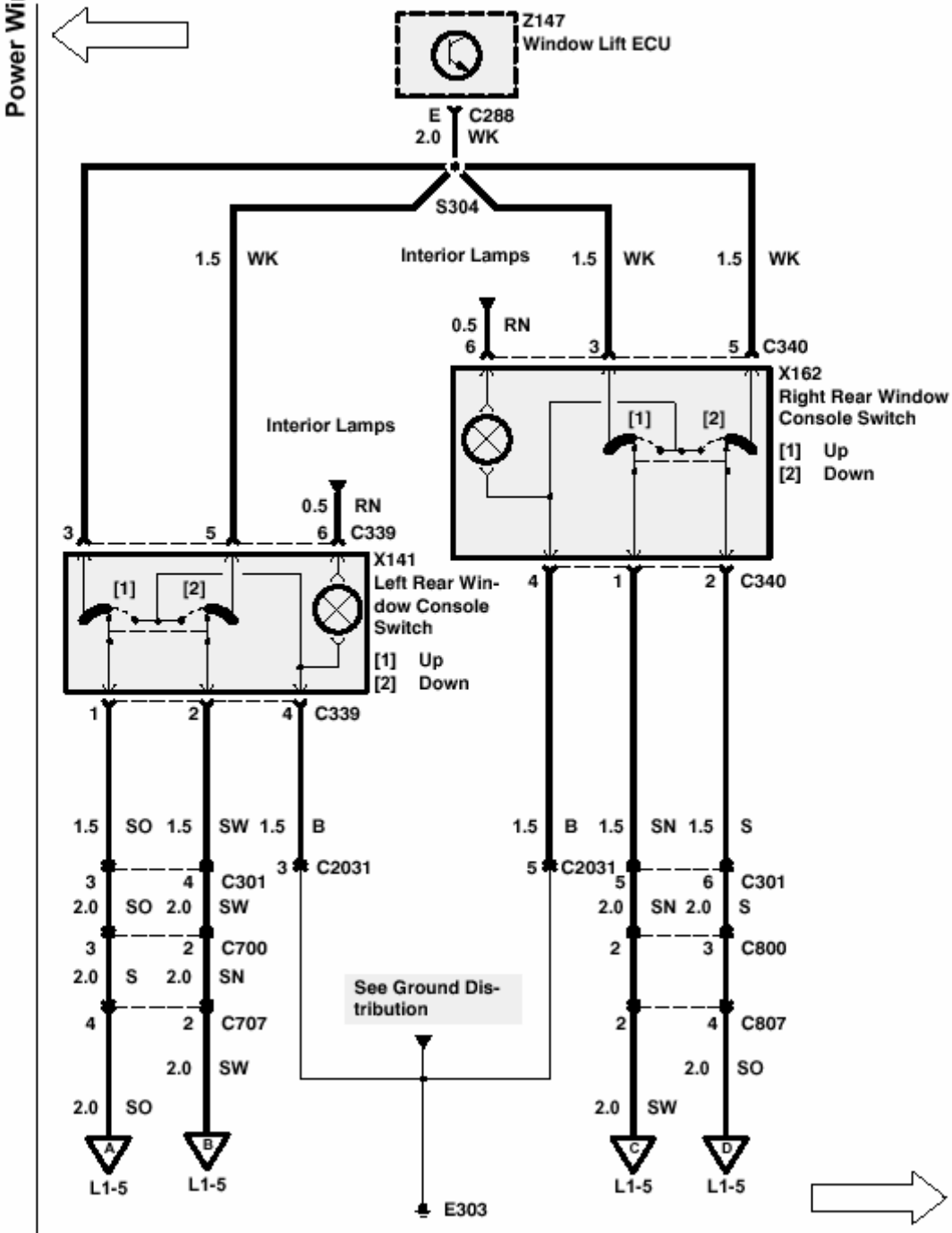
1995 RANGE ROVER

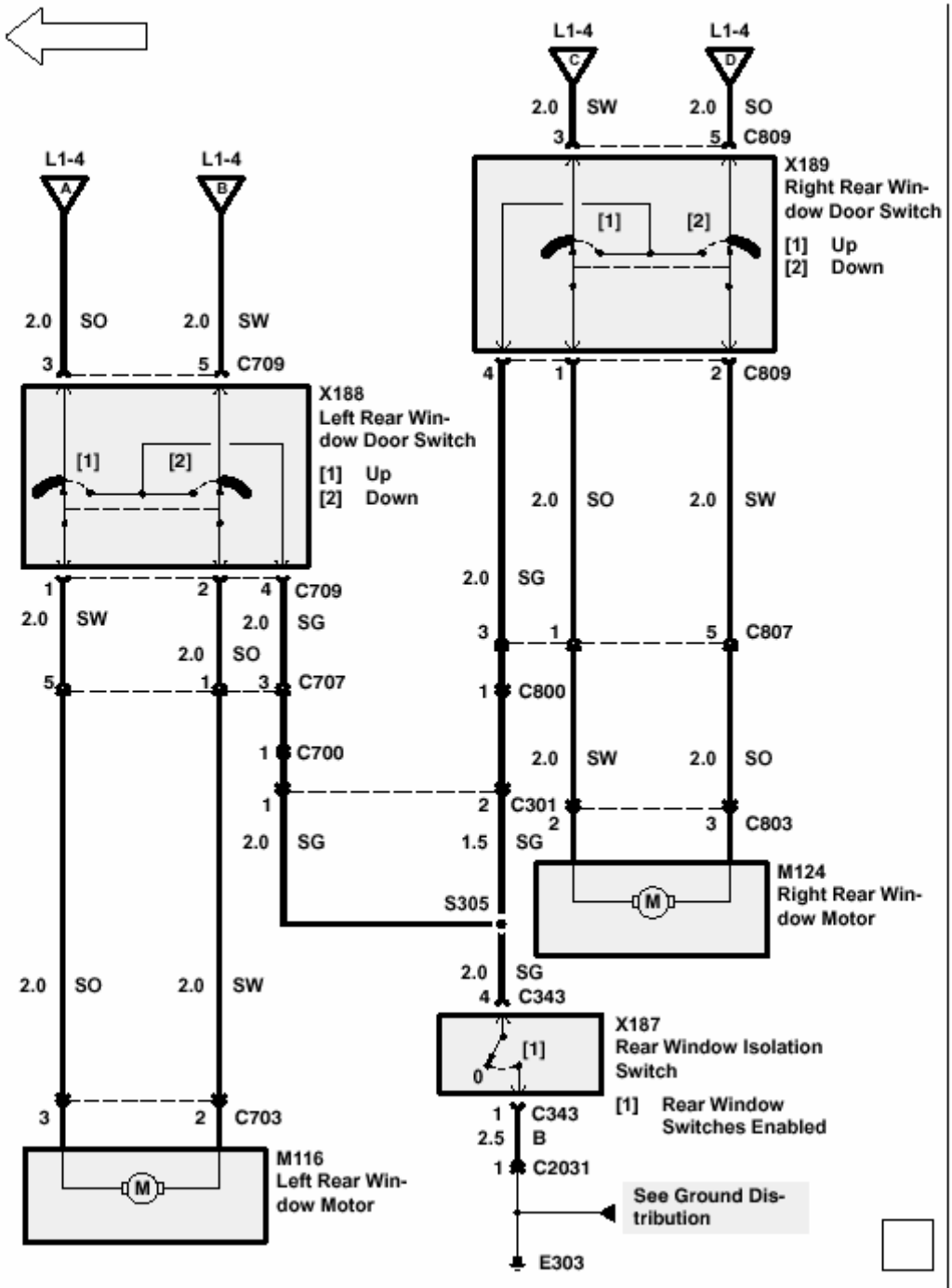


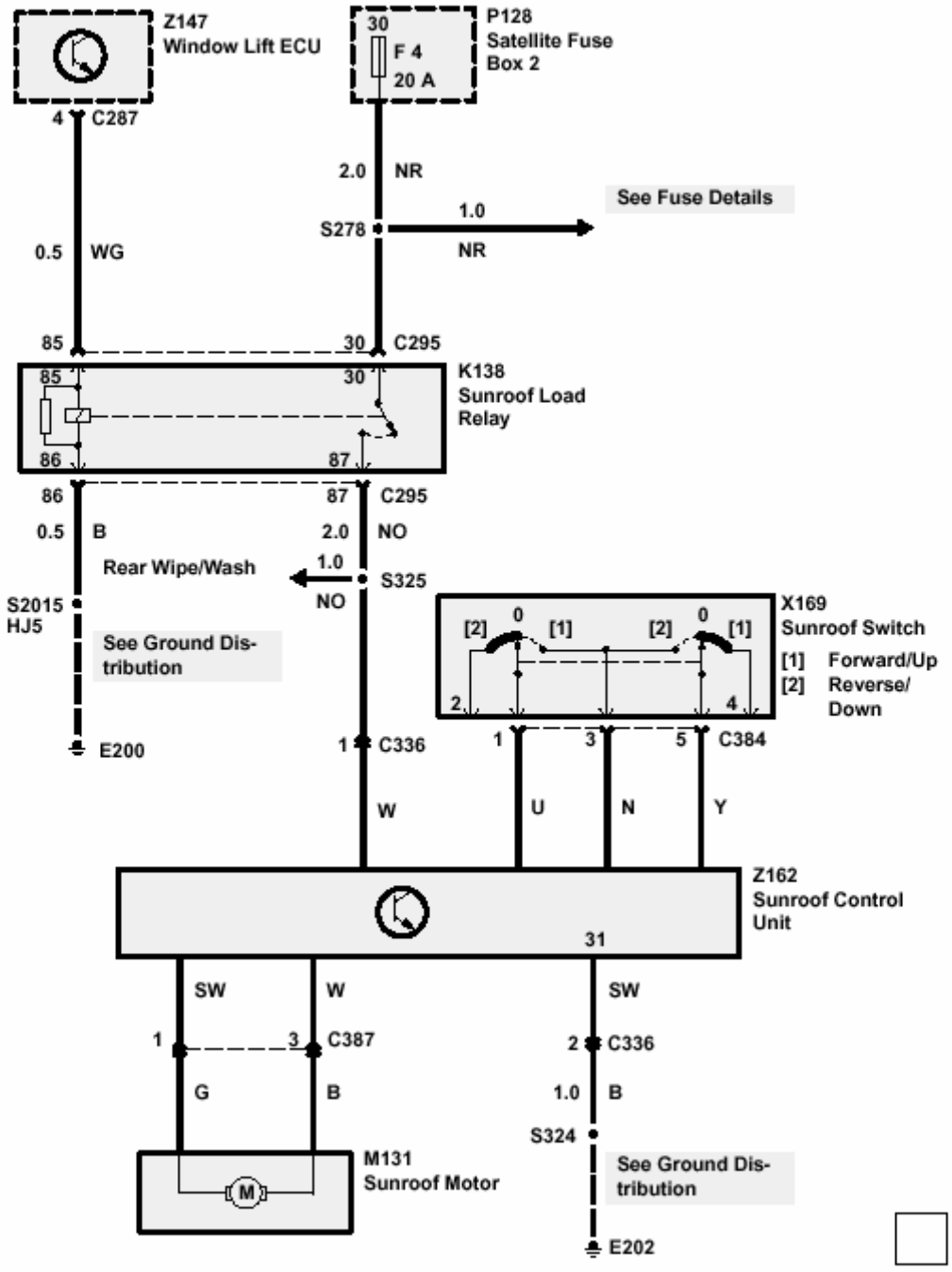

M130
Left Front Window Motor
M133
Right Front Window Motor
SU
SK
3
2
C500
C600
2.0
SU
2.0
SK
7
3
C501
C601
1.5
SU
1.5
SK
1.5
SB
1.5
SR
H
G
B
F
C288
Z147
Window Lift ECU
9
0.5
BS
6
0.5
BR
5
0.5
BU
1
0.5
BK
C287
Interior Lamps
Interior Lamps
0.5
RN
1
2
6
C337
C338
X122
Left Front Window Switch
X151
Right Front Window Switch
[1] Up
[2] Down
4
C337
C338
0.5
B
See Ground Distribution
4
C2031
2
C2031
E303

L1 ETM

1995 RANGE ROVER




L1-4
A
L1-4
B
L1-4
C
L1-4
D
2.0 SO
2.0 SW
2.0 SW
2.0 SO
3
5
C709
5
C809
X188
Left Rear Window Door Switch
[1] Up
[2] Down
X189
Right Rear Window Door Switch
[1] Up
[2] Down
[1]
[2]
1
2
4
C709
4
1
2
C809
2.0 SW
2.0 SG
2.0 SO
2.0 SG
2.0 SO
2.0 SW
5
1
3
C707
3
1
5
C807
1
C700
1
C800
2.0 SW
2.0 SO
1
2
C301
2
3
C803
2.0 SG
1.5 SG
M124
Right Rear Window Motor
S305
2.0 SO
2.0 SW
2.0 SG
4
C343
X187
Rear Window Isolation Switch
[1] Rear Window Switches Enabled
[1]
0
3
2
C703
1
C343
2.5 B
1
C2031
See Ground Distribution
M116
Left Rear Window Motor
E303


Z147
Window Lift ECU
4
C287
30
F 4
20 A
P128
Satellite Fuse
Box 2
2.0
NR
See Fuse Details
S278
1.0
NR
0.5
WG
85
30
C295
K138
Sunroof Load
Relay
85
30
86
87
86
87
C295
0.5
B
2.0
NO
Rear Wipe/Wash
1.0
NO
S325
S2015
HJ5
See Ground Dis-
tribution
X169
Sunroof Switch
[2]
0
[1]
[2]
0
[1]
[1] Forward/Up
[2] Reverse/
Down
2
4
E200
1
C336
1
3
5
C384
W
U
N
Y
Z162
Sunroof Control
Unit
31
SW
W
SW
1
3
C387
2
C336
G
B
1.0
B
S324
M131
Sunroof Motor
M
See Ground Dis-
tribution
E202

CIRCUIT OPERATION

Fuses F1 and F5 supply voltage to the Central Locking Control Unit (Z113). The control unit is grounded at terminal 11 to ground E200.

Inputs

The Central Locking Control Unit (Z113) monitors the position of the front door locks through input switches that are part of the Front Door Lock Actuators (M114, M122). When the control unit sees an input switch change position, the control unit responds by locking or unlocking the doors and the tailgate.

Lock

The Central Locking Control Unit (Z113) locks the doors and the tailgate by momentarily applying battery voltage to the actuators through the K wire. The lock actuators are grounded by the Central Locking Control Unit through the O wire. The actuators now move to the locked position.

Unlock

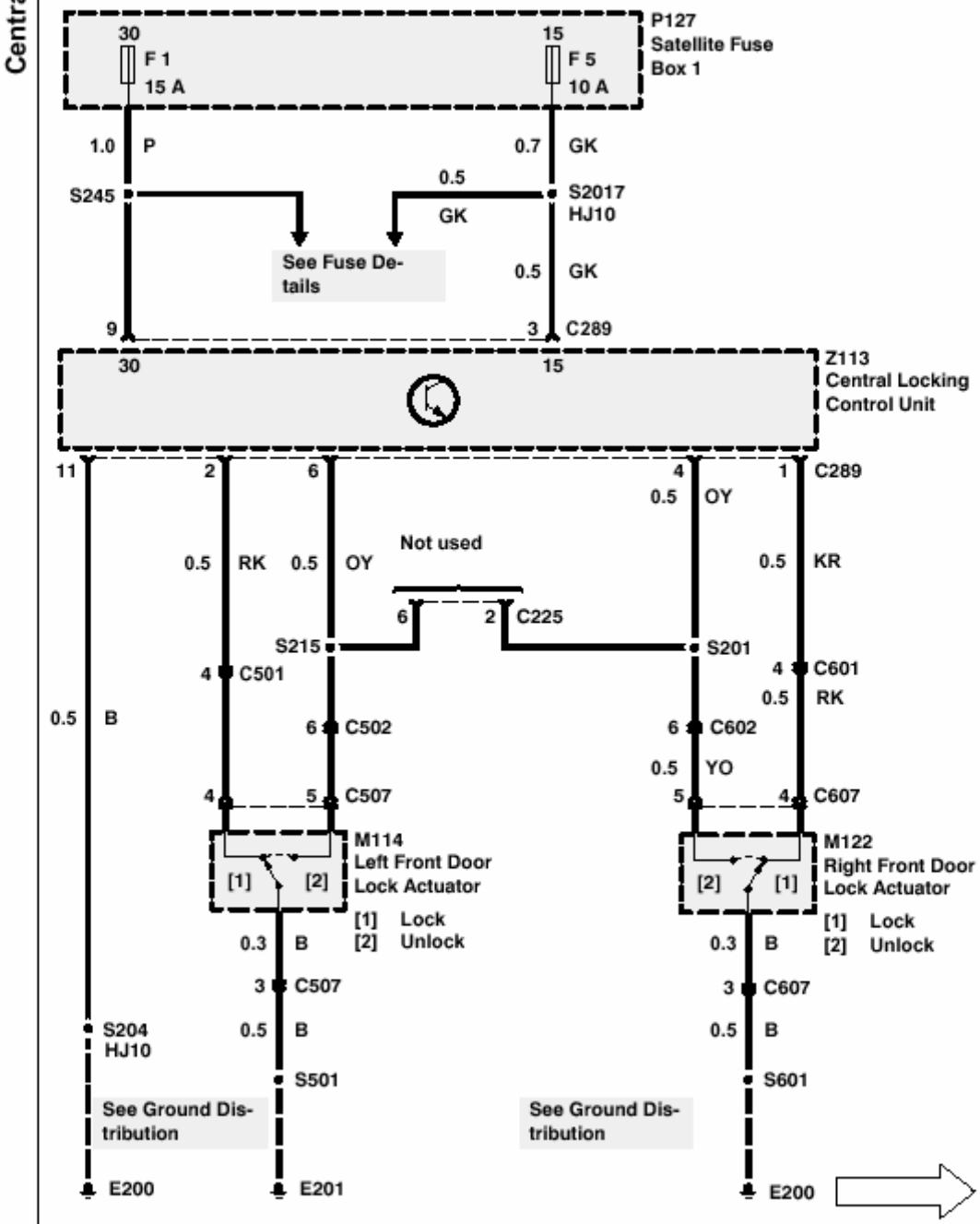
To unlock the doors and the tailgate the Central Locking Control Unit (Z113) momentarily applies battery voltage to the actuators through the O wire. The actuators are grounded by the Central Locking Control Unit through the K wire. The lock actuators now unlock.

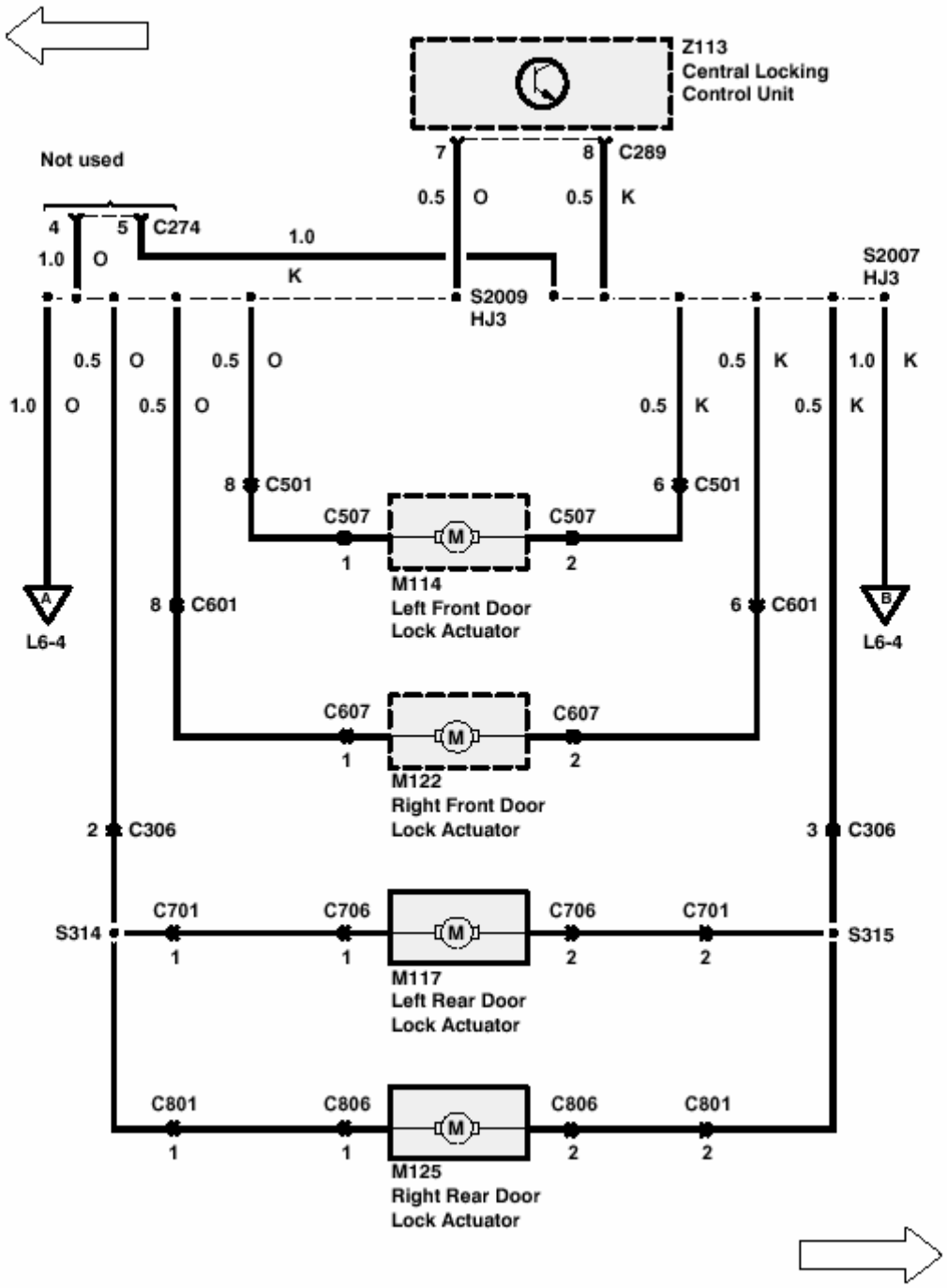
Fuel Flap

When the Fuel Flap Release Switch (X125) is operated, voltage from the Ignition Load Relay (K127) is applied to the Fuel Flap Actuator (M108) through the switch, the YR wire and the YP wire. Voltage is only applied when the Ignition Switch is not in Position II, to keep the fuel flap from being opened while driving. The actuator is grounded to ground E403.

L6 ETM

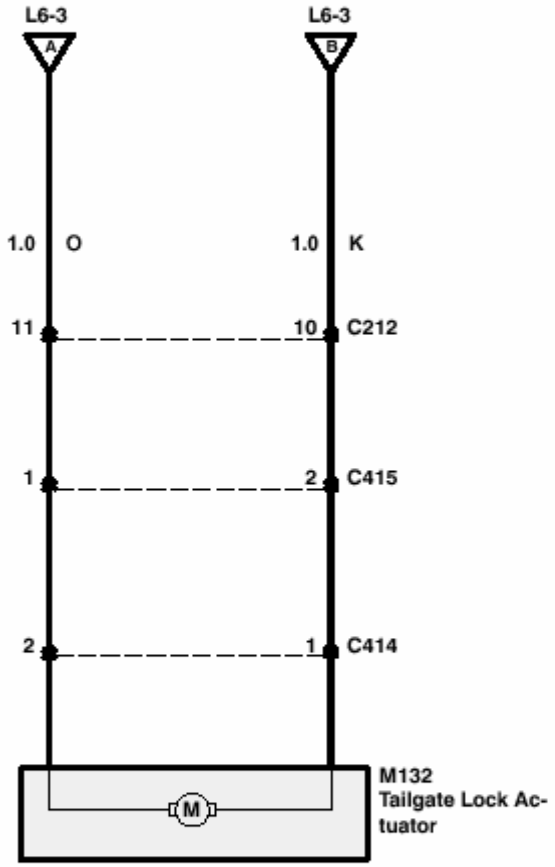
1995 RANGE ROVER

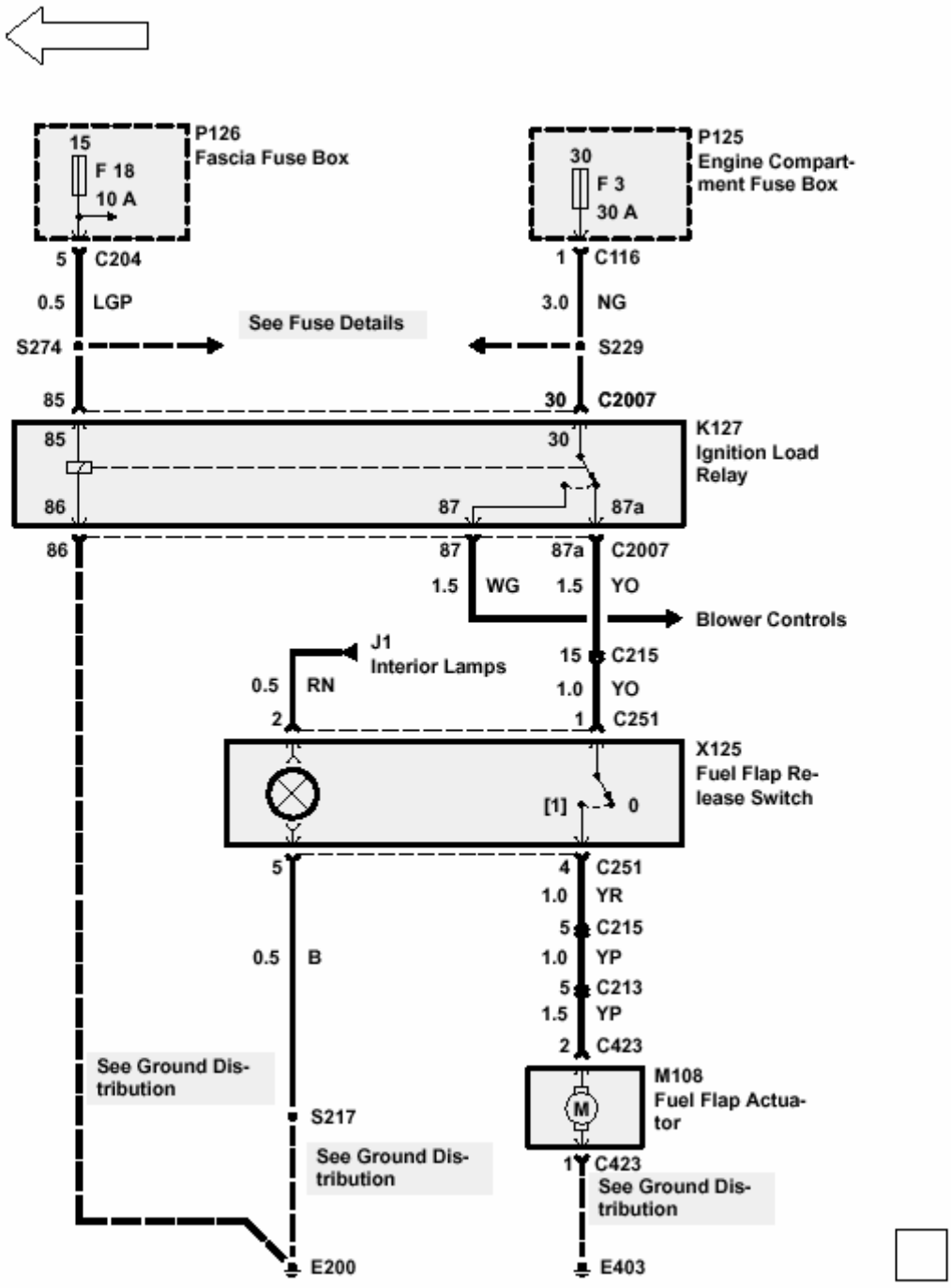


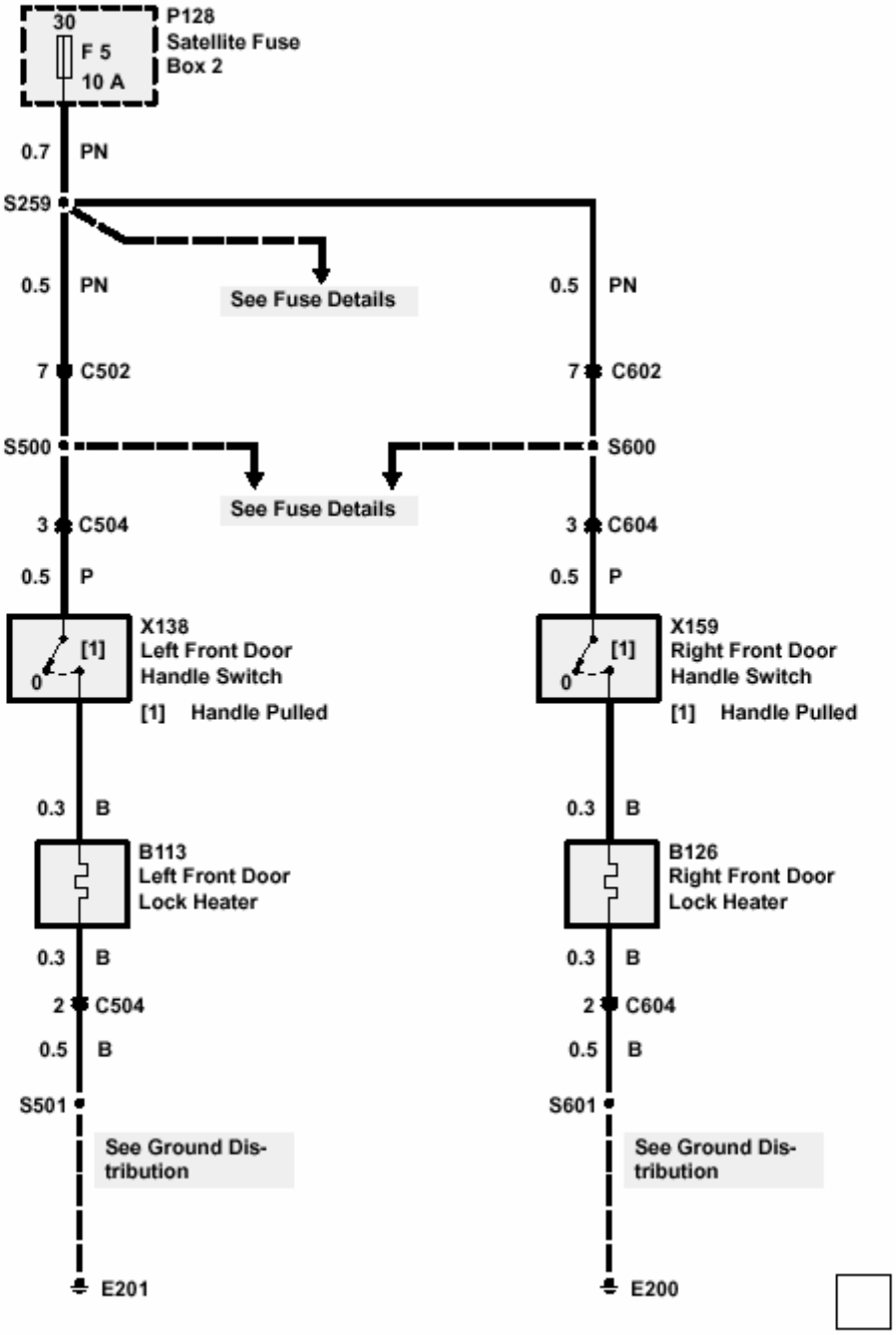

Z113
Central Locking
Control Unit
Not used
7
8
C289
0.5
O
0.5
K
4
5
C274
1.0
1.0
O
1.0
K
S2007
HJ3
S2009
HJ3
0.5
O
0.5
O
0.5
K
1.0
K
1.0
O
0.5
O
0.5
K
0.5
K
8
C501
6
C501
C507
C507
1
2
M114
Left Front Door
Lock Actuator
A
L6-4
8
C601
6
C601
B
L6-4
C607
C607
1
2
M122
Right Front Door
Lock Actuator
2
C306
3
C306
S314
C701
C706
C706
C701
S315
1
1
2
2
M117
Left Rear Door
Lock Actuator
C801
C806
C806
C801
1
1
2
2
M125
Right Rear Door
Lock Actuator

L6 ETM

1995 RANGE ROVER




P126
Fascia Fuse Box
15
F 18
10 A
P125
Engine Compartment Fuse Box
30
F 3
30 A
5
C204
0.5
LGP
See Fuse Details
S274
1
C116
3.0
NG
S229
85
30
C2007
K127
Ignition Load Relay
85
30
86
87
87a
86
87
87a
C2007
1.5
WG
1.5
YO
Blower Controls
J1
Interior Lamps
0.5
RN
2
15
C215
1.0
YO
1
C251
X125
Fuel Flap Release Switch
[1]
0
5
4
C251
1.0
YR
5
C215
0.5
B
1.0
YP
5
C213
1.5
YP
2
C423
See Ground Distribution
M108
Fuel Flap Actuator
M
S217
See Ground Distribution
1
C423
See Ground Distribution
E200
E403


30
F 5
10 A
P128
Satellite Fuse
Box 2
0.7 PN
S259
0.5 PN
See Fuse Details
0.5 PN
7 C502
7 C602
S500
S600
See Fuse Details
3 C504
3 C604
0.5 P
0.5 P
[1]
0
X138
Left Front Door
Handle Switch
[1] Handle Pulled
[1]
0
X159
Right Front Door
Handle Switch
[1] Handle Pulled
0.3 B
0.3 B
B113
Left Front Door
Lock Heater
B126
Right Front Door
Lock Heater
0.3 B
0.3 B
2 C504
2 C604
0.5 B
0.5 B
S501
S601
See Ground Dis-
tribution
See Ground Dis-
tribution
E201
E200

CIRCUIT OPERATION

When the Ignition Switch (X134) is in position I or II, the Right Seat Power Relay (K131) is energized, applying ground to the Left Seat Power Relay (K113).

The Left Seat Power Relay (K113) energizes, applying battery voltage to the Left Front Seat Control Switch (X152).

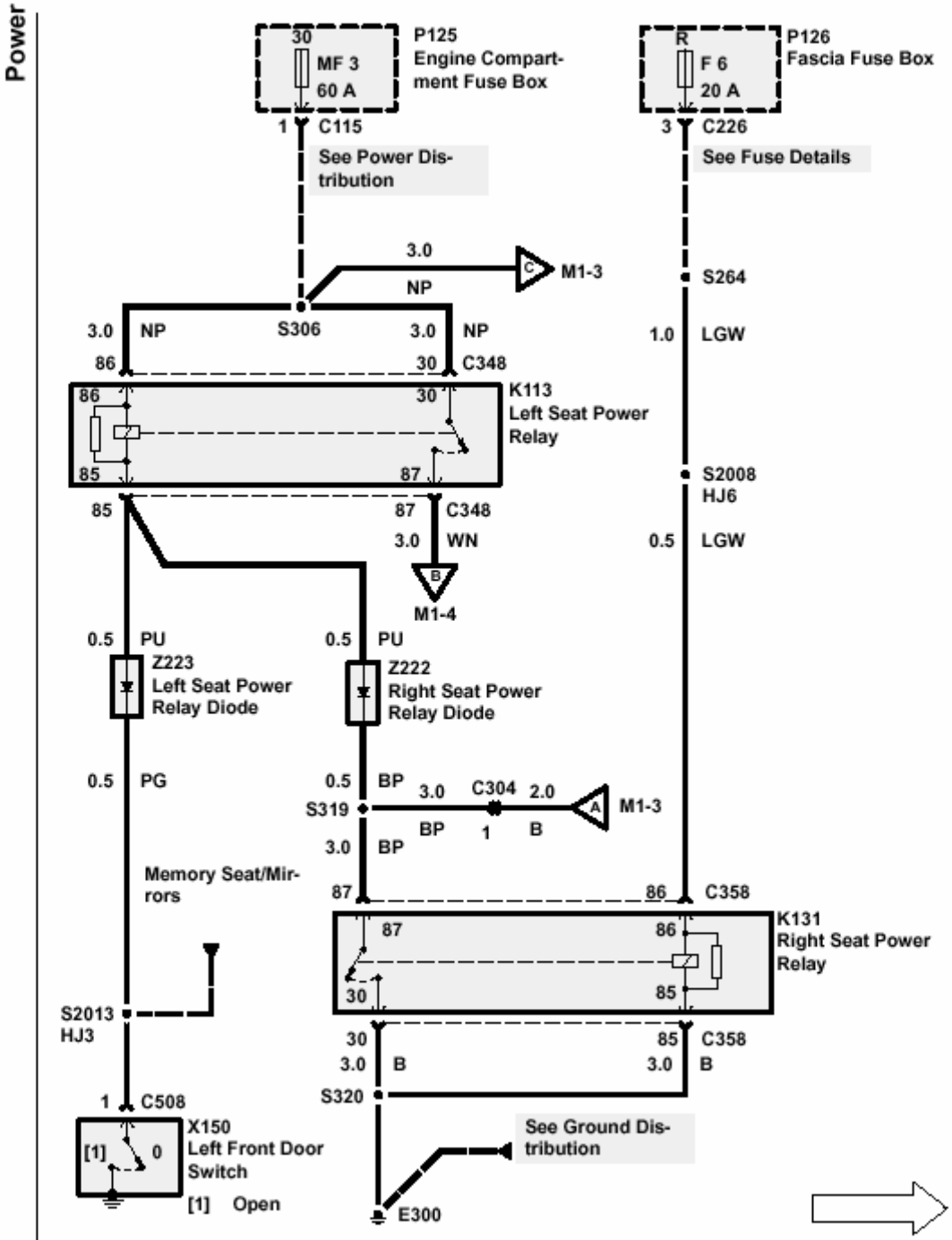
The Left Front Seat Control Switch (X152) controls 4 seat control motors via 8 switches. When each switch is moved to operate its corresponding motor, one seat switch applies ground while the other applies battery voltage to the respective seat motor. The motor turns to adjust the seat in the requested direction.

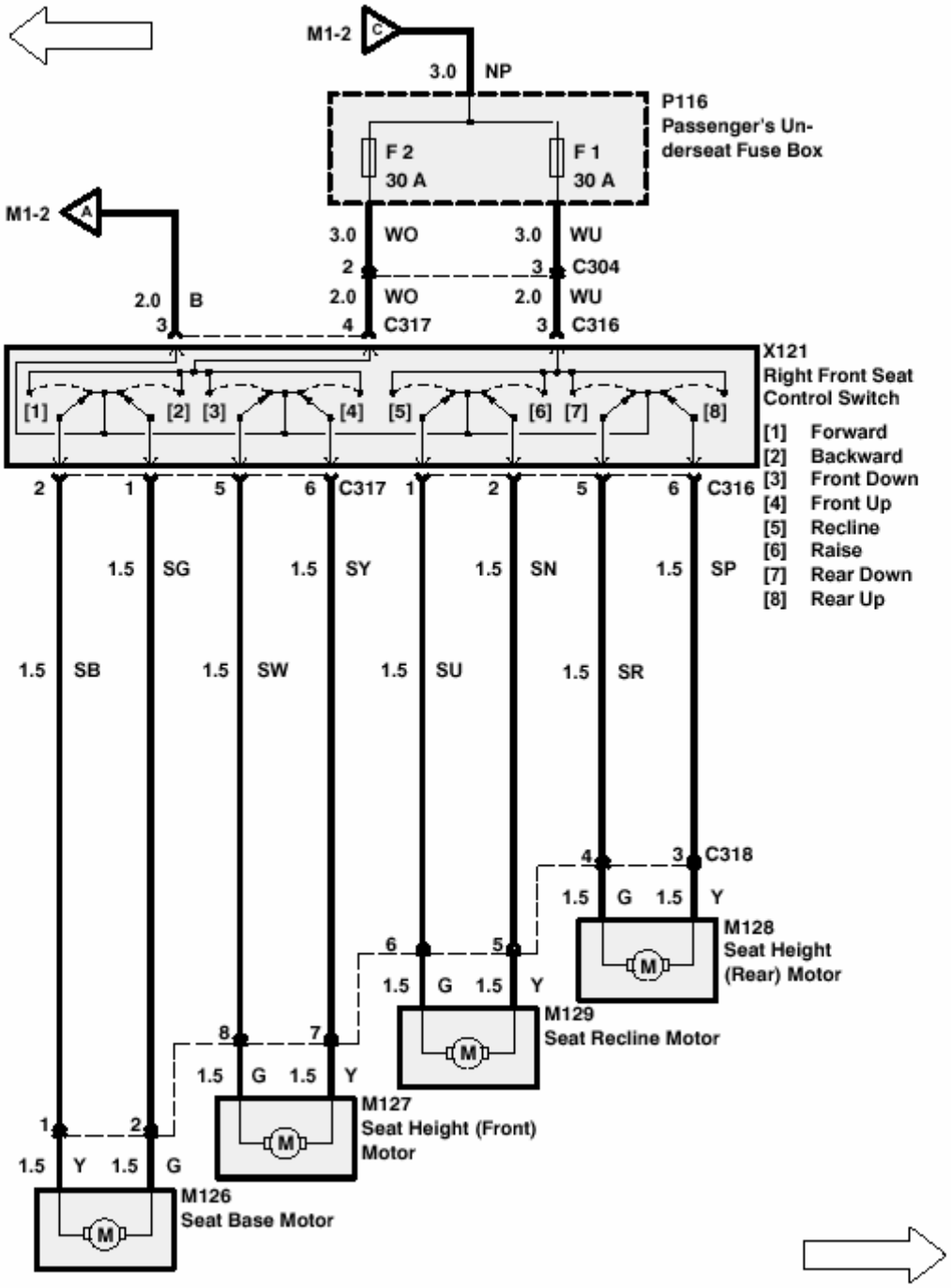
Passenger Seat

Battery voltage is applied to the Right Front Seat Control Switch (X121) at all times. When the Ignition Switch (X134) is in position I or II, the Right Seat Power Relay (K131) is energized, applying ground to the Right Front Seat Control Switch (X121). The Right Front Seat Control Switch (X121) controls 4 seat control motors via 8 switches. When each switch is moved to operate its corresponding motor, one seat switch applies ground while the other applies battery voltage to the respective seat motor. The motor turns to adjust the seat in the requested direction.

M1 ETM

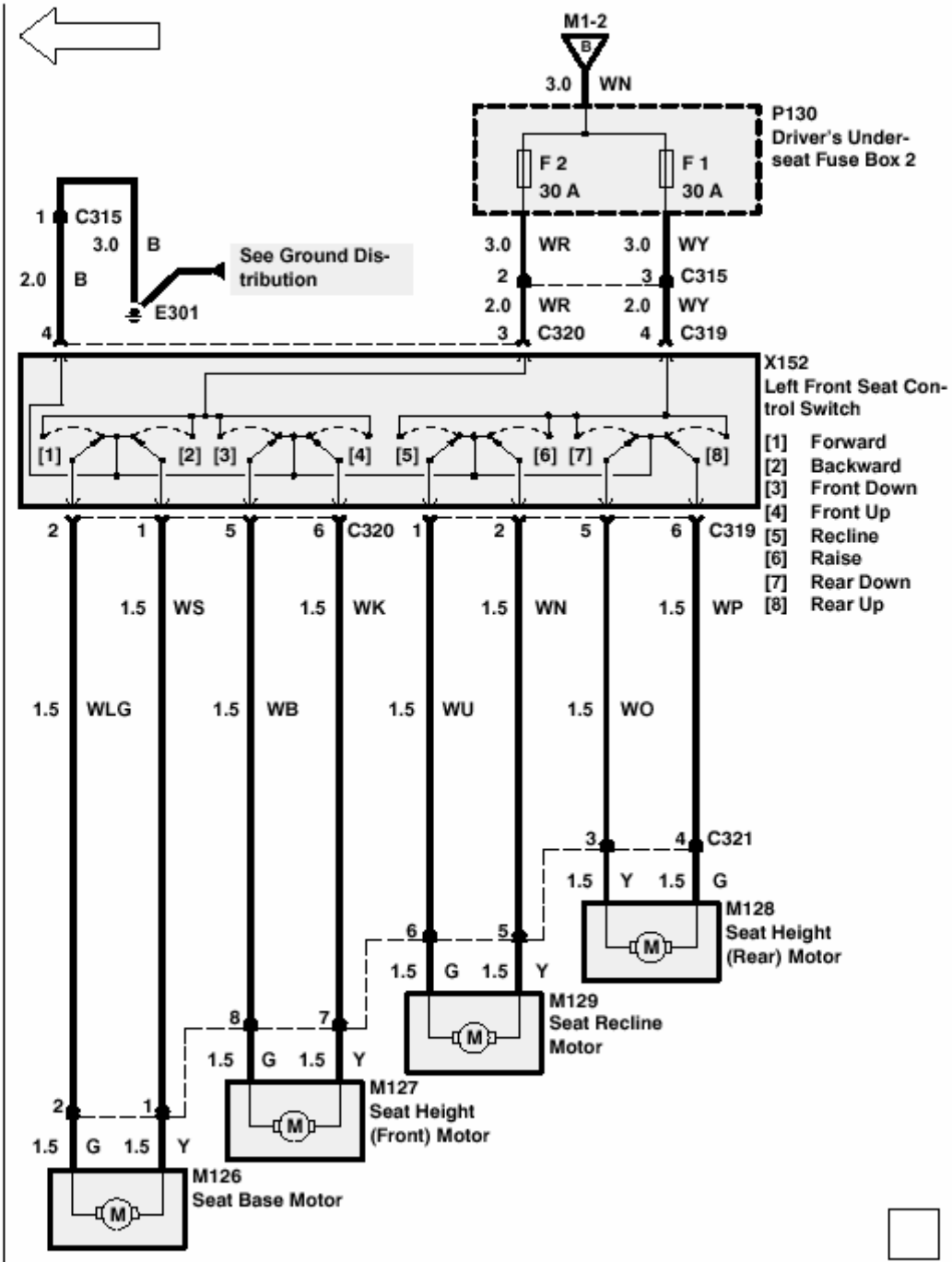
1995 RANGE ROVER

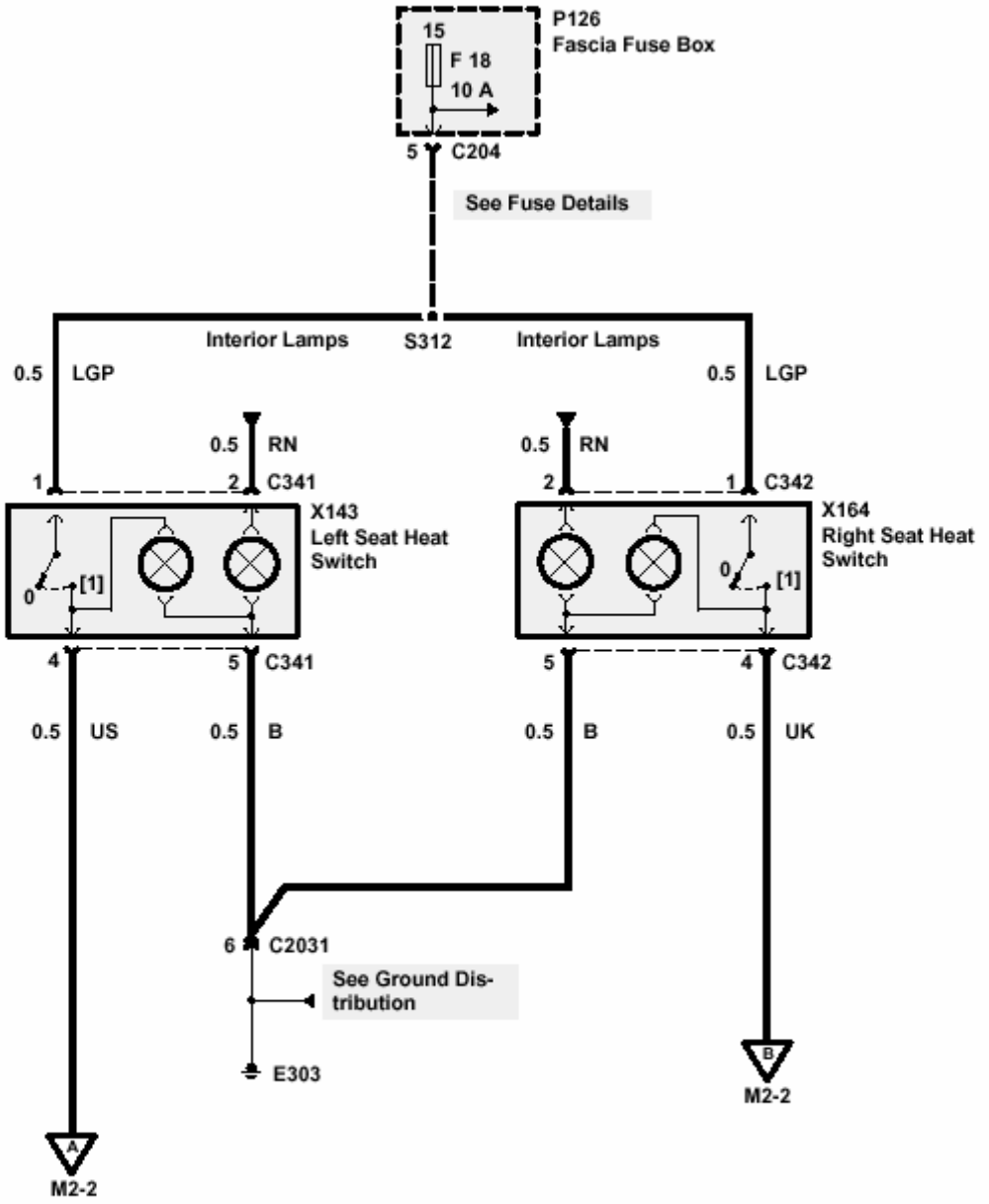



M1-2 C
3.0 NP
P116
Passenger's Underseat Fuse Box
F 2
30 A
F 1
30 A
M1-2 A
3.0 WO
3.0 WU
2
3 C304
2.0 B
2.0 WO
2.0 WU
3
4 C317
3 C316
X121
Right Front Seat Control Switch
[1] Forward
[2] Backward
[3] Front Down
[4] Front Up
[5] Recline
[6] Raise
[7] Rear Down
[8] Rear Up
2 1 5 6 C317 1 2 5 6 C316
1.5 SG
1.5 SY
1.5 SN
1.5 SP
1.5 SB
1.5 SW
1.5 SU
1.5 SR
4 3 C318
1.5 G 1.5 Y
M128
Seat Height (Rear) Motor
6 5
1.5 G 1.5 Y
M129
Seat Recline Motor
8 7
1.5 G 1.5 Y
M127
Seat Height (Front) Motor
1 2
1.5 Y 1.5 G
M126
Seat Base Motor

M1 ETM

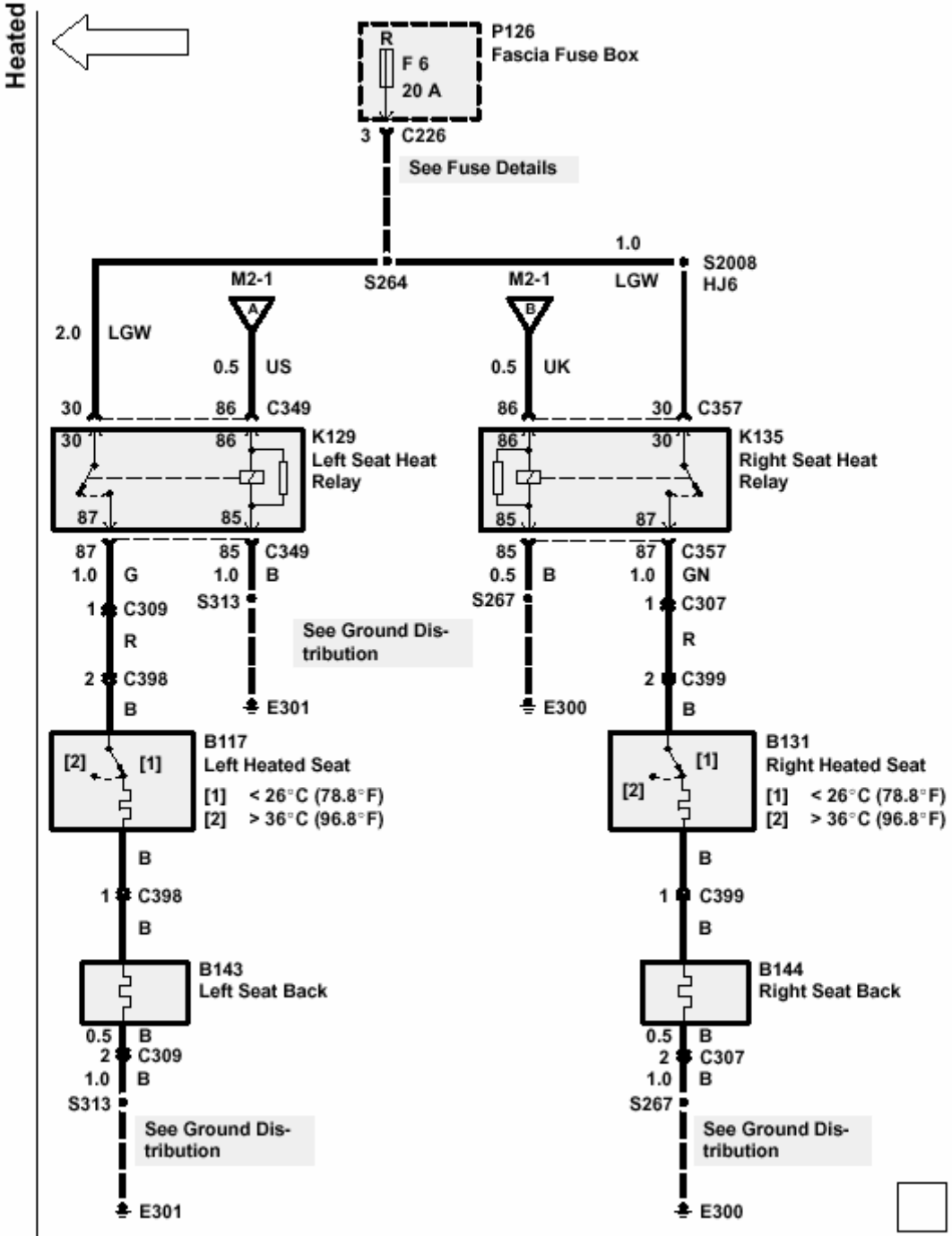
1995 RANGE ROVER




P126
Fascia Fuse Box
15
F 18
10 A
5 C204
See Fuse Details
Interior Lamps
S312
Interior Lamps
0.5 LGP
0.5 LGP
0.5 RN
0.5 RN
1
2 C341
2
1 C342
X143
Left Seat Heat Switch
X164
Right Seat Heat Switch
0
[1]
0
[1]
4
5 C341
5
4 C342
0.5 US
0.5 B
0.5 B
0.5 UK
6 C2031
See Ground Distribution
E303
A
M2-2
B
M2-2

M2 ETM

1995 RANGE ROVER



CIRCUIT OPERATION

When the Ignition Switch (X134) is in Position II, voltage is supplied to the power mirrors circuit by fuse F15.

Left/Right Movement

When a selected mirror is moved to the left by the Mirror Adjustment Switch (X146) the internal contacts move to the "Left/Right Select" and "Move Left or Up" position. The internal solenoid of the selected mirror actuators (M115, M123) is grounded at E201 through the PW, WP, BK and BN wires, the switch contacts, and the B wire. The solenoid is de–energized because the other side of the coil is also grounded at E200 or E201 through the B wire. The de–energized solenoid engages the motor in the actuator with the Left/Right Gearbox. Voltage is applied to the selected mirror actuator's motor at terminal 4 through the SW and PR wires. The selected mirror actuator's motor is grounded at E201 through the PU, BU and BP wires, the switch contacts, and the B wire. The mirror now moves left.

When a selected mirror is moved to the right by the Mirror Adjustment Switch (X146) the internal contacts remain in the "Left/Right Select" position but move to the "Move Right or Down" position. The internal solenoid of the selected mirror actuator (M112, M113) remains de–energized. Voltage is now applied to the selected mirror actuator's motor at terminal 5 through the PU, BU and PB wires. The selected mirror actuator's motor is now grounded at E201 through the PR and SW wires, the switch contacts, and the B wire. Since the polarity of the voltage to the motor has been reversed, the mirror now moves right.

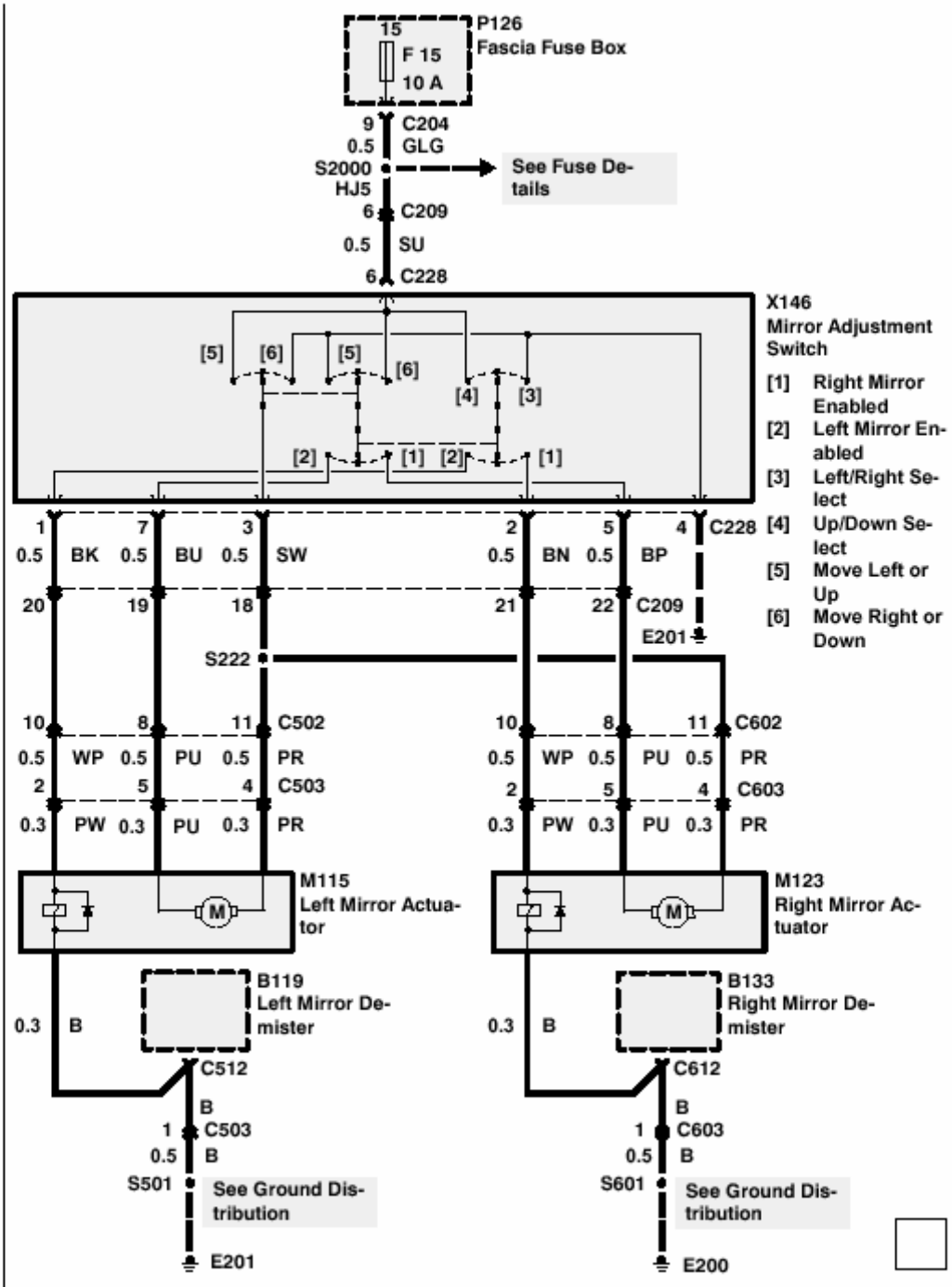
UP/Down Movement

When a selected mirror is moved up by the Mirror Adjustment Switch (X146) the internal contacts move to the "Up/Down Select" and "Move Left or Up" position. Voltage is applied to the internal solenoid of the selected mirror actuator through the BN, BK, WP, and PW wires. The solenoid energizes because the other side of the coil is grounded at E200 or E201 through the B wire. The energized solenoid engages the motor in the actuator with the Up/Down Gearbox. Voltage is applied to the selected mirror actuator's motor at terminal 4 through the SW and PR wires. The selected mirror actuator's motor is grounded at E201 through the BU, PU and BP wires, the switch contacts, and the B wire. The mirror now moves up.

When a selected mirror is moved down by the Mirror Adjustment Switch (X146) the internal contacts remain in the "Up/Down Select" position but move to the "Move Right or Down" position. The internal solenoid remains energized. Voltage is now applied to the selected mirror actuator's motor at terminal 5 through the BU, PU and BP wires. The selected mirror actuator's motor is now grounded at E201 through the PR and SW wires, the switch contacts, and the B wire. Since the polarity of the voltage to the motor has been reversed, the mirror now moves down.

M3 ETM

1995 RANGE ROVER



CIRCUIT OPERATION

Power and Ground

Fuse F4 applies battery voltage to retain the memory circuit of the Memory Seat ECU (Z146) at all times. Voltage to operate the seat motors (M126, M127, M128, M129) and the mirror actuators (M115, M123) is supplied to the Memory Seat ECU from fuses F2 and F3. The Maxi Fuse MF3 supplies voltage to fuses F2 and F3 whenever the Left Seat Power Relay (K113) is energized. The relay is energized when the driver's door is open, causing the Left Front Door Switch (X150) to ground the relay's coil, or when the ignition is in position II, causing the Right Seat Power Relay (K131) to ground the Left Seat Power Relay. The Memory Seat ECU is grounded at ground E300 through the B wires.

Inhibit Inputs

The Memory Seat ECU (Z146) will not permit movement to the memorized position when the ignition is in position II unless the handbrake is applied and vehicle speed is below 6 kmh. Vehicles equipped with an automatic transmission must also be in PARK or NEUTRAL for operation to occur.

The ECU monitors the Handbrake Switch (X191) position at terminal C302/24. When the handbrake is in position 1, the brake is applied and ground is applied to the ECU terminal C302/24.

Vehicle speed is monitored by the ECU at terminal C302/7 through the vehicle speed output signal supplied by the Instrument Cluster (Z142).

The ECU monitors gear position through the Park/Neutral Position Switch (X167). The switch grounds the ECU at terminal C302/11 when the transmission is in PARK or NEUTRAL.

Seat Motors

4 reversible motors control seat position, with each motor controlling 1 plane of movement. The Memory Seat ECU (Z146) applies both voltage and ground to the motors based on the position of the Driver Seat Control Switch (X121) or the execution of a memory position.

Memory Mirror Actuators (M115, M123)

Each Memory Mirror Actuator contains 2 motors which controls 1 plane of movement. The Memory Seat ECU (Z146) applies both voltage and ground to the motors based on the position of the Mirror Adjustment Switch (X146) or the execution of a memory position.

Setting Memory

When the round, green memory set button is depressed, terminal C324/1 of the Memory Seat ECU (Z146) is grounded through the switch contacts. This signals the ECU to record the seat position as reported through the seat position sensors (X194, X195, X196, X197) and the mirror positions through the potentiometers of the Memory Mirror Actuators (M115, M123).

When memory seat position switch 1 or 2 is depressed, ECU terminals C324/3 or C324/2 are grounded through the switch. This signals the ECU to record the current position as position '1' or '2'. Subsequent depressions of memory seat position switch 1 or 2 will cause the ECU to move the seat and mirrors to the position retained in memory. The memory can be cleared by setting a new position or by removing Fuse F4 of the Driver's Underseat Fuse Box (P108).

SELF TEST MODE

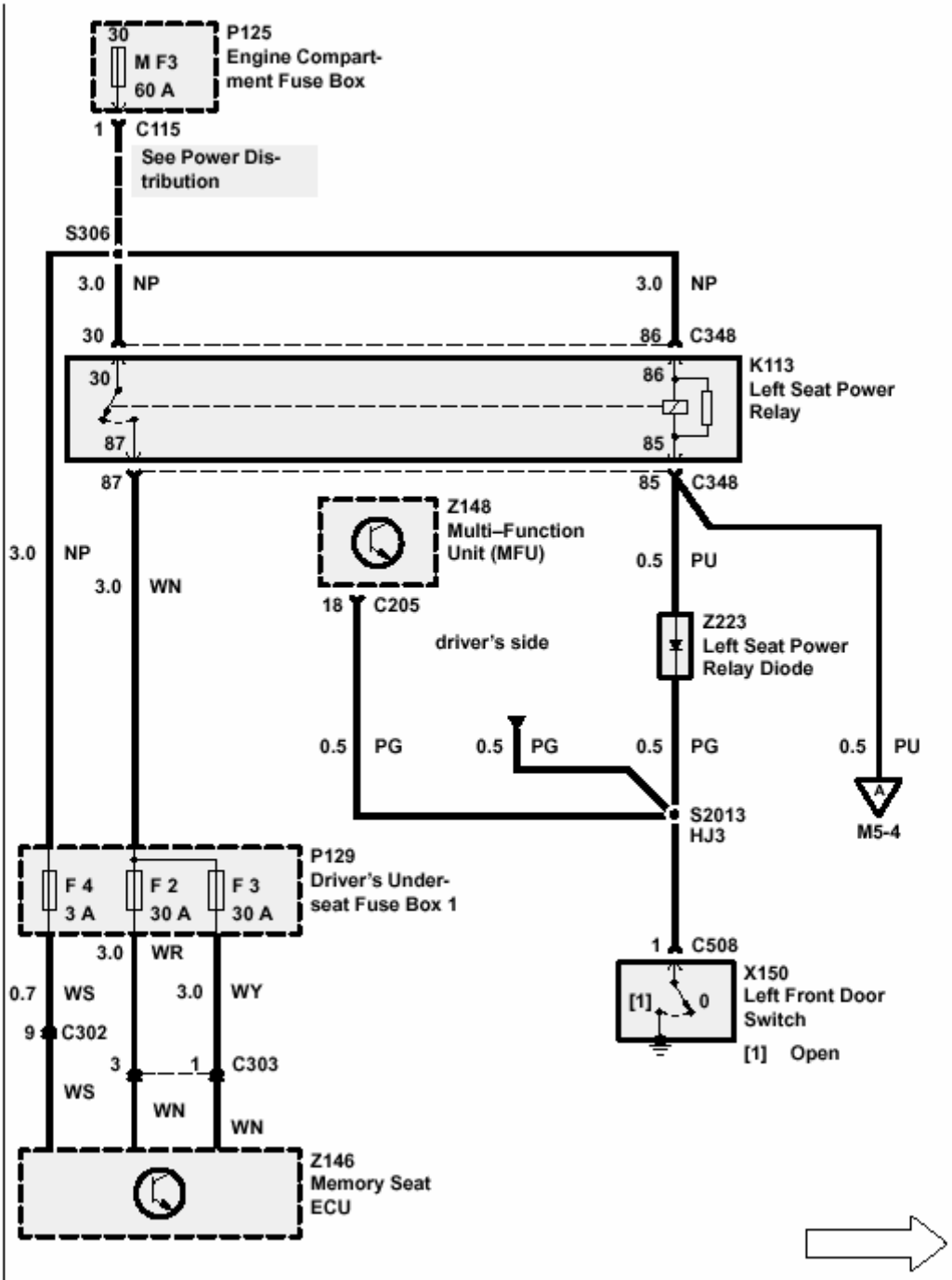
The Self Test Mode is a test routine the Memory Seat ECU (Z146) performs when initialized. When the ECU is commanded into the Self Test Mode, it operates the seats and the mirrors in all planes of travel. Perform the self test before attempting any diagnosis of the memory seat and mirror system. The cause of a system fault can be narrowed down through observation of the seats and mirrors during the Self Test Mode. Before starting the Self Test Mode, be sure to clear away everything from the pathway of the seats.

To initialize the Self Test Mode, do the following:

1. Park vehicle and open driver's door.
2. Press round, green memory button 5 times.
3. Press seat position buttons 1 and 2 in the following sequence:
   2–1–1–2

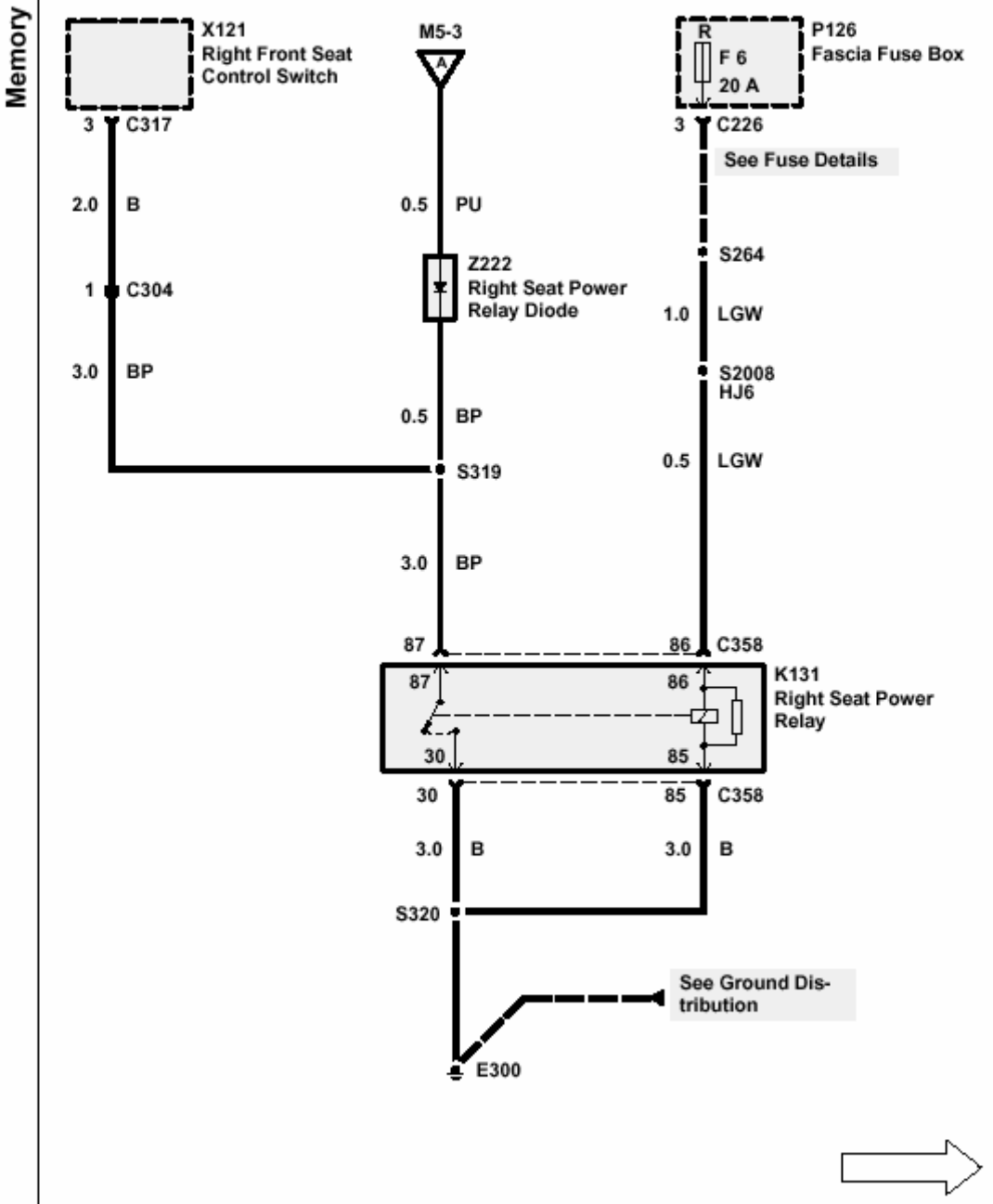
Seat and mirrors will now move. The test is completed when the seat and mirrors stop in the mid–travel position.

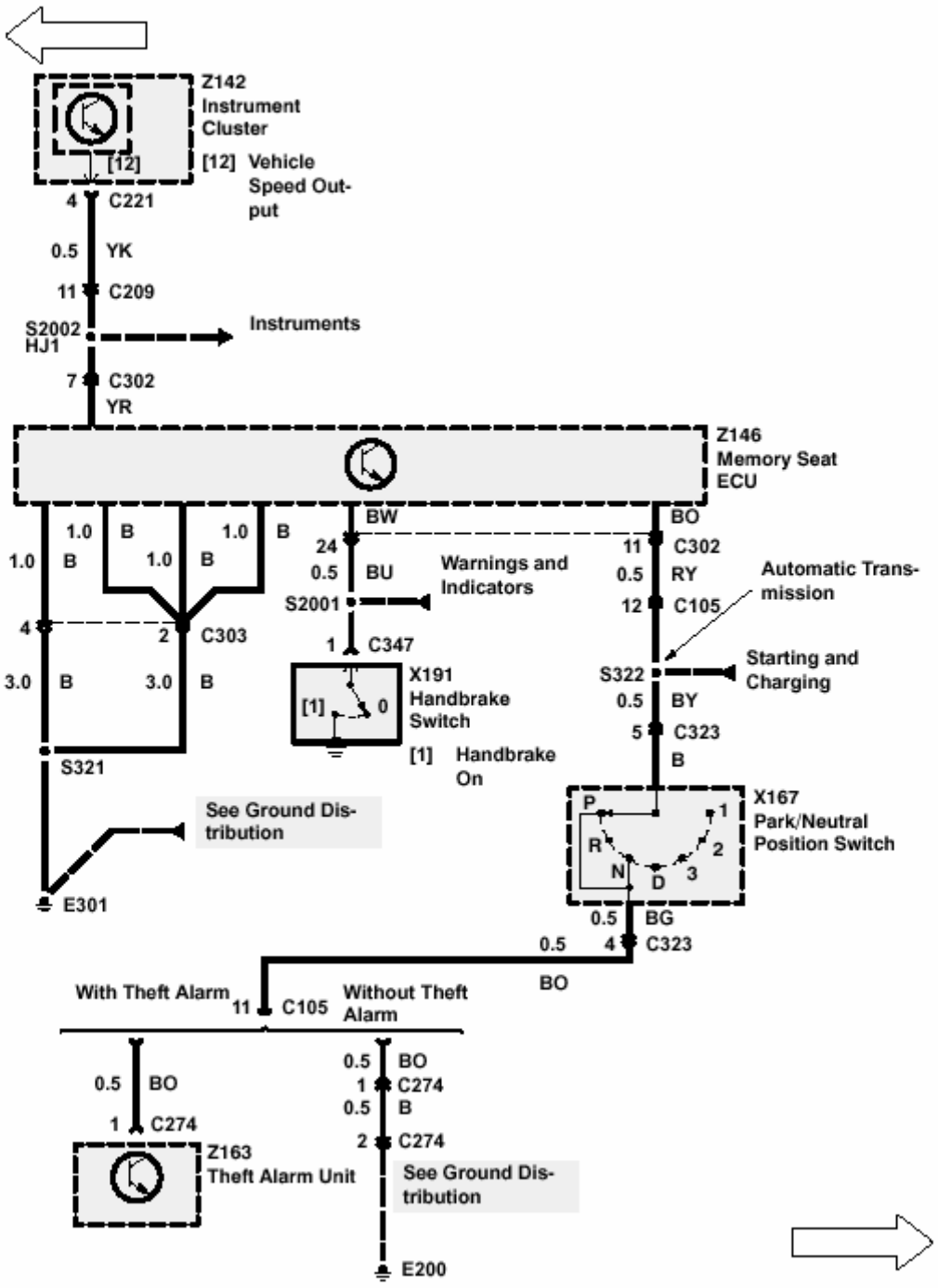
If a motor did not operate at all during the test sequence, that motor or its wiring is faulty. If a motor moves in a plane and then suddenly stops, a loss of the feedback position is indicated. Proceed to the System Diagnosis for further testing.


30
M F3
60 A
P125
Engine Compart-
ment Fuse Box
1
C115
See Power Dis-
tribution
S306
3.0
NP
3.0
NP
30
86
C348
30
86
87
85
K113
Left Seat Power
Relay
87
85
C348
Z148
Multi–Function
Unit (MFU)
3.0
NP
3.0
WN
0.5
PU
18
C205
driver's side
Z223
Left Seat Power
Relay Diode
0.5
PG
0.5
PG
0.5
PG
0.5
PU
A
M5-4
S2013
HJ3
P129
Driver's Under-
seat Fuse Box 1
F 4
3 A
F 2
30 A
F 3
30 A
3.0
WR
1
C508
0.7
WS
3.0
WY
X150
Left Front Door
Switch
[1]
0
[1] Open
9
C302
3
1
C303
WS
WN
WN
Z146
Memory Seat
ECU

M5 ETM

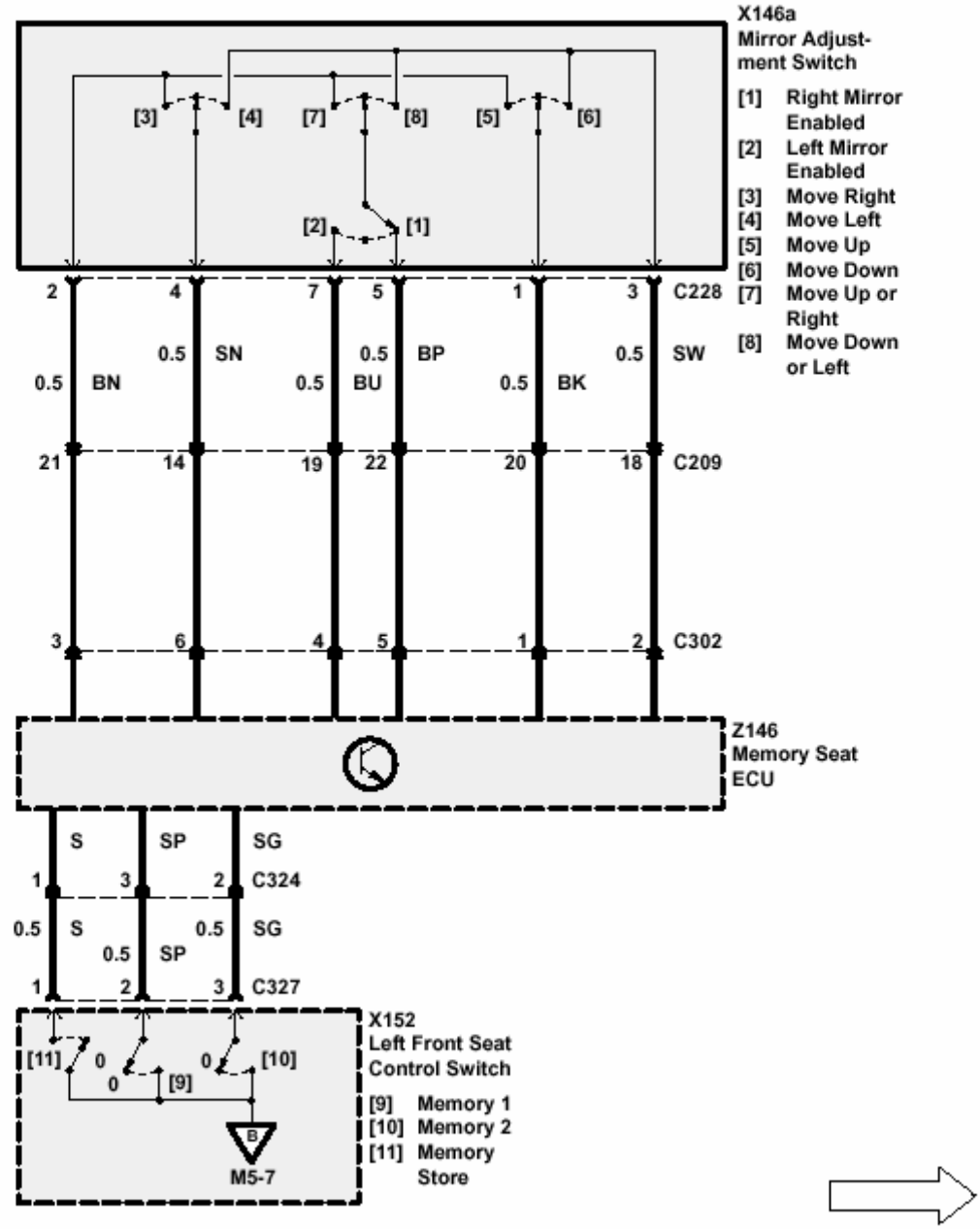
1995 RANGE ROVER

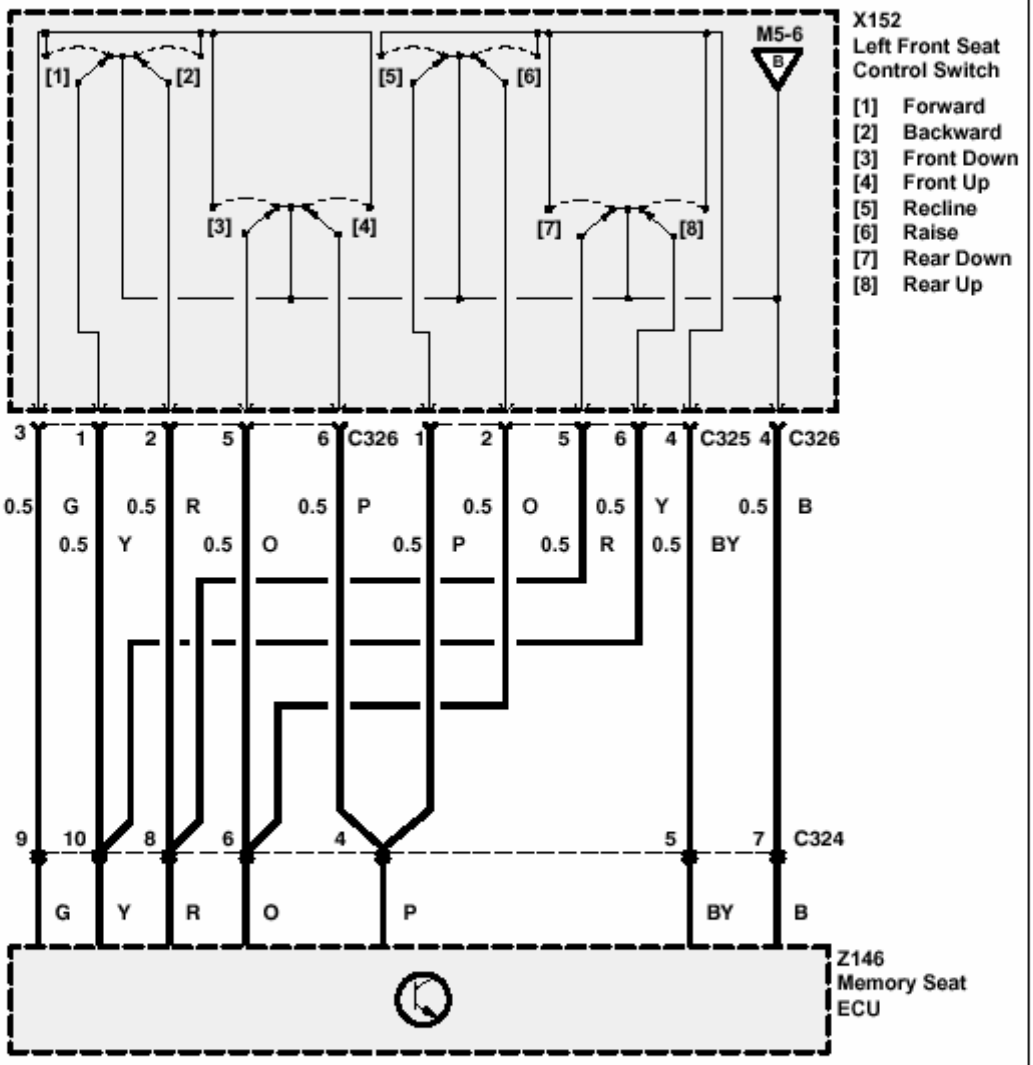



Z142
Instrument Cluster
[12]
[12] Vehicle Speed Output
4 C221
0.5 YK
11 C209
S2002 HJ1
Instruments
7 C302 YR
Z146
Memory Seat ECU
1.0 B
1.0 B
1.0 B
1.0 B
BW
BO
24
0.5 BU
Warnings and Indicators
S2001
1 C347
11 C302
0.5 RY
12 C105
Automatic Transmission
4
2 C303
3.0 B
3.0 B
X191
Handbrake Switch
[1]
0
[1] Handbrake On
S322
Starting and Charging
0.5 BY
5 C323
B
S321
See Ground Distribution
E301
X167
Park/Neutral Position Switch
P
R
N
D
1
2
3
0.5 BG
0.5 4 C323
BO
With Theft Alarm
11 C105
Without Theft Alarm
0.5 BO
1 C274
Z163
Theft Alarm Unit
0.5 BO
1 C274
0.5 B
2 C274
See Ground Distribution
E200

M5 ETM

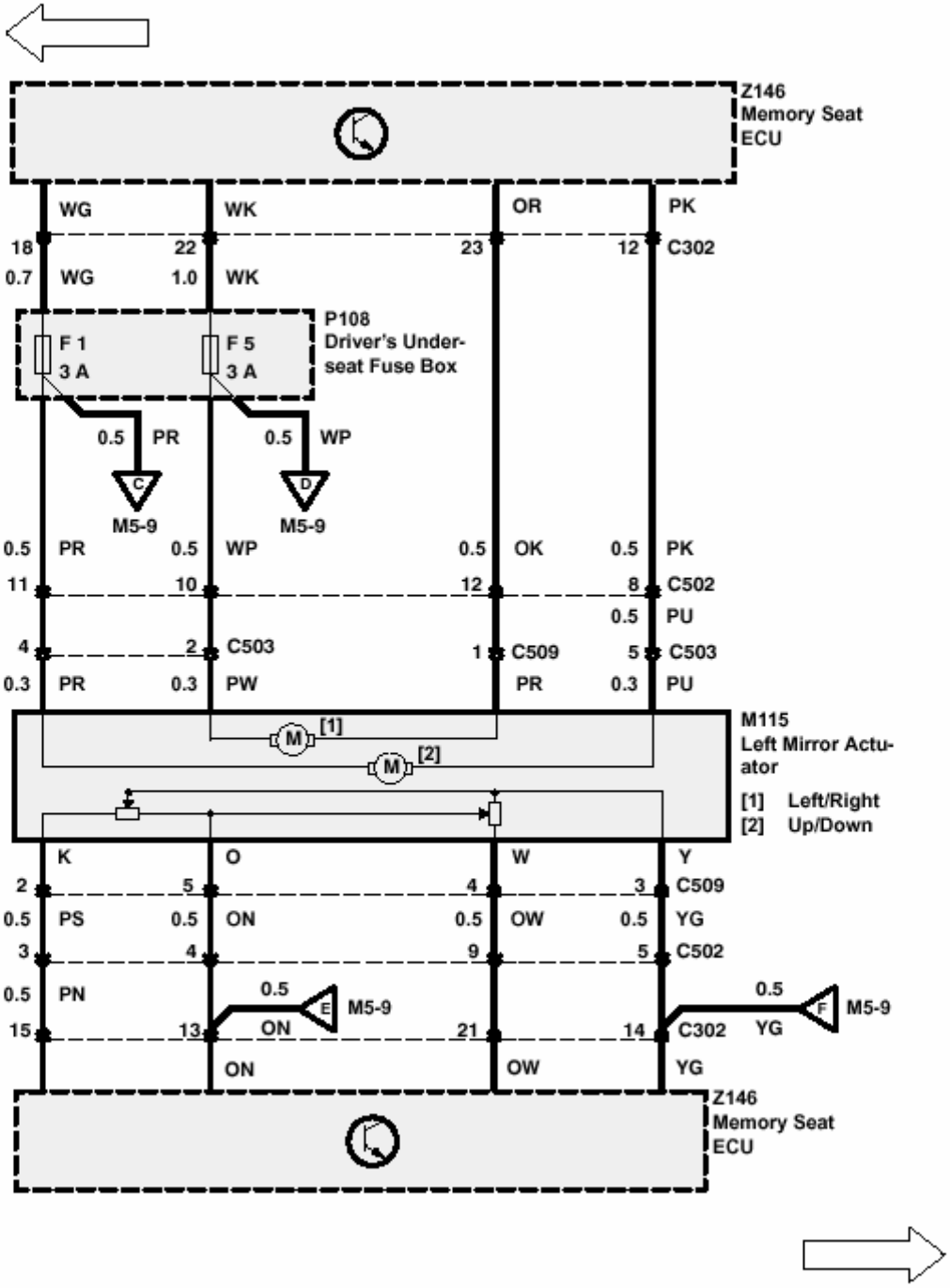
1995 RANGE ROVER

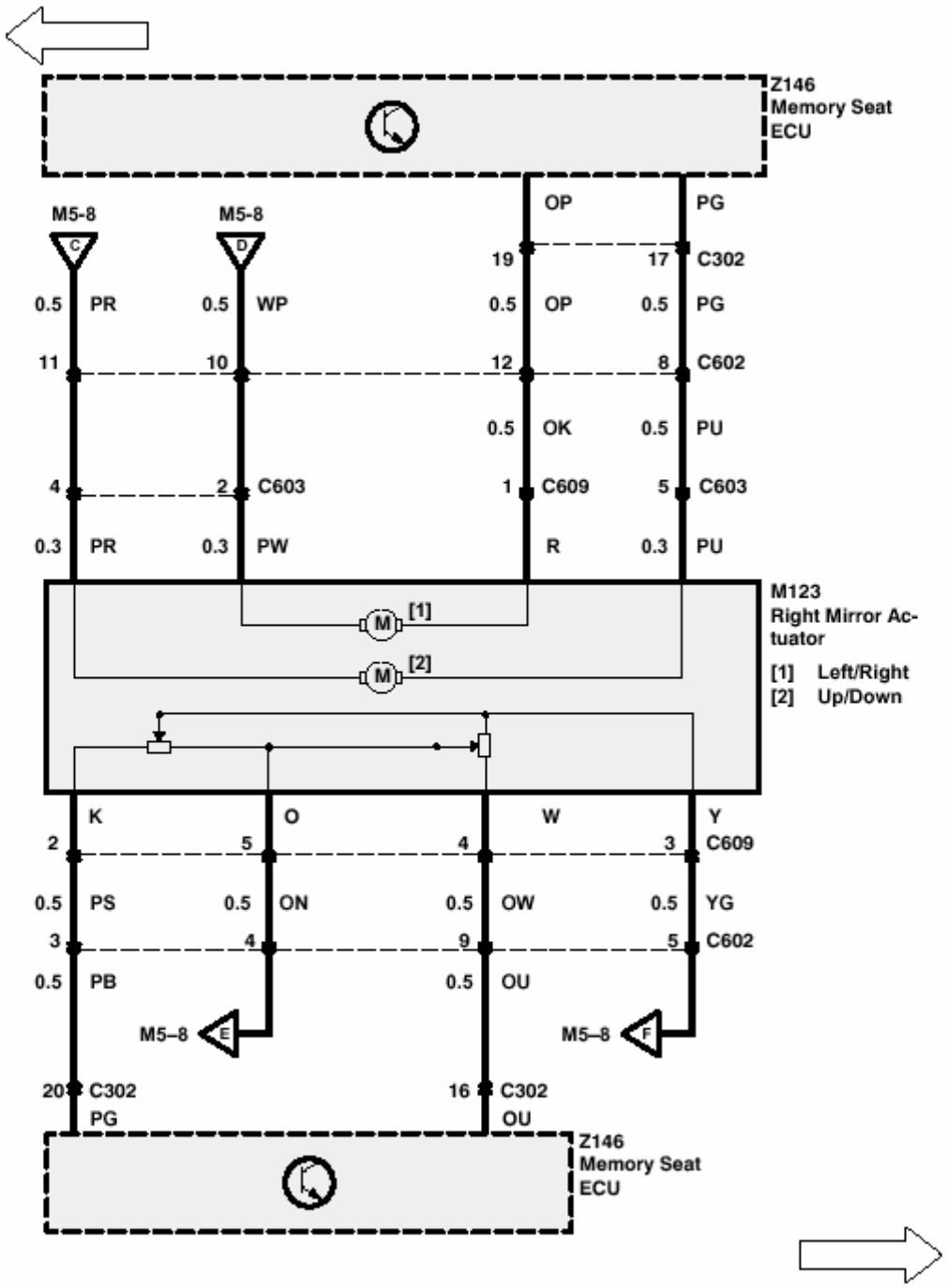



M5-6
B
[1]
[2]
[3]
[4]
[5]
[6]
[7]
[8]
X152
Left Front Seat
Control Switch
[1] Forward
[2] Backward
[3] Front Down
[4] Front Up
[5] Recline
[6] Raise
[7] Rear Down
[8] Rear Up
3 1 2 5 6 C326 1 2 5 6 4 C325 4 C326
0.5 G 0.5 R 0.5 P 0.5 O 0.5 Y 0.5 B
0.5 Y 0.5 O 0.5 P 0.5 R 0.5 BY
9 10 8 6 4 5 7 C324
G Y R O P BY B
Z146
Memory Seat
ECU

M5 ETM

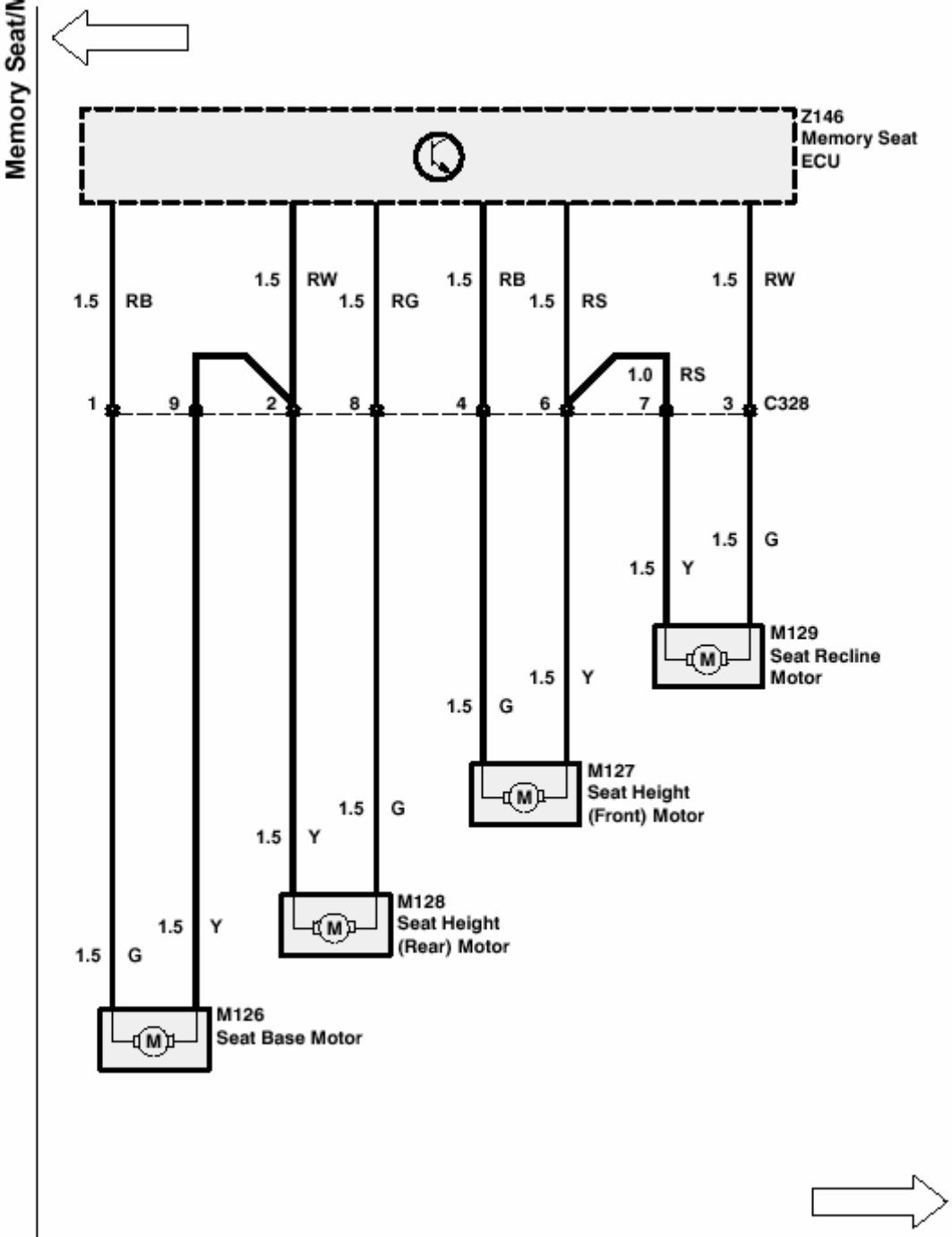
1995 RANGE ROVER

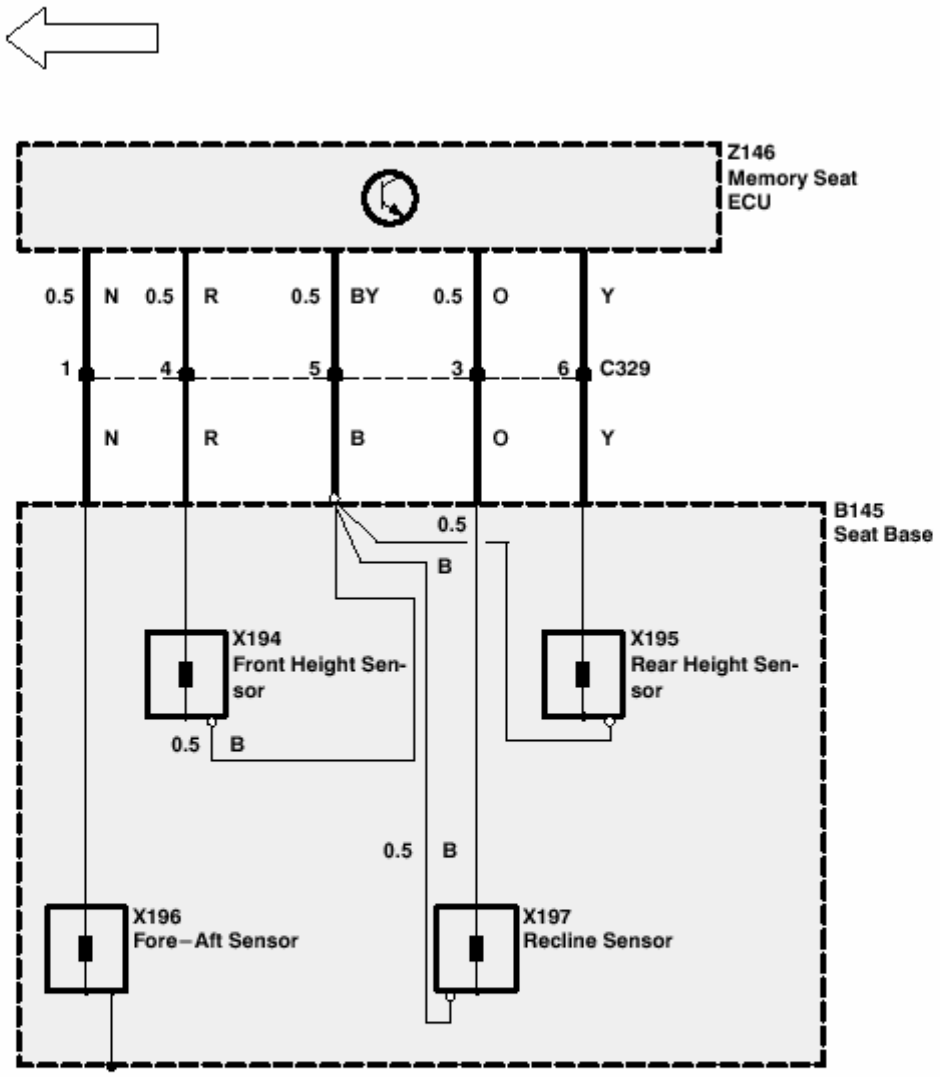



Z146
Memory Seat
ECU
M5-8
C
M5-8
D
OP
PG
19
17
C302
0.5 PR
0.5 WP
0.5 OP
0.5 PG
11
10
12
8
C602
0.5 OK
0.5 PU
4
2
C603
1
C609
5
C603
0.3 PR
0.3 PW
R
0.3 PU
M123
Right Mirror Actuator
[1] Left/Right
[2] Up/Down
M
[1]
M
[2]
K
O
W
Y
2
5
4
3
C609
0.5 PS
0.5 ON
0.5 OW
0.5 YG
3
4
9
5
C602
0.5 PB
0.5 OU
M5–8
E
M5–8
F
20
C302
PG
16
C302
OU
Z146
Memory Seat
ECU

M5 ETM

1995 RANGE ROVER

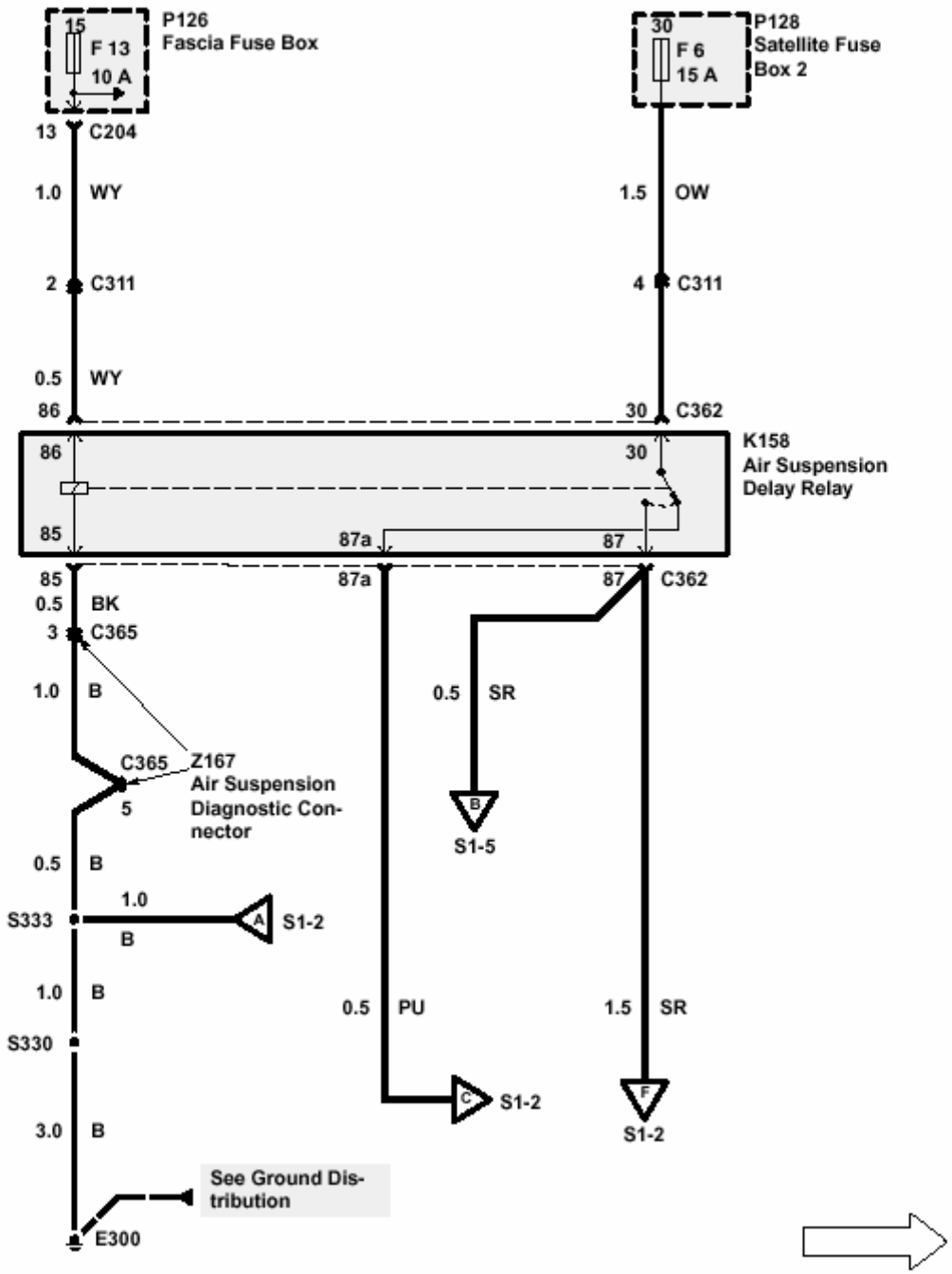



Z146
Memory Seat
ECU
0.5 N 0.5 R 0.5 BY 0.5 O Y
1 4 5 3 6 C329
N R B O Y
B145
Seat Base
0.5
B
X194
Front Height Sen-
sor
0.5 B
X195
Rear Height Sen-
sor
0.5 B
X196
Fore–Aft Sensor
X197
Recline Sensor

SYSTEM DIAGNOSIS

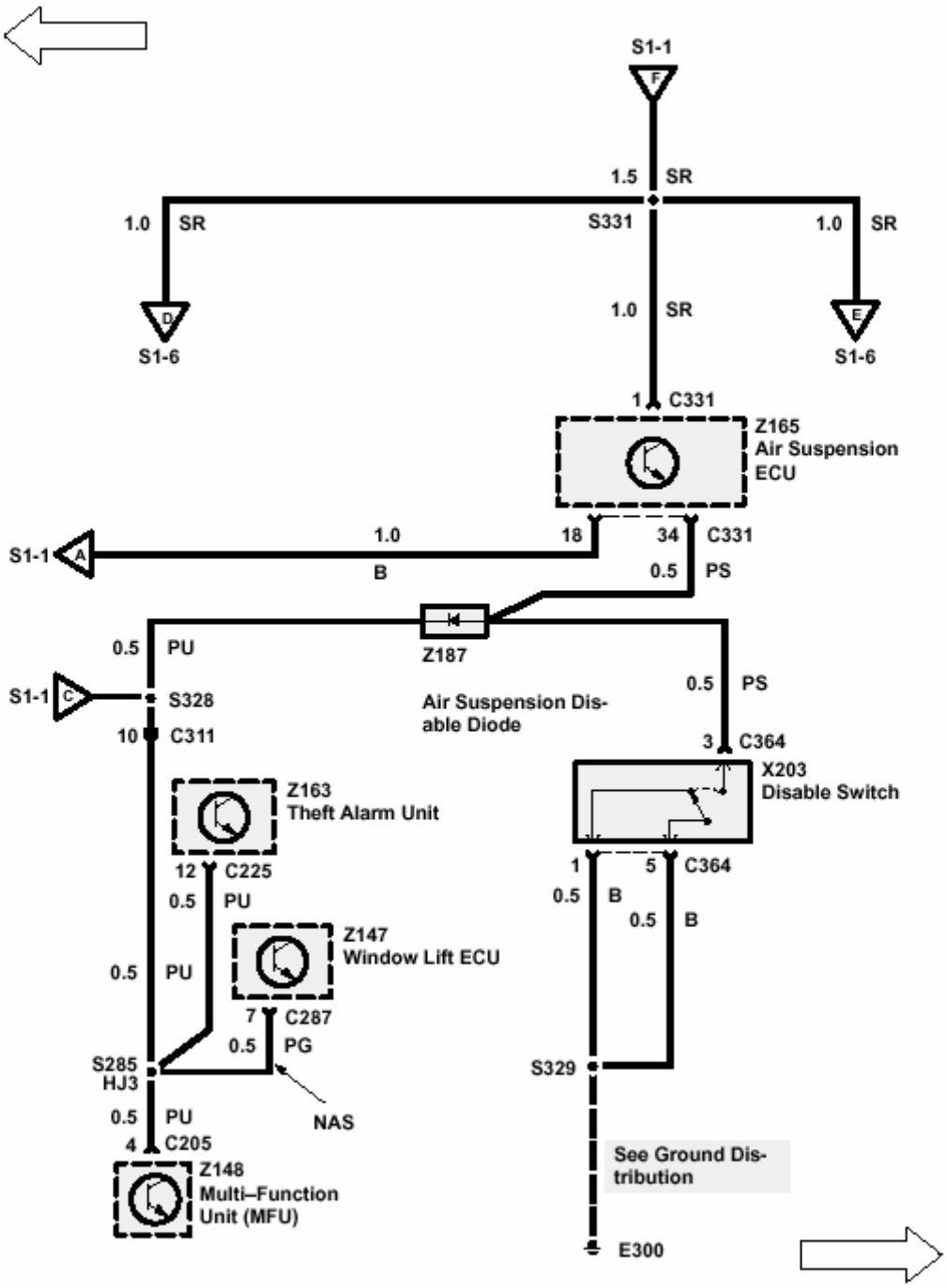
NOTE: Perform the Self Test before performing any diagnosis on the memory seats and mirrors.

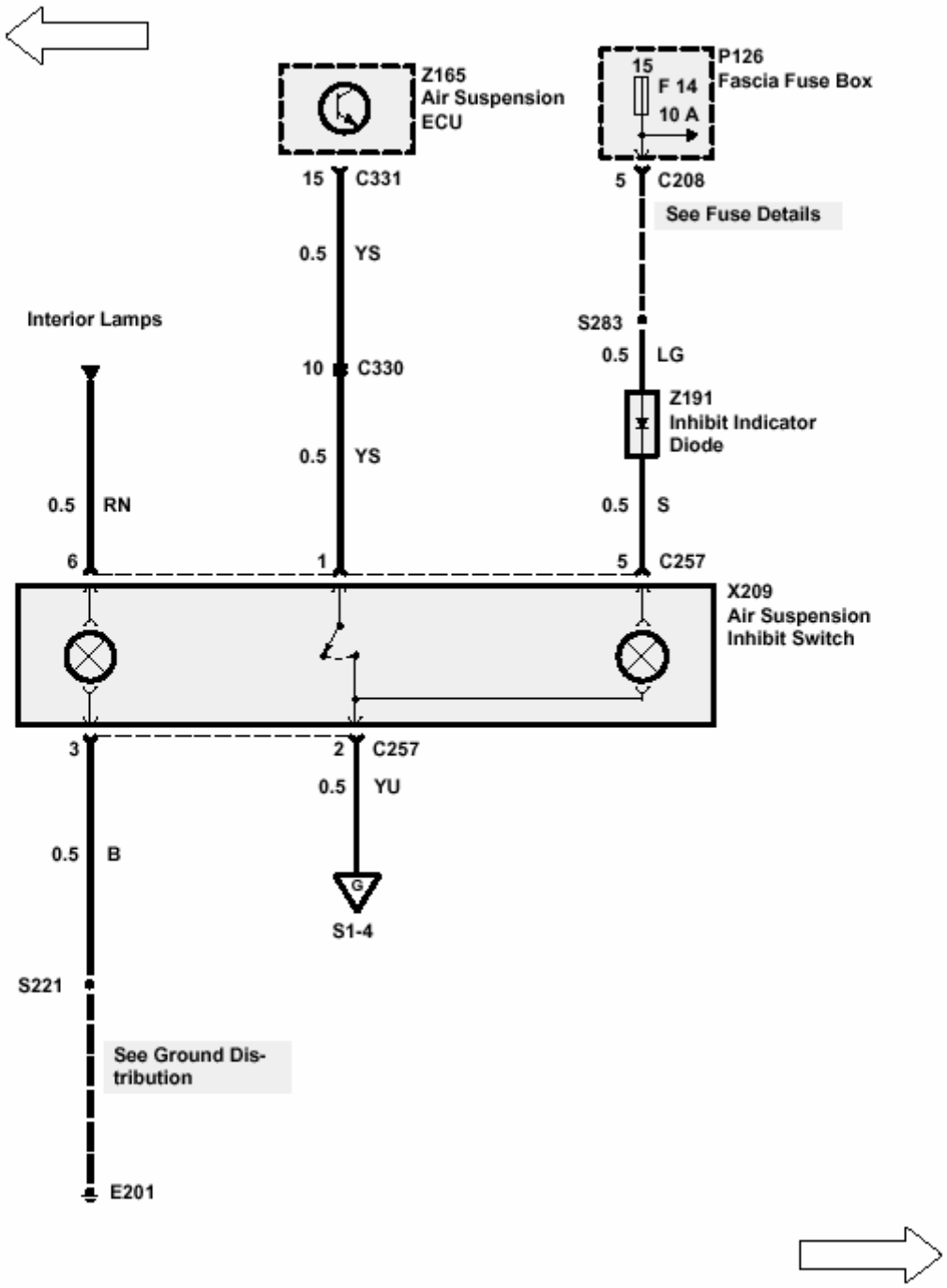
1. If the system will not perform the Self Test, do Test E, Left Front Seat Control Switch (X121) test.
2. If manual and memory seat functions are totally inoperative, check Maxi-Fuse® MF3 of the Engine Compartment Fuse Box (P125), and Fuses F2 and F3 of the Driver's Underseat Fuse Box (P108). Do Test A if the fuses are OK.
3. If the system does not retain memory seat or mirror positions, do Test A, Memory Seat ECU (Z146) power test.
4. If the memory seat system does not operate when the ignition is in position II and the handbrake is applied, do Test B (manual transmission) or Test C (automatic transmission).
5. If memory seat and mirror functions do not operate but the seat does operate in some modes manually, do Test E, Left Front Seat Control Switch (X121) test.
6. If all seat motors operate during the Self Test but do not operate when the Left Front Seat Control Switch (X121) is used, do Test F.
7. If all mirror motors operate during the Self Test but do not operate when the Mirror Adjustment Switch (X146) is used, do Test G.
8. If a seat motor moves during the Self Test and then stops, replace the defective seat sensor (X194, X195, X196, X197).
9. If a seat motor (M126, M127, M128, M129) does not move at all during the Self Test, do Test J.
10. If a mirror motor does not move at all during the Self Test, do Test K (Left Memory Mirror Actuator, M115) or Test L (Right Memory Mirror Actuator, M123).
11. If a mirror motor moves during the Self Test and then stops, do Test H (Left Memory Mirror Actuator, M115) or Test I (Right Memory Mirror Actuator, M123).


15
F 13
10 A
P126
Fascia Fuse Box
30
F 6
15 A
P128
Satellite Fuse
Box 2
13
C204
1.0
WY
1.5
OW
2
C311
4
C311
0.5
WY
86
30
C362
86
30
K158
Air Suspension
Delay Relay
85
87a
87
85
87a
87
C362
0.5
BK
3
C365
1.0
B
0.5
SR
C365
Z167
Air Suspension
Diagnostic Con-
nector
5
B
S1-5
0.5
B
1.0
S333
B
A
S1-2
1.0
B
0.5
PU
1.5
SR
S330
C
S1-2
F
S1-2
3.0
B
See Ground Dis-
tribution
E300

S1 ETM

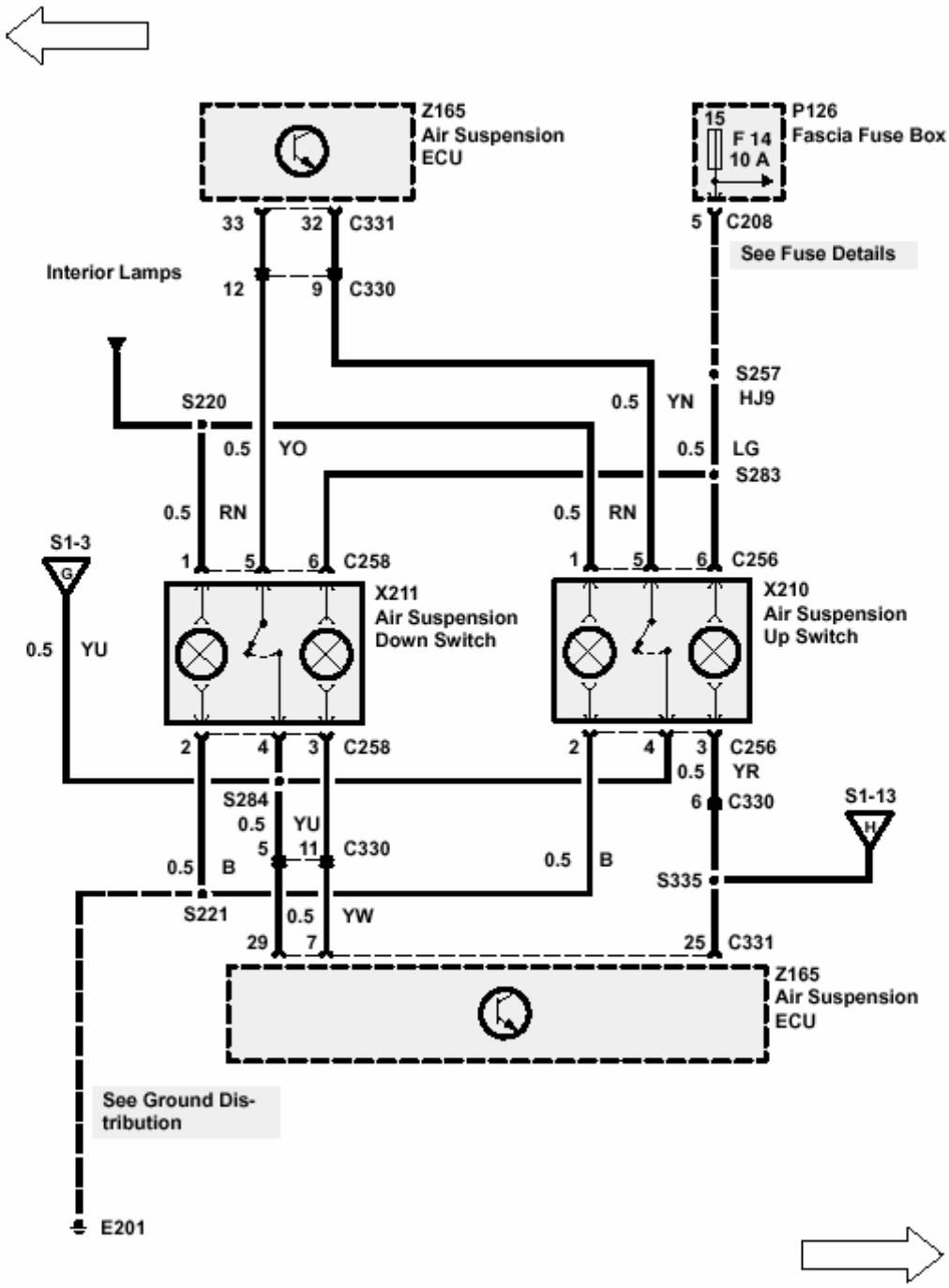
1995 RANGE ROVER

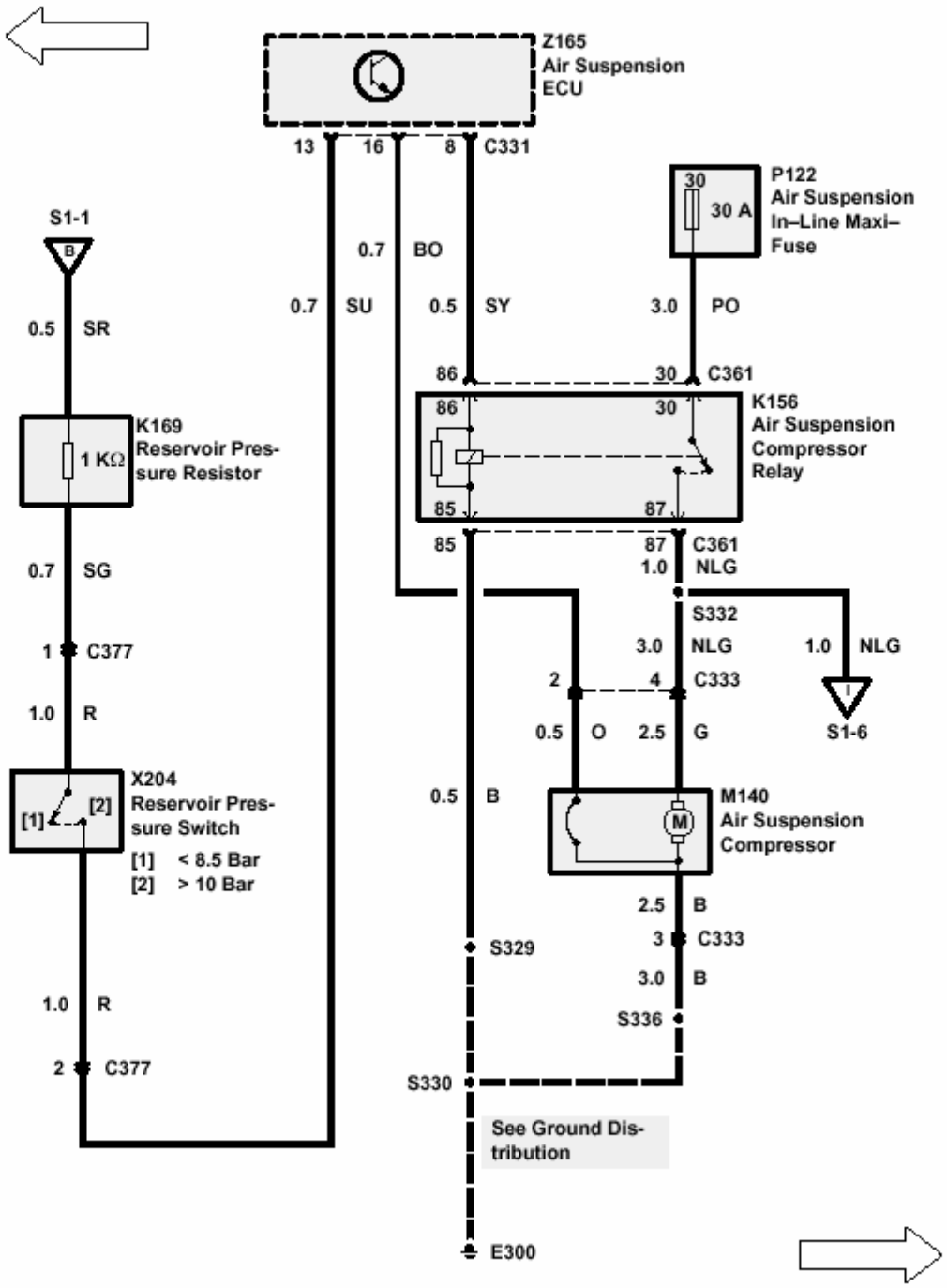



Z165
Air Suspension
ECU
15
C331
0.5
YS
10
C330
0.5
YS
15
F 14
10 A
P126
Fascia Fuse Box
5
C208
See Fuse Details
S283
0.5
LG
Z191
Inhibit Indicator
Diode
0.5
S
5
C257
Interior Lamps
0.5
RN
6
1
X209
Air Suspension
Inhibit Switch
3
2
C257
0.5
YU
0.5
B
G
S1-4
S221
See Ground Dis-
tribution
E201

S1 ETM

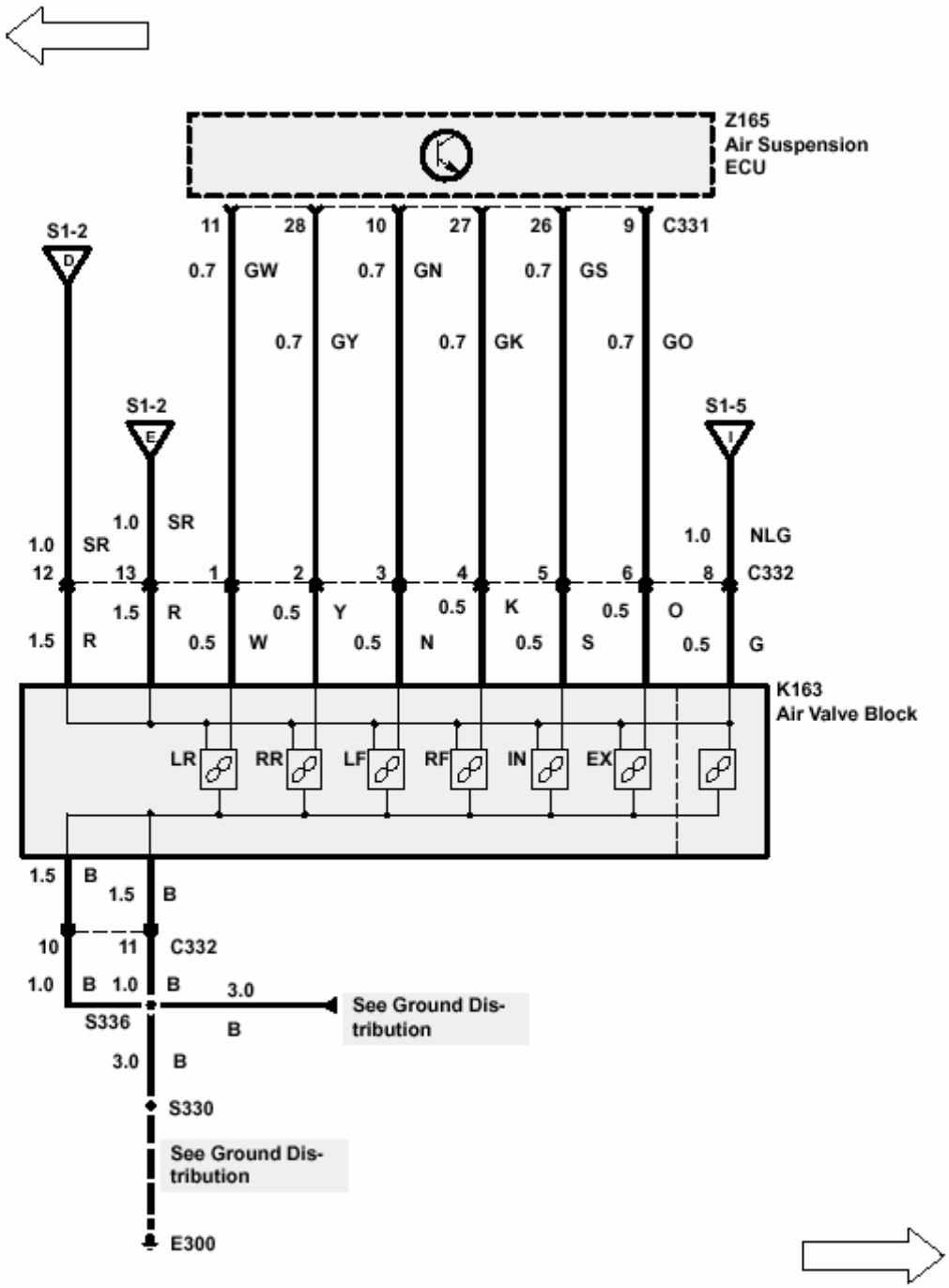
1995 RANGE ROVER

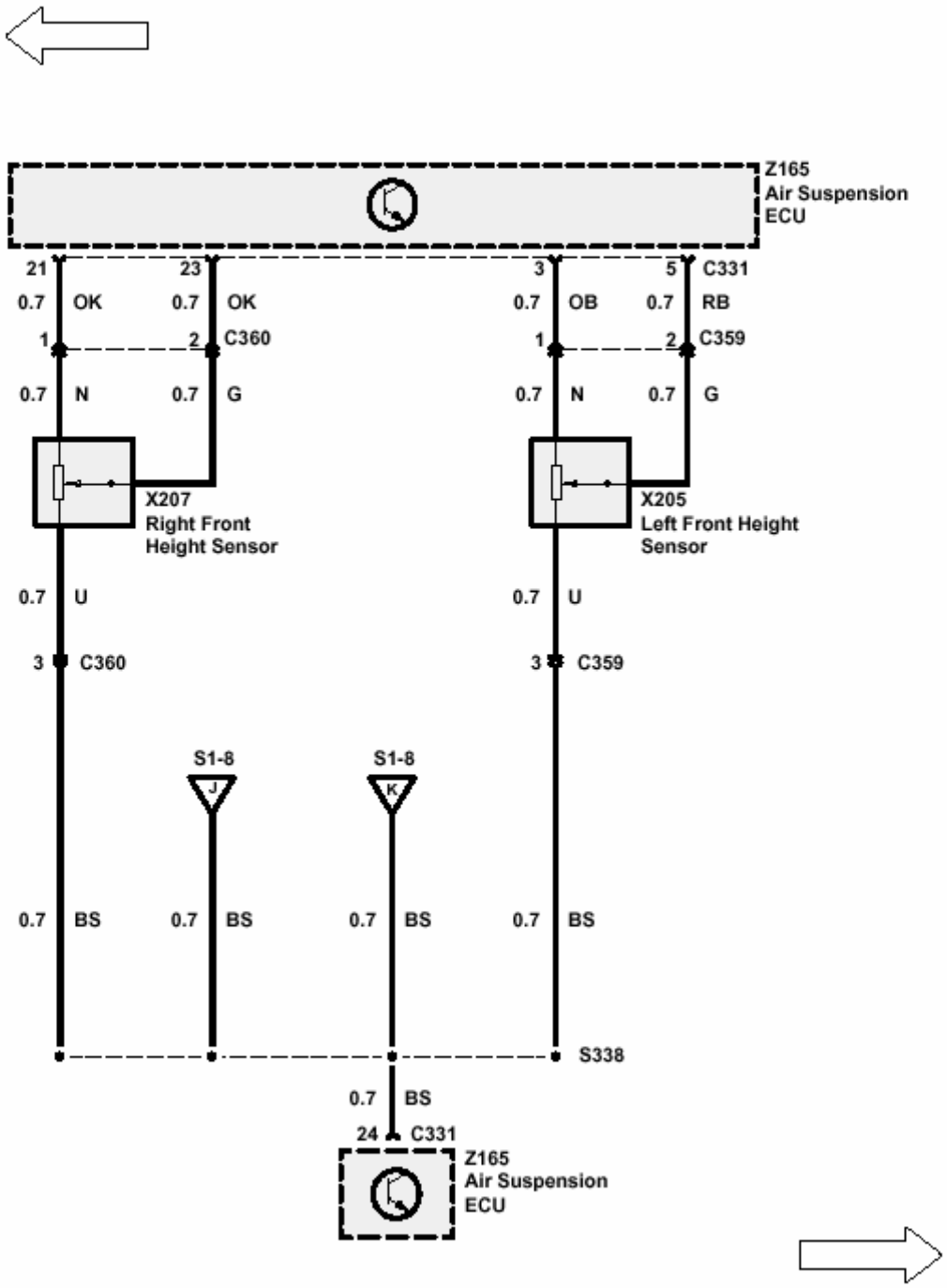



Z165
Air Suspension
ECU
13
16
8
C331
30
30 A
P122
Air Suspension
In–Line Maxi–
Fuse
S1-1
B
0.7
BO
0.7
SU
0.5
SY
3.0
PO
0.5
SR
86
30
C361
K169
Reservoir Pres-
sure Resistor
1 KΩ
86
30
K156
Air Suspension
Compressor
Relay
85
87
85
87
C361
1.0
NLG
0.7
SG
S332
3.0
NLG
1.0
NLG
1
C377
2
4
C333
1.0
R
0.5
O
2.5
G
I
S1-6
X204
Reservoir Pres-
sure Switch
[1]
[2]
[1] < 8.5 Bar
[2] > 10 Bar
0.5
B
M
M140
Air Suspension
Compressor
2.5
B
S329
3
C333
3.0
B
S336
1.0
R
2
C377
S330
See Ground Dis-
tribution
E300

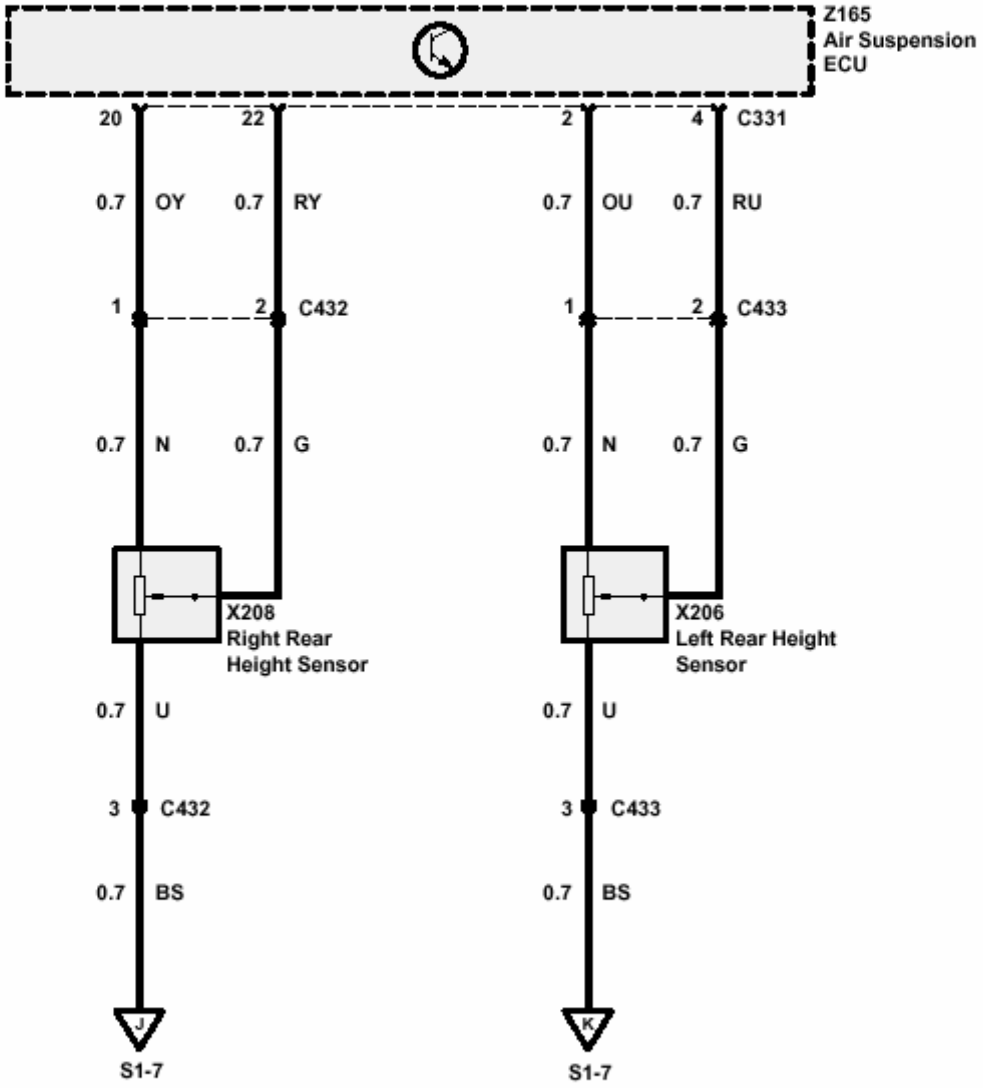
S1 ETM

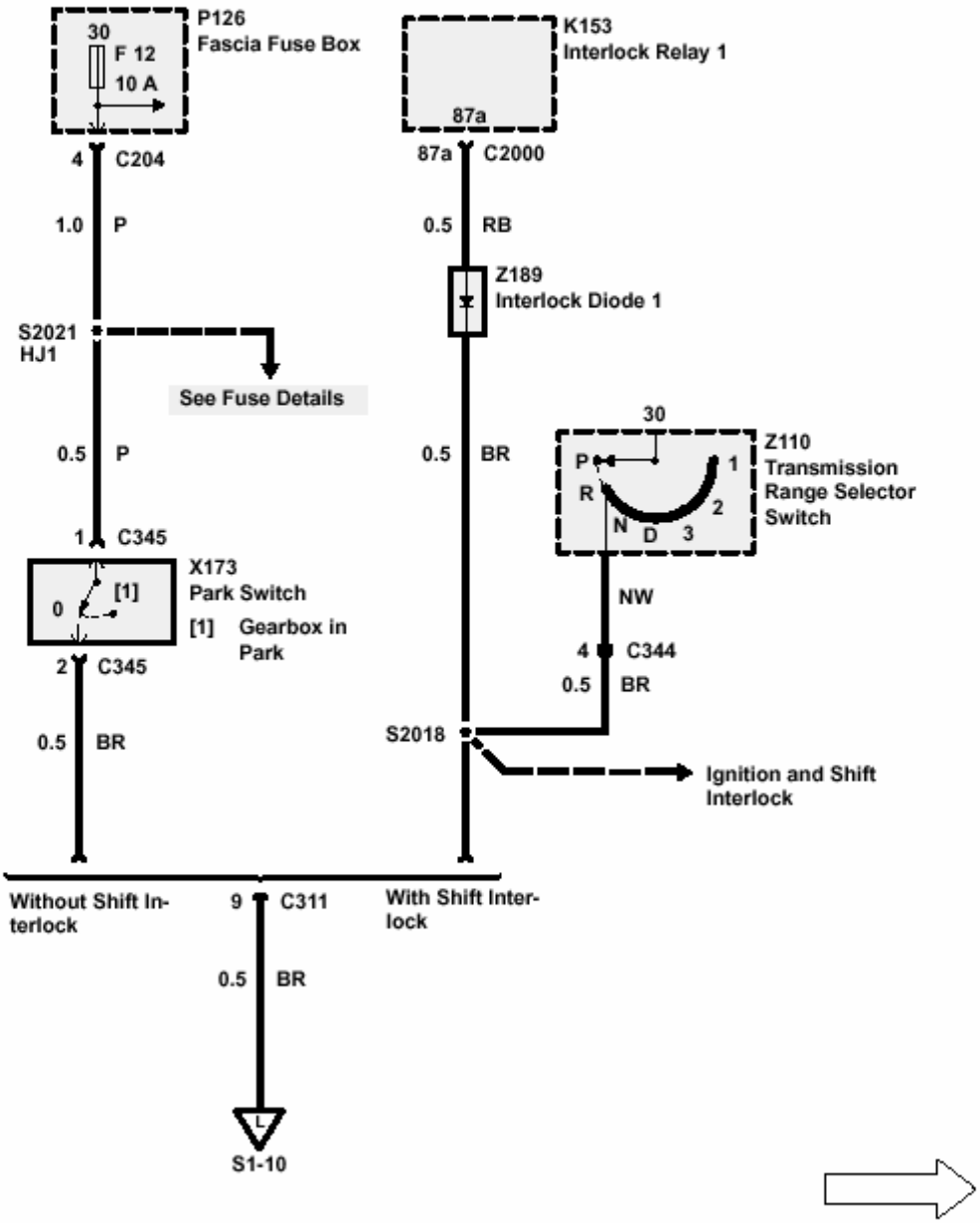
1995 RANGE ROVER




Z165
Air Suspension
ECU
21
23
3
5
C331
0.7 OK
0.7 OK
0.7 OB
0.7 RB
1
2
C360
1
2
C359
0.7 N
0.7 G
0.7 N
0.7 G
X207
Right Front
Height Sensor
X205
Left Front Height
Sensor
0.7 U
0.7 U
3 C360
3 C359
S1-8
J
S1-8
K
0.7 BS
0.7 BS
0.7 BS
0.7 BS
S338
0.7 BS
24 C331
Z165
Air Suspension
ECU

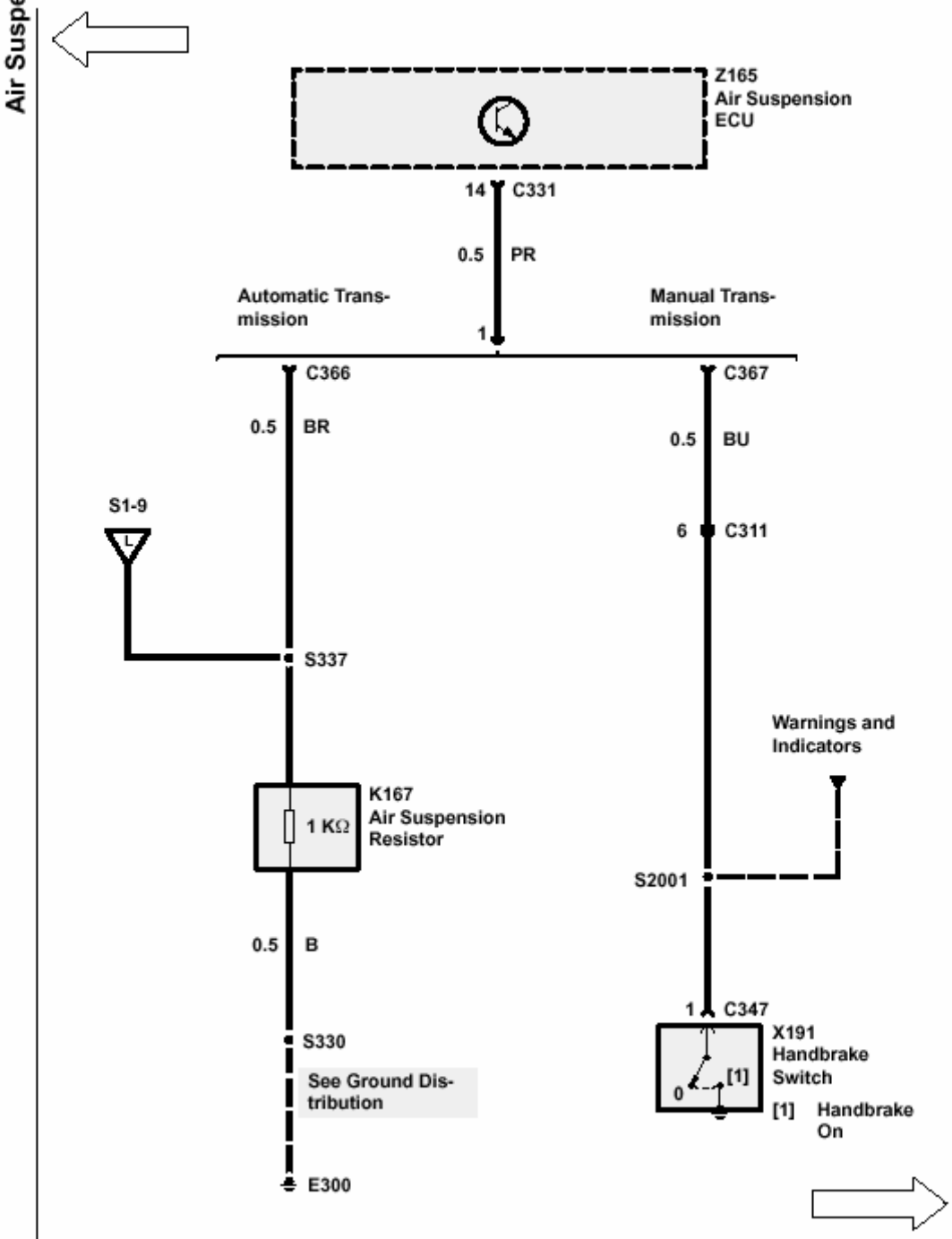
1995 RANGE ROVER

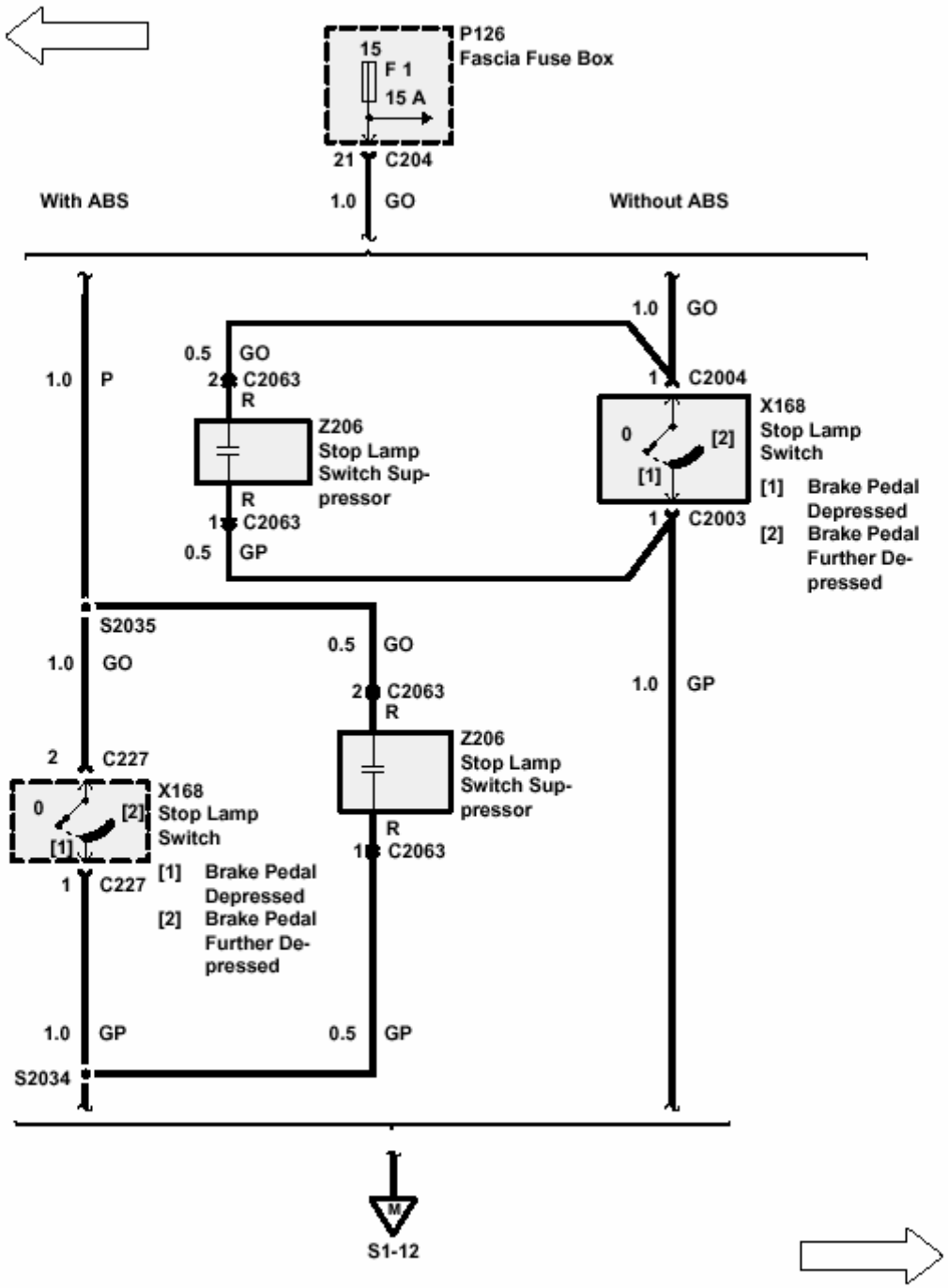


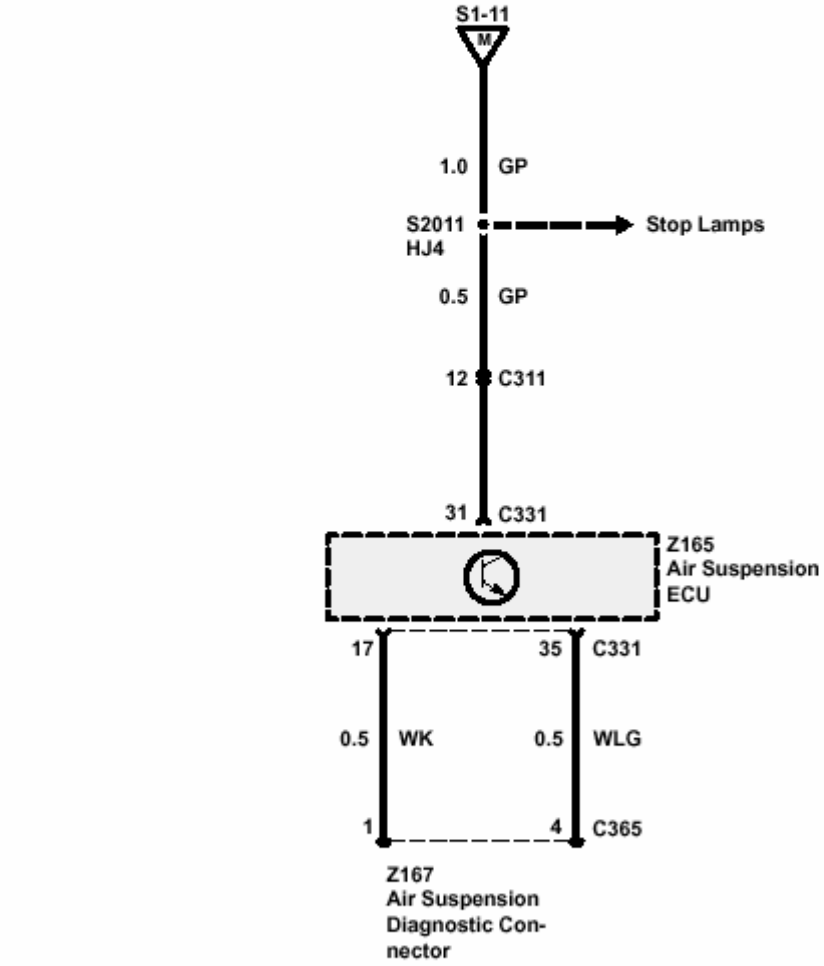

P126
Fascia Fuse Box
30
F 12
10 A
4
C204
1.0
P
S2021
HJ1
See Fuse Details
0.5
P
1
C345
X173
Park Switch
[1]
0
[1] Gearbox in Park
2
C345
0.5
BR
K153
Interlock Relay 1
87a
87a
C2000
0.5
RB
Z189
Interlock Diode 1
0.5
BR
30
Z110
Transmission
Range Selector
Switch
P
R
N
D
1
2
3
NW
4
C344
0.5
BR
S2018
Ignition and Shift Interlock
Without Shift Interlock
9
C311
With Shift Interlock
0.5
BR
S1-10

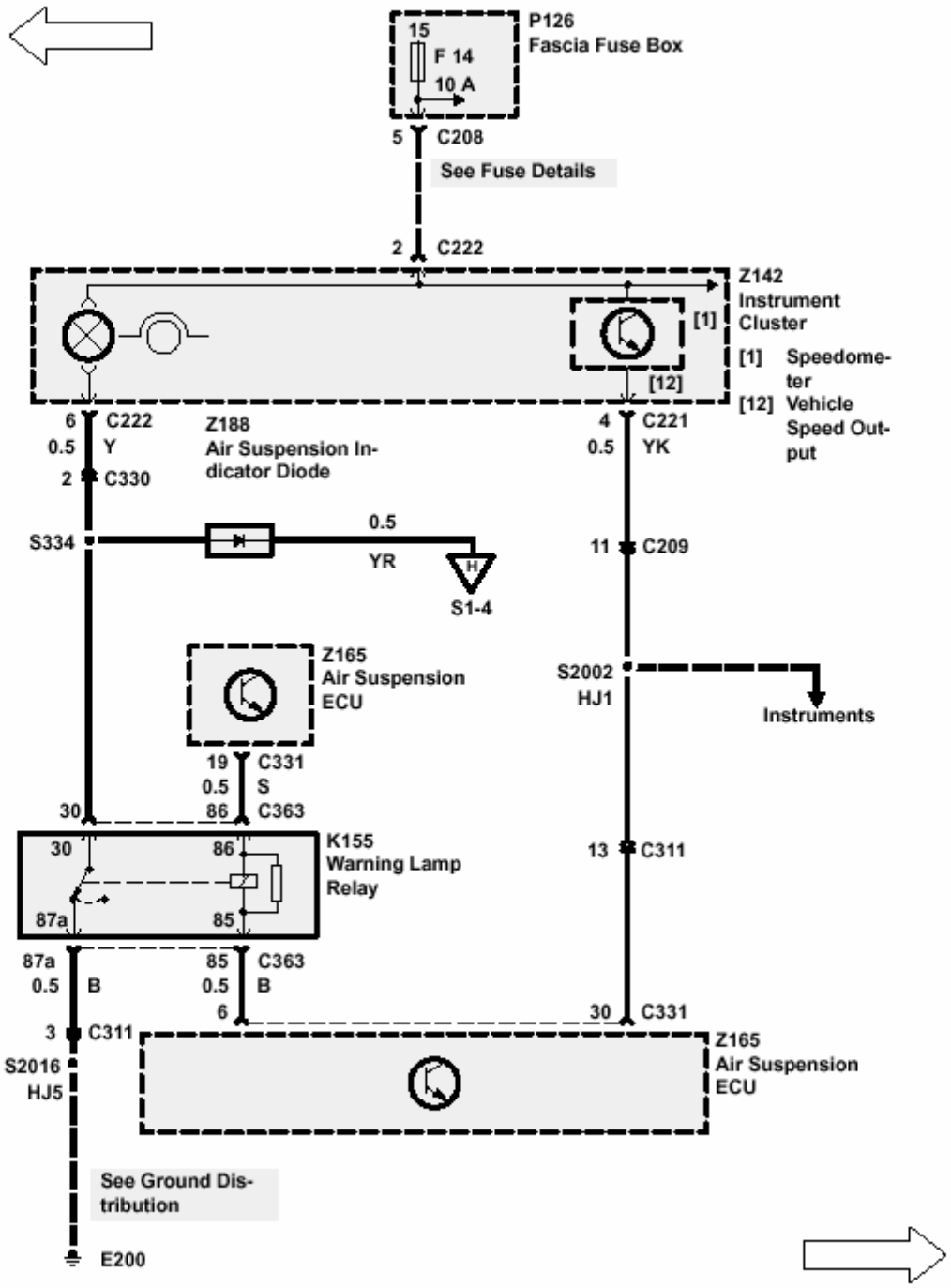
S1 ETM

1995 RANGE ROVER




P126
Fascia Fuse Box
15
F 1
15 A
21 C204
With ABS
1.0 GO
Without ABS
1.0 GO
1.0 P
0.5 GO
2 C2063
R
Z206
Stop Lamp
Switch Sup-
pressor
R
1 C2063
0.5 GP
1 C2004
X168
Stop Lamp
Switch
0
[2]
[1]
[1] Brake Pedal
Depressed
[2] Brake Pedal
Further De-
pressed
1 C2003
S2035
1.0 GO
0.5 GO
2 C2063
R
Z206
Stop Lamp
Switch Sup-
pressor
R
1 C2063
1.0 GP
2 C227
X168
Stop Lamp
Switch
0
[2]
[1]
1 C227
[1] Brake Pedal
Depressed
[2] Brake Pedal
Further De-
pressed
1.0 GP
0.5 GP
S2034
M
S1-12


S1-11
M
1.0
GP
S2011
HJ4
Stop Lamps
0.5
GP
12
C311
31
C331
Z165
Air Suspension
ECU
17
35
C331
0.5
WK
0.5
WLG
1
4
C365
Z167
Air Suspension
Diagnostic Con-
nector


P126
Fascia Fuse Box
15
F 14
10 A
5 C208
See Fuse Details
2 C222
Z142
Instrument
Cluster
[1]
[12]
[1] Speedometer
[12] Vehicle Speed Output
6 C222
0.5 Y
2 C330
Z188
Air Suspension Indicator Diode
4 C221
0.5 YK
S334
0.5
YR
S1-4
11 C209
Z165
Air Suspension
ECU
S2002
HJ1
Instruments
19 C331
0.5 S
30 86 C363
30
86
K155
Warning Lamp
Relay
87a
85
13 C311
87a
0.5 B
85 C363
0.5 B
6
30 C331
3 C311
S2016
HJ5
Z165
Air Suspension
ECU
See Ground Distribution
E200

S1 ETM

1995 RANGE ROVER