1986 BMW 528e/535i Electrical Troubleshooting Manual

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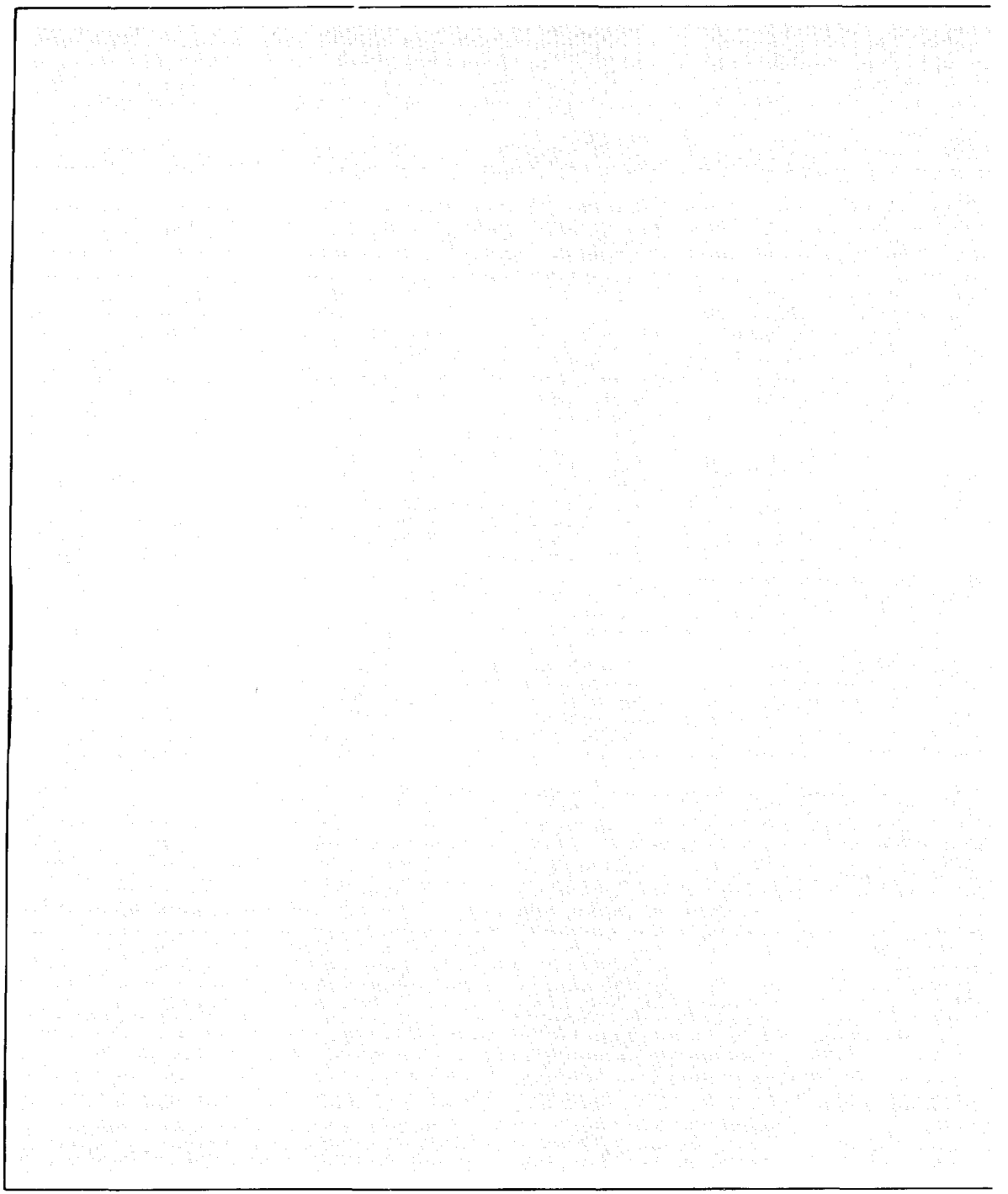
BMW of North America, Inc.
Montvale, New Jersey

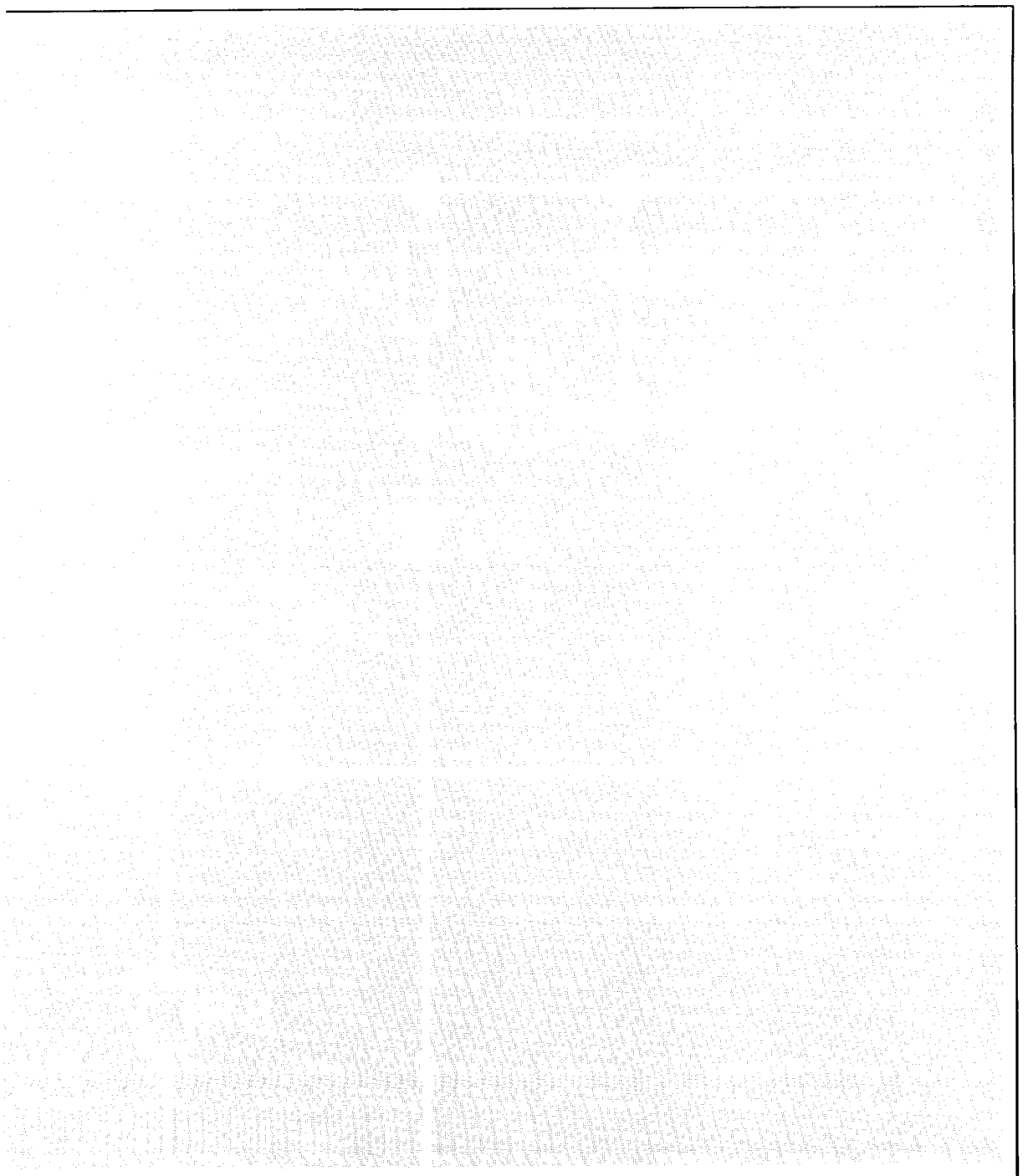
FOREWORD

In the interests of continuing technical development work we reserve the right to modify designs and equipment.

Printed in USA

PN 89 89 1 000 173





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The purpose of this manual is to show electrical schematics in a manner that makes electrical troubleshooting easier. Electrical components which work together are shown together on one schematic. The Wiper-Washer schematic, for example, shows all of the electrical components in one diagram. At the top of the page is the fuse (positive) that powers the circuit. The flow of current is shown through all wires, connectors, switches, and motors to ground (negative) at the bottom of the page.

Within the schematic, all switches and sensors are shown "at rest," as though the Ignition Switch were off. For identification, component names are underlined and placed next to or above each component. Notes are included, describing how switches and other components work.

The power distribution schematic shows the current feed through all the connections from the Battery and Alternator to each fuse and the Ignition and Light Switches. If the Power Distribution schematic is combined with any other circuit schematic, a complete picture is made of how that circuit works. The Ground Distribution schematics show how several circuits are connected to common grounds.

All wiring between components is shown exactly as it exists in the vehicle; however, the wiring is not drawn to scale. To aid in understanding electrical operation, wiring inside complicated components has been simplified. The "Solid State" label designates electronic components.

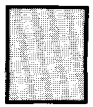
WIRE SIZE CONVERSION CHART

METRIC (CROSSECTIONAL AREA IN MM²)	AWG (AMERICAN WIRE GAUGE)
.5	20
.75	18
1	16
1.5	14
2	14
2.5	12
4	10
6	8
8	8
16	4
20	4
25	2
32	2

WIRE INSULATION

ABBREVIATIONS	COLOR
BK	BLACK
BR	BROWN
RD	RED
YL	YELLOW
GN	GREEN
BU	BLUE
VI	VIOLET
GY	GRAY
WT	WHITE
PK	PINK

4 SYMBOLS

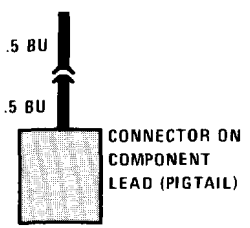


ENTIRE COMPONENT SHOWN

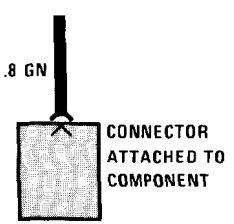
PART OF A COMPONENT SHOWN

COMPONENT WITH SCREW TERMINALS

SOLID STATE (INCLUDES ONLY ELECTRONIC PARTS)

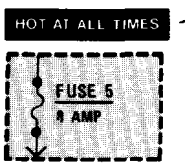


CONNECTOR ON COMPONENT LEAD (PIGTAIL)

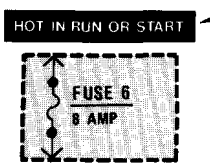


CONNECTOR ATTACHED TO COMPONENT

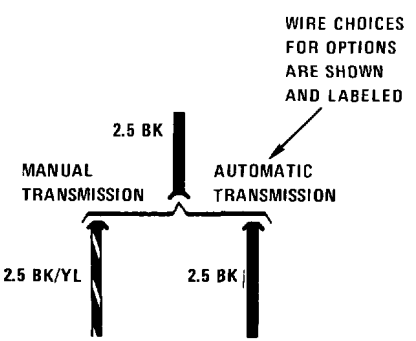
COMPONENT CASE IS DIRECTLY ATTACHED TO METAL PART OF CAR (GROUNDED)

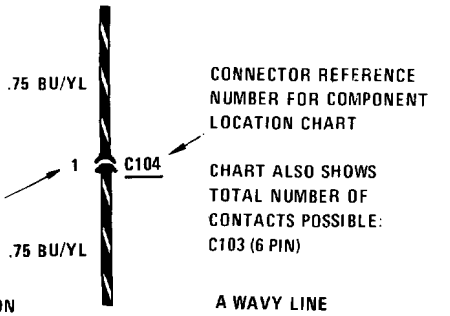


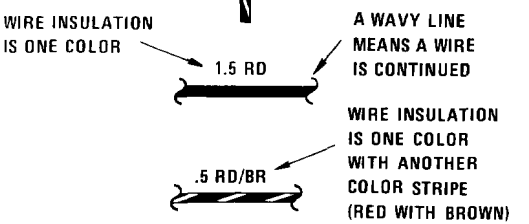
INDICATES THAT FUSE 5 IS ALWAYS SUPPLIED WITH POWER

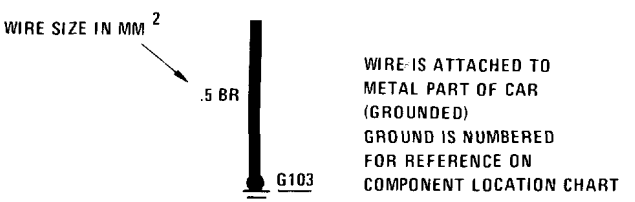


INDICATES THAT FUSE 6 IS SUPPLIED WITH POWER WITH THE IGNITION SWITCH IN THE RUN OR START POSITIONS

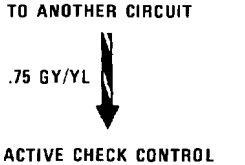


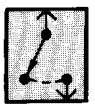




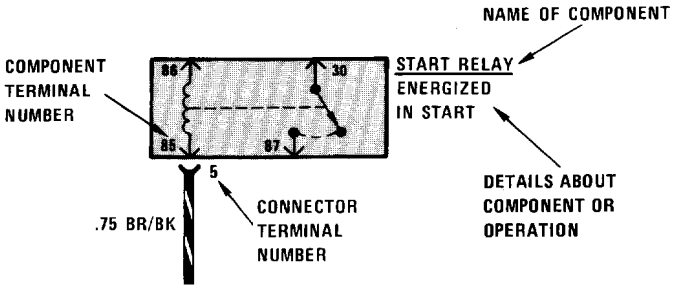


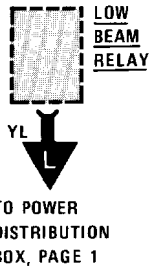
DIODE
CURRENT CAN FLOW ONLY IN THE DIRECTION OF THE ARROW

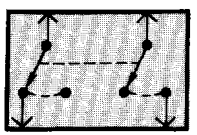




ONE POLE,
TWO POSITION
SWITCH



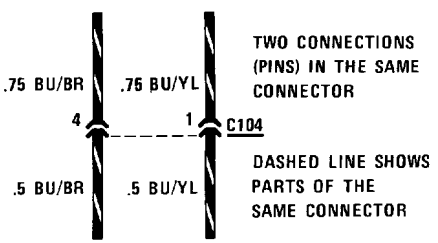




SWITCHES THAT
MOVE TOGETHER

DASHED LINE SHOWS
A MECHANICAL
CONNECTION
BETWEEN SWITCHES

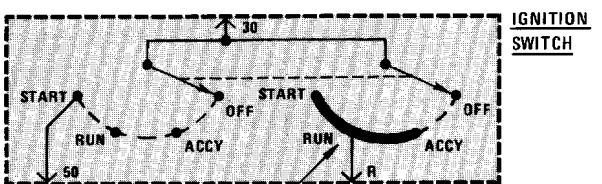
CURRENT PATH
IS CONTINUED
AS LABELED.
THE ARROW SHOWS
DIRECTION OF CURRENT
FLOW AND IS REPEATED
WHERE CURRENT
PATH CONTINUES.



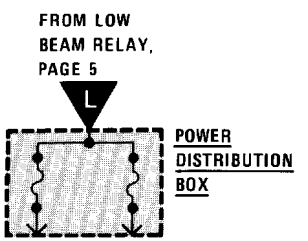
TWO CONNECTIONS
(PINS) IN THE SAME
CONNECTOR

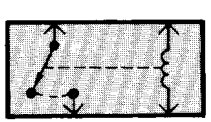
DASHED LINE SHOWS
PARTS OF THE
SAME CONNECTOR

TWO POLE, FOUR
POSITION SWITCH



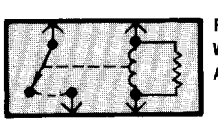
"R" IS ENERGIZED
IN ACCY, RUN OR START





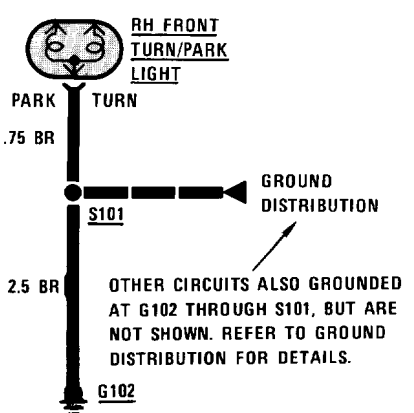
RELAY SHOWN
WITH NO
CURRENT
FLOWING
THROUGH
COIL

WHEN COIL IS
ENERGIZED, SWITCH
IS PULLED CLOSED



RELAY SHOWN
WITH RESISTOR
ACROSS COIL

RESISTOR ACROSS COIL
IS FOR NOISE
SUPPRESSION



LIGHT
EMITTING
DIODE

TROUBLESHOOTING PROCEDURE

1. Verify the Problem

Operate the problem circuit to check the accuracy of the complaint. Note the symptoms of the inoperative circuit.

2. Analyze the Problem

Refer to the schematic of the problem circuit in the ETM. Determine how the circuit is supposed to work by tracing the current path(s) from the power feed through the circuit components to ground. Then based on the symptoms you noted in step 1 and your understanding of circuit operation, identify one or more possible causes of the problem.

3. Isolate the Problem

Make circuit tests to prove or disprove the preliminary diagnosis made in step 2. Keep in mind that a logical simple procedure is the key to efficient troubleshooting. Test for the most likely cause of failure first. Try to make tests at points which are easily accessible.

4. Repair the Problem

Once the specific problem is identified, make the repair using the proper tools and safe procedures.

5. Check the Problem

Operate the circuit to check for satisfactory circuit operation. Good repair practice calls for rechecking all circuits you have worked on.

TROUBLESHOOTING TOOLS

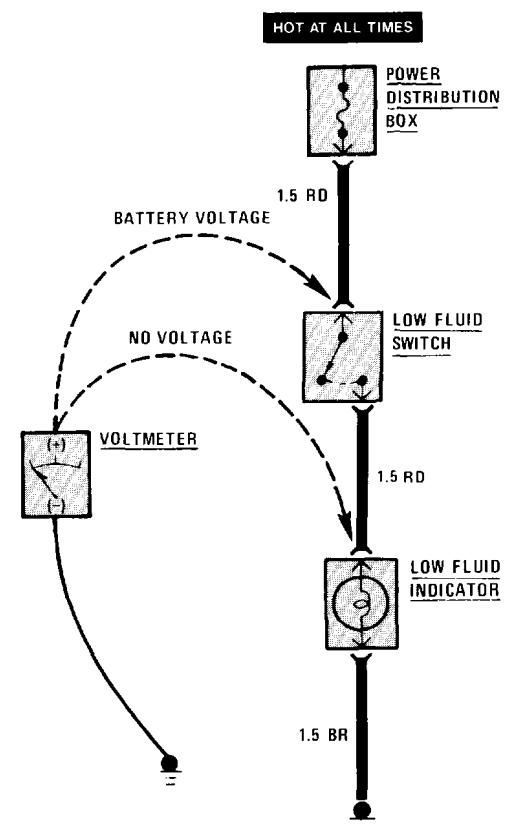
Isolating the problem (Step 3 of TROUBLESHOOTING PROCEDURES) requires the use of a **voltmeter** and/or **ohmmeter**. A voltmeter measures voltage at selected points in a circuit. An ohmmeter measures a circuit's resistance to current flow. It has an internal battery that provides current to the circuit under test. Disconnect the car battery when using an ohmmeter because the battery voltage will cause the ohmmeter to give false readings. Also, do not use an ohmmeter on solid-state components. The voltage that the ohmmeter applies to the circuit could damage these components.

TROUBLESHOOTING TESTS

Voltage Test

This test measures voltage in a circuit. By taking measurements at several points (terminals or connectors) along the circuit, you can isolate the problem.

To take a voltage measurement, connect the negative lead of the voltmeter to the battery's negative terminal or other known good ground. Then connect the positive lead of the voltmeter to the point you want to test. The voltmeter will measure the voltage present at that point in the circuit.

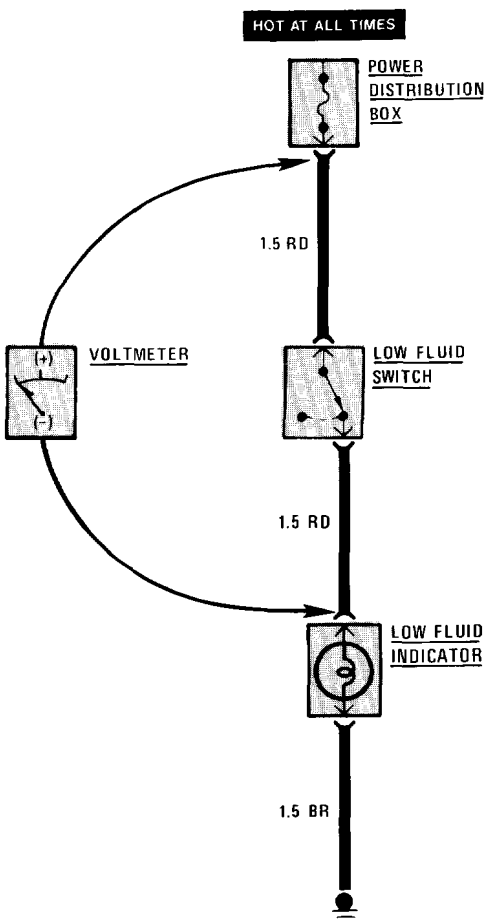


Voltage Test

Voltage Drop Test

Wires, connectors, and switches are designed to conduct current with a minimum loss of voltage. A voltage drop of more than one volt indicates a problem.

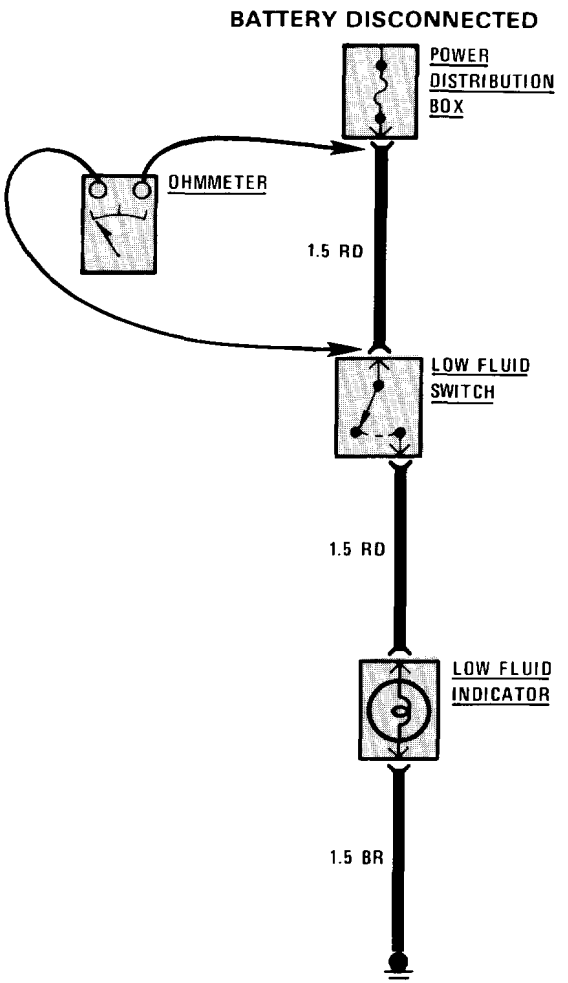
To test for voltage drop, connect the voltmeter leads to connectors at either end of the circuit's suspected problem area. The positive lead should be connected to the connector closest to the power source. The voltmeter will show the voltage drop between these two points.



Voltage Drop Test

Continuity Test

To perform a continuity test, first disconnect the car battery. Then adjust the ohmmeter to read zero while holding the leads together. Connect the ohmmeter leads to connector or terminals at either end of the circuit's suspected problem area. The ohmmeter will show the resistance across that part of the circuit.

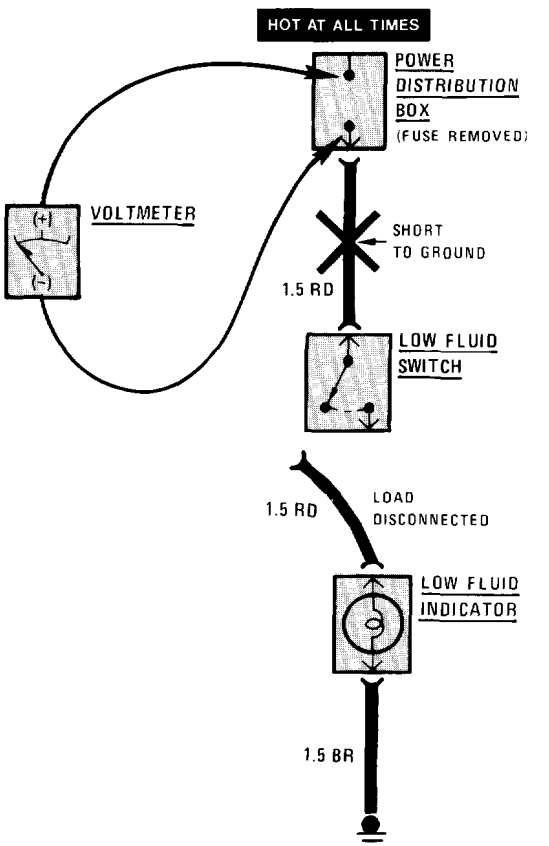


Continuity Test

Short Test Using Voltmeter

Remove the blown fuse and disconnect the load. Connect the voltmeter leads to the fuse terminals. The positive lead should be connected to the terminal closest to the power source.

Starting near the POWER DISTRIBUTION BOX, move the wire harness back and forth and watch the voltmeter reading. If the voltmeter registers a reading, there is a short to ground in the wiring. Somewhere in the area of the harness being moved, the wire insulation is worn away and the circuit is grounding.

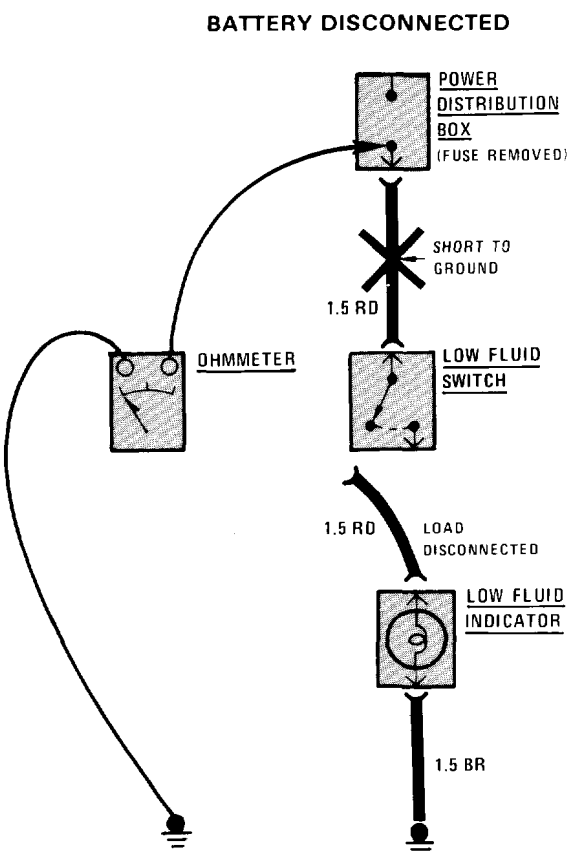


Short Test Using Voltmeter

Short Test Using Ohmmeter

Disconnect the battery. Adjust the ohmmeter to read zero while holding the leads together. Remove the blown fuse and disconnect the load. Connect one lead of the ohmmeter to the fuse terminal that is closest to the load. Connect the other lead to a known good ground.

Starting near the POWER DISTRIBUTION BOX, move the wire harness back and forth and watch the ohmmeter reading. Low or no resistance indicates a short to ground in the wiring. Infinitely high resistance indicates no short.



Short Test Using Ohmmeter

SECTION A: 528e

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POWER DISTRIBUTION BOX

> **NOTE**
> On some cars, the position of the side mounted relays may be interchanged on their respective sides. Check relay wire colors for positive identification.

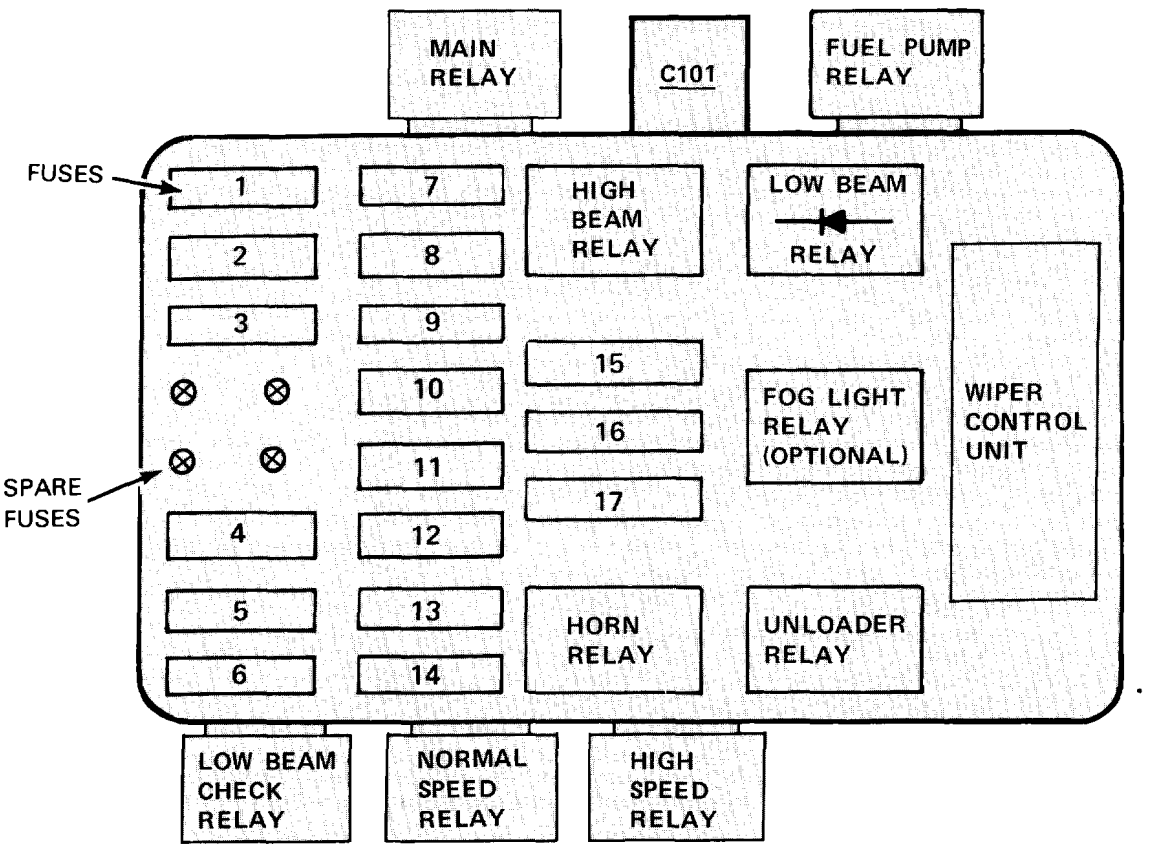
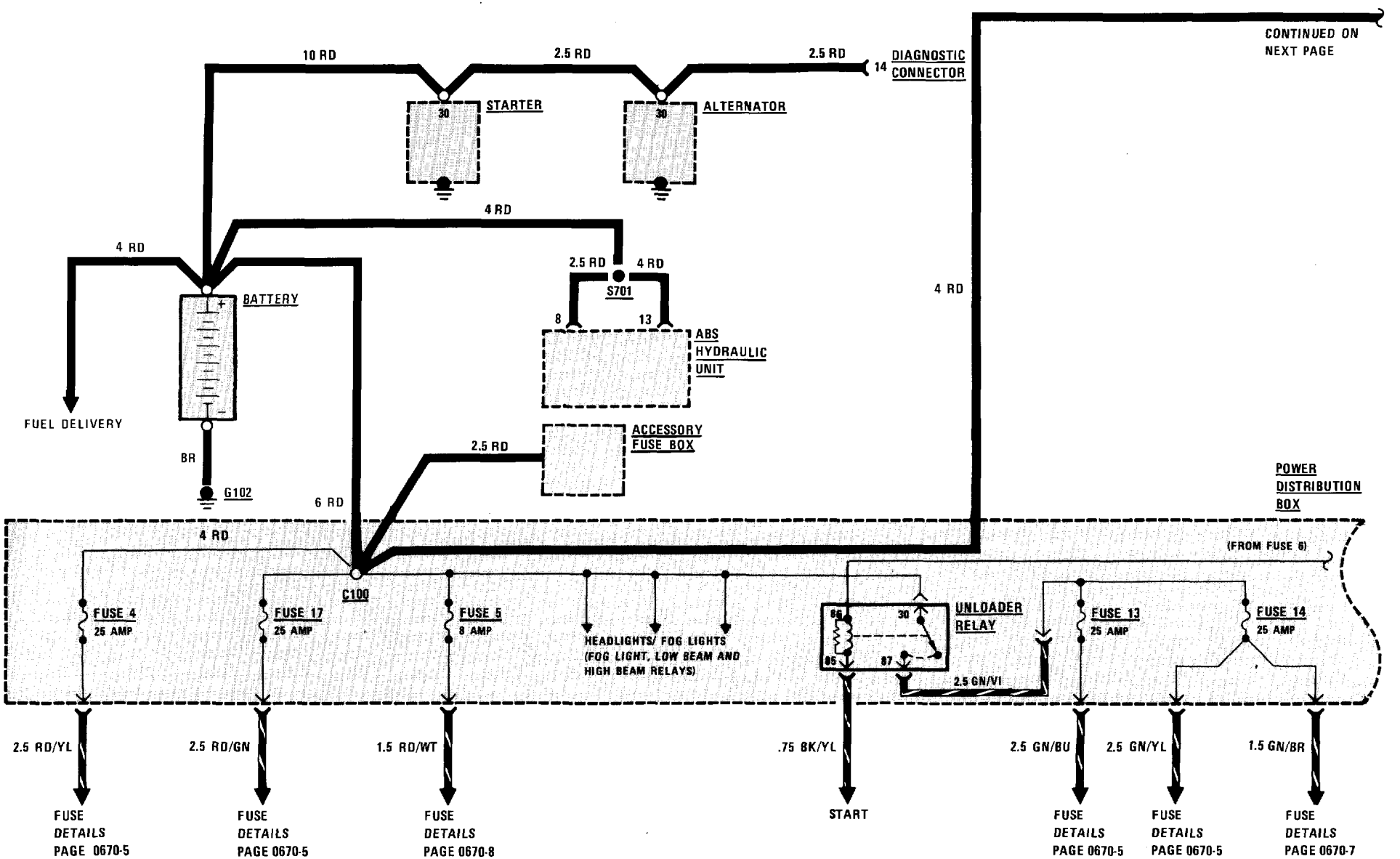


Figure 1- Top Of Left Front Wheel Well

Fuse No.	Size/ Color	Circuit Name
1	16A (RD)	Fuel Delivery
2	8A (WT)	Active Check Control (also fuses, 3, 5, 6, 9, 10, 11, 12); Headlights (RH Low Beam).
3	8A (WT)	Active Check Control (also fuses 2, 5, 6, 9, 10, 11, 12); Headlights (LH Low Beam).
4	25 (BU)	Cigar Lighter; Radio/Power Antenna (also 5, 12); Power Seats.
5	8A (WT)	Active Check Control (also fuses 2, 3, 6, 9, 10, 11, 12); Heated Door Locks; Ignition Key Warning/Seatbelt Warning (also fuse 6); Interior Lights (also fuse 6); Lights: Turn/Hazard Warning (also fuse 11); Lights: Trunk; Glove Box/Auto-Charging Flashlight; Central Locking; On-Board Computer (also fuses 6, 12); Radio/Power Antenna (also fuses 4, 12); Service Interval Indicator (also fuse 6).
6	8A (WT)	Active Check Control (also fuses 2, 3, 5, 9, 10, 11, 12); Back Up Lights/Transmission Range Lights; Cruise Control (also fuse 12); Dash Lights (also fuses 9, 14); Fog Lights (also fuses 15, 16); Gauges; Heater/Air Conditioning (also fuse 14); Idle Speed Control; Ignition; Interior Lights (also fuse 5); On-Board Computer (also fuses 5, 12); Power Mirrors; Power Windows (also Power Window Circut Breaker); Seatbelt Warning (also fuse 5); Service Interval Indicator (also fuse 5); Speedometer; Warning Indicators;
7	8A (WT)	Headlights (RH High Beams).
8	8A (WT)	Headlights (LH High Beams);
9	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 10, 11, 12); Dash Lights (also fuses 6, 14); Lights: Front Park/Front Marker/Tail: (also fuse 10); Lights: Rear Marker/License: (also fuse 10).
10	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 9, 11, 12); Lights: Front Park/Front Marker/Tail; Lights: Rear Marker/License (also fuse 9).
11	16A (RD)	Active Check Control (also fuses 2, 3, 5, 6, 9, 11, 12); Lights: Turn/Hazard Warning (also fuse 5); Wiper/Washer and Heater Washer Jets; Horn.
12	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 9, 10, 11); Cruise Control (also fuse 6); Radio (also fuse 4, 5); Stop Lights; On-Broad Computer (also fuses 5, 6); Power Antenna (also fuses 4, 5).
13	16A(RD)	Rear Defogger; Sunroof.
14	25A (BU)	Auxiliary Fan (also fuse 17); Dash Lights (also fuses 6, 9); Heater/Air Conditioning (also fuse 6).
15	8A (WT)	Fog Lights (RH).
16	8A (WT)	Fog Lights (LH).
17	25A (BU)	Auxiliary Fan (also fuse 14).
Power Window Circuit Breaker	25A (BU)	Power Windows (also fuse 6).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2.5 RD
2.5 RD
14 DIAGNOSTIC CONNECTOR
30 STARTER
30 ALTERNATOR
4 RD
4 RD
2.5 RD
4 RD
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8
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ABS HYDRAULIC UNIT
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BATTERY
FUEL DELIVERY
BR
G102
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POWER DISTRIBUTION BOX
4 RD
(FROM FUSE 6)
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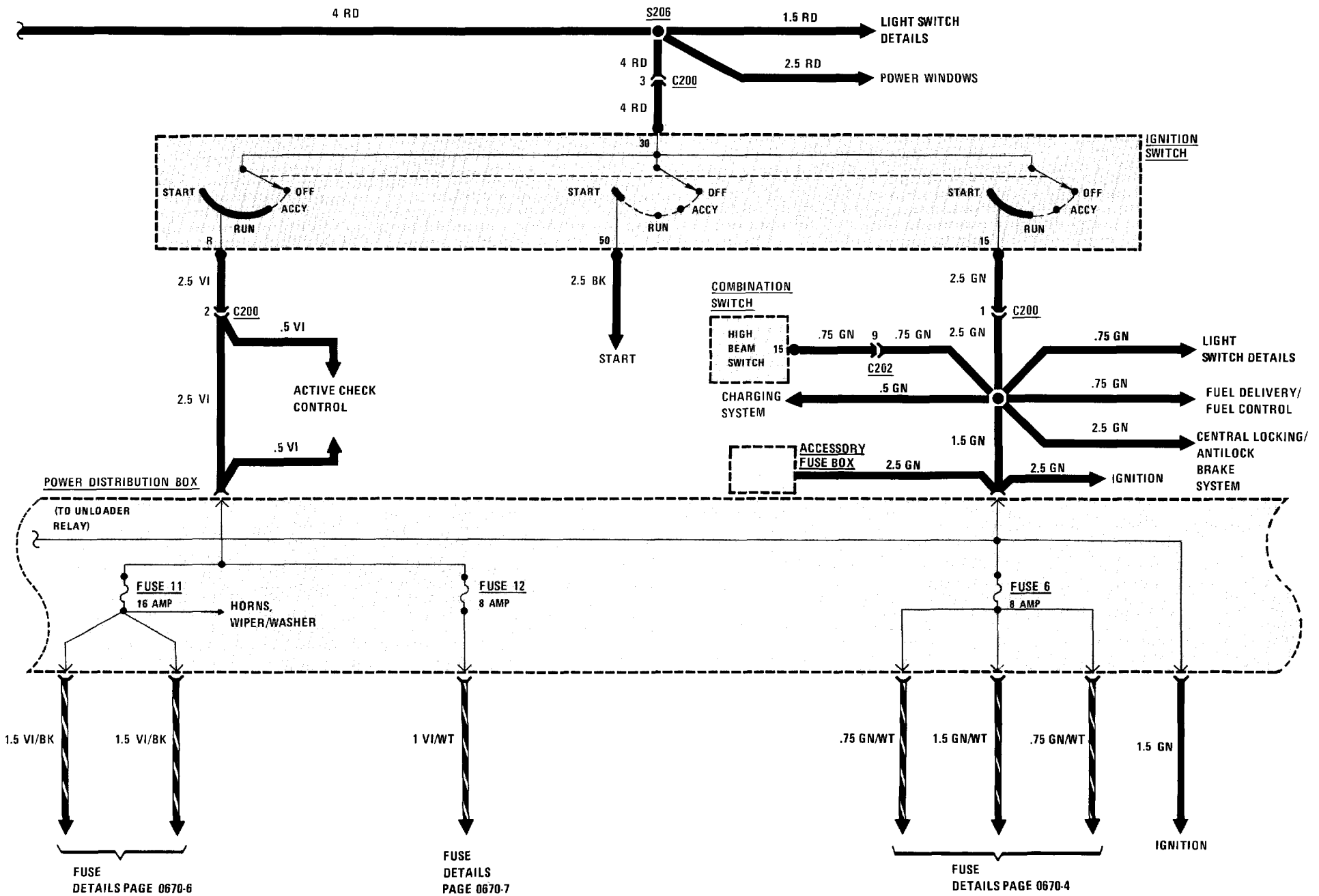
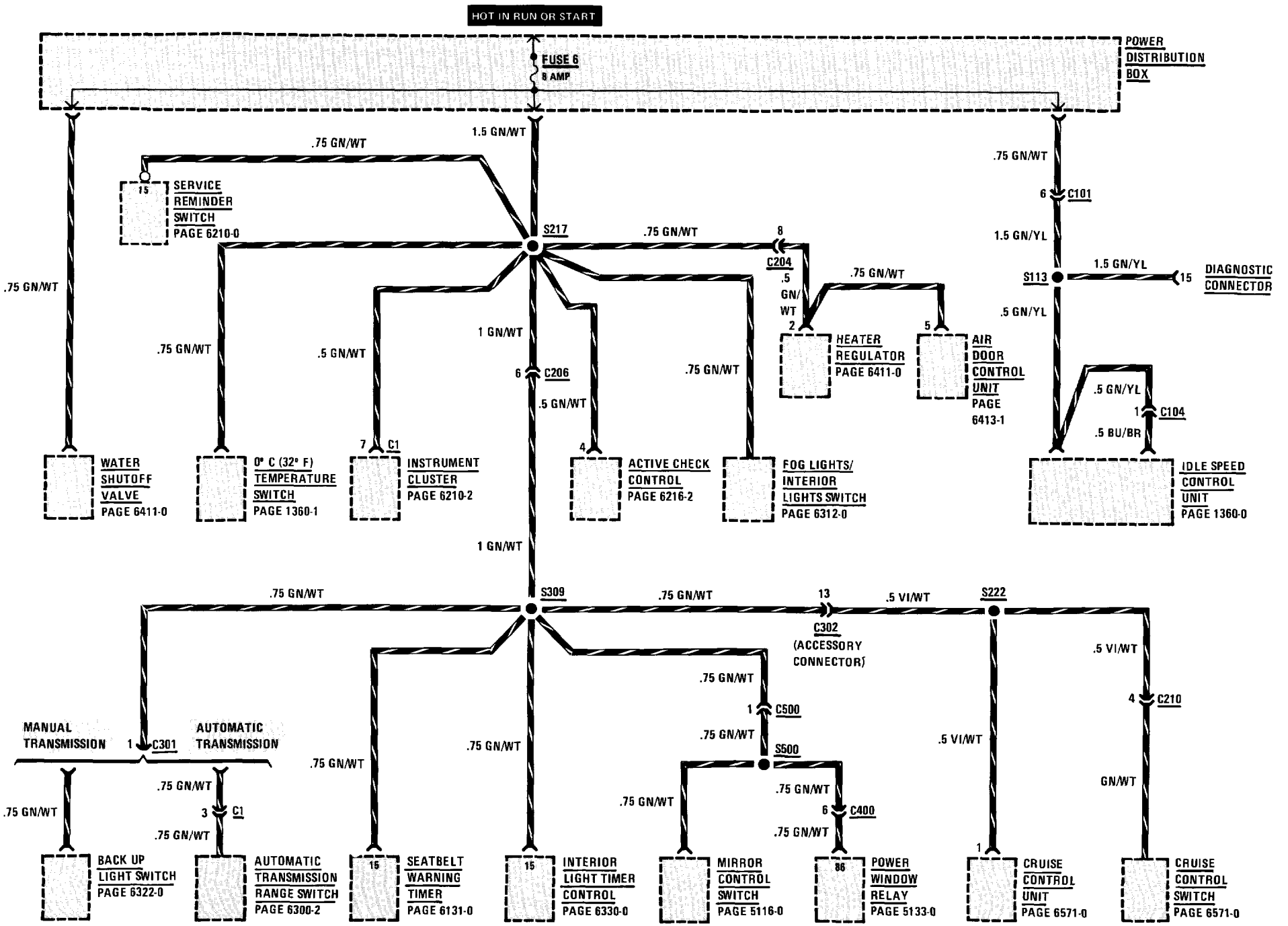
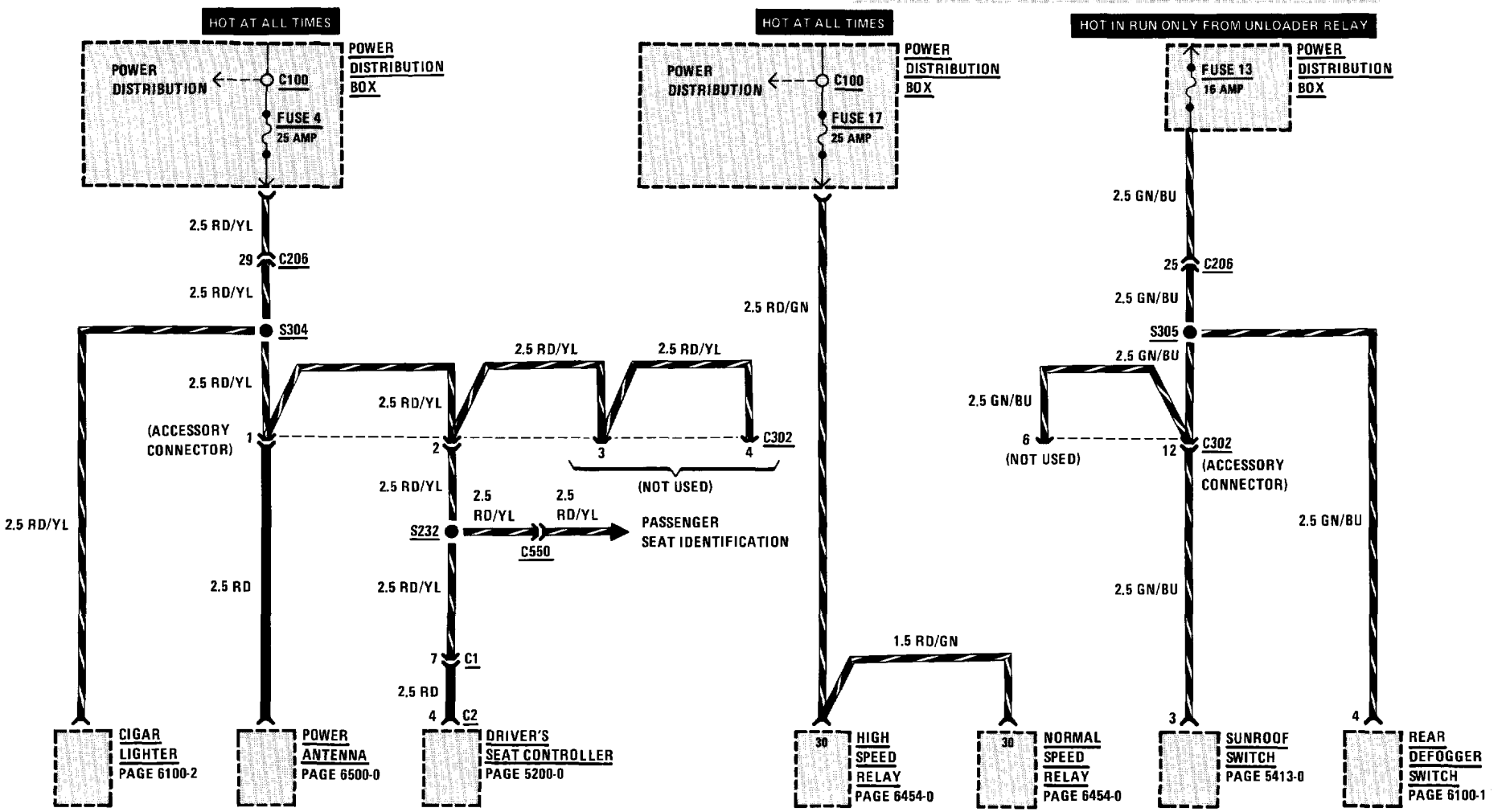
FUSE 4 25 AMP
FUSE 17 25 AMP
FUSE 5 8 AMP
HEADLIGHTS/ FOG LIGHTS (FOG LIGHT, LOW BEAM AND HIGH BEAM RELAYS)
86
30
85
87
UNLOADER RELAY
2.5 GN/VI
FUSE 13 25 AMP
FUSE 14 25 AMP
2.5 RD/YL
2.5 RD/GN
1.5 RD/WT
.75 BK/YL
2.5 GN/BU
2.5 GN/YL
1.5 GN/BR
START
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-8
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-7


4 RD
S206
1.5 RD
LIGHT SWITCH DETAILS
2.5 RD
POWER WINDOWS
4 RD
3
C200
4 RD
30
IGNITION SWITCH
START
OFF
ACCY
RUN
R
50
15
2.5 VI
2
C200
.5 VI
ACTIVE CHECK CONTROL
2.5 VI
.5 VI
2.5 BK
START
COMBINATION SWITCH
HIGH BEAM SWITCH
15
.75 GN
9
.75 GN
C202
2.5 GN
1
C200
.75 GN
LIGHT SWITCH DETAILS
.5 GN
CHARGING SYSTEM
.75 GN
FUEL DELIVERY/ FUEL CONTROL
2.5 GN
CENTRAL LOCKING/ ANTILOCK BRAKE SYSTEM
1.5 GN
ACCESSORY FUSE BOX
2.5 GN
2.5 GN
IGNITION
POWER DISTRIBUTION BOX
(TO UNLOADER RELAY)
FUSE 11
16 AMP
HORNS, WIPER/WASHER
FUSE 12
8 AMP
FUSE 6
8 AMP
1.5 VI/BK
1.5 VI/BK
1 VI/WT
.75 GN/WT
1.5 GN/WT
.75 GN/WT
1.5 GN
IGNITION
FUSE DETAILS PAGE 0670-6
FUSE DETAILS PAGE 0670-7
FUSE DETAILS PAGE 0670-4

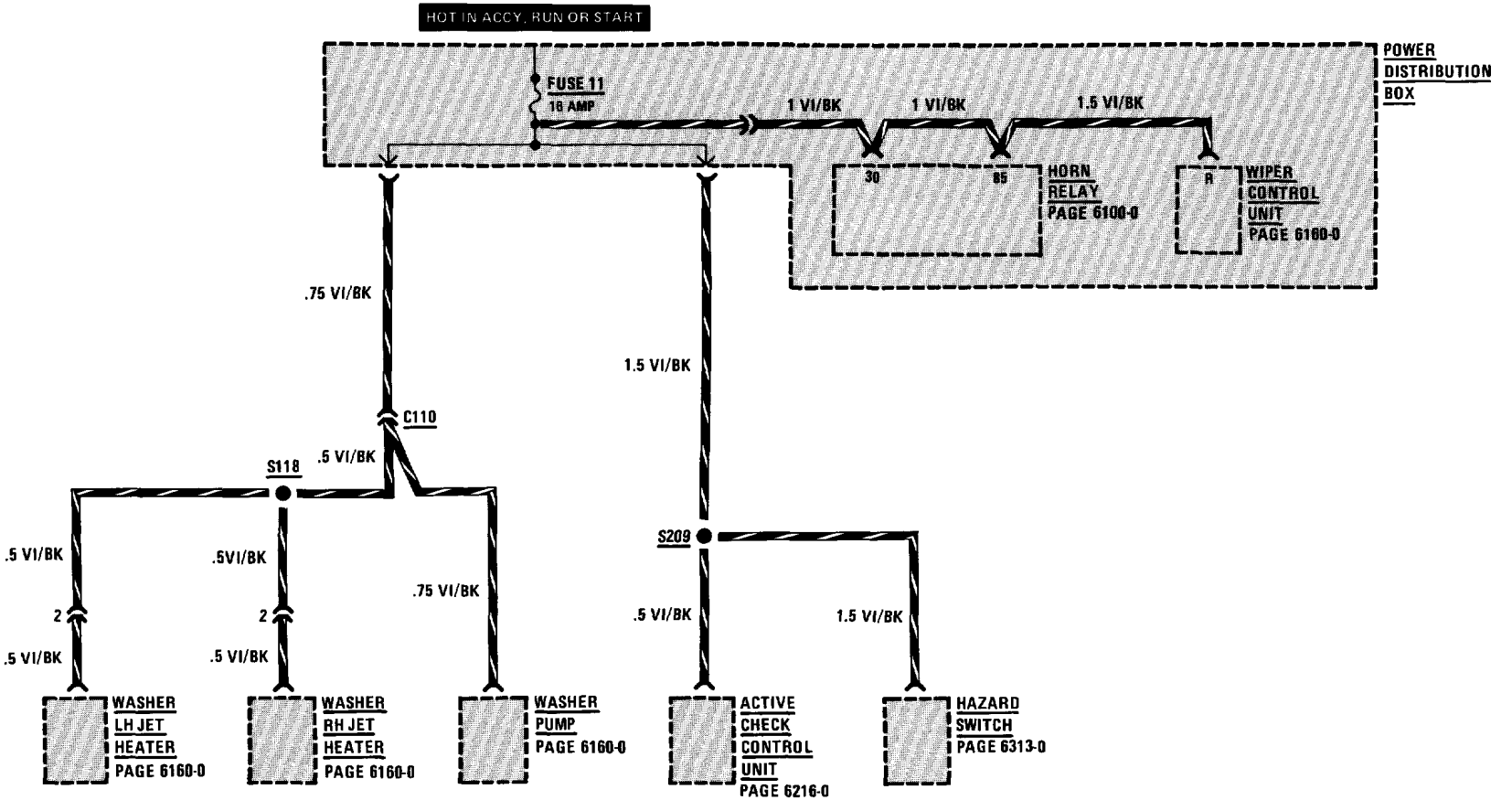
FUSE DETAILS: FUSE 6



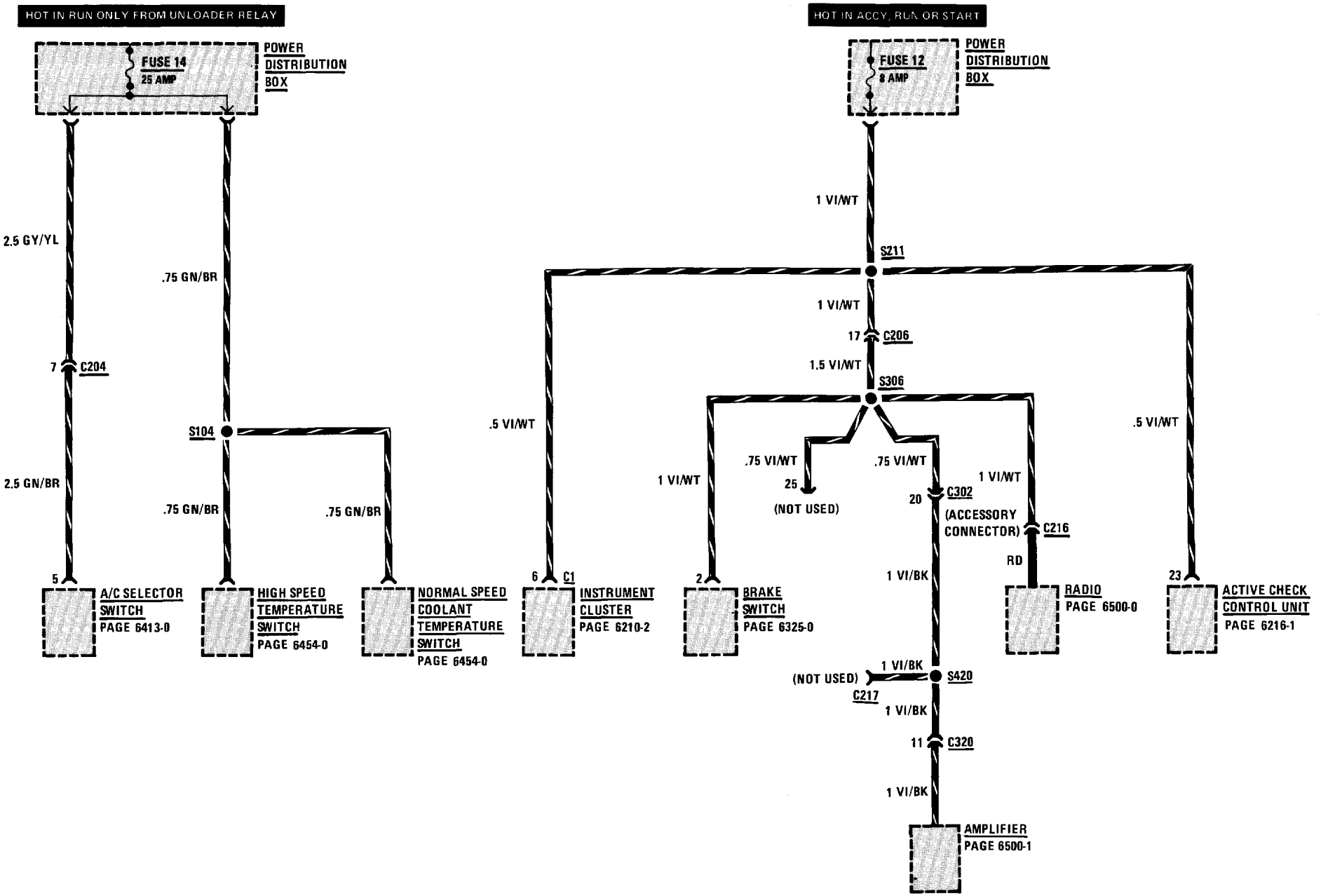
FUSE DETAILS: FUSES 4, 17 and 13



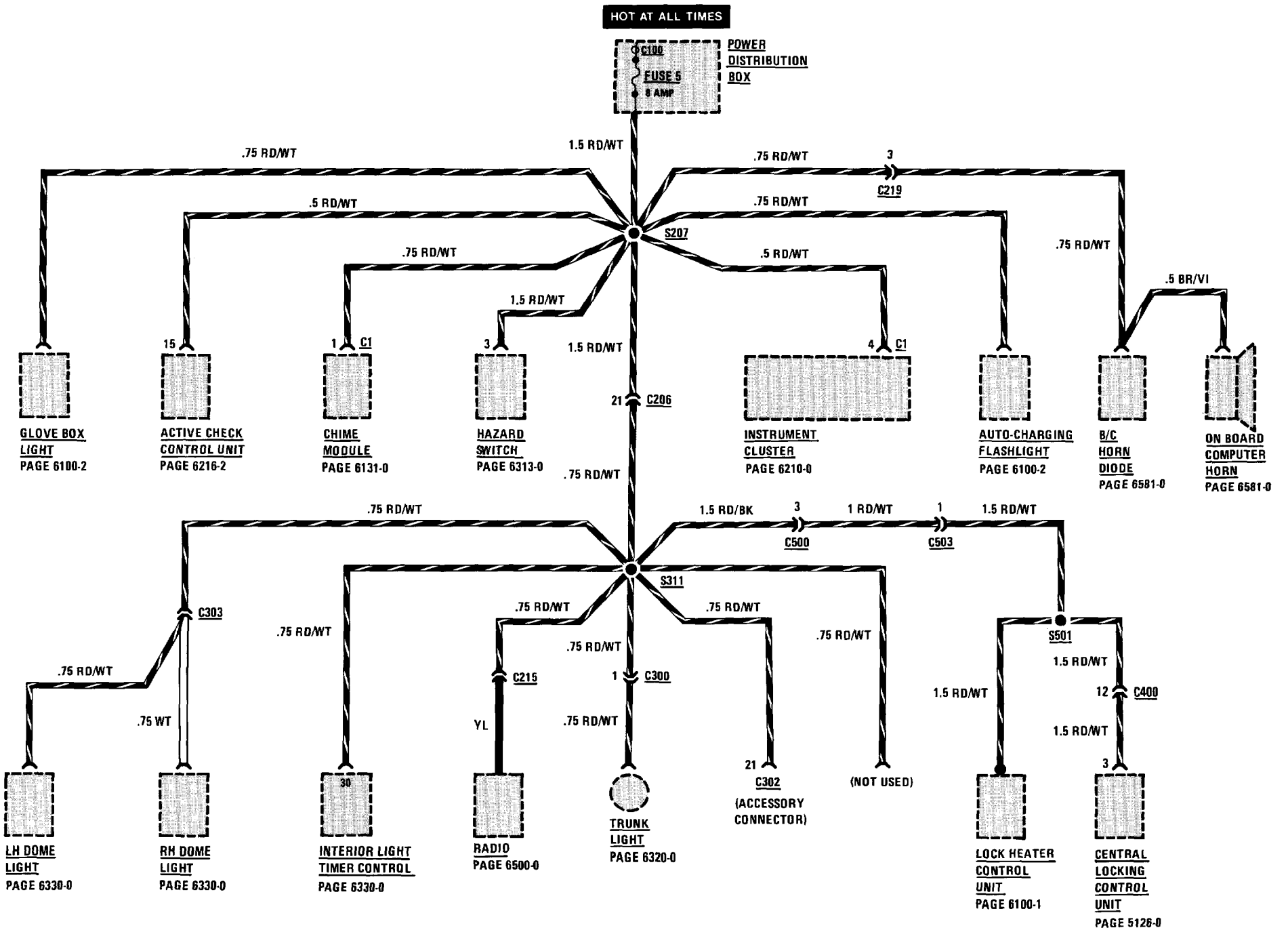
FUSE DETAILS: FUSE 11



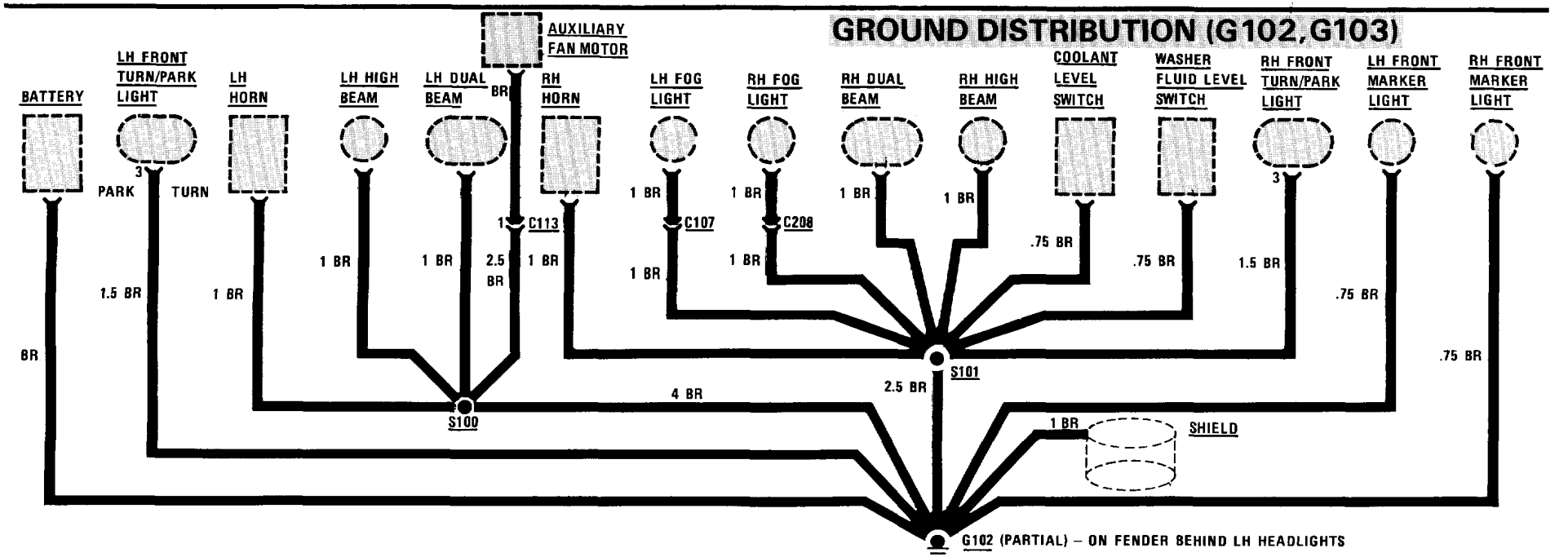
FUSE DETAILS: FUSES 12 AND 14

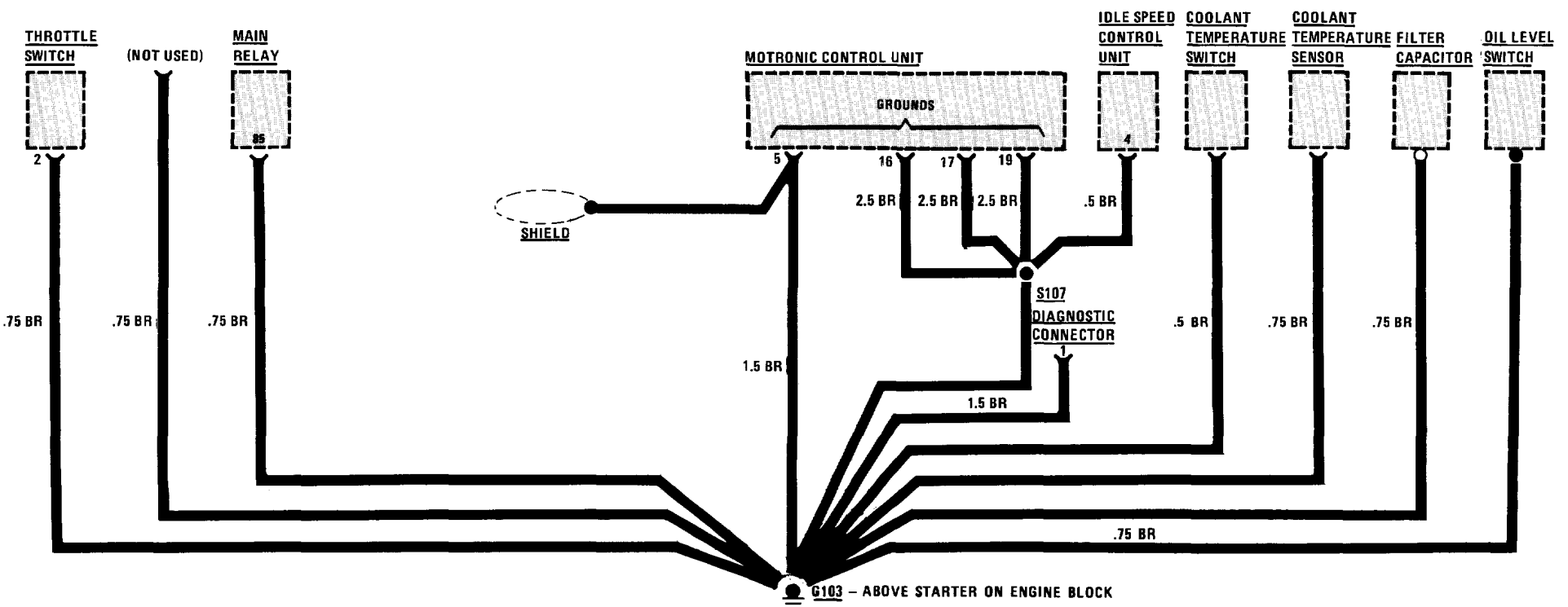


FUSE DETAILS: FUSE 5

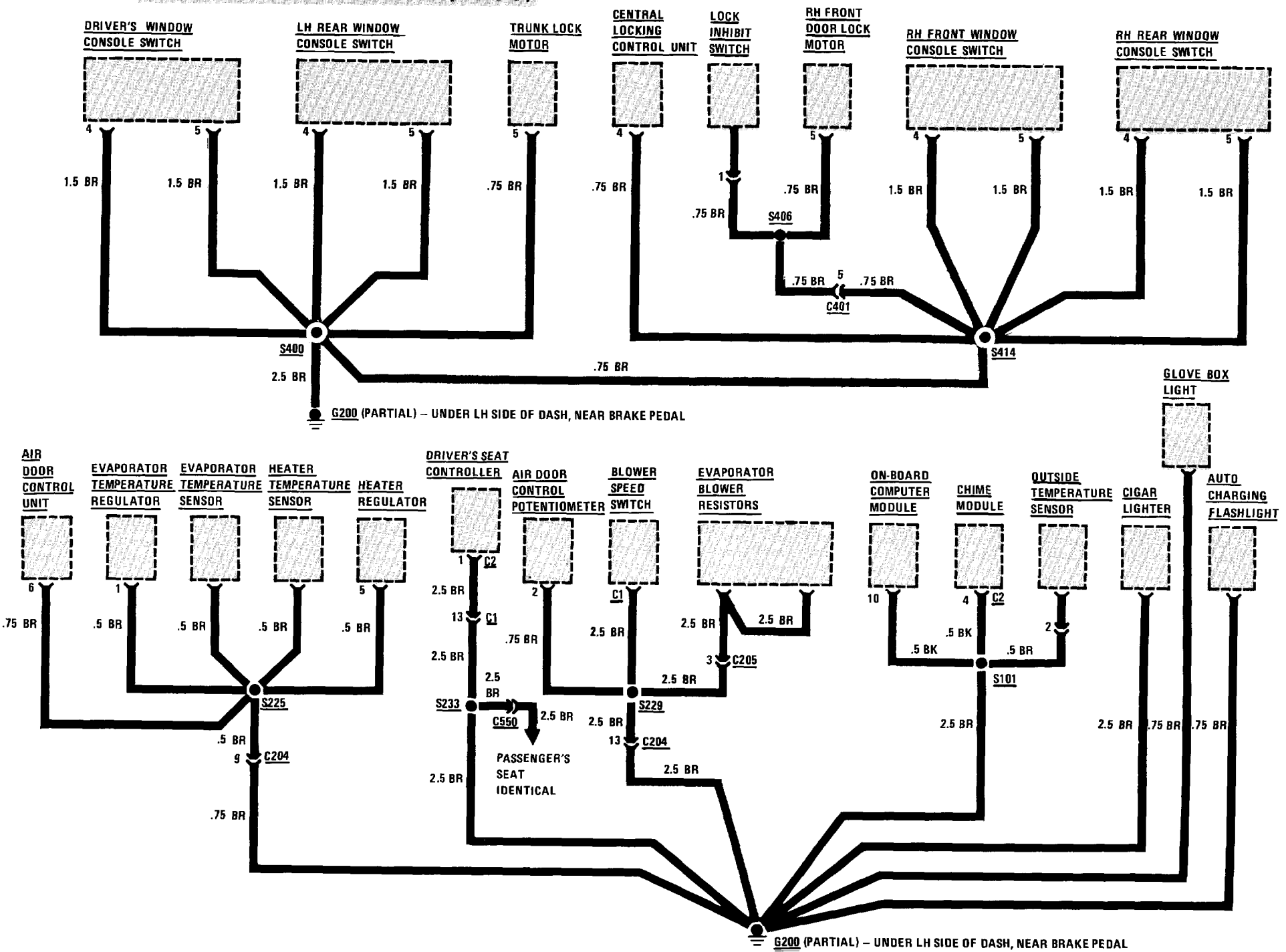


GROUND DISTRIBUTION (G102, G103)

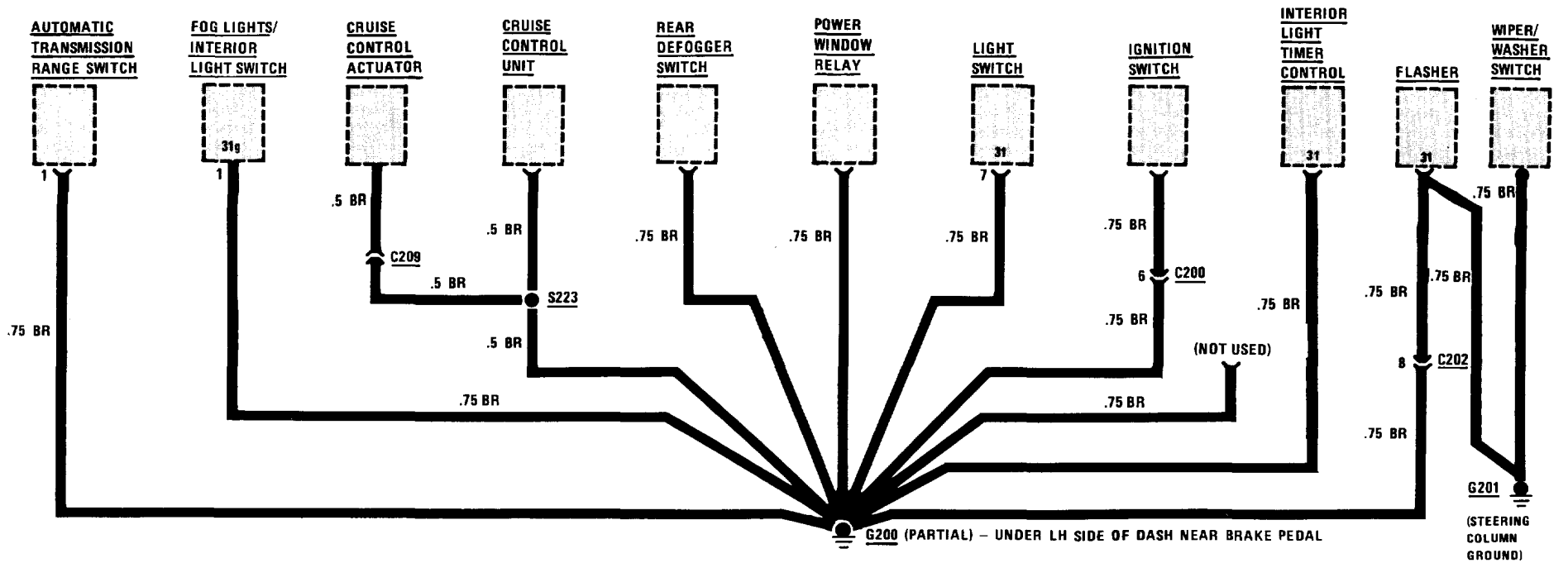


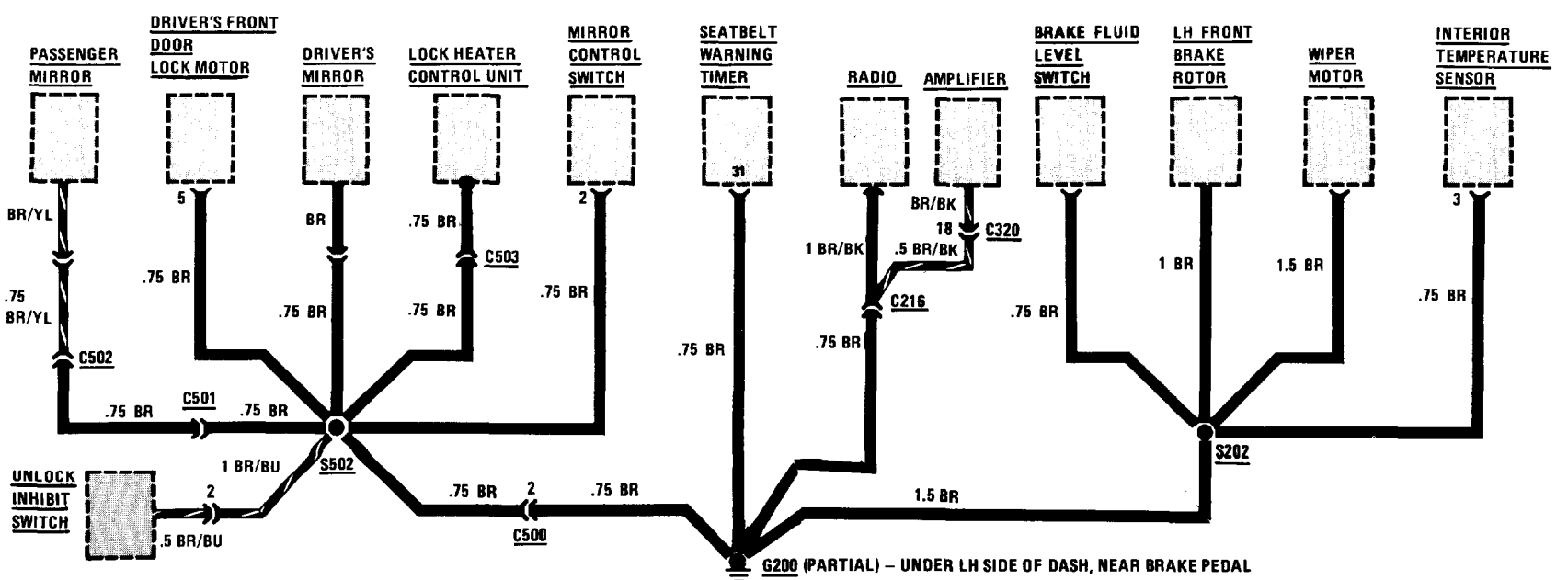


GROUND DISTRIBUTION (G200)

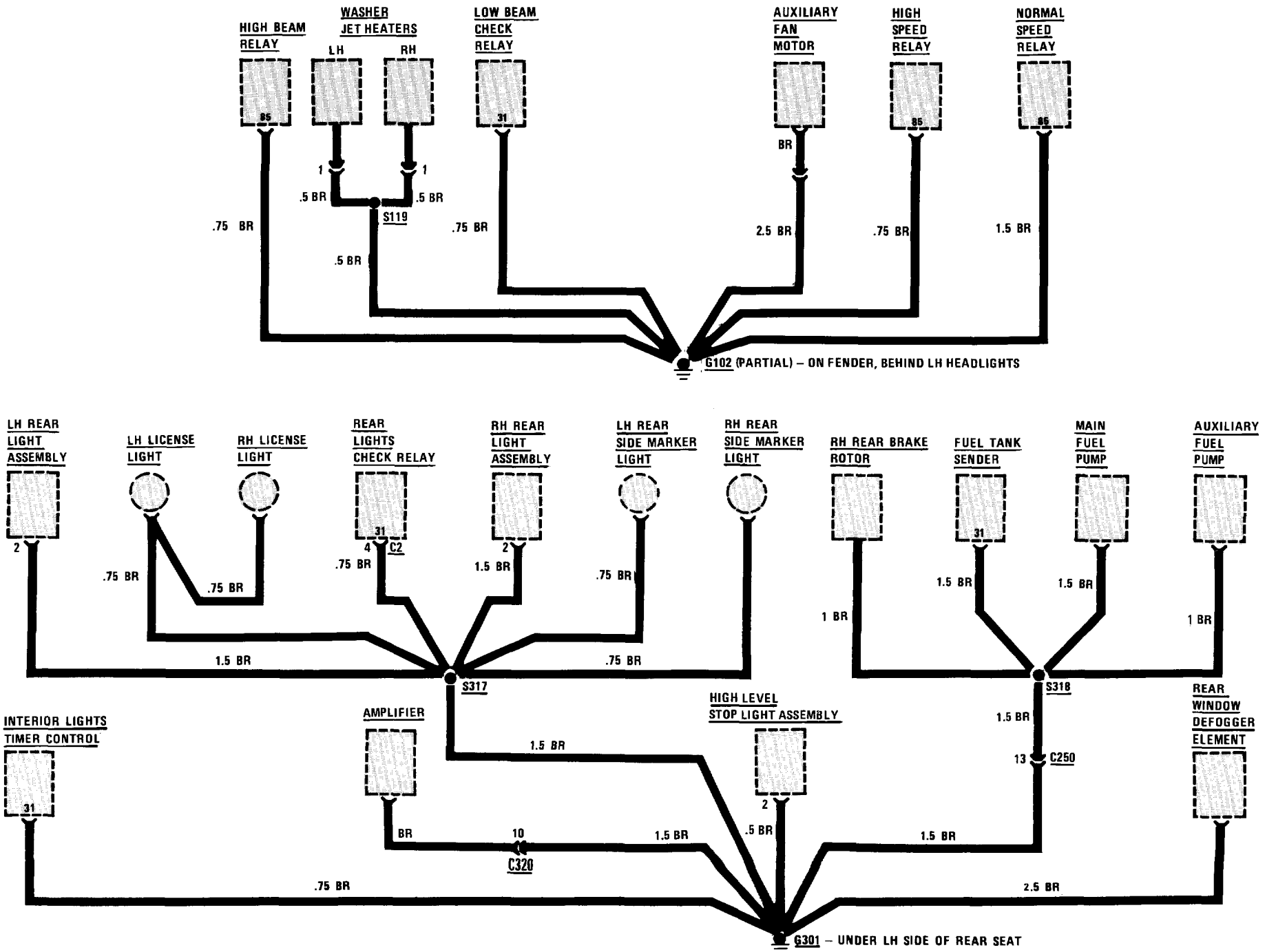


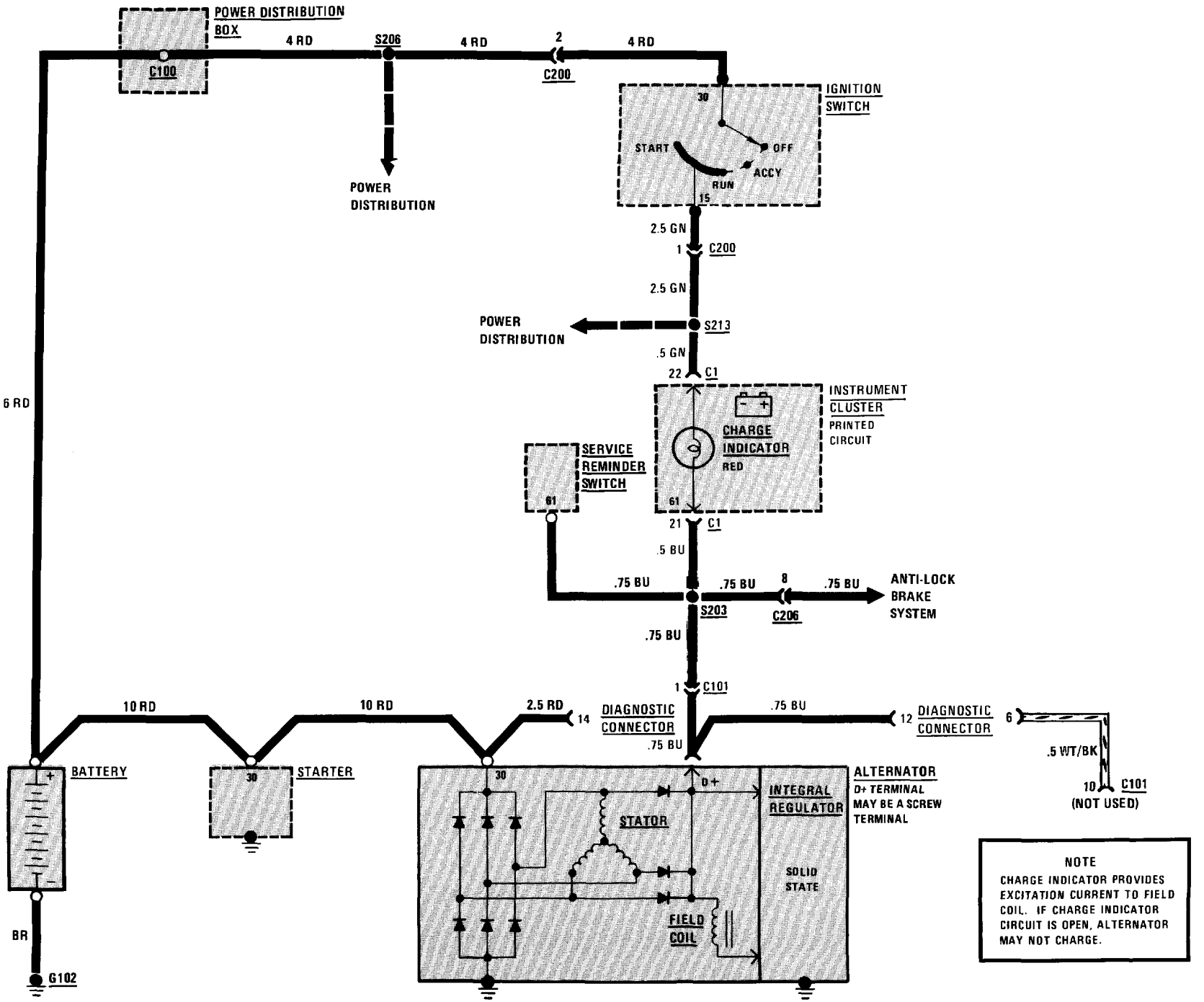
GROUND DISTRIBUTION (G200, G201)

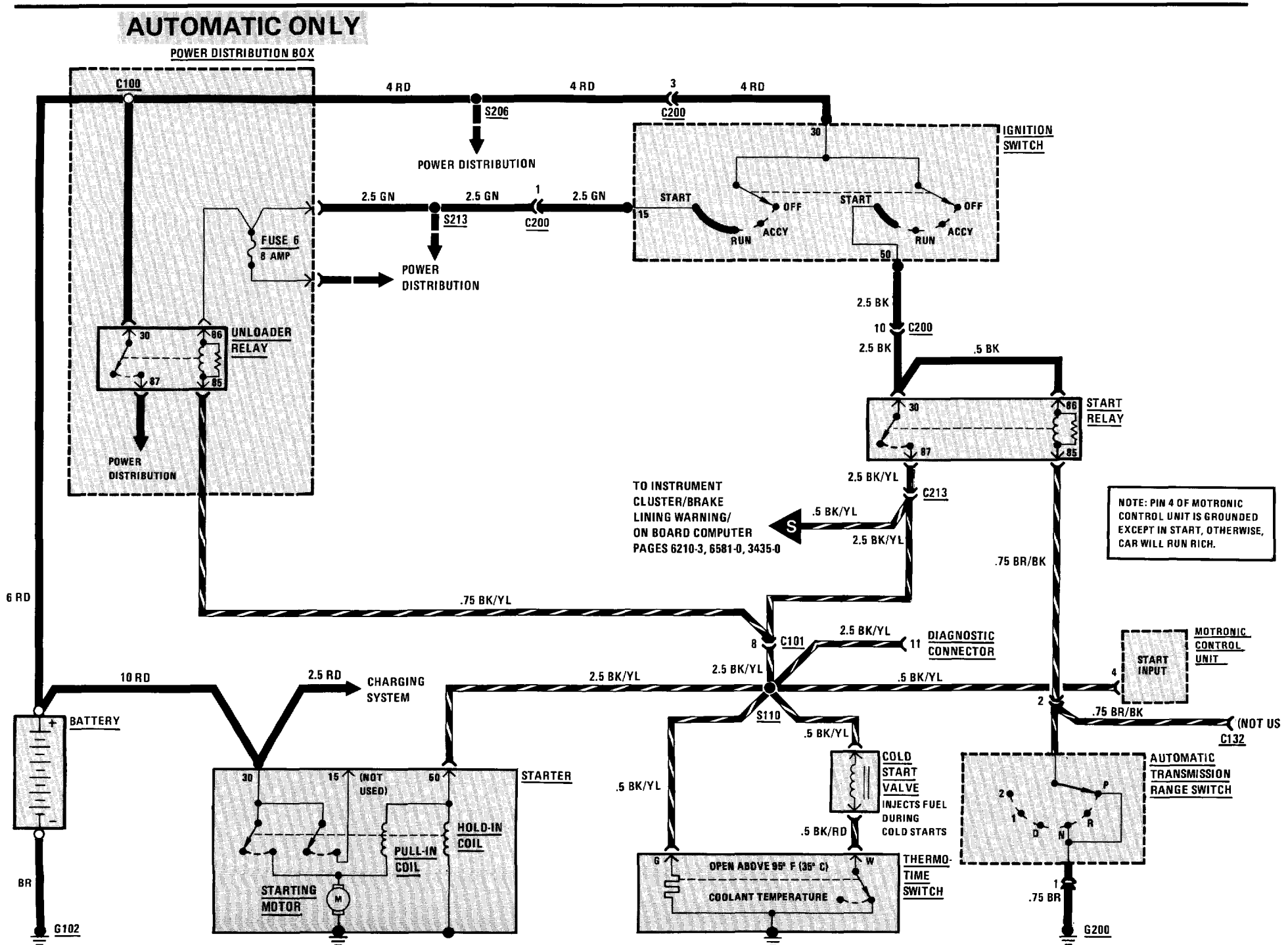




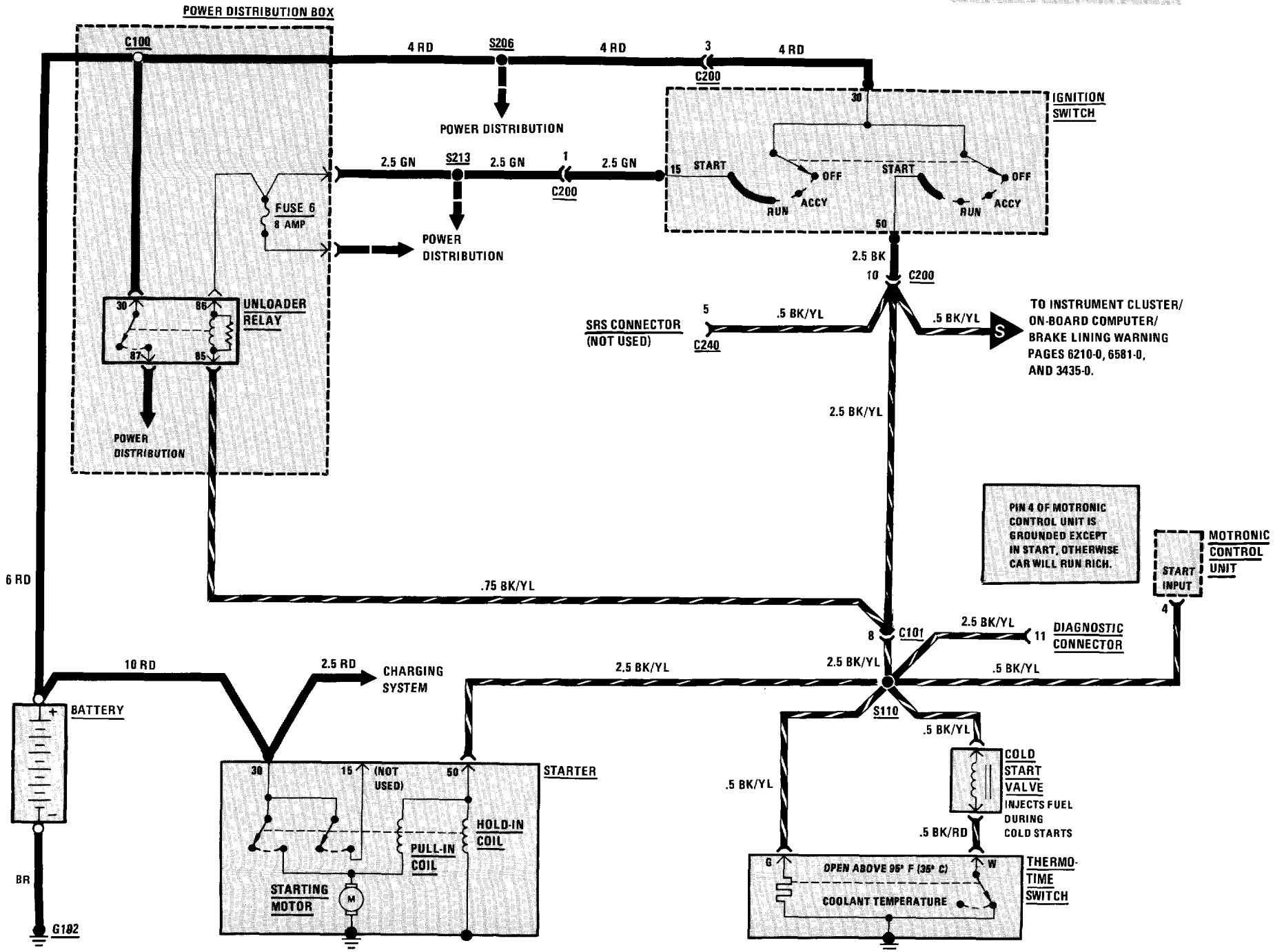
GROUND DISTRIBUTION (G102 AND G301)

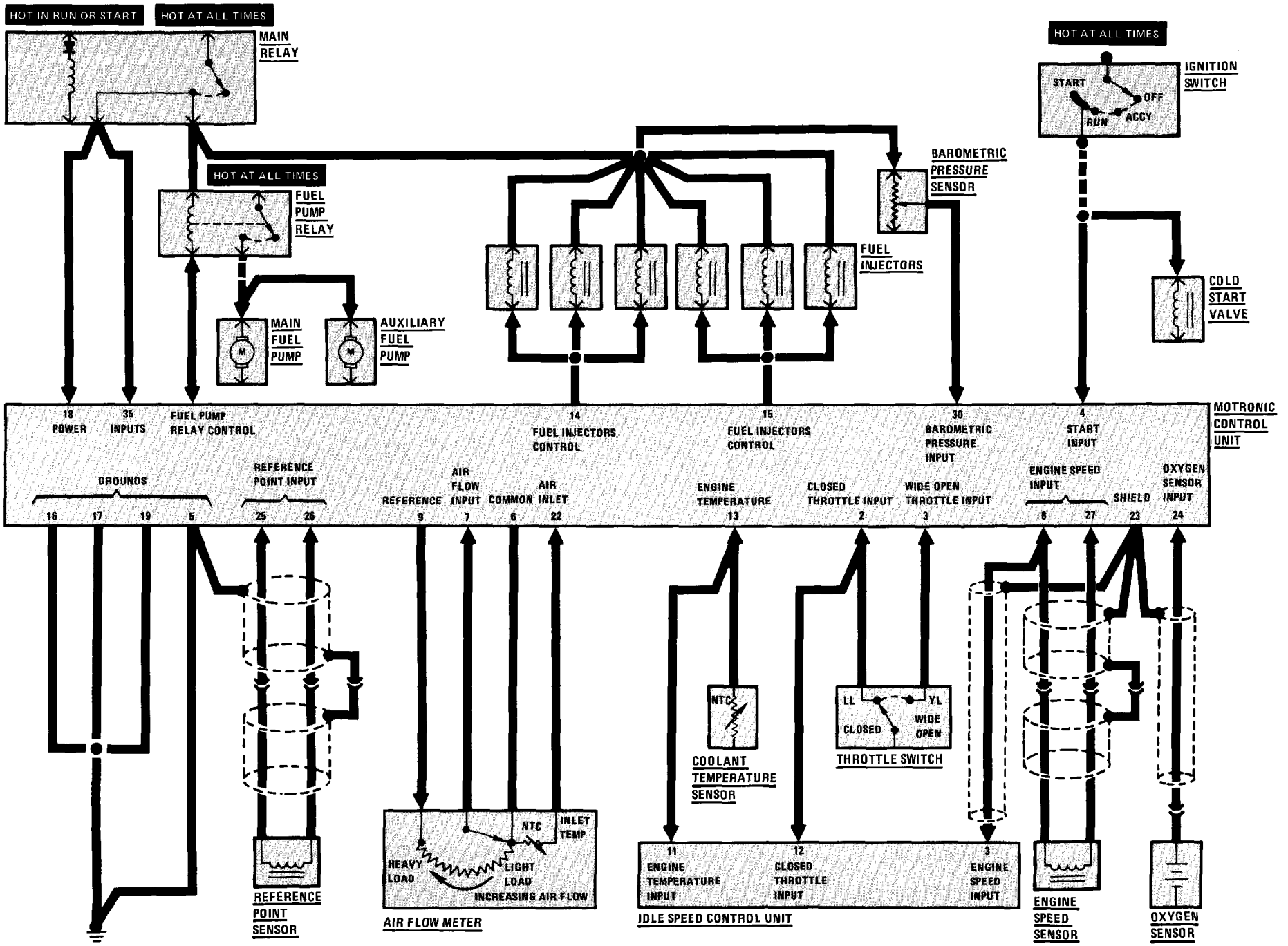


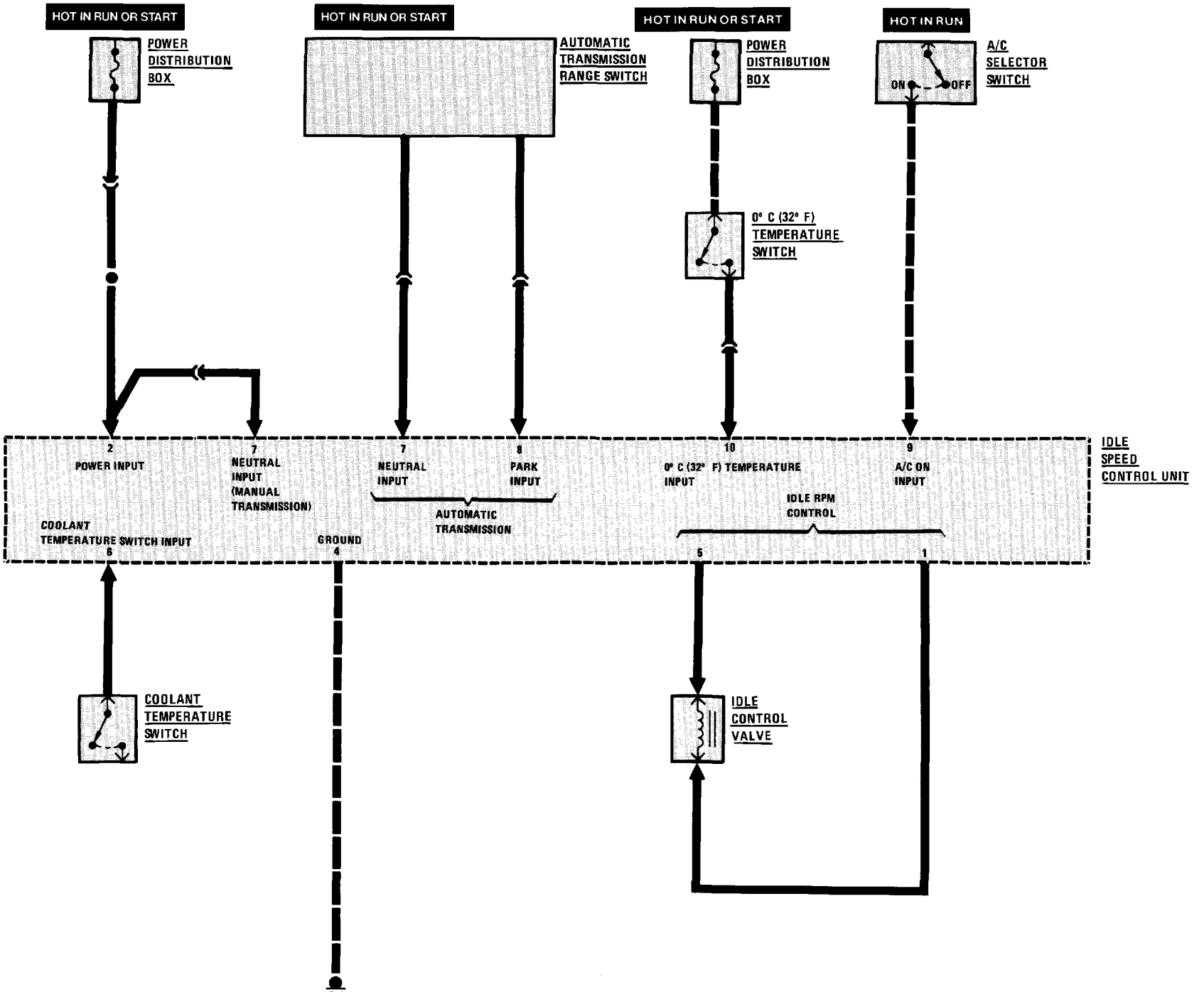

POWER DISTRIBUTION BOX
C100
4 RD
S206
4 RD
2
C200
4 RD
IGNITION SWITCH
30
START
OFF
ACCY
RUN
15
POWER DISTRIBUTION
2.5 GN
1
C200
2.5 GN
POWER DISTRIBUTION
S213
.5 GN
22
C1
INSTRUMENT CLUSTER
PRINTED CIRCUIT
CHARGE INDICATOR
RED
SERVICE REMINDER SWITCH
61
61
21
C1
.5 BU
6 RD
.75 BU
.75 BU
8
.75 BU
ANTI-LOCK BRAKE SYSTEM
S203
C206
.75 BU
1
C101
10 RD
10 RD
2.5 RD
14
DIAGNOSTIC CONNECTOR
.75 BU
.75 BU
12
DIAGNOSTIC CONNECTOR
6
.5 WT/BK
10
C101
(NOT USED)
BATTERY
30
STARTER
30
D+
INTEGRAL REGULATOR
ALTERNATOR
D+ TERMINAL MAY BE A SCREW TERMINAL
STATOR
SOLID STATE
FIELD COIL
BR
G102
NOTE
CHARGE INDICATOR PROVIDES EXCITATION CURRENT TO FIELD COIL. IF CHARGE INDICATOR CIRCUIT IS OPEN, ALTERNATOR MAY NOT CHARGE.


AUTOMATIC ONLY
POWER DISTRIBUTION BOX
C100
4 RD
S206
4 RD
3
4 RD
C200
POWER DISTRIBUTION
IGNITION SWITCH
30
START
OFF
ACCY
RUN
15
50
2.5 GN
2.5 GN
1
2.5 GN
S213
C200
FUSE 6
8 AMP
POWER DISTRIBUTION
2.5 BK
10
C200
2.5 BK
.5 BK
UNLOADER RELAY
30
86
87
85
START RELAY
POWER DISTRIBUTION
2.5 BK/YL
C213
TO INSTRUMENT CLUSTER/BRAKE LINING WARNING/ ON BOARD COMPUTER PAGES 6210-3, 6581-0, 3435-0
.5 BK/YL
2.5 BK/YL
NOTE: PIN 4 OF MOTRONIC CONTROL UNIT IS GROUNDED EXCEPT IN START, OTHERWISE, CAR WILL RUN RICH.
.75 BR/BK
6 RD
.75 BK/YL
8
C101
2.5 BK/YL
11
DIAGNOSTIC CONNECTOR
MOTRONIC CONTROL UNIT
START INPUT
4
2
10 RD
2.5 RD
CHARGING SYSTEM
2.5 BK/YL
2.5 BK/YL
.5 BK/YL
.75 BR/BK
(NOT US
C132
BATTERY
S110
.5 BK/YL
COLD START VALVE
INJECTS FUEL DURING COLD STARTS
AUTOMATIC TRANSMISSION RANGE SWITCH
P
R
N
D
2
1
.5 BK/YL
.5 BK/RD
30
15
(NOT USED)
60
STARTER
HOLD-IN COIL
PULL-IN COIL
STARTING MOTOR
M
G
W
OPEN ABOVE 95° F (35° C)
COOLANT TEMPERATURE
THERMO-TIME SWITCH
1
.75 BR
BR
G102
G200

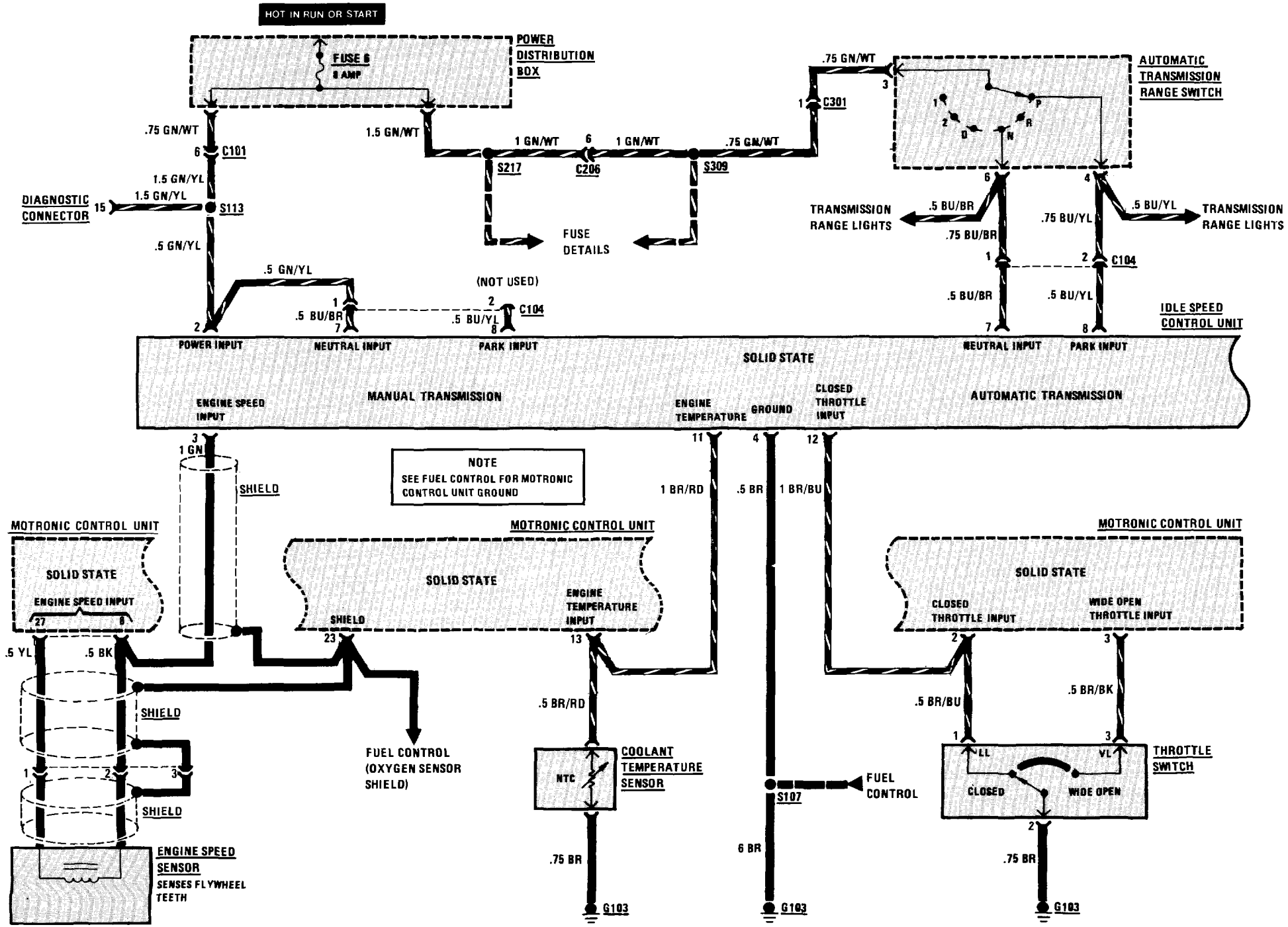
MANUAL ONLY


POWER DISTRIBUTION BOX
C100
4 RD
S206
4 RD
3
C200
4 RD
IGNITION SWITCH
POWER DISTRIBUTION
2.5 GN
S213
2.5 GN
1
C200
2.5 GN
15
START
OFF
RUN
ACCY
START
OFF
RUN
ACCY
30
50
FUSE 6
8 AMP
POWER DISTRIBUTION
2.5 BK
10
C200
UNLOADER RELAY
30
86
87
85
POWER DISTRIBUTION
SRS CONNECTOR
(NOT USED)
5
C240
.5 BK/YL
.5 BK/YL
TO INSTRUMENT CLUSTER/ ON-BOARD COMPUTER/ BRAKE LINING WARNING PAGES 6210-0, 6581-0, AND 3435-0.
2.5 BK/YL
PIN 4 OF MOTRONIC CONTROL UNIT IS GROUNDED EXCEPT IN START, OTHERWISE CAR WILL RUN RICH.
MOTRONIC CONTROL UNIT
START INPUT
4
6 RD
.75 BK/YL
8
C101
2.5 BK/YL
11
DIAGNOSTIC CONNECTOR
10 RD
2.5 RD
CHARGING SYSTEM
2.5 BK/YL
2.5 BK/YL
.5 BK/YL
BATTERY
S110
.5 BK/YL
COLD START VALVE
INJECTS FUEL DURING COLD STARTS
.5 BK/YL
.5 BK/RD
30
15
(NOT USED)
50
STARTER
HOLD-IN COIL
PULL-IN COIL
STARTING MOTOR
M
BR
G182
G
OPEN ABOVE 95° F (35° C)
W
COOLANT TEMPERATURE
THERMO-TIME SWITCH

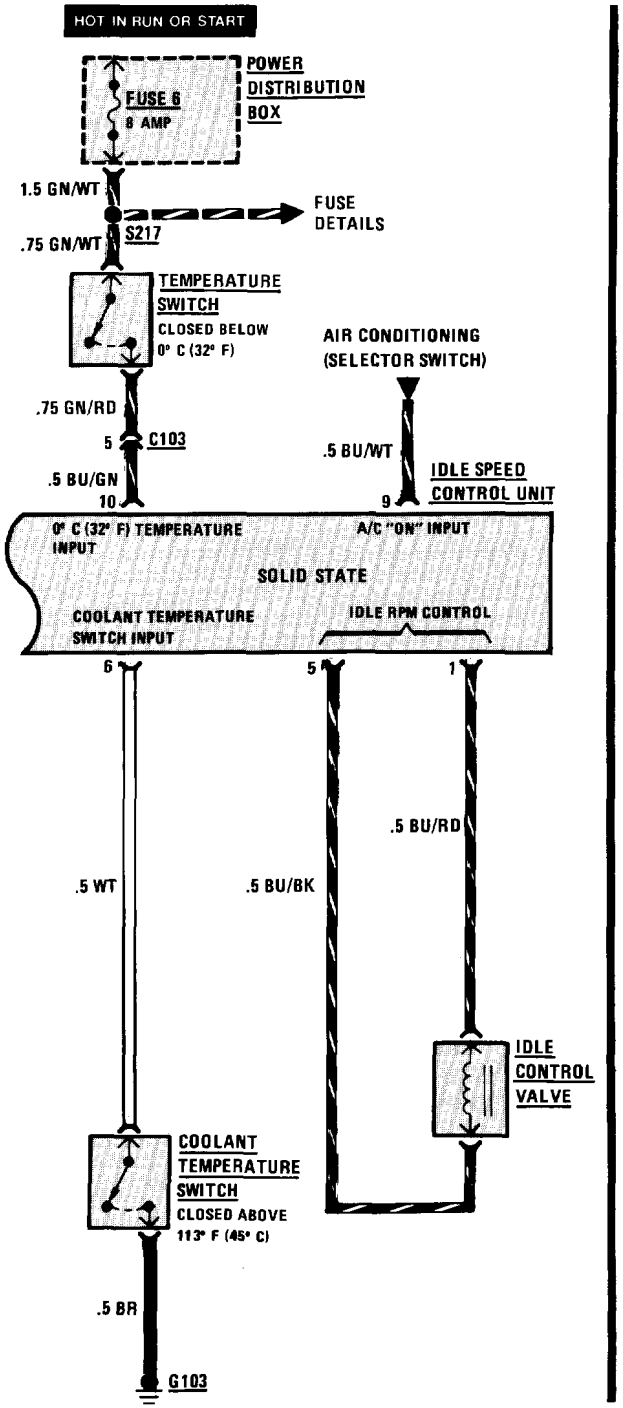

HOT IN RUN OR START
HOT AT ALL TIMES
MAIN RELAY
HOT AT ALL TIMES
FUEL PUMP RELAY
MAIN FUEL PUMP
AUXILIARY FUEL PUMP
FUEL INJECTORS
BAROMETRIC PRESSURE SENSOR
HOT AT ALL TIMES
IGNITION SWITCH
START
OFF
RUN
ACCY
COLD START VALVE
MOTRONIC CONTROL UNIT
18 POWER
35 INPUTS
FUEL PUMP RELAY CONTROL
14 FUEL INJECTORS CONTROL
15 FUEL INJECTORS CONTROL
30 BAROMETRIC PRESSURE INPUT
4 START INPUT
GROUNDS
16 17 19 5
REFERENCE POINT INPUT
25 26
AIR FLOW INPUT
REFERENCE 9
7
COMMON 6
AIR INLET 22
ENGINE TEMPERATURE 13
CLOSED THROTTLE INPUT 2
WIDE OPEN THROTTLE INPUT 3
ENGINE SPEED INPUT 8
27
SHIELD 23
OXYGEN SENSOR INPUT 24
NTC
COOLANT TEMPERATURE SENSOR
LL
YL
CLOSED
WIDE OPEN
THROTTLE SWITCH
REFERENCE POINT SENSOR
NTC
INLET TEMP
HEAVY LOAD
LIGHT LOAD
INCREASING AIR FLOW
AIR FLOW METER
11 ENGINE TEMPERATURE INPUT
12 CLOSED THROTTLE INPUT
3 ENGINE SPEED INPUT
IDLE SPEED CONTROL UNIT
ENGINE SPEED SENSOR
OXYGEN SENSOR


HOT IN RUN OR START
POWER DISTRIBUTION BOX
HOT IN RUN OR START
AUTOMATIC TRANSMISSION RANGE SWITCH
HOT IN RUN OR START
POWER DISTRIBUTION BOX
HOT IN RUN
A/C SELECTOR SWITCH
ON
OFF
0° C (32° F) TEMPERATURE SWITCH
2
POWER INPUT
7
NEUTRAL INPUT (MANUAL TRANSMISSION)
7
NEUTRAL INPUT
8
PARK INPUT
AUTOMATIC TRANSMISSION
10
0° C (32° F) TEMPERATURE INPUT
9
A/C ON INPUT
IDLE RPM CONTROL
IDLE SPEED CONTROL UNIT
COOLANT TEMPERATURE SWITCH INPUT
6
GROUND
4
5
1
COOLANT TEMPERATURE SWITCH
IDLE CONTROL VALVE

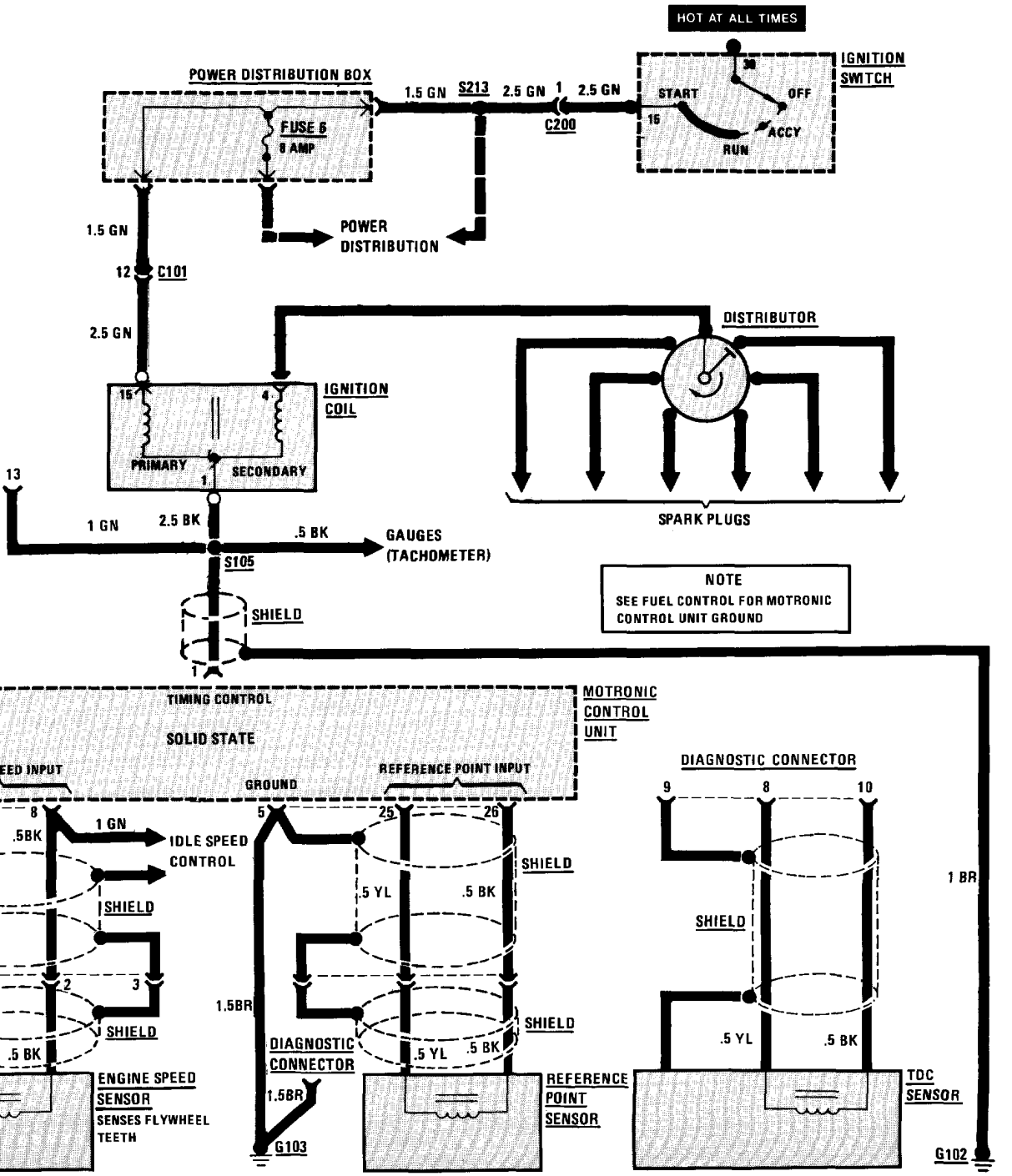
IDLE SPEED CONTROL



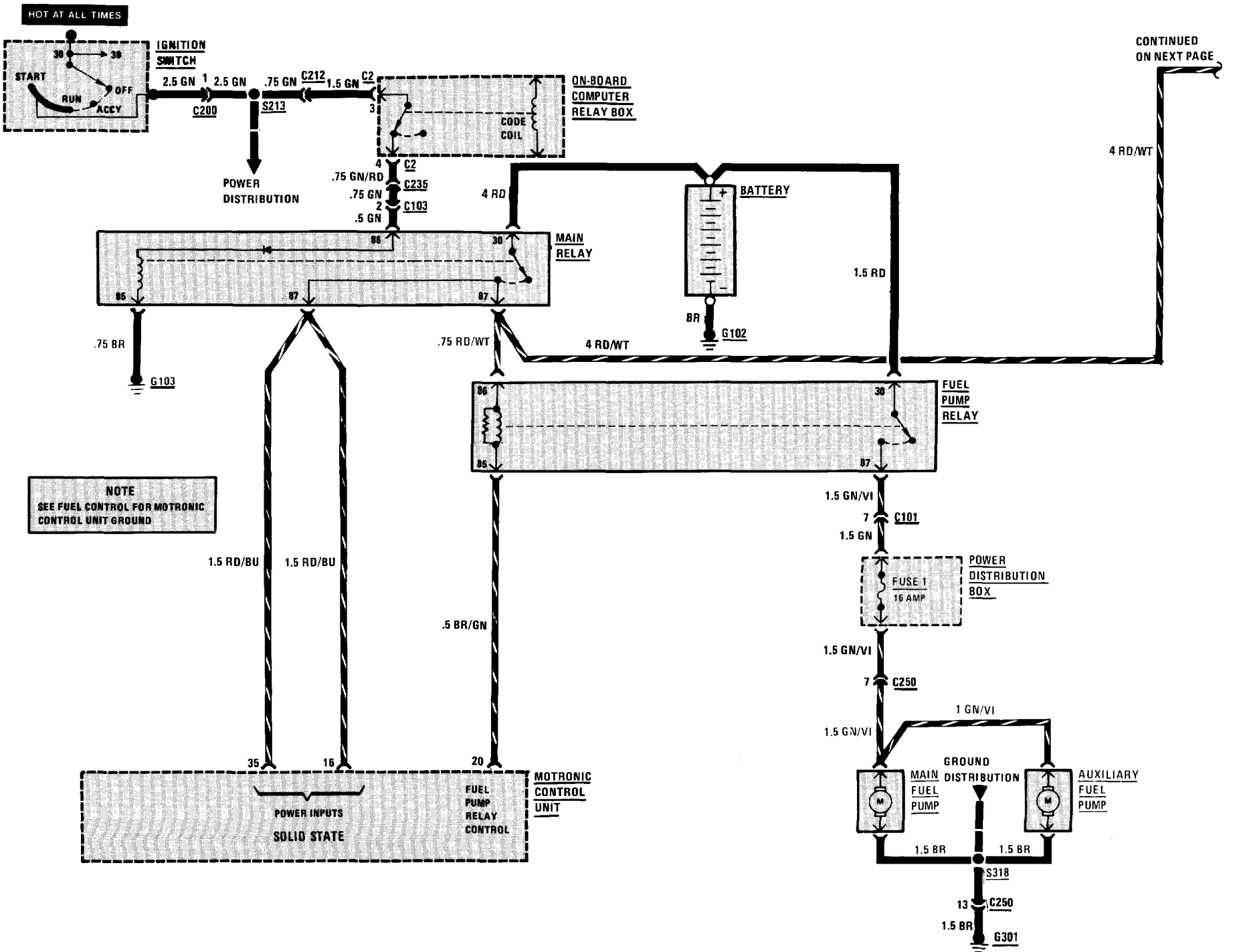
IDLE SPEED CONTROL



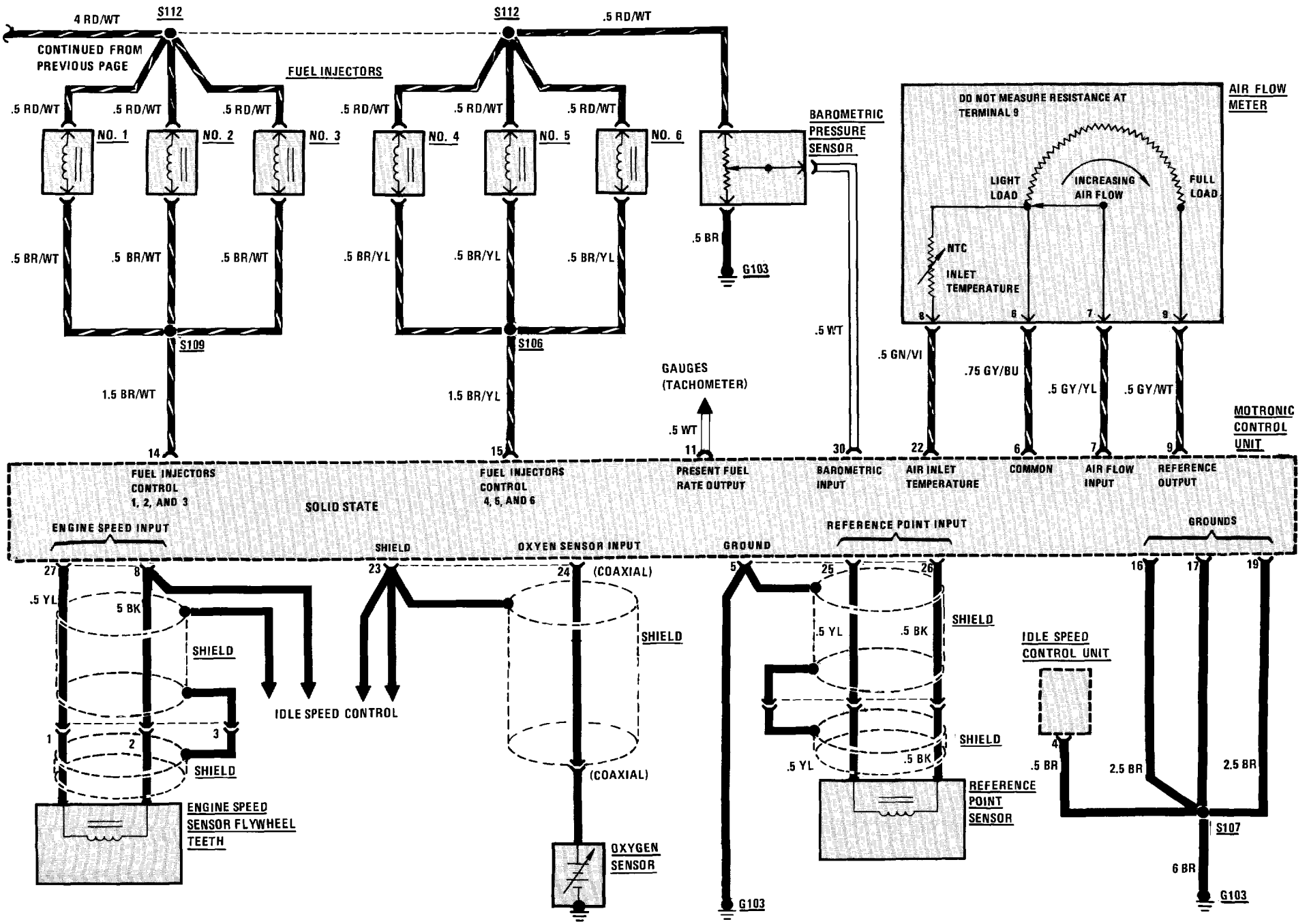
IGNITION

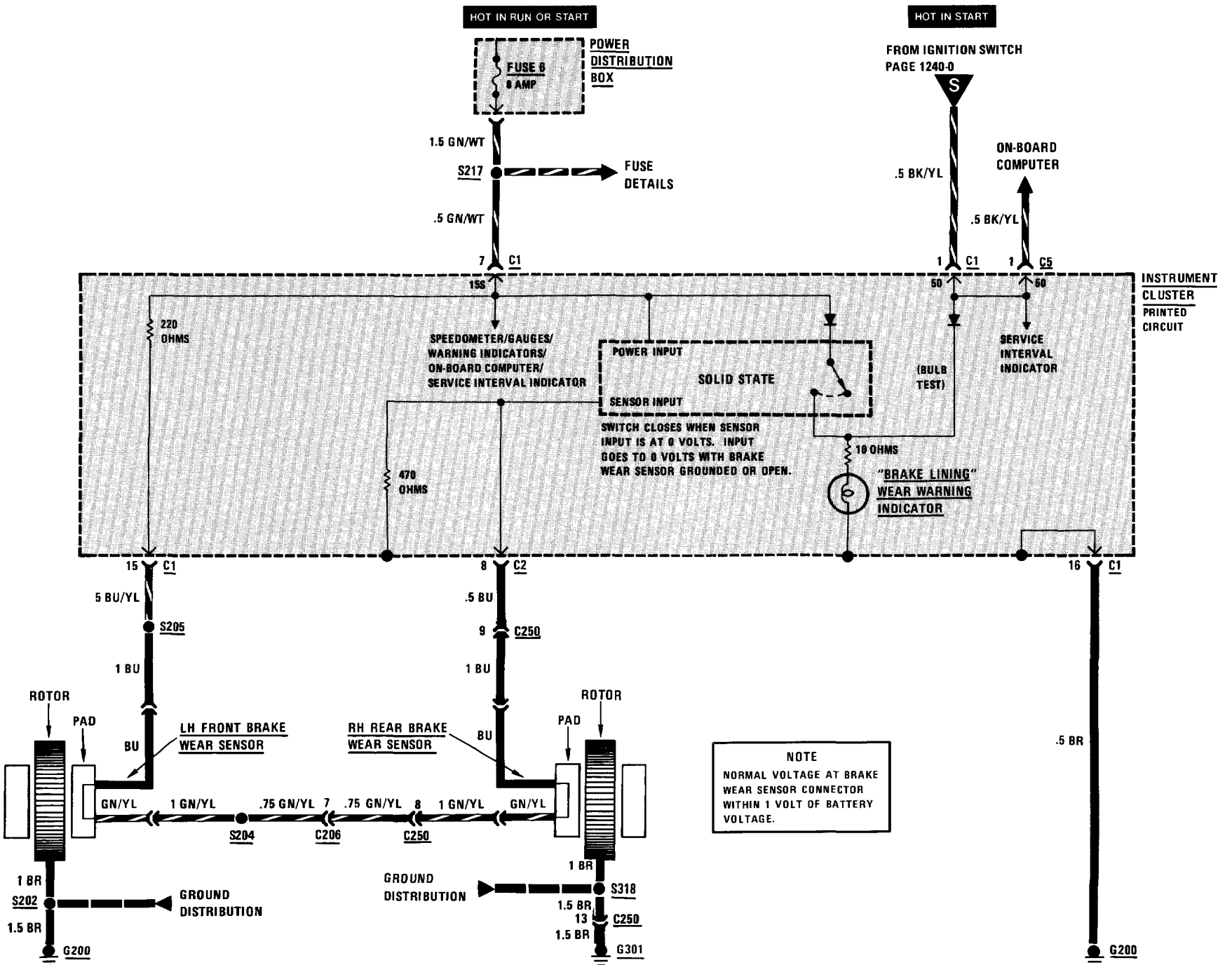


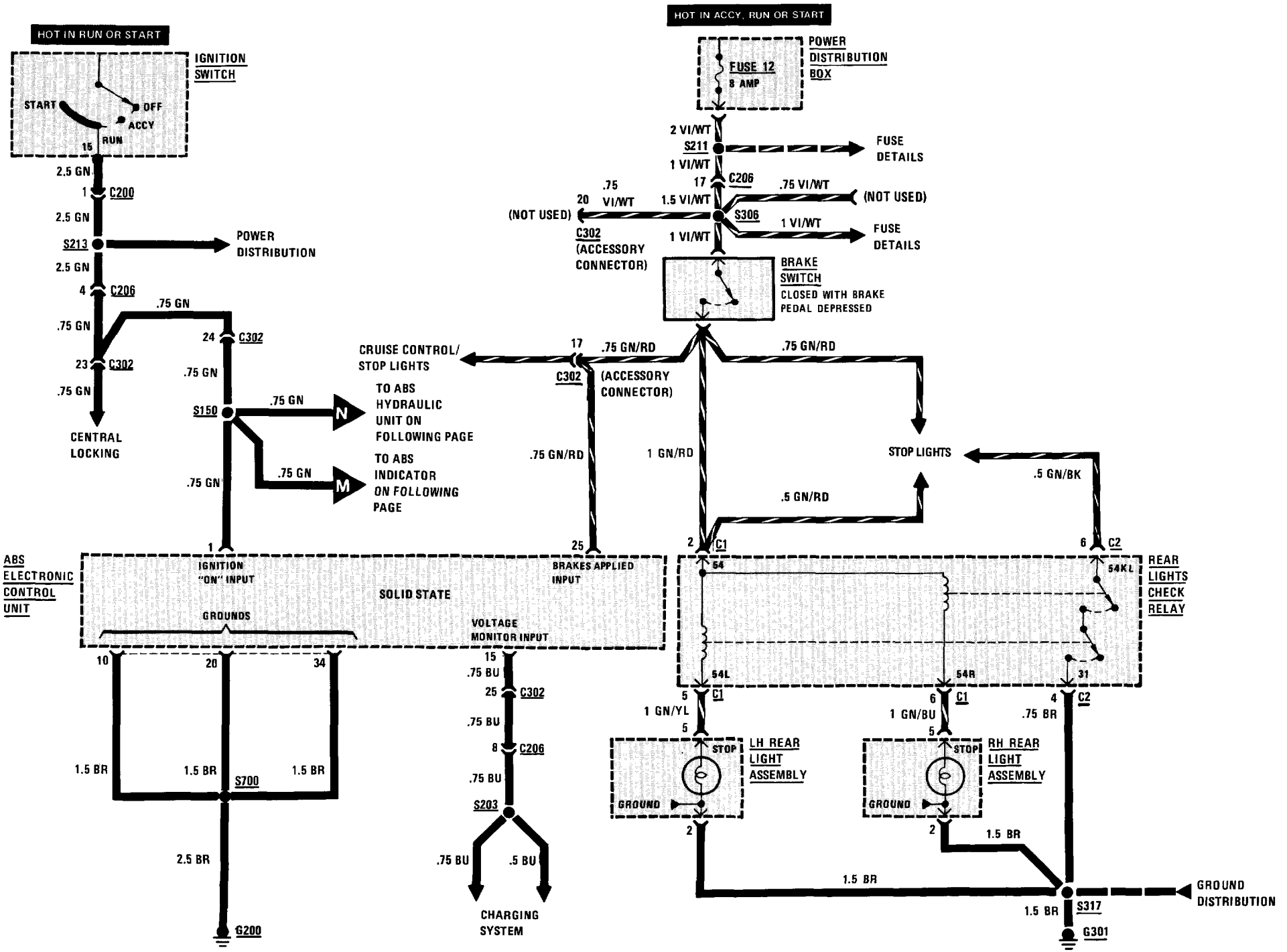
FUEL DELIVERY

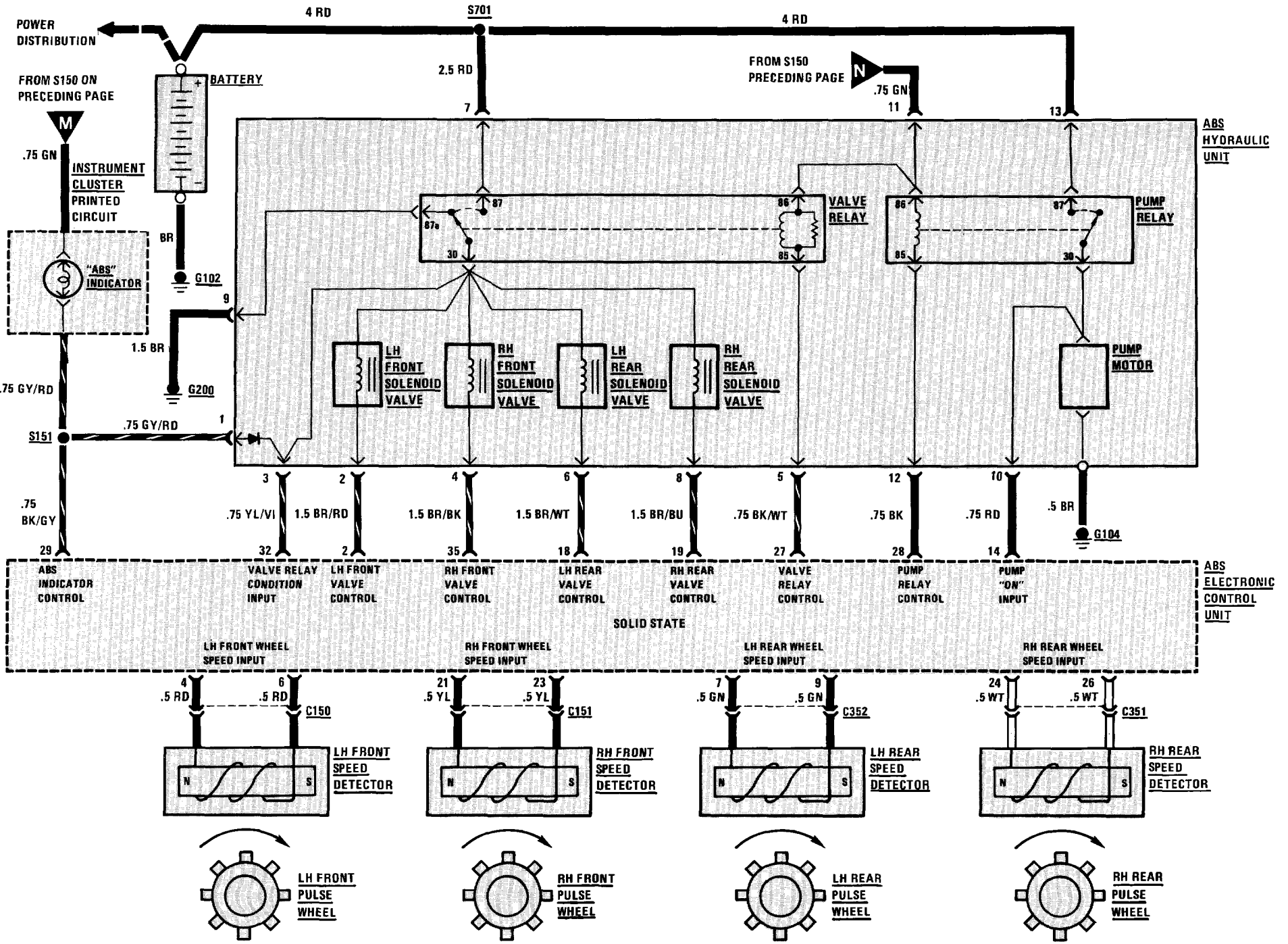


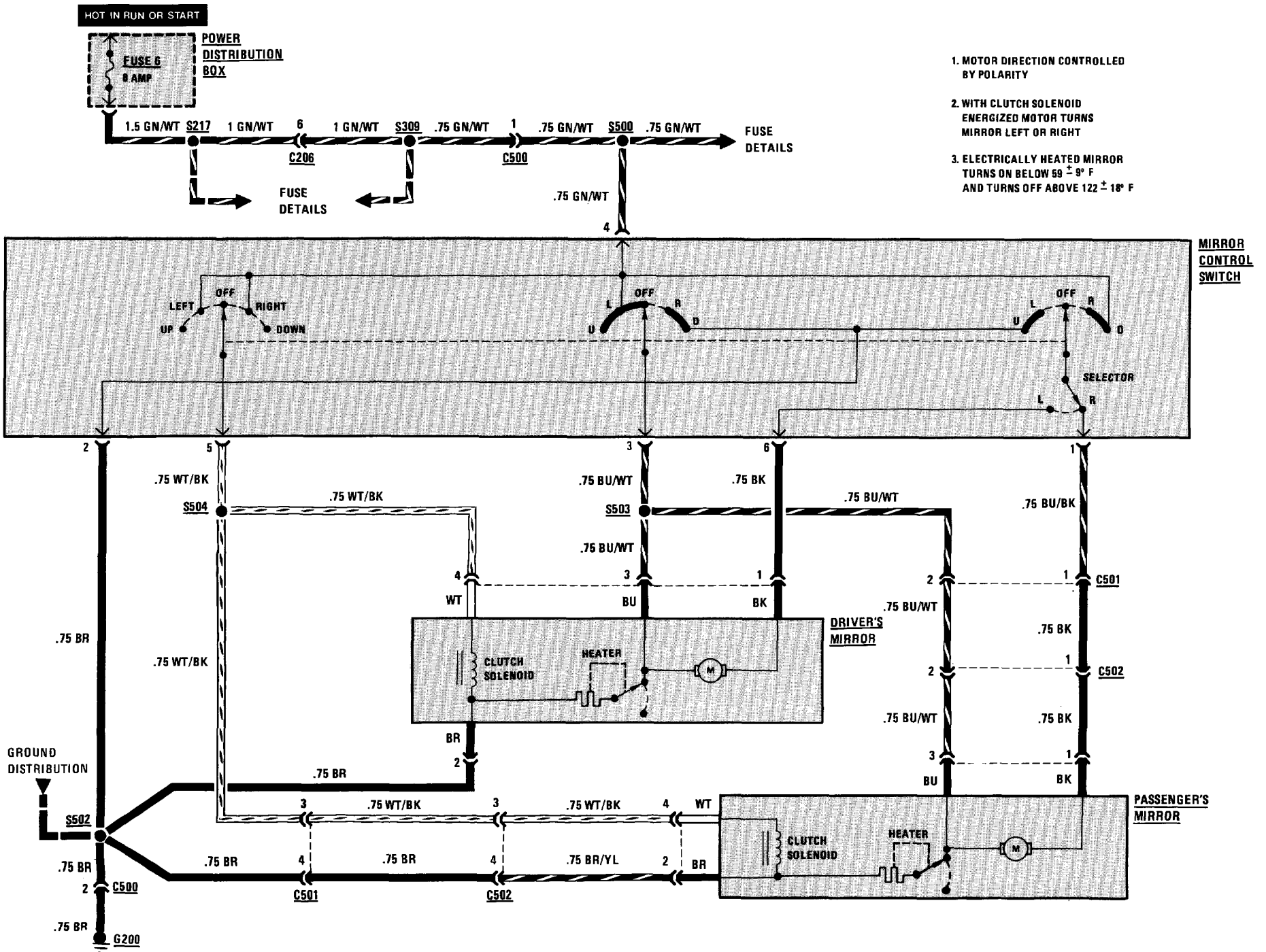
FUEL CONTROL

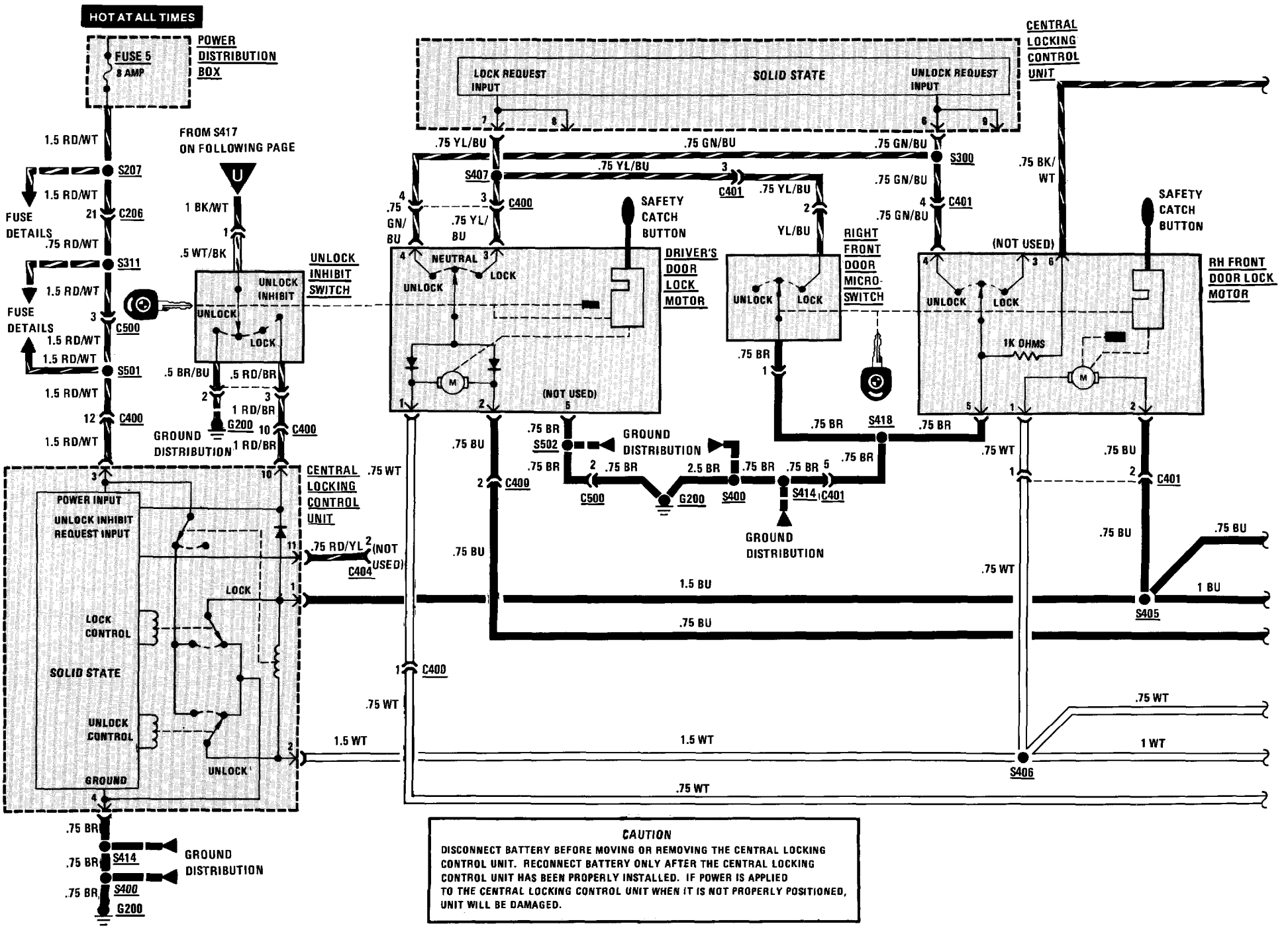


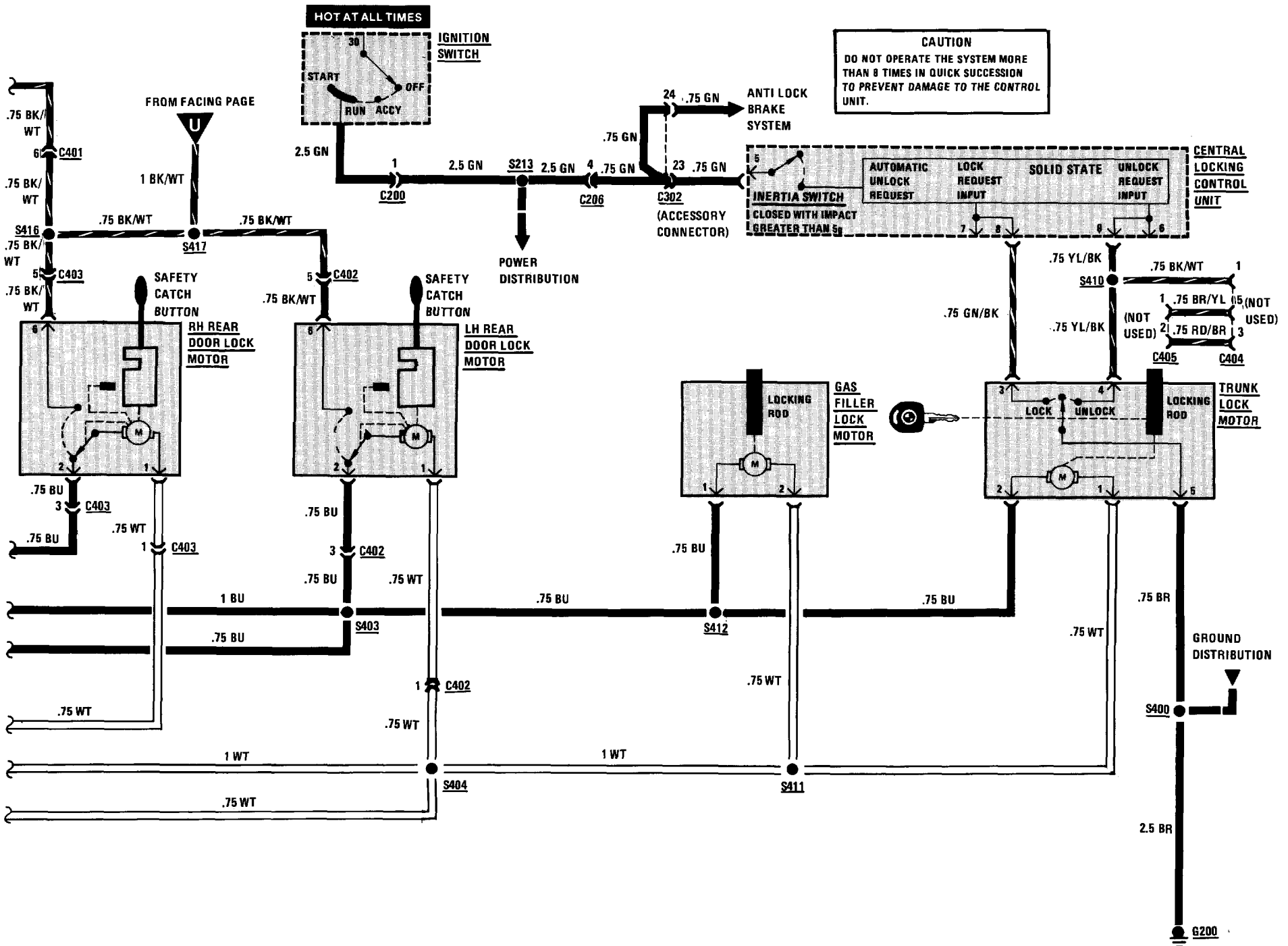

HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
FUSE DETAILS
.5 GN/WT
7 C1
HOT IN START
FROM IGNITION SWITCH PAGE 1240-0
S
.5 BK/YL
ON-BOARD COMPUTER
.5 BK/YL
1 C1
1 C5
INSTRUMENT CLUSTER PRINTED CIRCUIT
15S
50
50
220 OHMS
SPEEDOMETER/GAUGES/ WARNING INDICATORS/ ON-BOARD COMPUTER/ SERVICE INTERVAL INDICATOR
POWER INPUT
SOLID STATE
SENSOR INPUT
(BULB TEST)
SERVICE INTERVAL INDICATOR
SWITCH CLOSES WHEN SENSOR INPUT IS AT 0 VOLTS. INPUT GOES TO 0 VOLTS WITH BRAKE WEAR SENSOR GROUNDED OR OPEN.
10 OHMS
470 OHMS
"BRAKE LINING" WEAR WARNING INDICATOR
15 C1
8 C2
16 C1
5 BU/YL
.5 BU
.5 BR
S205
9 C250
1 BU
1 BU
ROTOR
PAD
LH FRONT BRAKE WEAR SENSOR
RH REAR BRAKE WEAR SENSOR
BU
BU
ROTOR
PAD
GN/YL
1 GN/YL
.75 GN/YL
7
.75 GN/YL
8
1 GN/YL
GN/YL
S204
C206
C250
1 BR
S202
GROUND DISTRIBUTION
1.5 BR
G200
GROUND DISTRIBUTION
1 BR
S318
1.5 BR
13 C250
1.5 BR
G301
G200
NOTE
NORMAL VOLTAGE AT BRAKE WEAR SENSOR CONNECTOR WITHIN 1 VOLT OF BATTERY VOLTAGE.


HOT IN RUN OR START
IGNITION SWITCH
START
OFF
ACCY
RUN
15
2.5 GN
1
C200
2.5 GN
S213
POWER DISTRIBUTION
2.5 GN
4
C206
.75 GN
.75 GN
24
C302
23
C302
.75 GN
.75 GN
S150
.75 GN
.75 GN
CENTRAL LOCKING
TO ABS HYDRAULIC UNIT ON FOLLOWING PAGE
TO ABS INDICATOR ON FOLLOWING PAGE
HOT IN ACCY, RUN OR START
POWER DISTRIBUTION BOX
FUSE 12
8 AMP
2 VI/WT
S211
FUSE DETAILS
1 VI/WT
17
C206
.75 VI/WT
(NOT USED)
.75 VI/WT
20
1.5 VI/WT
(NOT USED)
S306
C302
(ACCESSORY CONNECTOR)
1 VI/WT
FUSE DETAILS
BRAKE SWITCH
CLOSED WITH BRAKE PEDAL DEPRESSED
CRUISE CONTROL/ STOP LIGHTS
17
.75 GN/RD
.75 GN/RD
C302
(ACCESSORY CONNECTOR)
.75 GN/RD
1 GN/RD
STOP LIGHTS
.5 GN/BK
.5 GN/RD
ABS ELECTRONIC CONTROL UNIT
1
IGNITION "ON" INPUT
SOLID STATE
BRAKES APPLIED INPUT
25
2
C1
6
C2
GROUNDS
VOLTAGE MONITOR INPUT
REAR LIGHTS CHECK RELAY
54
54KL
54L
54R
31
10
20
34
15
.75 BU
25
C302
.75 BU
8
C206
.75 BU
S203
5
C1
1 GN/YL
6
C1
1 GN/BU
4
C2
.75 BR
5
5
1.5 BR
1.5 BR
S700
1.5 BR
STOP
LH REAR LIGHT ASSEMBLY
STOP
RH REAR LIGHT ASSEMBLY
GROUND
GROUND
2
2
1.5 BR
2.5 BR
.75 BU
.5 BU
1.5 BR
GROUND DISTRIBUTION
1.5 BR
S317
G200
CHARGING SYSTEM
G301


POWER DISTRIBUTION
4 RD
S701
4 RD
FROM S150 ON PRECEDING PAGE
BATTERY
2.5 RD
7
FROM S150 PRECEDING PAGE
N
.75 GN
11
13
ABS HYDRAULIC UNIT
M
.75 GN
INSTRUMENT CLUSTER PRINTED CIRCUIT
"ABS" INDICATOR
BR
G102
87
87a
30
86
85
VALVE RELAY
PUMP RELAY
9
1.5 BR
G200
LH FRONT SOLENOID VALVE
RH FRONT SOLENOID VALVE
LH REAR SOLENOID VALVE
RH REAR SOLENOID VALVE
PUMP MOTOR
.75 GY/RD
S151
.75 GY/RD
1
3
2
4
6
8
5
12
10
.5 BR
G104
.75 BK/GY
.75 YL/VI
1.5 BR/RD
1.5 BR/BK
1.5 BR/WT
1.5 BR/BU
.75 BK/WT
.75 BK
.75 RD
29
32
2
35
18
19
27
28
14
ABS INDICATOR CONTROL
VALVE RELAY CONDITION INPUT
LH FRONT VALVE CONTROL
RH FRONT VALVE CONTROL
LH REAR VALVE CONTROL
RH REAR VALVE CONTROL
VALVE RELAY CONTROL
PUMP RELAY CONTROL
PUMP "ON" INPUT
SOLID STATE
ABS ELECTRONIC CONTROL UNIT
LH FRONT WHEEL SPEED INPUT
RH FRONT WHEEL SPEED INPUT
LH REAR WHEEL SPEED INPUT
RH REAR WHEEL SPEED INPUT
4 .5 RD
6 .5 RD
C150
21 .5 YL
23 .5 YL
C151
7 .5 GN
9 .5 GN
C352
24 .5 WT
26 .5 WT
C351
N
S
LH FRONT SPEED DETECTOR
RH FRONT SPEED DETECTOR
LH REAR SPEED DETECTOR
RH REAR SPEED DETECTOR
LH FRONT PULSE WHEEL
RH FRONT PULSE WHEEL
LH REAR PULSE WHEEL
RH REAR PULSE WHEEL


HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
1 GN/WT
6
C206
1 GN/WT
S309
.75 GN/WT
1
C500
.75 GN/WT
S500
.75 GN/WT
FUSE DETAILS
FUSE DETAILS
.75 GN/WT
4
1. MOTOR DIRECTION CONTROLLED BY POLARITY
2. WITH CLUTCH SOLENOID ENERGIZED MOTOR TURNS MIRROR LEFT OR RIGHT
3. ELECTRICALLY HEATED MIRROR TURNS ON BELOW 59 ± 9° F AND TURNS OFF ABOVE 122 ± 18° F
MIRROR CONTROL SWITCH
LEFT
OFF
RIGHT
UP
DOWN
L
OFF
R
U
D
SELECTOR
L
R
2
5
3
6
1
.75 WT/BK
.75 WT/BK
S504
.75 BU/WT
.75 BK
.75 BU/WT
S503
.75 BU/BK
.75 BU/WT
4
3
1
2
1
C501
WT
BU
BK
.75 BU/WT
.75 BK
.75 BR
.75 WT/BK
CLUTCH SOLENOID
HEATER
M
DRIVER'S MIRROR
2
1
C502
.75 BU/WT
.75 BK
BR
2
3
1
BU
BK
GROUND DISTRIBUTION
.75 BR
S502
3
.75 WT/BK
3
.75 WT/BK
4
WT
PASSENGER'S MIRROR
CLUTCH SOLENOID
HEATER
M
.75 BR
.75 BR
4
.75 BR
4
.75 BR/YL
2
BR
.75 BR
2
C500
C501
C502
.75 BR
G200


HOT AT ALL TIMES
FUSE 5
8 AMP
POWER DISTRIBUTION BOX
1.5 RD/WT
S207
FUSE DETAILS
C206
.75 RD/WT
S311
C500
S501
C400
FROM S417 ON FOLLOWING PAGE
1 BK/WT
.5 WT/BK
UNLOCK INHIBIT SWITCH
UNLOCK
LOCK
.5 BR/BU
.5 RD/BR
1 RD/BR
G200
GROUND DISTRIBUTION
CENTRAL LOCKING CONTROL UNIT
POWER INPUT
UNLOCK INHIBIT REQUEST INPUT
.75 RD/YL
C404
(NOT USED)
LOCK CONTROL
SOLID STATE
UNLOCK CONTROL
GROUND
.75 WT
.75 BR
S414
S400
CENTRAL LOCKING CONTROL UNIT
LOCK REQUEST INPUT
SOLID STATE
UNLOCK REQUEST INPUT
.75 YL/BU
.75 GN/BU
S407
C401
S300
.75 BK/WT
.75 GN/BU
.75 GN/BU
.75 YL/BU
SAFETY CATCH BUTTON
DRIVER'S DOOR LOCK MOTOR
NEUTRAL
RIGHT FRONT DOOR MICRO-SWITCH
(NOT USED)
RH FRONT DOOR LOCK MOTOR
1K OHMS
.75 BR
S418
.75 BU
S502
GROUND DISTRIBUTION
2.5 BR
S414
1.5 BU
1 BU
S405
1.5 WT
1 WT
S406
CAUTION
DISCONNECT BATTERY BEFORE MOVING OR REMOVING THE CENTRAL LOCKING CONTROL UNIT. RECONNECT BATTERY ONLY AFTER THE CENTRAL LOCKING CONTROL UNIT HAS BEEN PROPERLY INSTALLED. IF POWER IS APPLIED TO THE CENTRAL LOCKING CONTROL UNIT WHEN IT IS NOT PROPERLY POSITIONED, UNIT WILL BE DAMAGED.


HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
RUN
ACCY
CAUTION
DO NOT OPERATE THE SYSTEM MORE THAN 8 TIMES IN QUICK SUCCESSION TO PREVENT DAMAGE TO THE CONTROL UNIT.
FROM FACING PAGE
.75 BK/WT
C401
1 BK/WT
2.5 GN
C200
S213
C206
C302 (ACCESSORY CONNECTOR)
24 .75 GN
ANTI LOCK BRAKE SYSTEM
.75 GN
23 .75 GN
INERTIA SWITCH
CLOSED WITH IMPACT GREATER THAN 5g
AUTOMATIC UNLOCK REQUEST
LOCK REQUEST INPUT
SOLID STATE
UNLOCK REQUEST INPUT
CENTRAL LOCKING CONTROL UNIT
S416
S417
.75 BK/WT
C403
C402
SAFETY CATCH BUTTON
RH REAR DOOR LOCK MOTOR
LH REAR DOOR LOCK MOTOR
POWER DISTRIBUTION
.75 YL/BK
S410
.75 GN/BK
(NOT USED)
.75 BR/YL
.75 RD/BR
C405
C404
GAS FILLER LOCK MOTOR
LOCKING ROD
TRUNK LOCK MOTOR
LOCK
UNLOCK
.75 BU
.75 WT
1 BU
S403
S412
1 WT
S404
S411
.75 BR
GROUND DISTRIBUTION
S400
2.5 BR
G200

TROUBLESHOOTING HINT

Check Fuse 5 by operating the Digital Radio.

SYSTEM CHECK

- **Operate controls in sequence listed in the System Check Table.**
- **Refer to Repair Action for the Response received (Tests follow the System Check Table).**
- **After any repair, repeat System Check to *verify proper system operation*.**

NOTE: Before replacing any system component, check all connectors, splices, and wiring to that component.

COMPONENT LOCATION

		Page-Figure
Central Locking Control Unit	Behind RH kick panel, above speaker	7000-10-4
Door Lock Motors	Center Rea of respective door	7000-10-4
Gas Filler Lock Motor	In trunk, right of power antenna	7000-12-4
Ignition Switch	Upper part of steering column	
Power Distribution Box	On LH front wheel well	7000- 3-2
Right Front Door Micro Switch	Inside RH front door, mounted on door lock.	7000-10-4
Trunk Lock Motor	In rear panel of trunk	7000-12-3
Unlock Inhibit Switch	In LH front door, on door lock	7000- 9-4
C200 (10 pin)	On LH side of steering column	7000- 7-6
C206 (29 pin)	On connector bracket, under LH side of dash	7000- 7-4
C302 (Accessory Connector)	Under LH side of dash	7000- 7-4
C400 (13 pin)	Behind LH front speaker	7000- 9-2
C401 (13 pin)	Behind RH front speaker	7000-10-3
C402 (7 pin)	In LH B pillar	
C403 (7 pin)	In RH B pillar	7000-5-6
C404 (5 pin)	In bottom rear of LH front door	
C405 (2 pin)	In trunk, near trunk lock	
C500 (6 pin)	Behind LH front speaker	7000- 9-2
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket.	7000- 7-6

SYSTEM CHECK TABLE

OPERATION	RESPONSE	REPAIR ACTION
1. Insert the key in the Driver's door and turn to LOCK	All doors lock	None, proceed to Operation 2
	Some doors lock	Repair/replace the suspect Door Lock Motor circuit
	No doors lock	Proceed to Operation 4
2. Turn the key to UNLOCK INHIBIT (clockwise until key is horizontal)	All doors double lock (Safety Catch Buttons cannot be pulled up by hand)	None, proceed to Operation 3
	Driver's door double locks and only some of the other doors double lock	Repair/replace the suspect Door Lock Motor
	Driver's door double locks but all the other doors do not double lock	Turn key to UNLOCK. If any door unlocks, check RD/BR wire and Unlock Inhibit Switch. If no doors unlock, proceed to Test B.
	Driver's door does not double lock	Mechanical problem, see BMW Troubleshooting Manual

SYSTEM CHECK TABLE (CONT'D)

OPERATION	RESPONSE	REPAIR ACTION
3. Turn the key to UNLOCK	All doors unlock	None, proceed to Operation 4
	Some doors unlock	Repair/replace the suspect Door Lock Motor circuit
	No doors unlock	Proceed to Operation 5
4. Insert the key in the Passenger's door and turn to LOCK	All doors lock	If the doors did not lock in Operation 1, repair/replace the Driver's Door Lock Switch, otherwise proceed to Operation 5
	Some doors lock	Repair/replace the suspect Door Lock Motor circuit
	No doors lock	If all the doors locked in Operation 1, repair/replace the Right Front Door Microswitch. If the doors did not lock in Operation 1, perform Test A
5. Insert the key in the Passenger's door and turn to UNLOCK	All doors unlock	If all the doors did not unlock in Operation 3, repair/replace the Driver's Door Lock Switch, otherwise proceed to Operation 6
	Some doors unlock	Repair/replace the suspect Door Lock Motor
	No doors unlock	If all the doors unlocked in Operation 3, repair/replace the Passenger's Door Lock Switch. If the doors did not unlock in Operation 3, perform Test C
6. Get in the car and close and lock all doors Turn the Ignition Switch to RUN	Doors remain locked	None, proceed to Operation 7
	Doors unlock	Repair/replace the Central Locking Control Unit
7. Get out of the car Insert the key in the Driver's door and turn to LOCK Unlock each of the doors by pulling up the Safety Catch Buttons	All doors can be unlocked	None, proceed to Operation 8
	All doors remain secure	Disconnect the connector from the Central Locking Control Unit and check for a short to battery in the RD/BR, WT/BU, and BK/WT wires at terminal 10. • If short to battery is not present, replace the Unlock Inhibit Switch. • If short to battery is present, isolate wiring from Door Lock Motors one at a time to find short

SYSTEM CHECK TABLE (CONT'D)

OPERATION	RESPONSE	REPAIR ACTION
8. Insert the key in the Trunk Cylinder Switch. Turn the key to LOCK	Trunk locks	None, proceed to Operation 9
	Trunk does not lock	If the doors lock, repair/replace the Trunk Lock Motor Circuit or Trunk Lock Motor. If the doors do not lock, repair/replace the Trunk Switch. Repair/replace the Central Locking Control Unit if the Trunk Switch Circuit is OK
9. Turn the key to UNLOCK	Trunk unlocks	None, proceed to Operation 10
	Trunk does not unlock	If the doors unlock, repair/replace the Trunk Lock Motor circuit or Trunk Lock Motor. If the doors do not unlock, repair/replace the Trunk Switch. Repair/replace the Central Locking Control Unit if the Trunk Switch Circuit is OK
10. Turn the key back to LOCK	Gas Filler locks	None, proceed to Operation 11
	Gas Filler does not lock	Repair/replace the Gas Filler Lock Motor circuit
11. Turn the key to UNLOCK	Gas Filler unlocks	None
	Gas Filler does not unlock	Repair/replace the Gas Filler Lock Motor circuit

- **If all results are normal, the system is OK.**

SYSTEM DIAGNOSIS

- **Do the following tests when directed by the System Check Table.**

A: CONTROL UNIT LOCK TEST (TABLE 1)

Measure: VOLTAGE
At: CONTROL UNIT CONNECTOR (Connected)

Measure Between	Correct Voltage	For Diagnosis
3 (RD/WT) & Ground	Battery	See 1
3 (RD/WT) & 4 (BR)	Battery	See 2

- If the voltages are correct, proceed to Table 2.

1. Check the RD/WT wire for an open.
2. Check the BR wire for an open to ground (see schematic).

A: CONTROL UNIT LOCK TEST (TABLE 2)

Connect: A FUSED JUMPER
At: CONTROL UNIT CONNECTOR (Connected)

Jumper Between	Correct Result	For Diagnosis
7 (YL/BU) & Ground	Doors lock	See 1

- If the result is correct, repair/replace the switches and related wiring (see schematic).

1. Proceed to Table 3.

A: CONTROL UNIT LOCK TEST (TABLE 3)

Connect: A FUSED JUMPER
At: CONTROL UNIT CONNECTOR (Disconnected)

Jumper Between	Correct Result	For Diagnosis
1 (BU) & 3 (RD/WT) 2 (WT) & 4 (BR)	Doors lock	See 1

- If the result is correct, replace the Central Locking Control Unit.

1. Check the BU wire to splice S405 and the WT wire to splice S406 for opens (see schematic).

B: UNLOCK INHIBIT TEST (TABLE 1)

Measure: RESISTANCE
At: CONTROL UNIT CONNECTOR (Disconnected)
Conditions
- **Driver's Door Lock: UNLOCK INHIBIT**

Measure Between	Correct Resistance	For Diagnosis
10 (RD/BR) & Ground	1 K ohm	See 1

- If the resistance is correct but the unlock inhibit only operates on the Driver's Lock, replace the Central Locking Central Unit.

1. Check for opens in the WT/BK, BK/WT and BR wires. If OK, proceed to Table 2.

B: UNLOCK INHIBIT TEST (Table 2)

Measure: RESISTANCE
At: LH FRONT DOOR LOCK MOTOR (Disconnected)

Measure Between	Correct Result	For Diagnosis
Terminal 6 and Terminal 5	1 K ohm	See 1

- If resistance is correct, replace the Unlock Inhibit Switch.

1. Replace RH Front Door Lock Motor.

C: CONTROL UNIT UNLOCK TEST

Connect: A FUSED JUMPER
At: CONTROL UNIT CONNECTOR (Connected)

Jumper Between	Correct Result	For Diagnosis
6 (GN/BU) & Ground	Doors unlock	See 1

- If the result is correct, repair/replace the switches and related wiring (see schematic).

1. Replace the Central Locking Control Unit.

CIRCUIT DESCRIPTION

The Central Locking System is controlled by the Central Locking Control Unit. This unit senses when a lock switch is moved by a key, and sends the appropriate signal to drive the Motors. The Central Lock Control Unit controls the Door Locks, Gas Filler Lock and Trunk Lock. The unit also has an Inertia Switch which closes on impact greater than 5g. If in RUN or START the locks are then unlocked.

Lock

When the Key is inserted into a lock and turned clockwise, the Lock switch moves to LOCK and grounds terminal 7 of the Central Locking Control Unit. The unit activates the Lock Relay and applies voltage from Fuse 5 to the Lock Motor, which is grounded through the WT wire, Central Locking Control Unit and BR wire. The Lock Motor then pulls the lock down. As the motor runs, a switch is gradually moved from terminal 2 to terminal 6 of all but the Driver's Lock Motor. At terminal 6, the switch position prevents voltage from being applied to the motor. The door locks also control the Trunk Lock and Gas Filler Lock.

Unlock

When the key is turned counterclockwise, terminal G of the Central Locking Control Unit is grounded through the Lock Switch. The Central Locking Control Unit then activates the Unlock Relay and applies voltage from Fuse 27, through the WT wire to the Lock Motor. The motor is grounded through the BU wire, Cental Locking Control Unit, and BR wire. The polarity is reversed and the motor pushes the lock up. As the motor runs, the switch is returned to terminal 2.

Unlock Inhibit

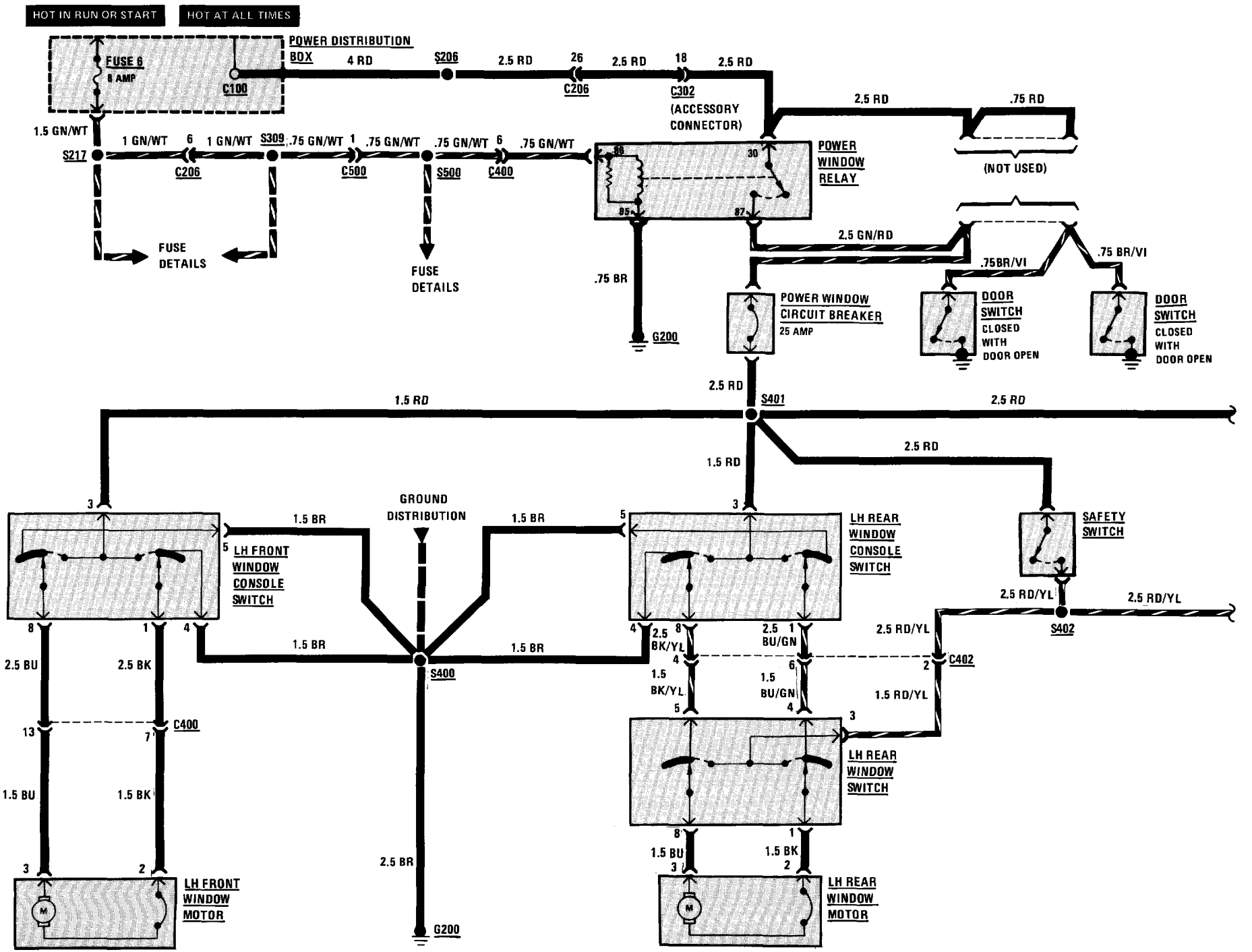
When the key is inserted into the Driver's Lock and turned clockwise past the LOCK position, the Unlock inhibit mechanism is engaged. This mechanically inserts a bar into the driver's lock and prevents unlocking through use of the Safety Catch Button. When in the Unlock Inhibit position, the Central Locking Unit is grounded at terminal 10. The unit then activates the Lock Relay, and voltage is applied to the motors through the Unlock Inhibit Switch and BK/WT wires. The motors are again acti-

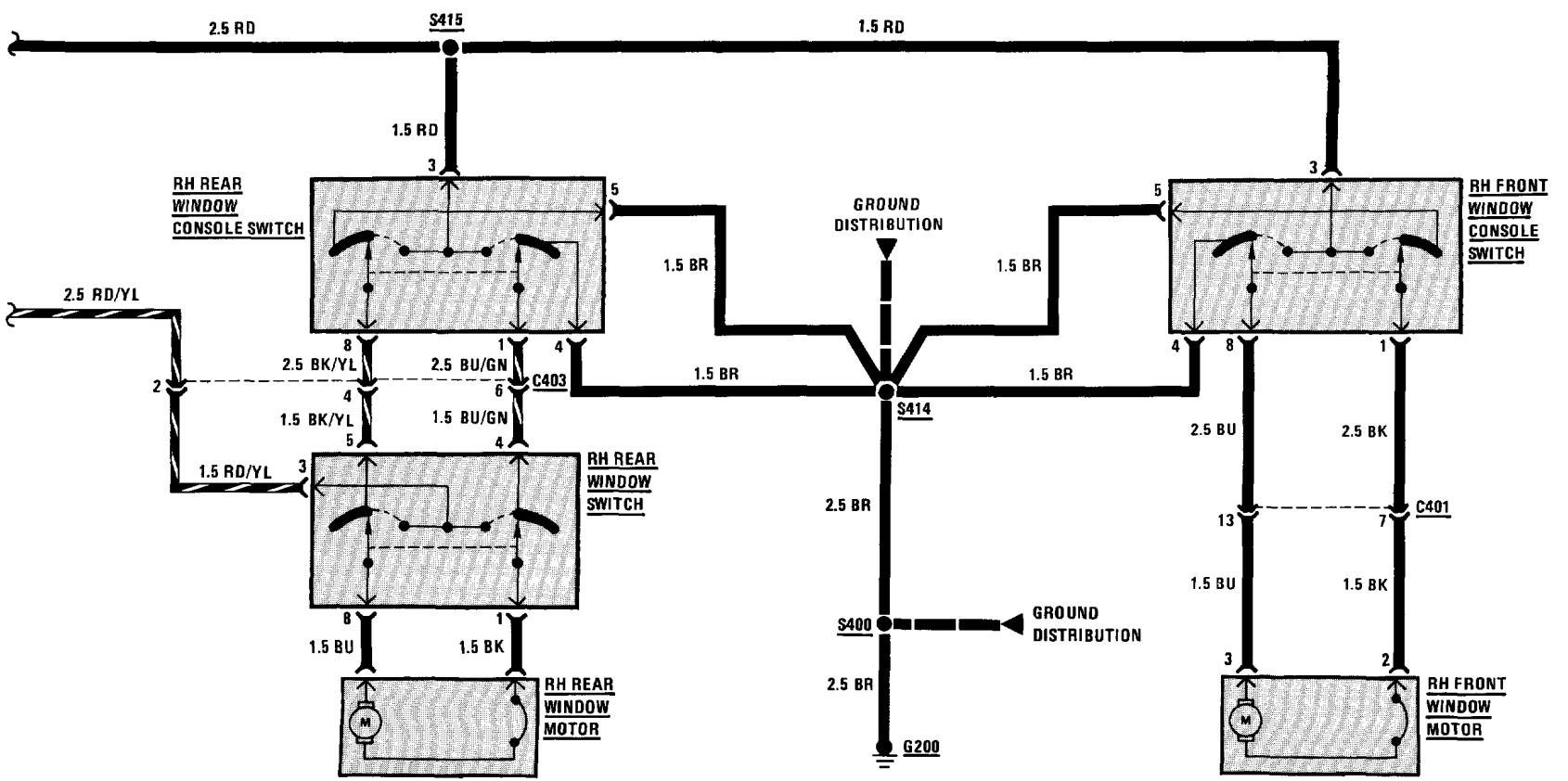
vated and engage their Unlock Inhibit mechanisms.

Trunk Lock

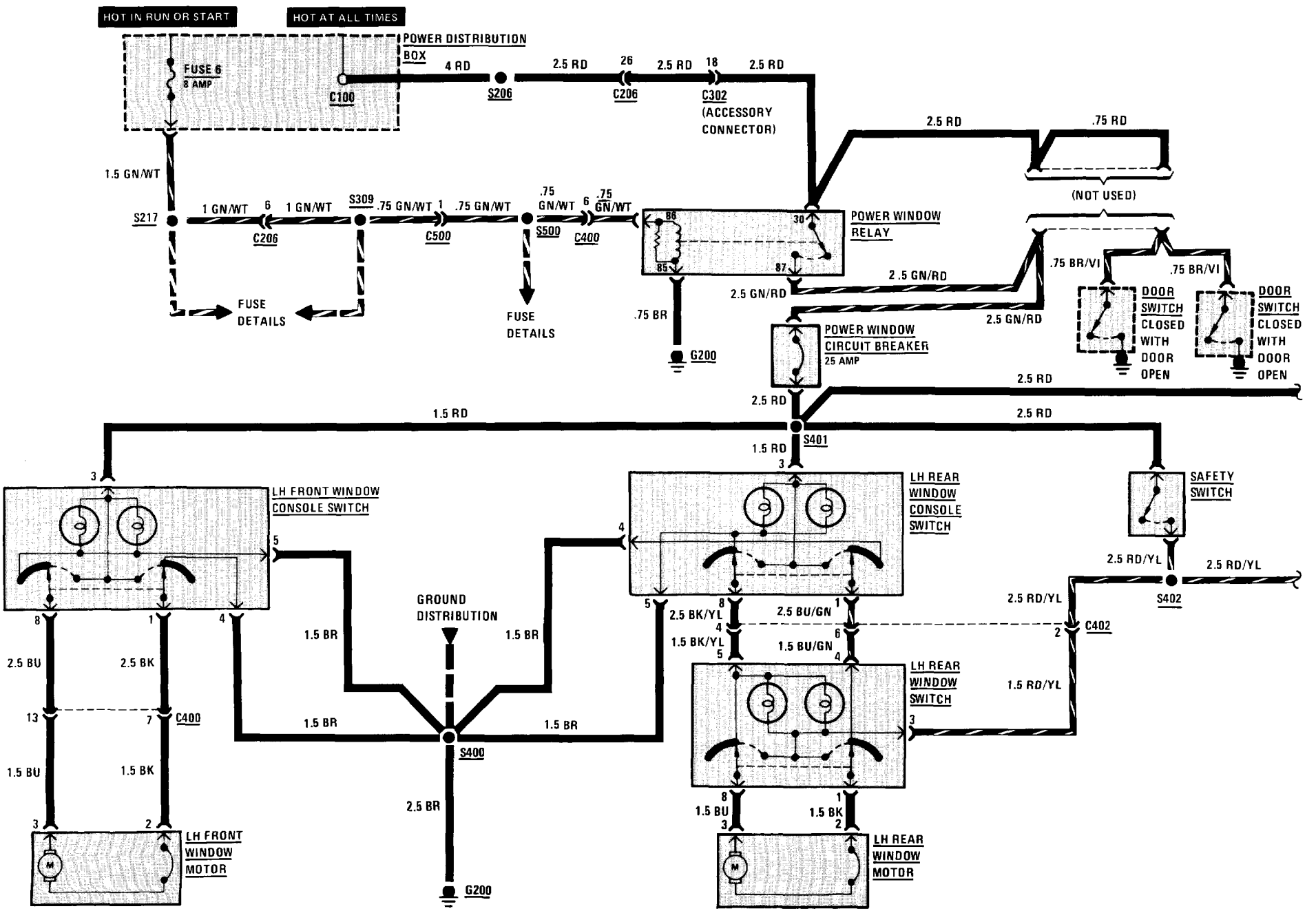
The Trunk Lock operates in a manner similar to the Door Locks.

EARLY PRODUCTION

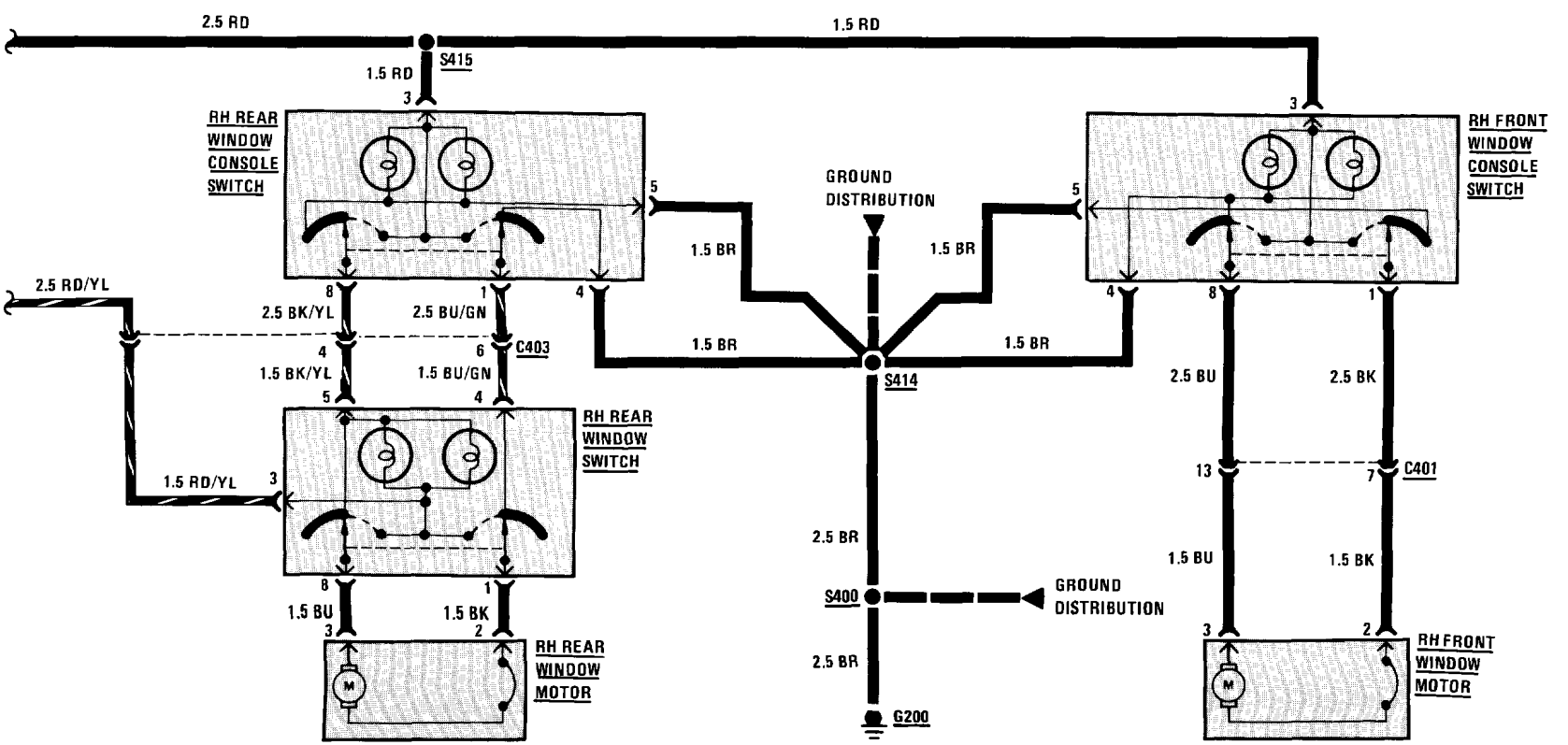


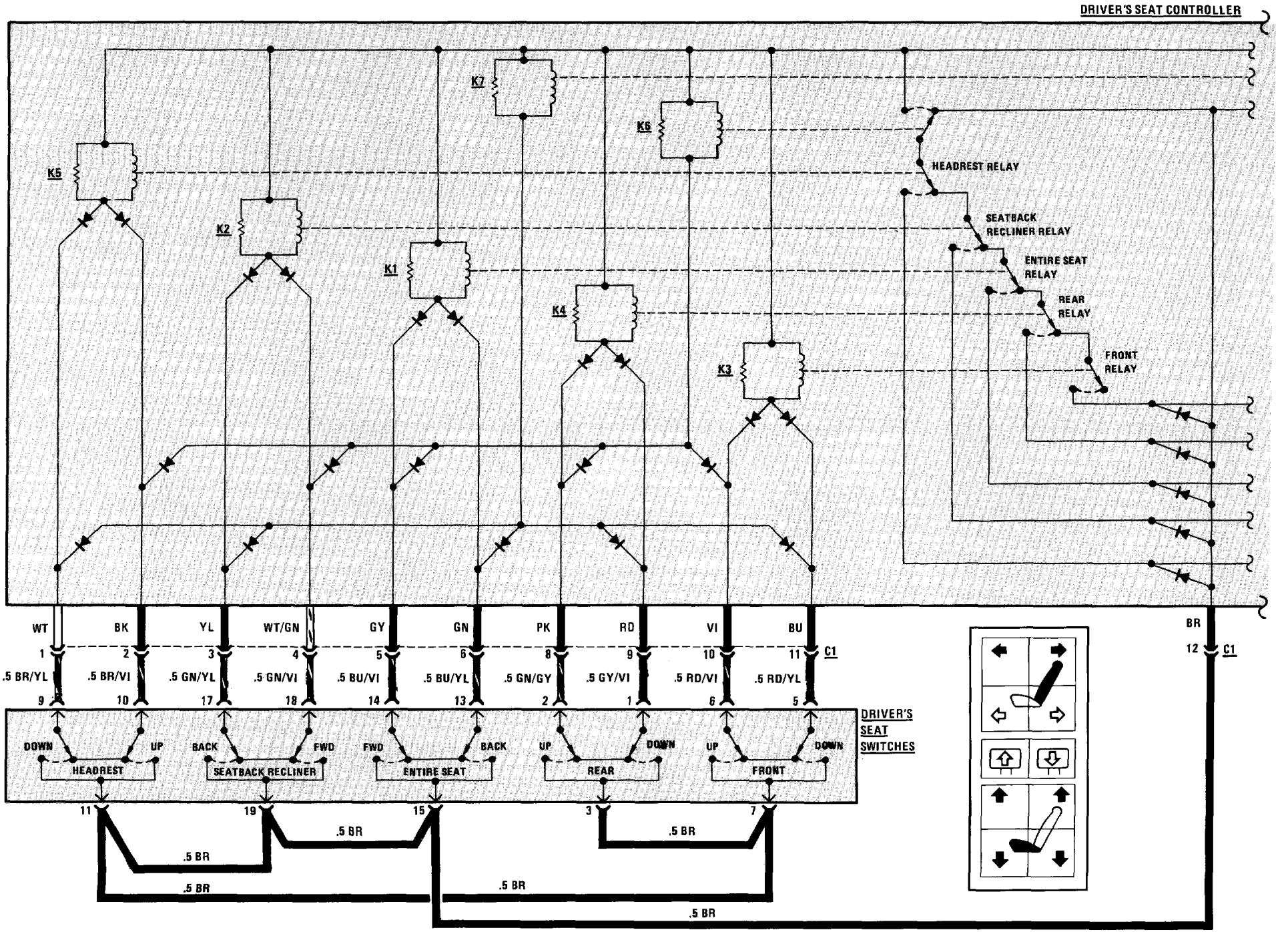

2.5 RD
S415
1.5 RD
1.5 RD
RH REAR WINDOW CONSOLE SWITCH
3
5
GROUND DISTRIBUTION
1.5 BR
1.5 BR
5
3
RH FRONT WINDOW CONSOLE SWITCH
2.5 RD/YL
8
1
4
2.5 BK/YL
2.5 BU/GN
C403
1.5 BR
1.5 BR
4
8
1
2
4
6
S414
1.5 BK/YL
1.5 BU/GN
2.5 BU
2.5 BK
5
4
1.5 RD/YL
3
RH REAR WINDOW SWITCH
2.5 BR
13
7
C401
1.5 BU
1.5 BK
8
1
S400
GROUND DISTRIBUTION
1.5 BU
1.5 BK
2.5 BR
3
2
RH REAR WINDOW MOTOR
G200
RH FRONT WINDOW MOTOR

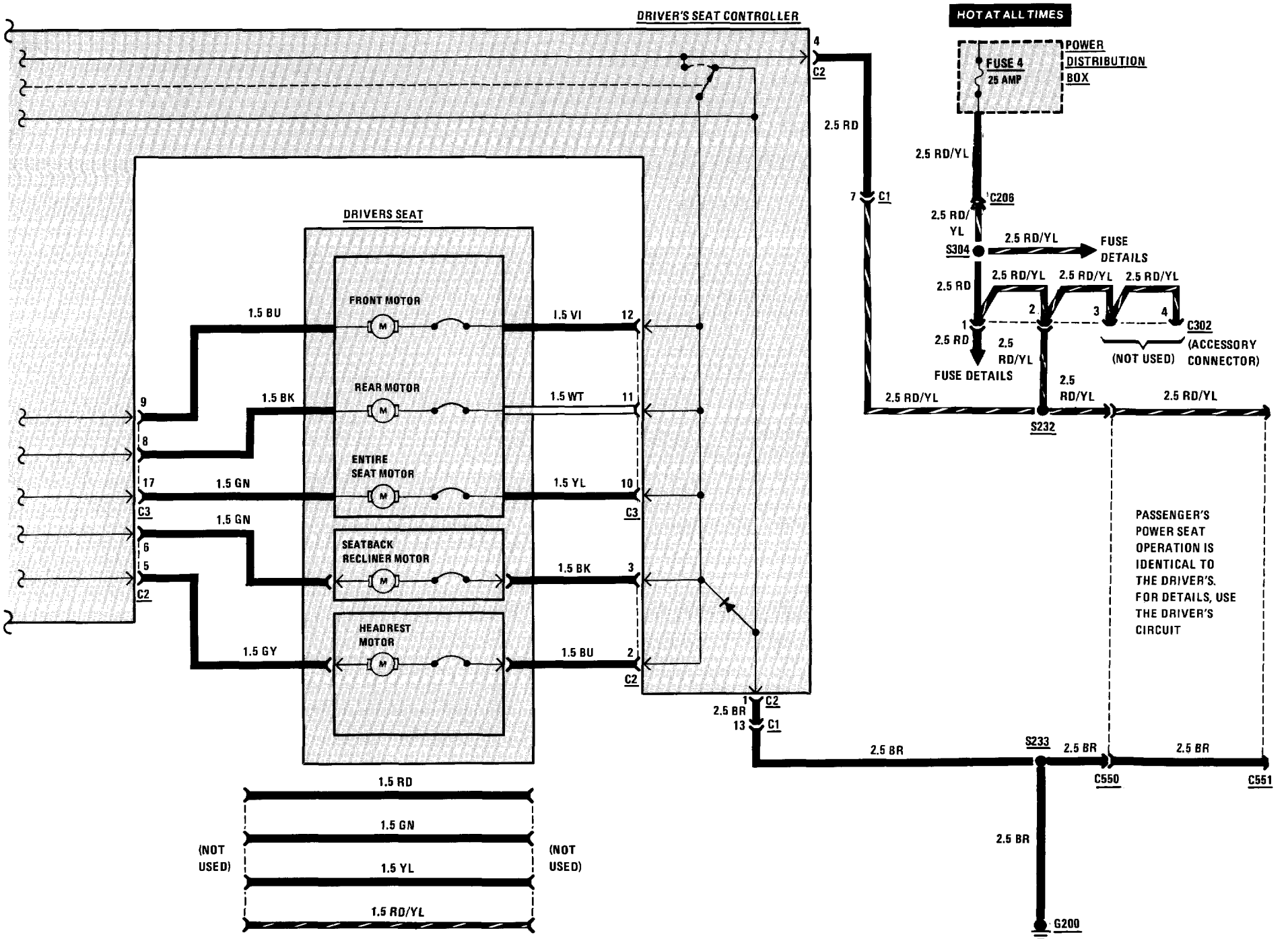
LATE PRODUCTION



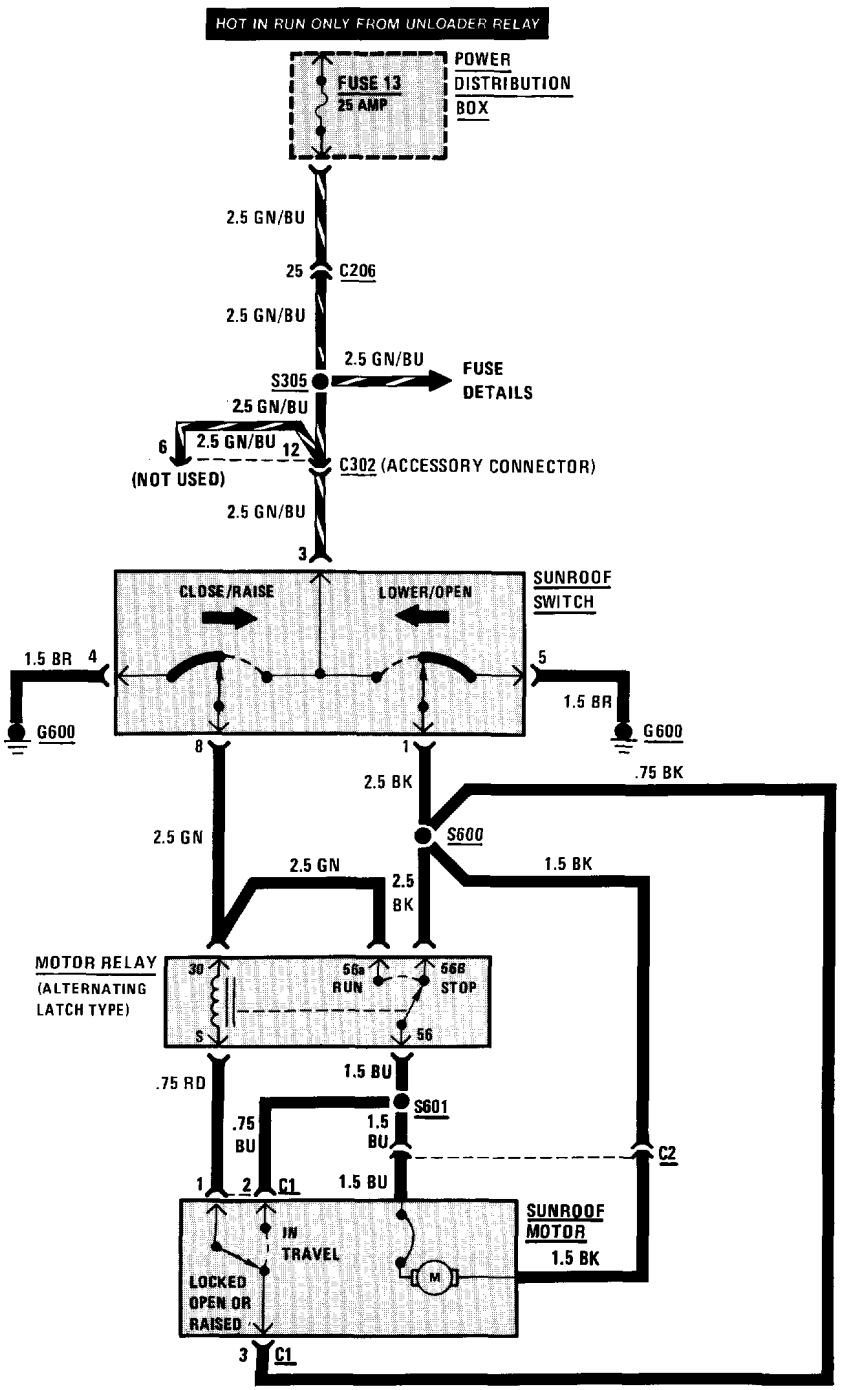
LATE PRODUCTION



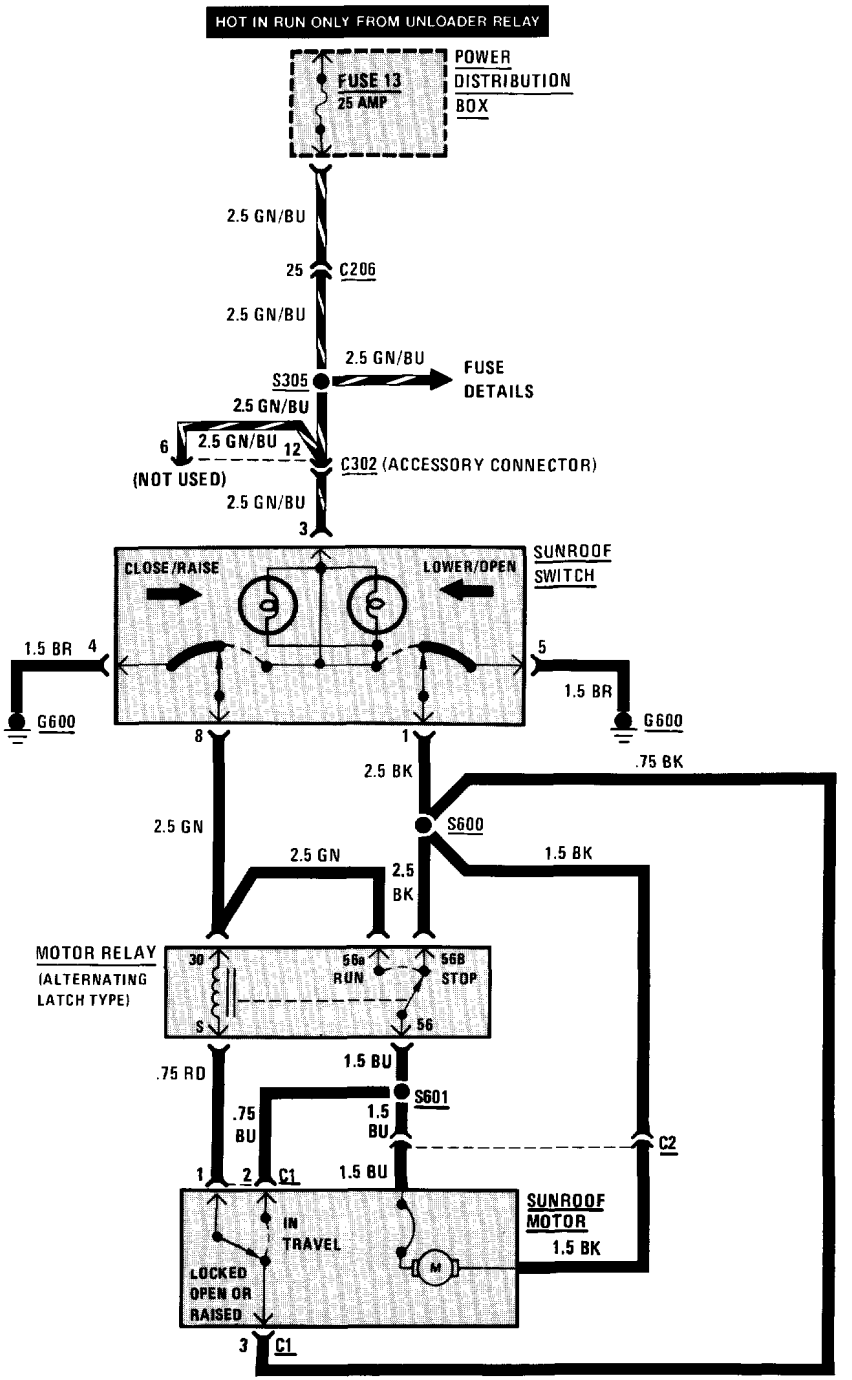

DRIVER'S SEAT CONTROLLER
K7
K6
K5
K2
K1
K4
K3
HEADREST RELAY
SEATBACK RECLINER RELAY
ENTIRE SEAT RELAY
REAR RELAY
FRONT RELAY
WT
BK
YL
WT/GN
GY
GN
PK
RD
VI
BU
BR
1
2
3
4
5
6
8
9
10
11
12
C1
.5 BR/YL
.5 BR/VI
.5 GN/YL
.5 GN/VI
.5 BU/VI
.5 BU/YL
.5 GN/GY
.5 GY/VI
.5 RD/VI
.5 RD/YL
9
10
17
18
14
13
2
1
6
5
DOWN
UP
BACK
FWD
FWD
BACK
UP
DOWN
UP
DOWN
HEADREST
SEATBACK RECLINER
ENTIRE SEAT
REAR
FRONT
DRIVER'S SEAT SWITCHES
11
19
15
3
7
.5 BR
.5 BR
.5 BR
.5 BR
.5 BR


DRIVER'S SEAT CONTROLLER
HOT AT ALL TIMES
FUSE 4
25 AMP
POWER DISTRIBUTION BOX
DRIVERS SEAT
FRONT MOTOR
REAR MOTOR
ENTIRE SEAT MOTOR
SEATBACK RECLINER MOTOR
HEADREST MOTOR
1.5 BU
1.5 VI
1.5 BK
1.5 WT
1.5 GN
1.5 YL
1.5 GY
1.5 RD
1.5 RD/YL
2.5 RD
2.5 RD/YL
2.5 BR
C1
C2
C3
C206
C302
S304
S232
S233
C550
C551
G200
FUSE DETAILS
(ACCESSORY CONNECTOR)
(NOT USED)
PASSENGER'S POWER SEAT OPERATION IS IDENTICAL TO THE DRIVER'S. FOR DETAILS, USE THE DRIVER'S CIRCUIT

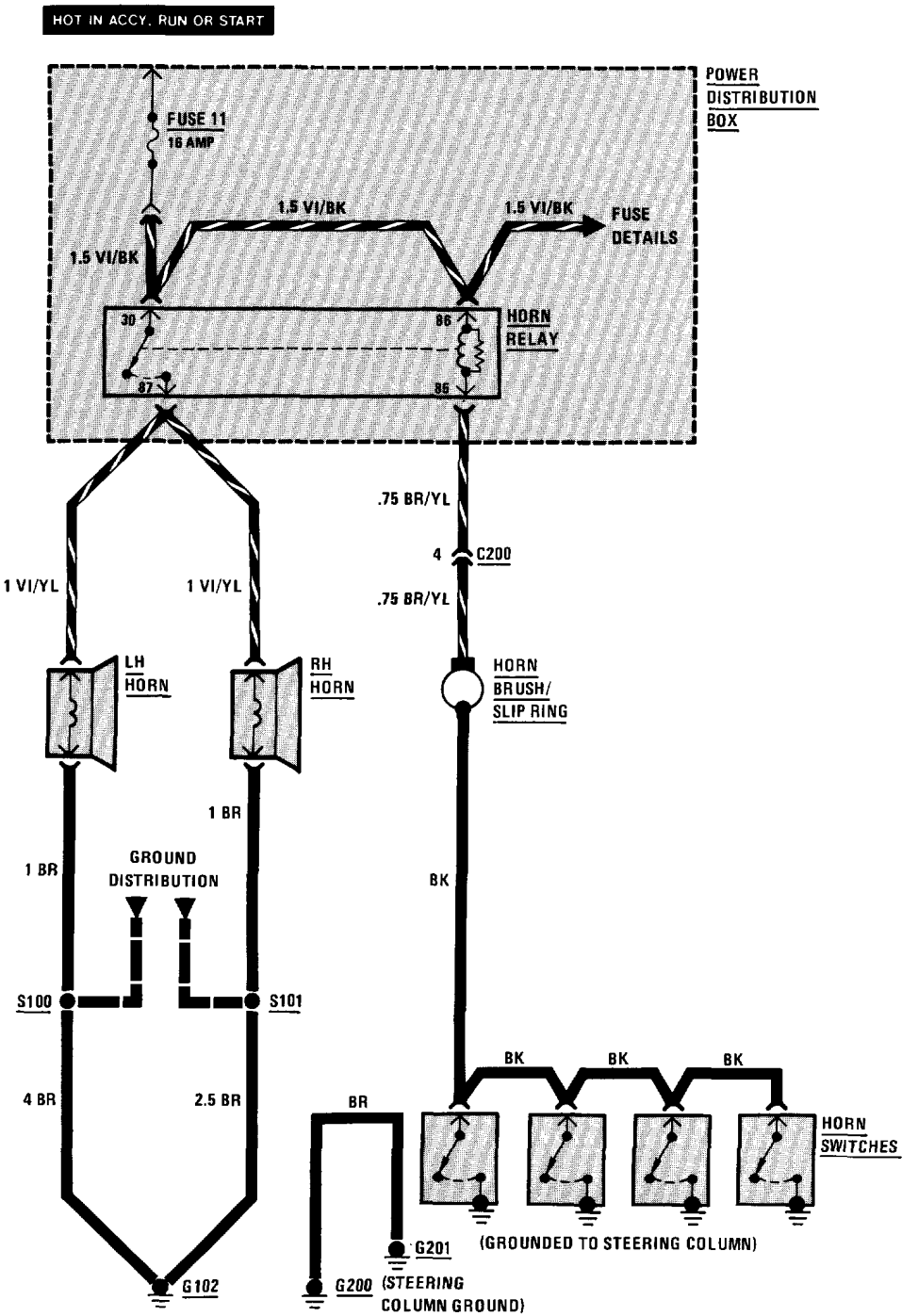
EARLY PRODUCTION



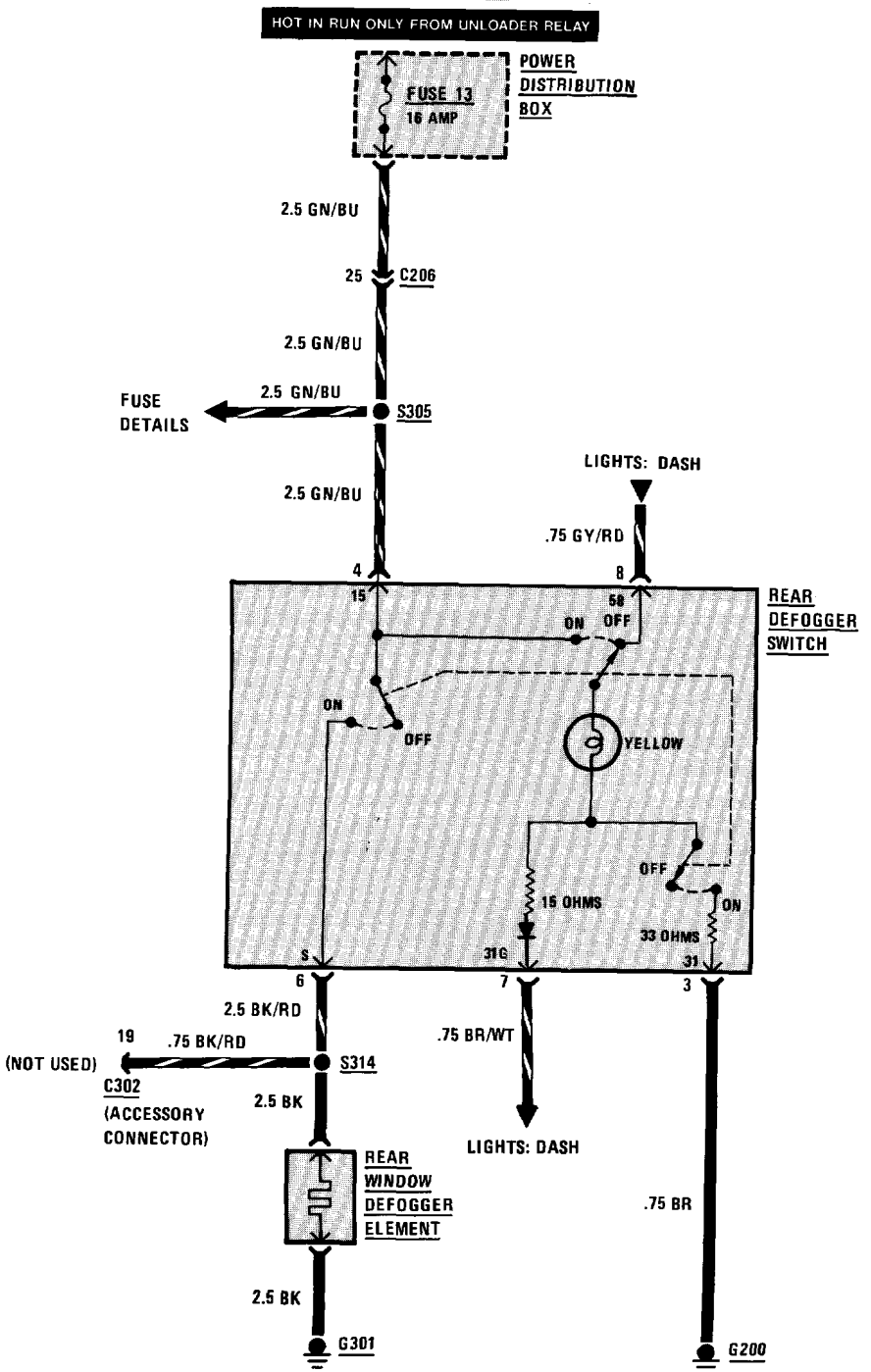
LATE PRODUCTION



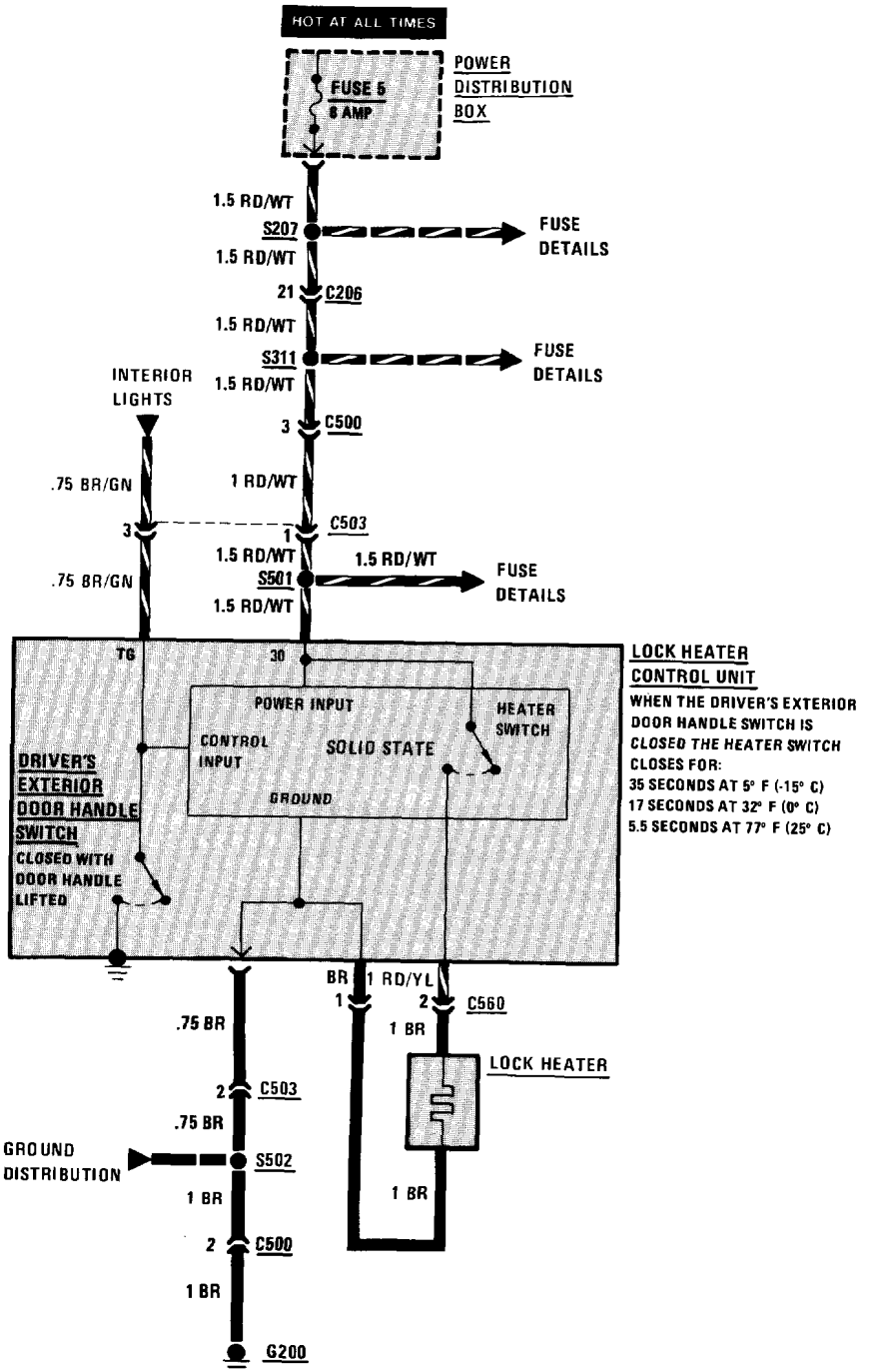
HORN


HOT IN ACCY, RUN OR START
POWER DISTRIBUTION BOX
FUSE 11
16 AMP
1.5 VI/BK
1.5 VI/BK
1.5 VI/BK
FUSE DETAILS
30
86
87
86
HORN RELAY
.75 BR/YL
4
C200
.75 BR/YL
1 VI/YL
1 VI/YL
LH HORN
RH HORN
HORN BRUSH/ SLIP RING
1 BR
1 BR
GROUND DISTRIBUTION
BK
S100
S101
BK
BK
BK
BR
HORN SWITCHES
4 BR
2.5 BR
G201
(GROUNDED TO STEERING COLUMN)
G200
(STEERING COLUMN GROUND)
G102

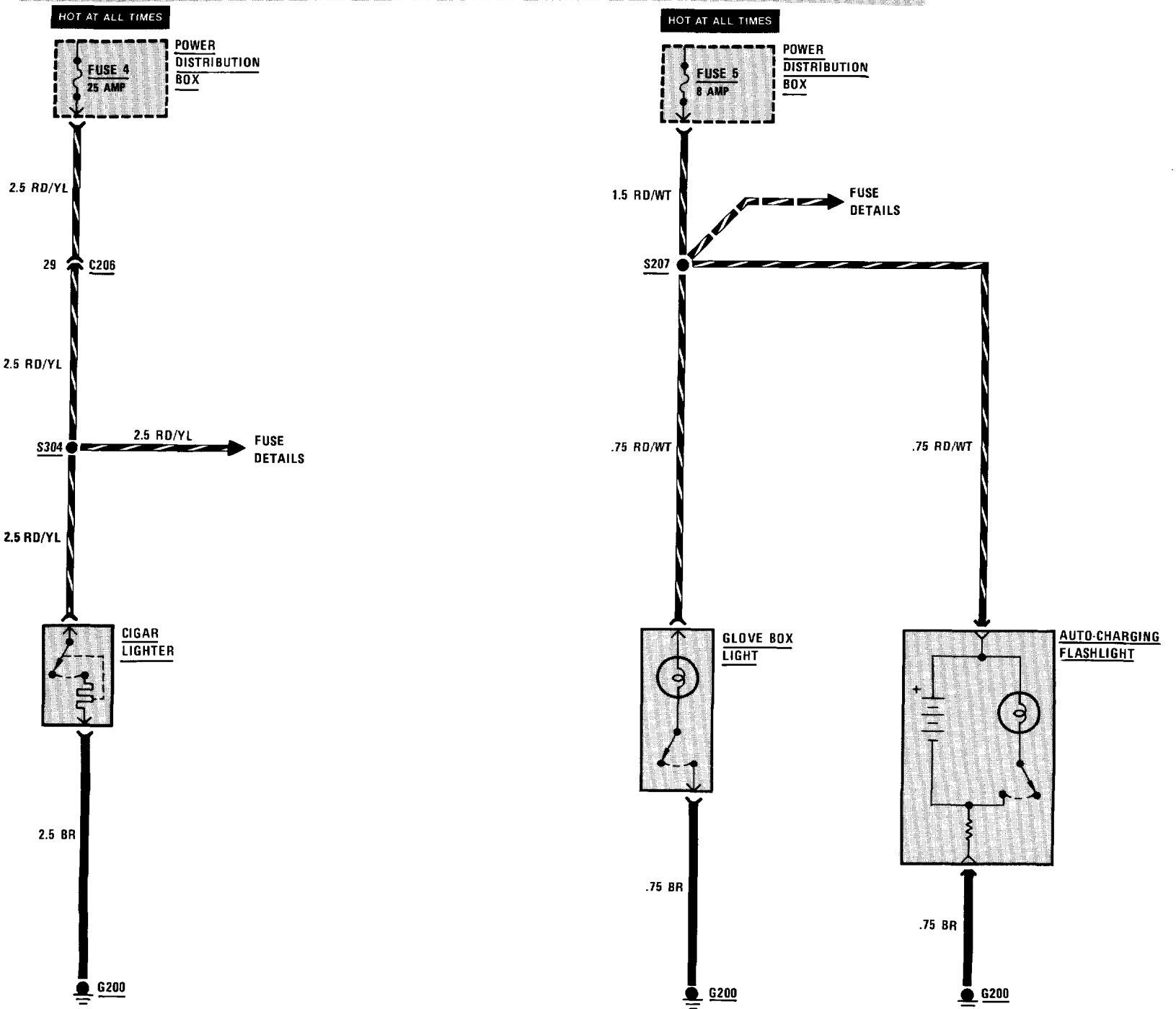
REAR DEFOGGER

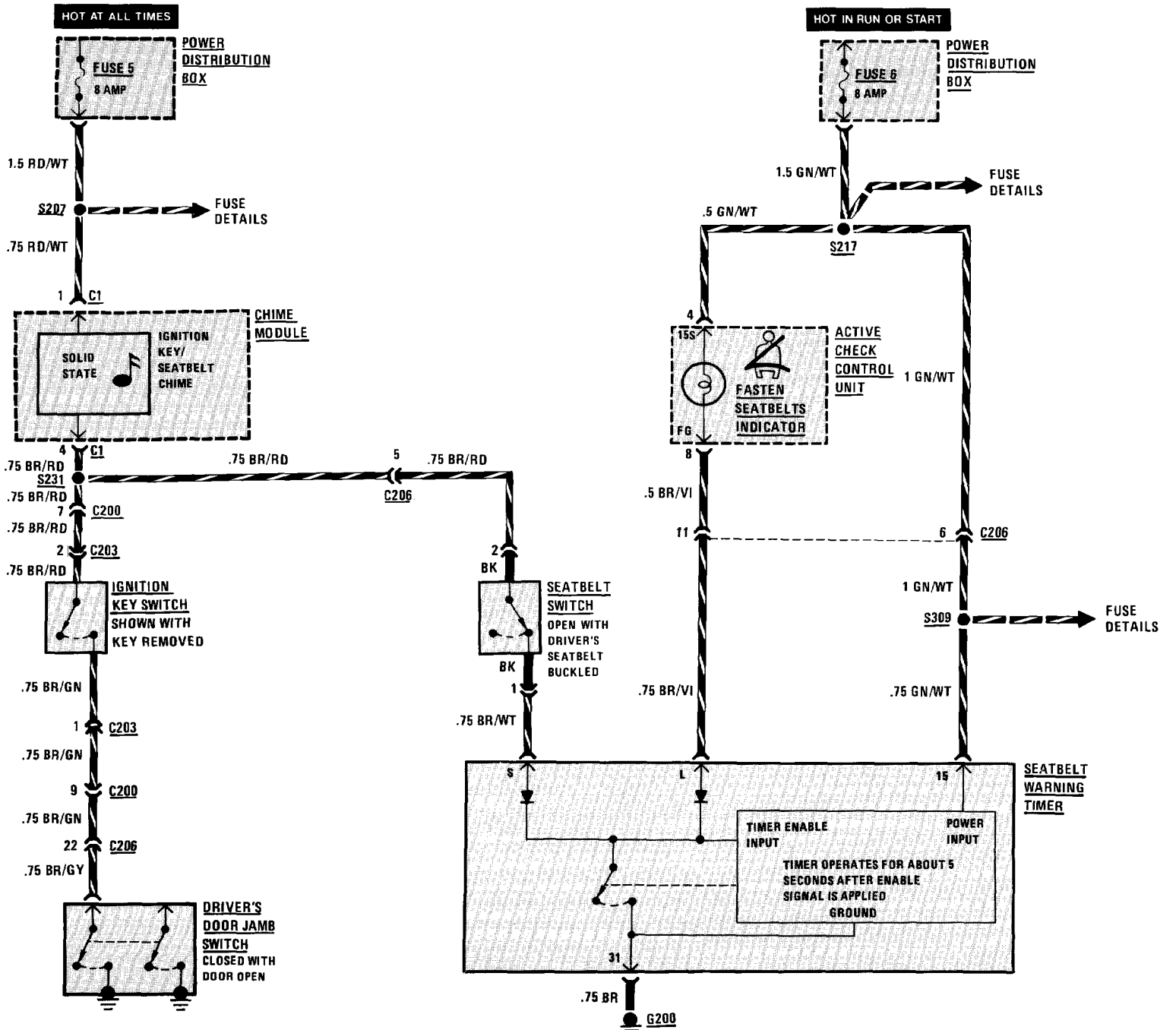


HEATED DOOR LOCKS

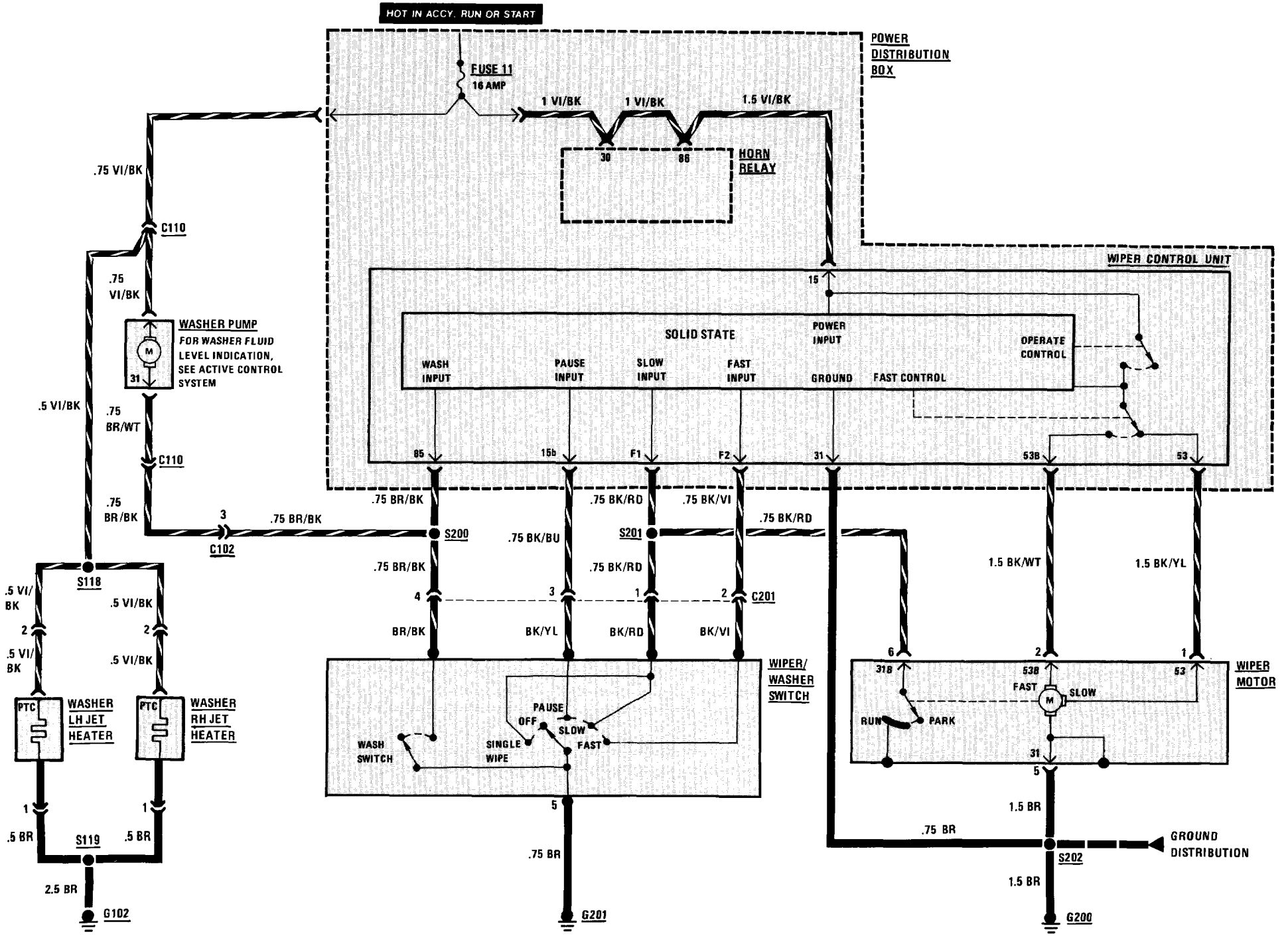


CIGAR LIGHTER/GLOVE BOX LIGHT/AUTO-CHARGING FLASHLIGHT

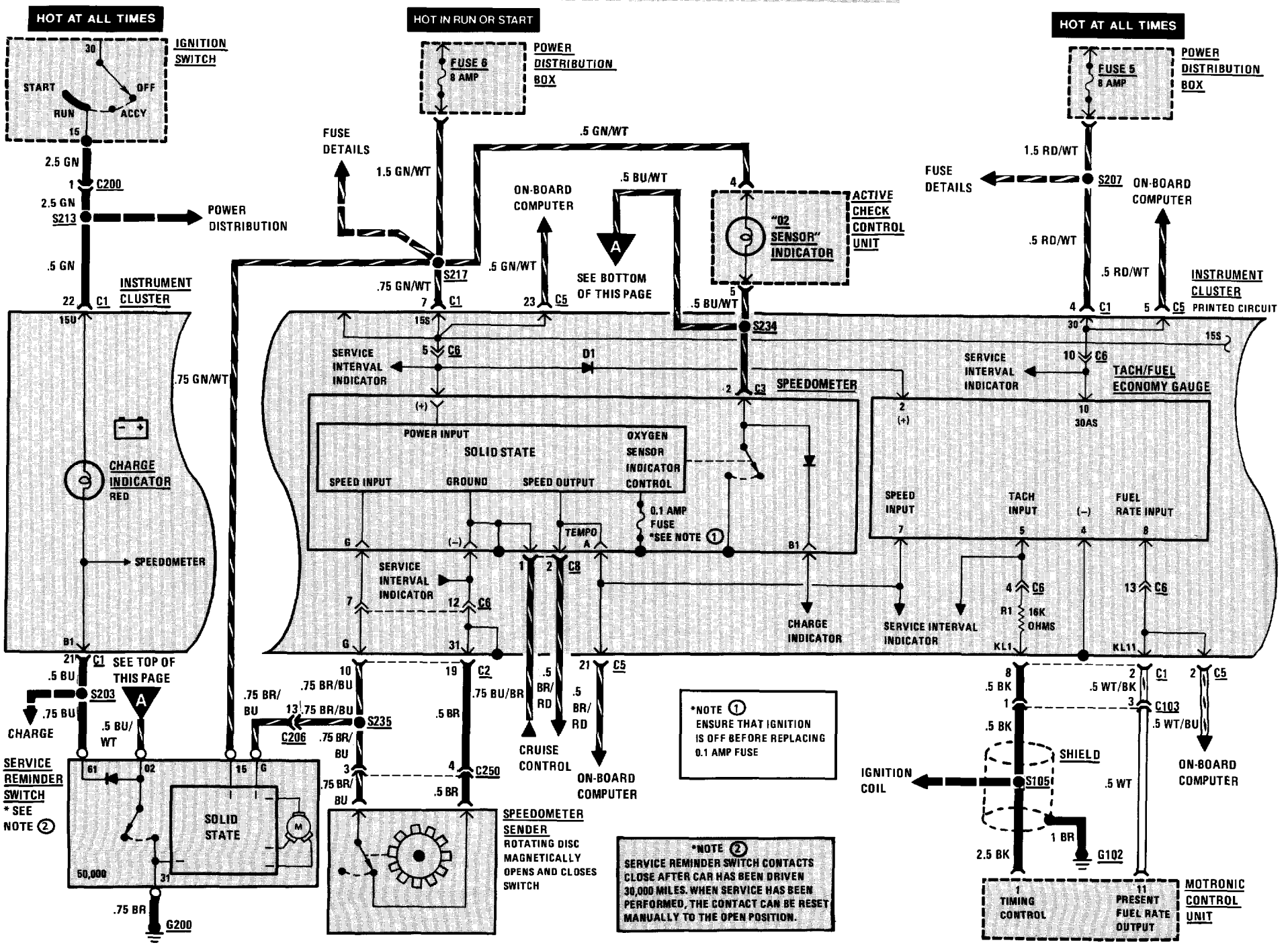



HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5
8 AMP
1.5 RD/WT
S207
FUSE DETAILS
.75 RD/WT
1
C1
CHIME MODULE
SOLID STATE
IGNITION KEY/ SEATBELT CHIME
4
C1
.75 BR/RD
S231
.75 BR/RD
7
C200
.75 BR/RD
2
C203
.75 BR/RD
IGNITION KEY SWITCH SHOWN WITH KEY REMOVED
.75 BR/GN
1
C203
.75 BR/GN
9
C200
.75 BR/GN
22
C206
.75 BR/GY
DRIVER'S DOOR JAMB SWITCH CLOSED WITH DOOR OPEN
.75 BR/RD
5
.75 BR/RD
C206
2
BK
SEATBELT SWITCH OPEN WITH DRIVER'S SEATBELT BUCKLED
BK
1
.75 BR/WT
HOT IN RUN OR START
POWER DISTRIBUTION BOX
FUSE 6
8 AMP
1.5 GN/WT
FUSE DETAILS
.5 GN/WT
S217
4
15S
ACTIVE CHECK CONTROL UNIT
FASTEN SEATBELTS INDICATOR
FG
1 GN/WT
8
.5 BR/VI
11
6
C206
1 GN/WT
S309
FUSE DETAILS
.75 BR/VI
.75 GN/WT
S
L
15
SEATBELT WARNING TIMER
TIMER ENABLE INPUT
POWER INPUT
TIMER OPERATES FOR ABOUT 5 SECONDS AFTER ENABLE SIGNAL IS APPLIED
GROUND
31
.75 BR
G200

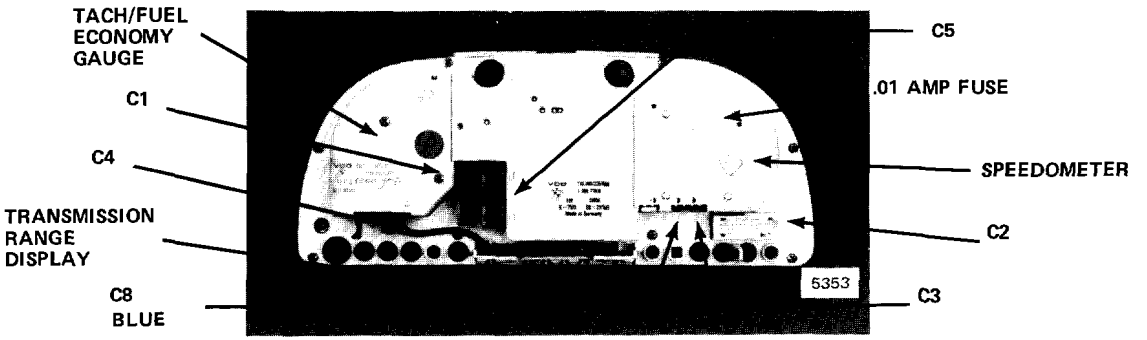
WIPER/WASHER AND HEATED WASHER JETS



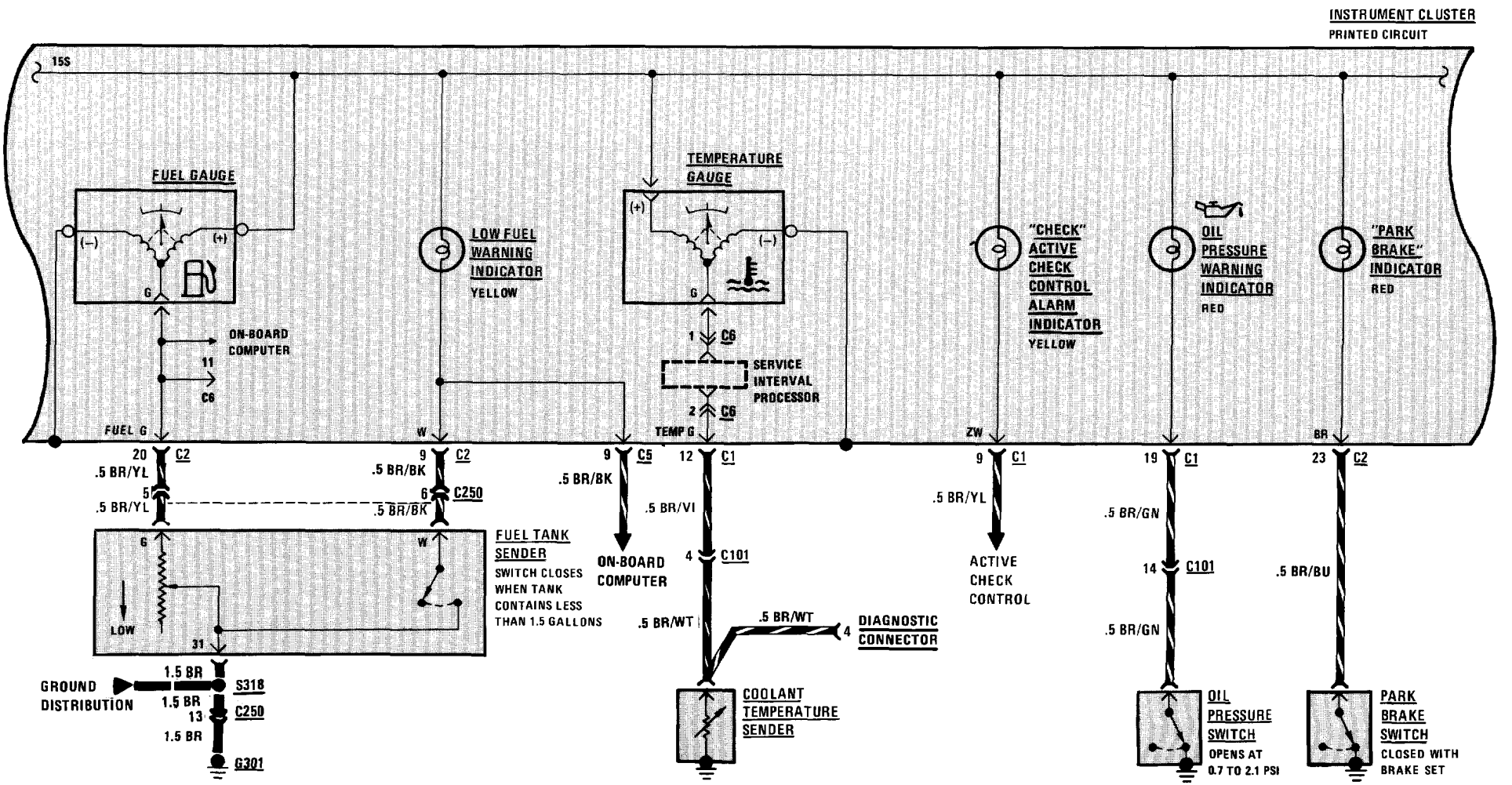
SPEEDOMETER/GAUGES/WARNING INDICATORS EARLY PRODUCTION



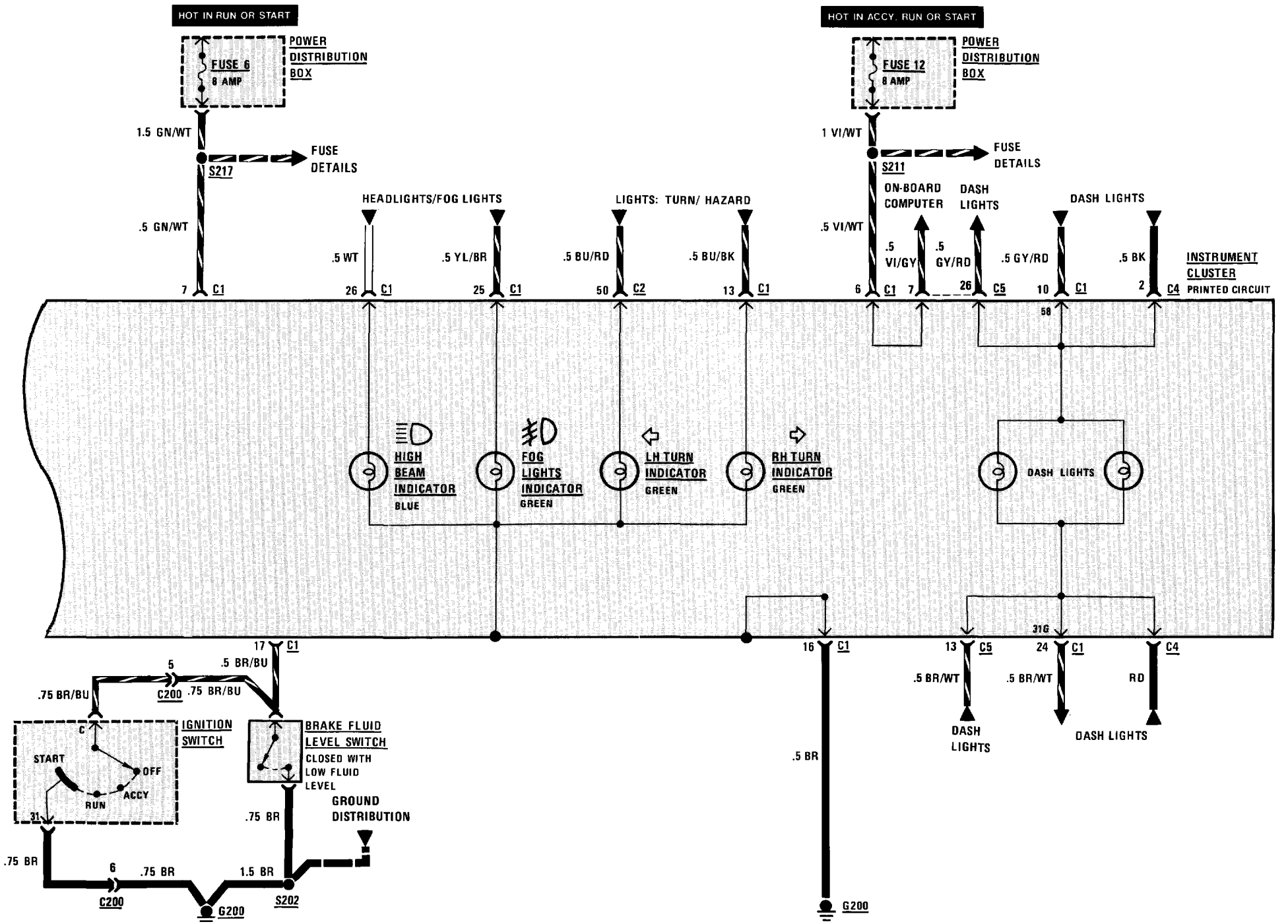
GAUGES/WARNING INDICATORS EARLY PRODUCTION



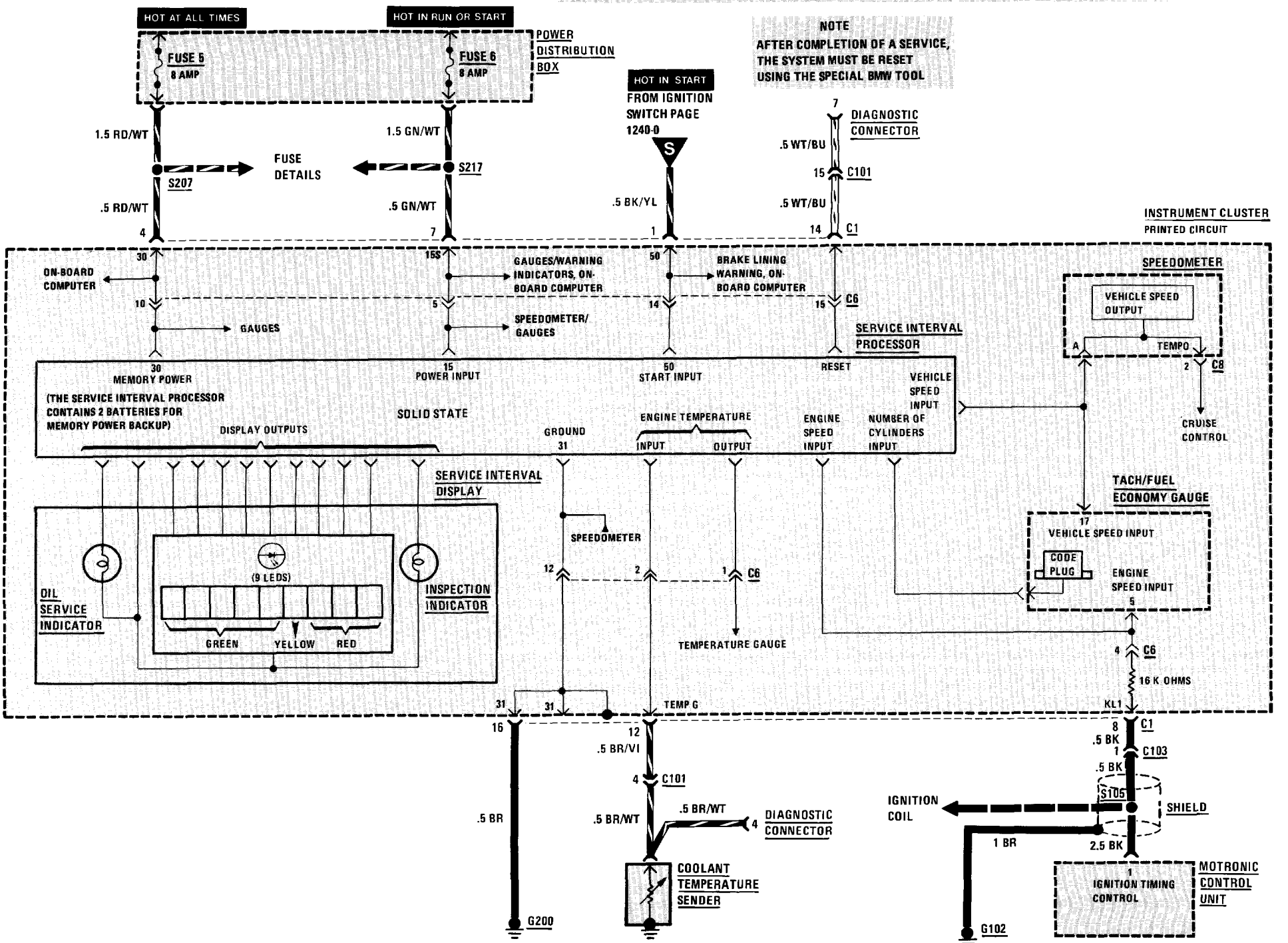
Rear Of Instrument Cluster



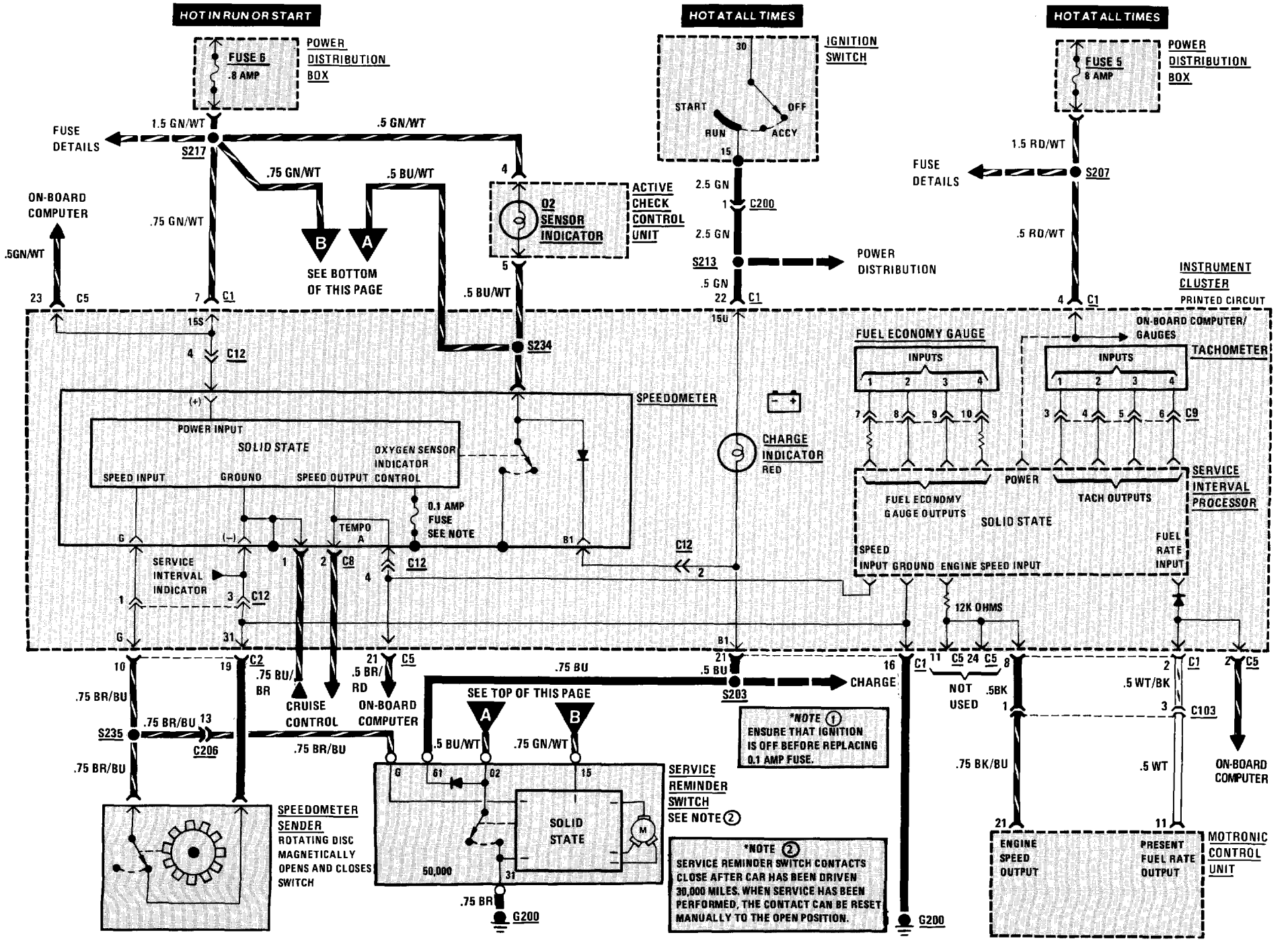
WARNING INDICATORS EARLY PRODUCTION



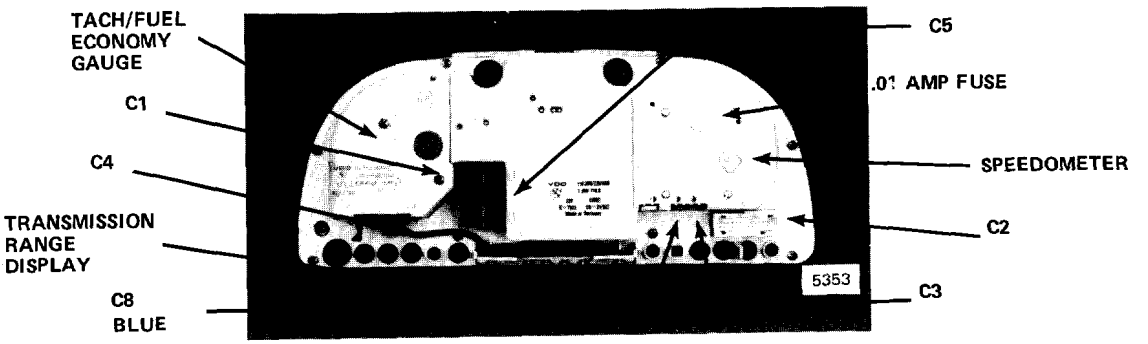
SERVICE INTERNVAL INDICATOR EARLY PRODUCTION



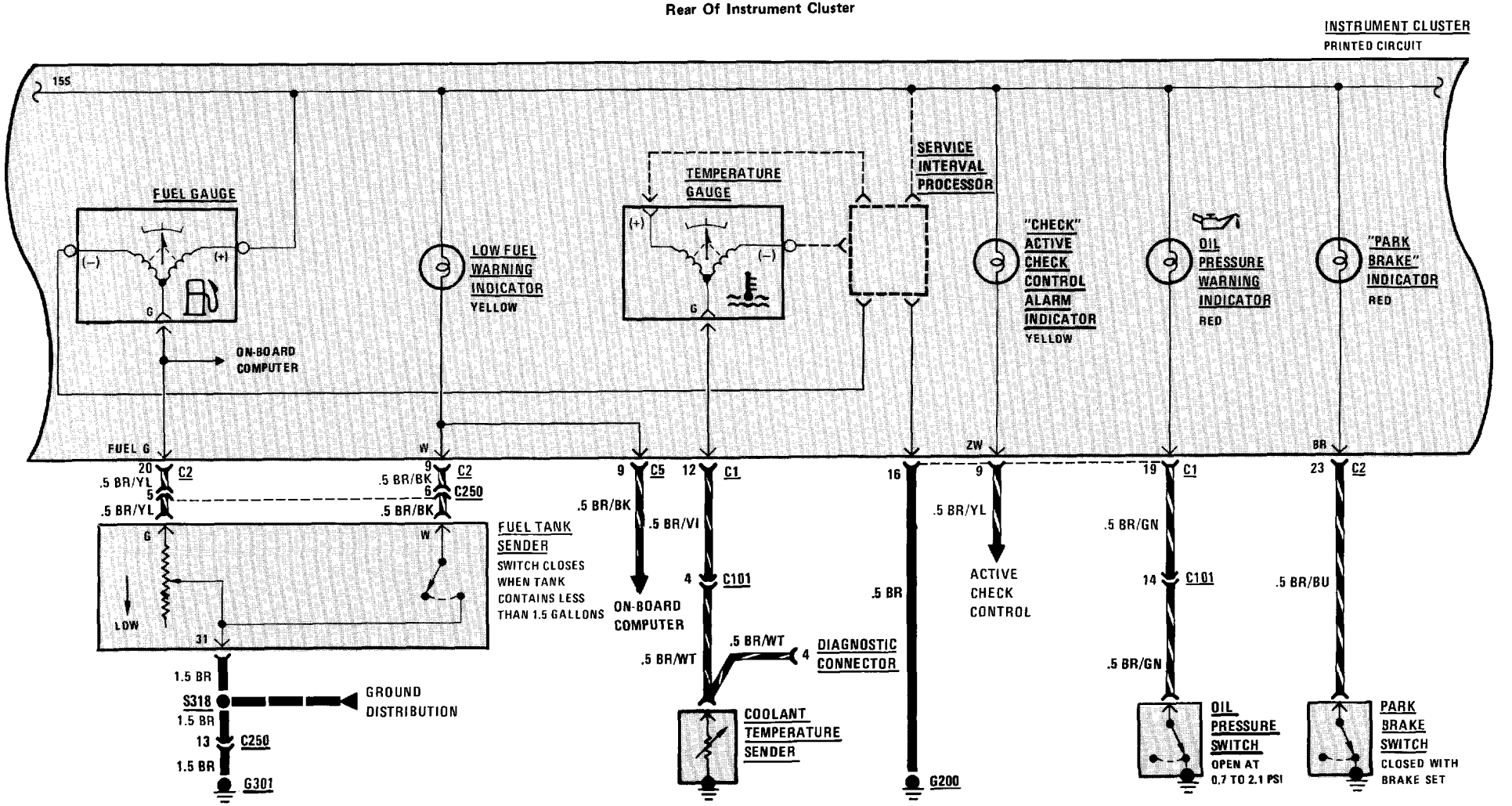
SPEEDOMETER/GAUGES/WARNING INDICATORS LATE PRODUCTION



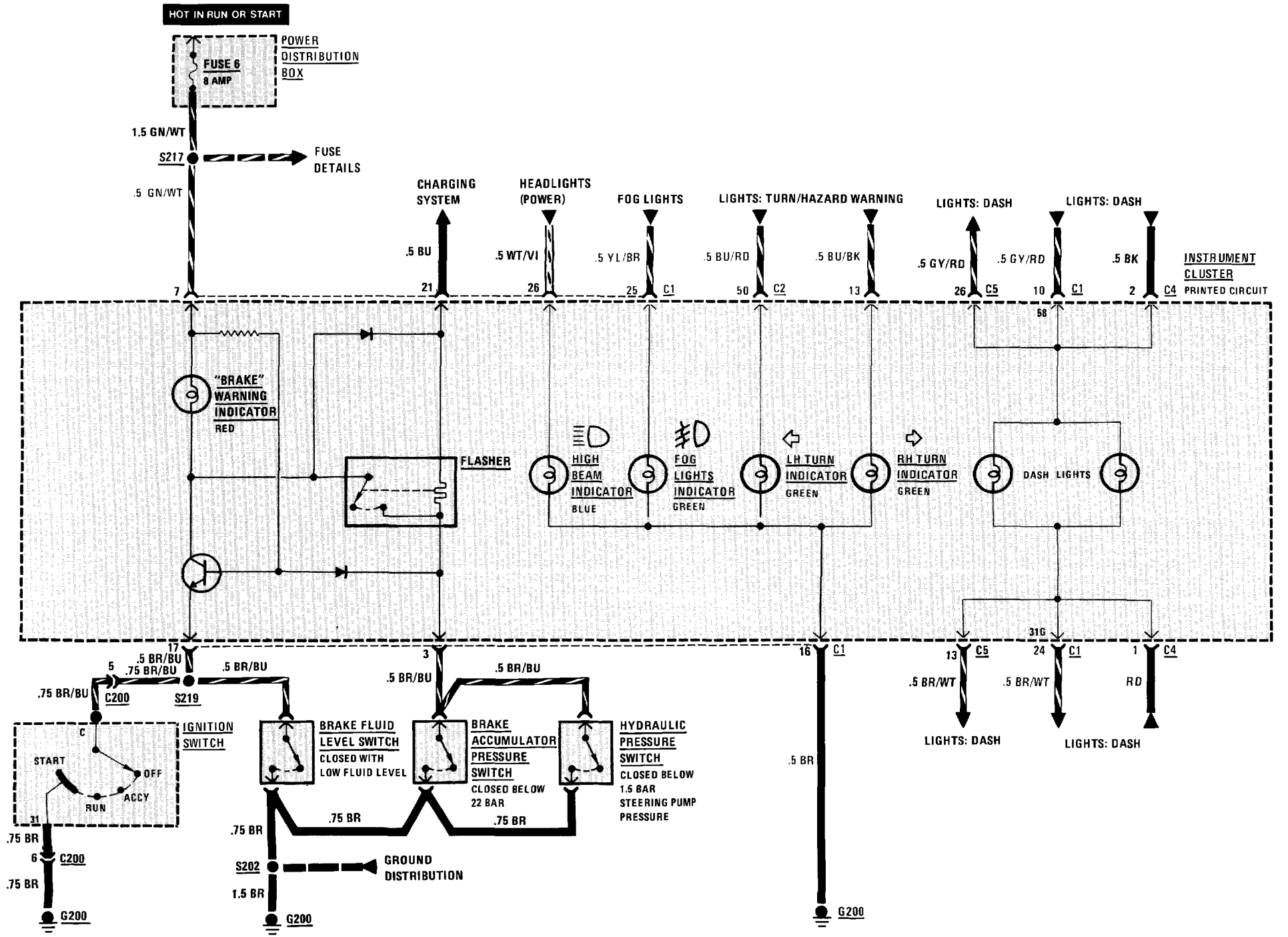
GAUGES/WARNING INDICATORS LATE PRODUCTION



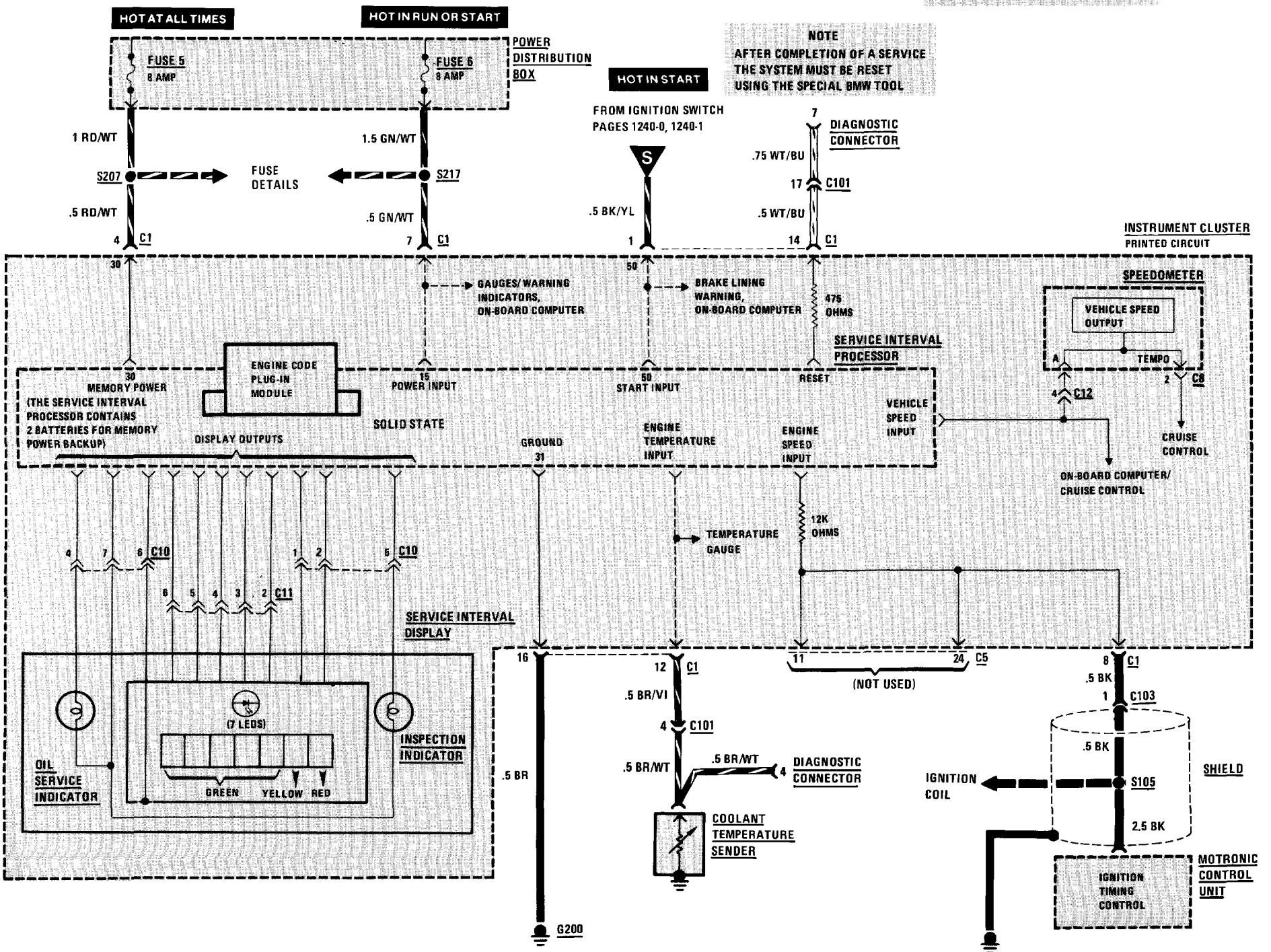
Rear Of Instrument Cluster



WARNING INDICATORS LATE PRODUCTION



LATE PRODUCTION



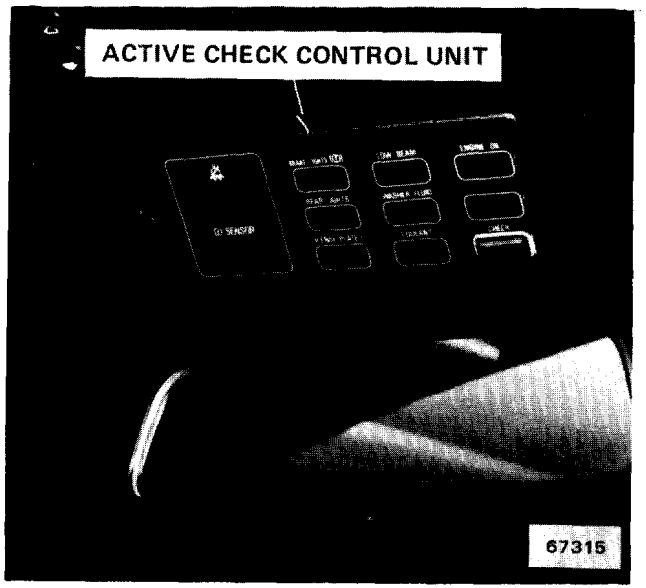
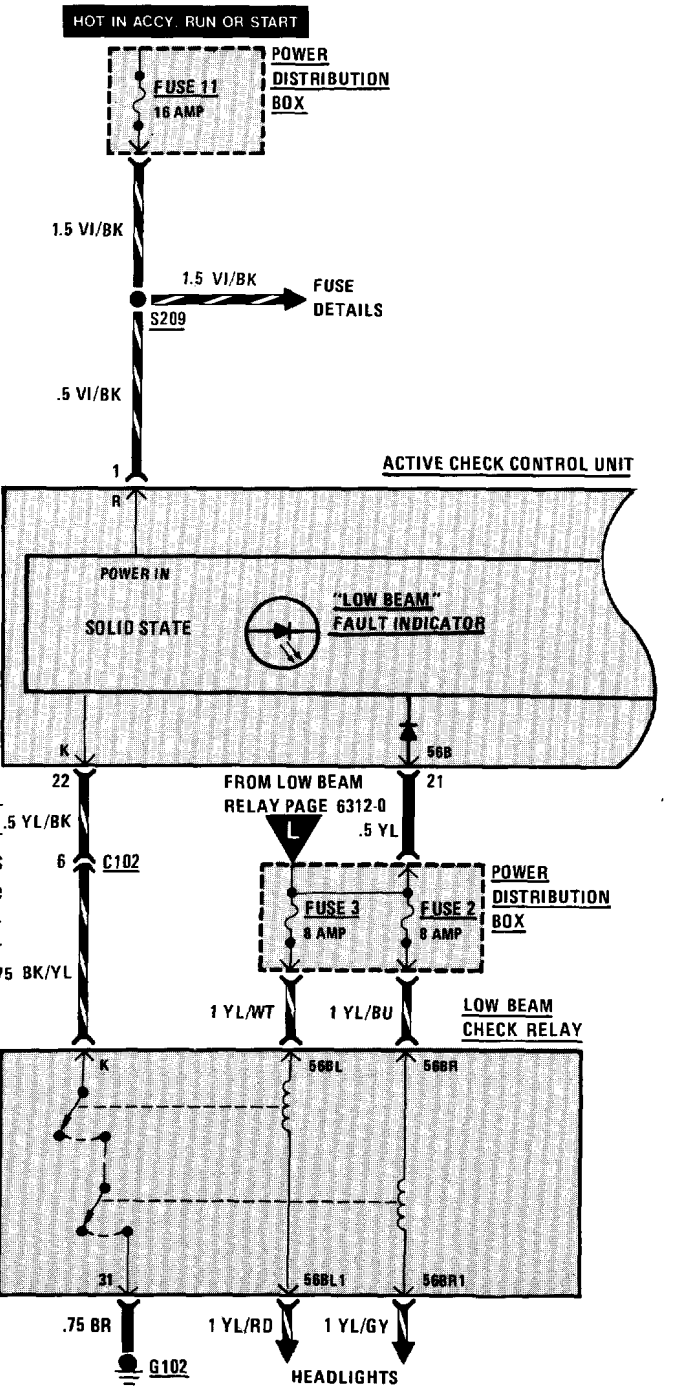


Figure 1 - Above Rear View Mirror



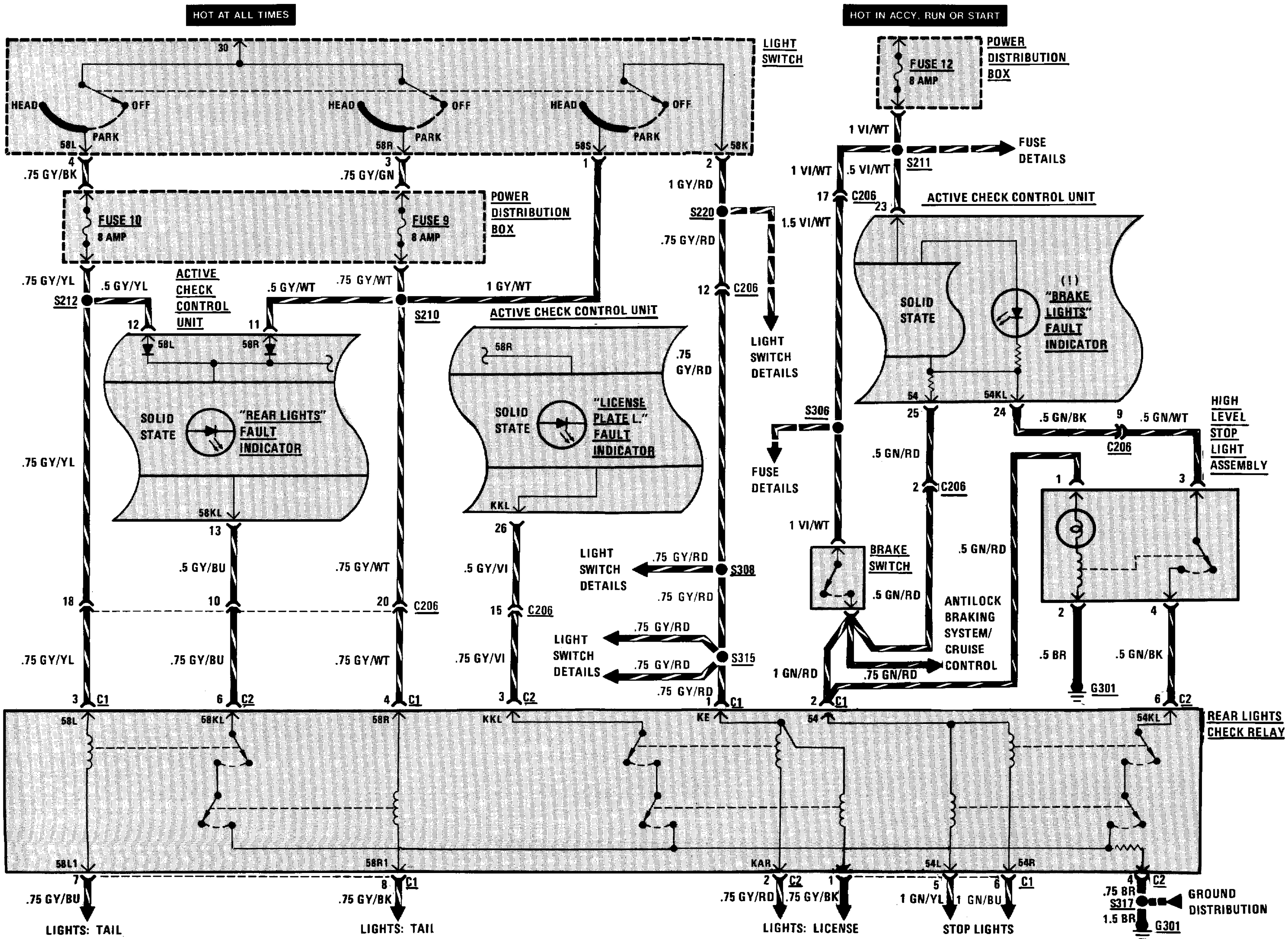
ACTIVE CHECK CONTROL

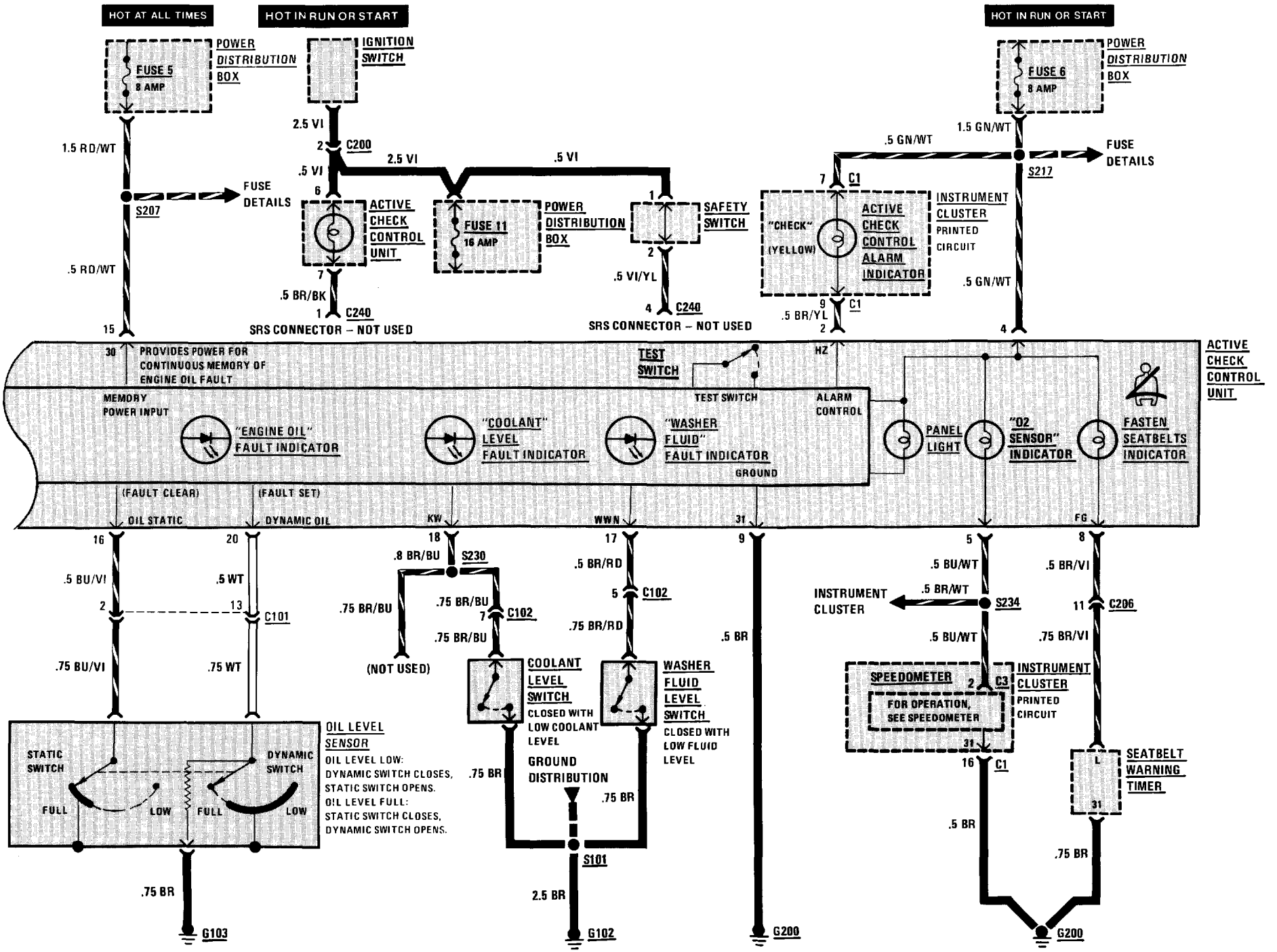
1. When the Ignition Switch is initially placed in "Run," the Active Check Control Alarm Indicator flashes, and the Active Check Control Unit Brake Light LED and panel light illuminate for test purposes. Depressing the brake pedal clears the display.

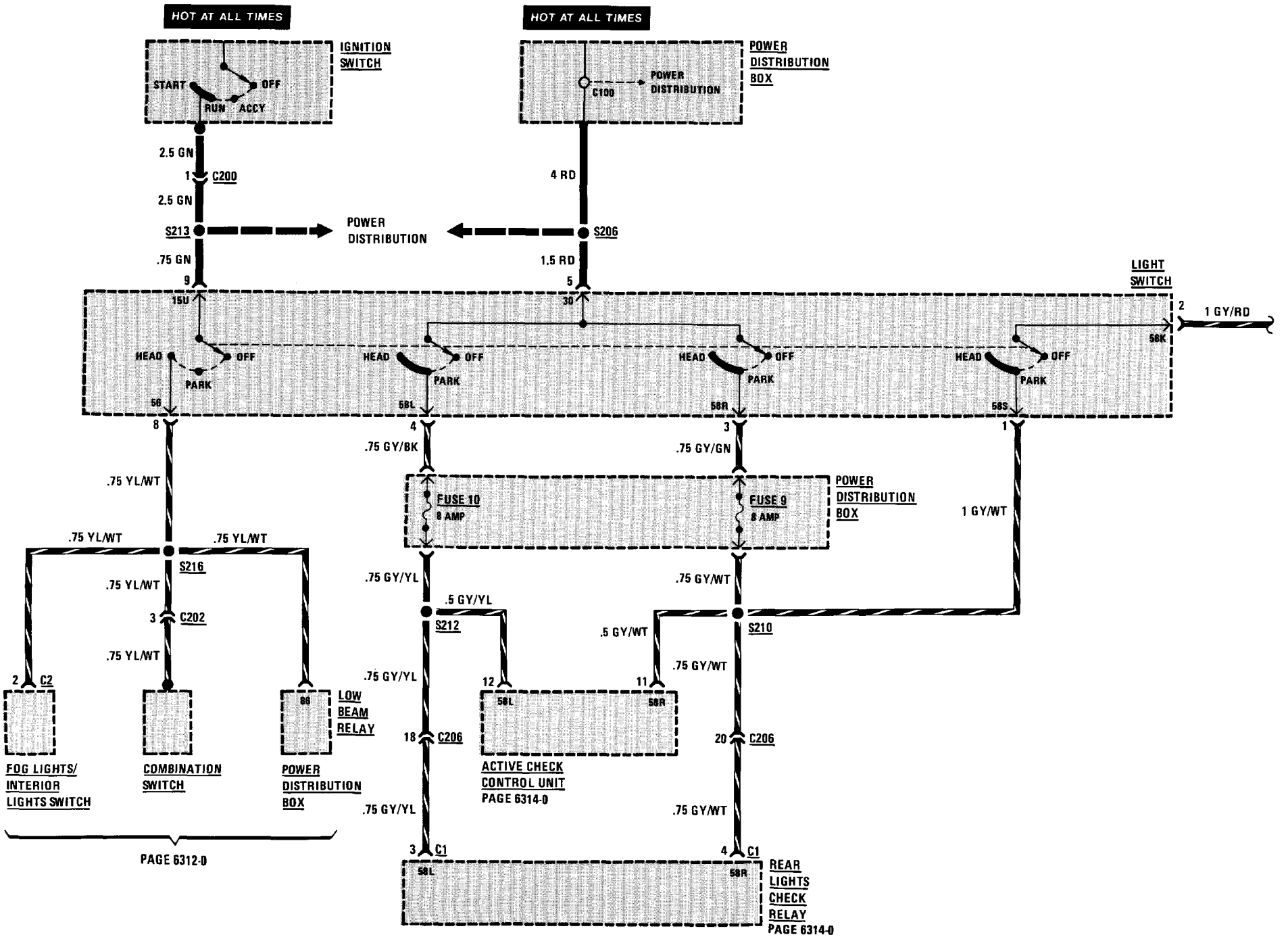
2. When the Ignition Switch is placed in "Run," fault monitoring begins. To monitor the low beams, rear lights, or license lights, those circuits must be on. The brake lights are monitored only while the brake pedal is depressed.

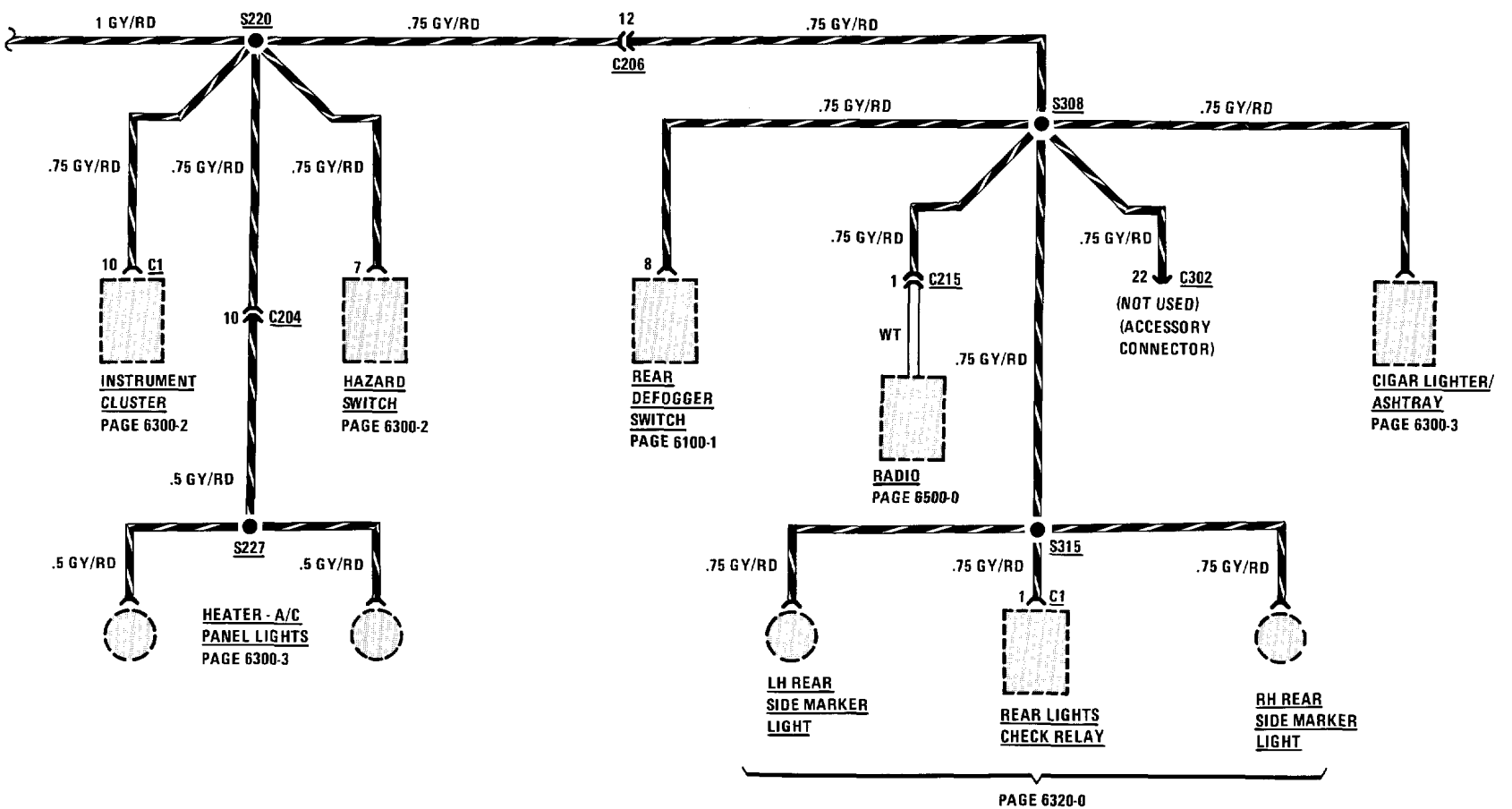
3. When a fault occurs, the alarm indicator flashes, the appropriate LED indicator lights, and the panel light goes on for five seconds. Depressing the test button will clear the alarm indicator, but the LED fault indicator remains on.

4. To test the unit, depress the test button. The LED fault indicators and panel lights should go on.

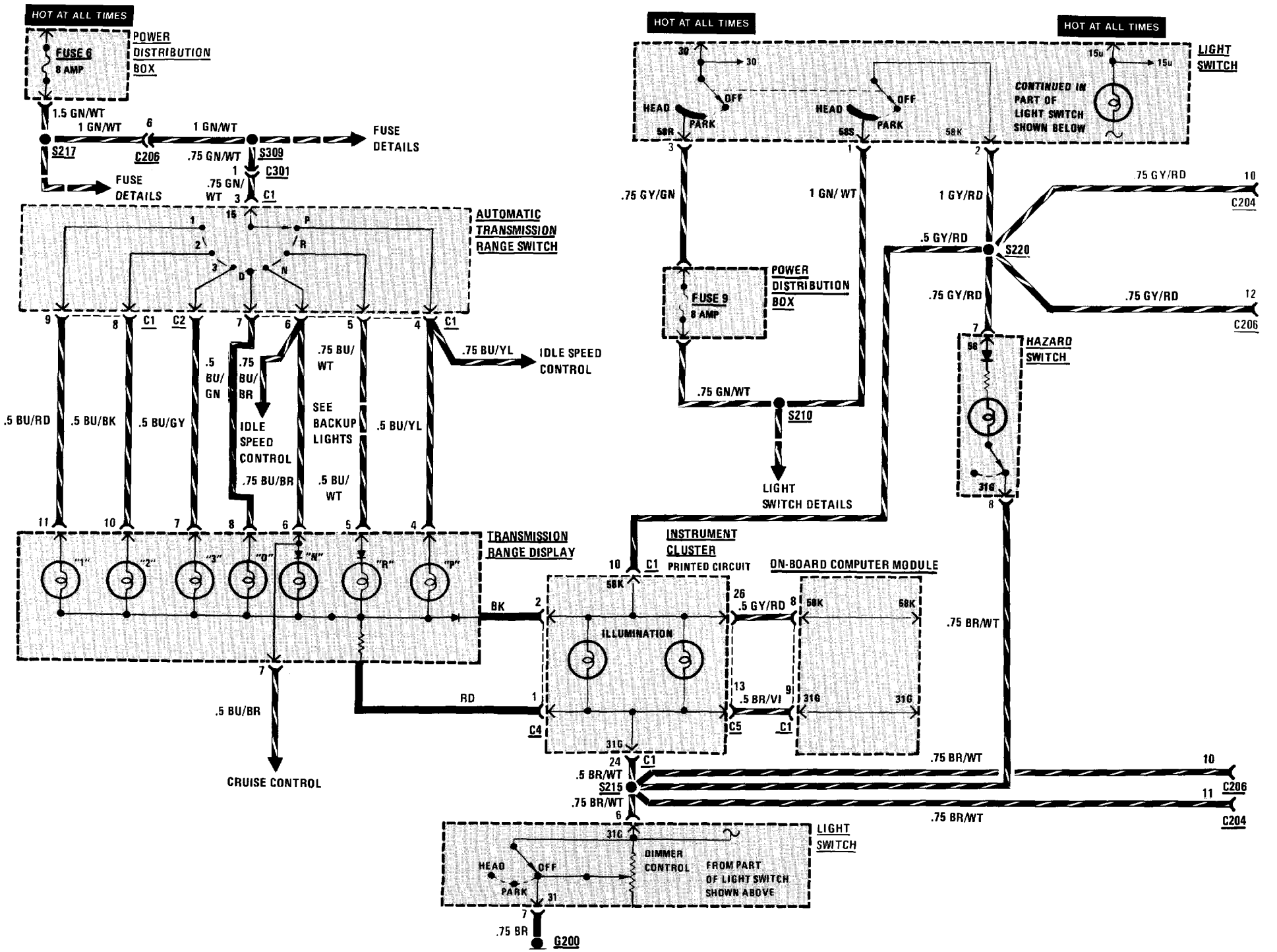

HOT AT ALL TIMES
HOT IN ACCY, RUN OR START
LIGHT SWITCH
HEAD
OFF
PARK
58L
58R
58S
58K
30
POWER DISTRIBUTION BOX
FUSE 12
8 AMP
FUSE 10
8 AMP
FUSE 9
8 AMP
.75 GY/BK
.75 GY/GN
1 GY/RD
.75 GY/YL
.5 GY/YL
.5 GY/WT
.75 GY/WT
1 GY/WT
S212
S210
S220
1.5 VI/WT
.75 GY/RD
C206
LIGHT SWITCH DETAILS
ACTIVE CHECK CONTROL UNIT
SOLID STATE
"REAR LIGHTS" FAULT INDICATOR
58KL
.5 GY/BU
"LICENSE PLATE L." FAULT INDICATOR
KKL
.5 GY/VI
.75 GY/VI
S308
S315
1 VI/WT
.5 VI/WT
S211
FUSE DETAILS
(!)
"BRAKE LIGHTS" FAULT INDICATOR
54
54KL
.5 GN/BK
.5 GN/WT
HIGH LEVEL STOP LIGHT ASSEMBLY
S306
.5 GN/RD
BRAKE SWITCH
ANTILOCK BRAKING SYSTEM/ CRUISE CONTROL
1 GN/RD
.75 GN/RD
.5 BR
.5 GN/BK
G301
C1
C2
REAR LIGHTS CHECK RELAY
58L1
58R1
KE
KAR
54L
54R
.75 GY/BU
.75 GY/BK
.75 GY/RD
1 GN/YL
1 GN/BU
.75 BR
S317
1.5 BR
GROUND DISTRIBUTION
LIGHTS: TAIL
LIGHTS: TAIL
LIGHTS: LICENSE
STOP LIGHTS


HOT AT ALL TIMES
HOT IN RUN OR START
HOT IN RUN OR START
FUSE 5
8 AMP
POWER DISTRIBUTION BOX
IGNITION SWITCH
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 RD/WT
2.5 VI
1.5 GN/WT
.5 GN/WT
FUSE DETAILS
S207
2 C200
.5 VI
2.5 VI
.5 VI
6
7 C1
S217
FUSE DETAILS
ACTIVE CHECK CONTROL UNIT
FUSE 11
16 AMP
POWER DISTRIBUTION BOX
1
SAFETY SWITCH
"CHECK" (YELLOW)
ACTIVE CHECK CONTROL ALARM INDICATOR
INSTRUMENT CLUSTER PRINTED CIRCUIT
.5 RD/WT
7
2
.5 VI/YL
.5 GN/WT
.5 BR/BK
1 C240
SRS CONNECTOR – NOT USED
4 C240
SRS CONNECTOR – NOT USED
9 C1
.5 BR/YL
2
15
4
30
PROVIDES POWER FOR CONTINUOUS MEMORY OF ENGINE OIL FAULT
TEST SWITCH
HZ
ACTIVE CHECK CONTROL UNIT
MEMORY POWER INPUT
"ENGINE OIL" FAULT INDICATOR
"COOLANT" LEVEL FAULT INDICATOR
"WASHER FLUID" FAULT INDICATOR
TEST SWITCH
ALARM CONTROL
PANEL LIGHT
"02 SENSOR" INDICATOR
FASTEN SEATBELTS INDICATOR
GROUND
(FAULT CLEAR)
OIL STATIC
(FAULT SET)
DYNAMIC OIL
KW
WWN
31
FG
16
20
18
17
9
5
8
.5 BU/VI
.5 WT
.8 BR/BU
S230
.5 BR/RD
.5 BU/WT
.5 BR/VI
2
13 C101
.75 BR/BU
7 C102
5 C102
.5 BR/WT
INSTRUMENT CLUSTER
S234
11 C206
.75 BU/VI
.75 WT
.75 BR/BU
.75 BR/RD
.5 BR
.5 BU/WT
.75 BR/VI
(NOT USED)
COOLANT LEVEL SWITCH
CLOSED WITH LOW COOLANT LEVEL
WASHER FLUID LEVEL SWITCH
CLOSED WITH LOW FLUID LEVEL
SPEEDOMETER
2 C3
INSTRUMENT CLUSTER PRINTED CIRCUIT
FOR OPERATION, SEE SPEEDOMETER
31
16 C1
L
SEATBELT WARNING TIMER
31
OIL LEVEL SENSOR
STATIC SWITCH
DYNAMIC SWITCH
FULL
LOW
FULL
LOW
OIL LEVEL LOW:
DYNAMIC SWITCH CLOSES,
STATIC SWITCH OPENS.
OIL LEVEL FULL:
STATIC SWITCH CLOSES,
DYNAMIC SWITCH OPENS.
.75 BR
.75 BR
GROUND DISTRIBUTION
.75 BR
.5 BR
.75 BR
S101
2.5 BR
G103
G102
G200
G200

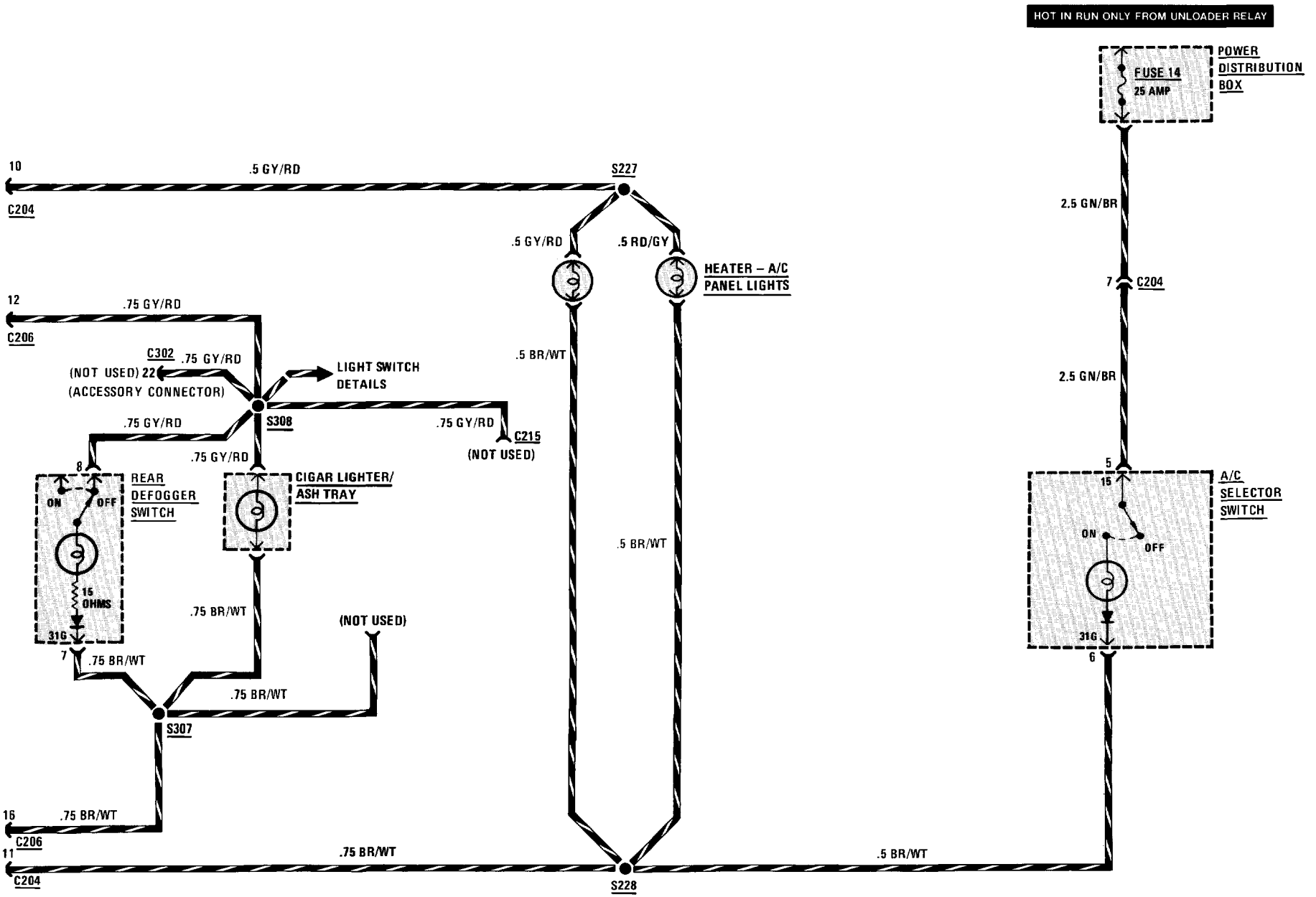

HOT AT ALL TIMES
IGNITION SWITCH
START
OFF
RUN
ACCY
2.5 GN
1
C200
2.5 GN
S213
POWER DISTRIBUTION
.75 GN
9
15U
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
C100
POWER DISTRIBUTION
4 RD
S206
1.5 RD
5
30
LIGHT SWITCH
2
1 GY/RD
58K
HEAD
OFF
PARK
56
58L
58R
58S
8
4
3
1
.75 YL/WT
.75 GY/BK
.75 GY/GN
FUSE 10
8 AMP
FUSE 9
8 AMP
POWER DISTRIBUTION BOX
1 GY/WT
.75 YL/WT
.75 YL/WT
S216
.75 YL/WT
3
C202
.75 YL/WT
.75 GY/YL
.5 GY/YL
S212
.75 GY/WT
.5 GY/WT
S210
.75 GY/YL
12
11
.75 GY/WT
2
C2
86
LOW BEAM RELAY
18
C206
20
C206
FOG LIGHTS/ INTERIOR LIGHTS SWITCH
COMBINATION SWITCH
POWER DISTRIBUTION BOX
ACTIVE CHECK CONTROL UNIT
PAGE 6314-0
.75 GY/YL
.75 GY/WT
3
C1
4
C1
REAR LIGHTS CHECK RELAY
PAGE 6314-0
PAGE 6312-0

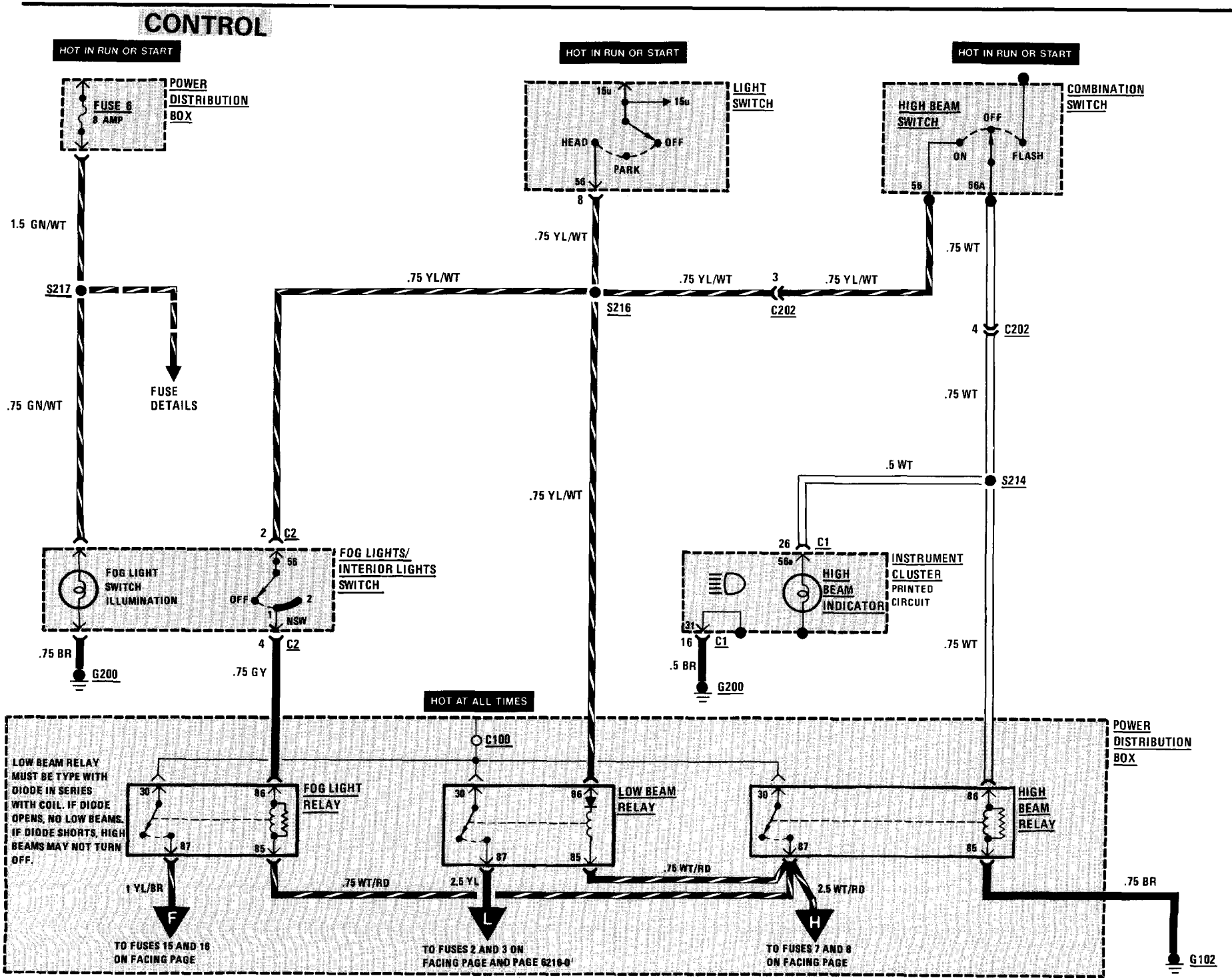

1 GY/RD
S220
.75 GY/RD
12
C206
.75 GY/RD
.75 GY/RD
S308
.75 GY/RD
.75 GY/RD
.75 GY/RD
.75 GY/RD
10
C1
INSTRUMENT CLUSTER
PAGE 6300-2
10
C204
7
HAZARD SWITCH
PAGE 6300-2
8
REAR DEFOGGER SWITCH
PAGE 6100-1
.75 GY/RD
1
C215
WT
.75 GY/RD
RADIO
PAGE 6500-0
.75 GY/RD
22
C302
(NOT USED)
(ACCESSORY CONNECTOR)
CIGAR LIGHTER/ ASHTRAY
PAGE 6300-3
.5 GY/RD
S227
.5 GY/RD
.5 GY/RD
HEATER - A/C PANEL LIGHTS
PAGE 6300-3
.75 GY/RD
.75 GY/RD
.75 GY/RD
S315
1
C1
LH REAR SIDE MARKER LIGHT
REAR LIGHTS CHECK RELAY
RH REAR SIDE MARKER LIGHT
PAGE 6320-0

LIGHTS: DASH/TRANSMISSION RANGE



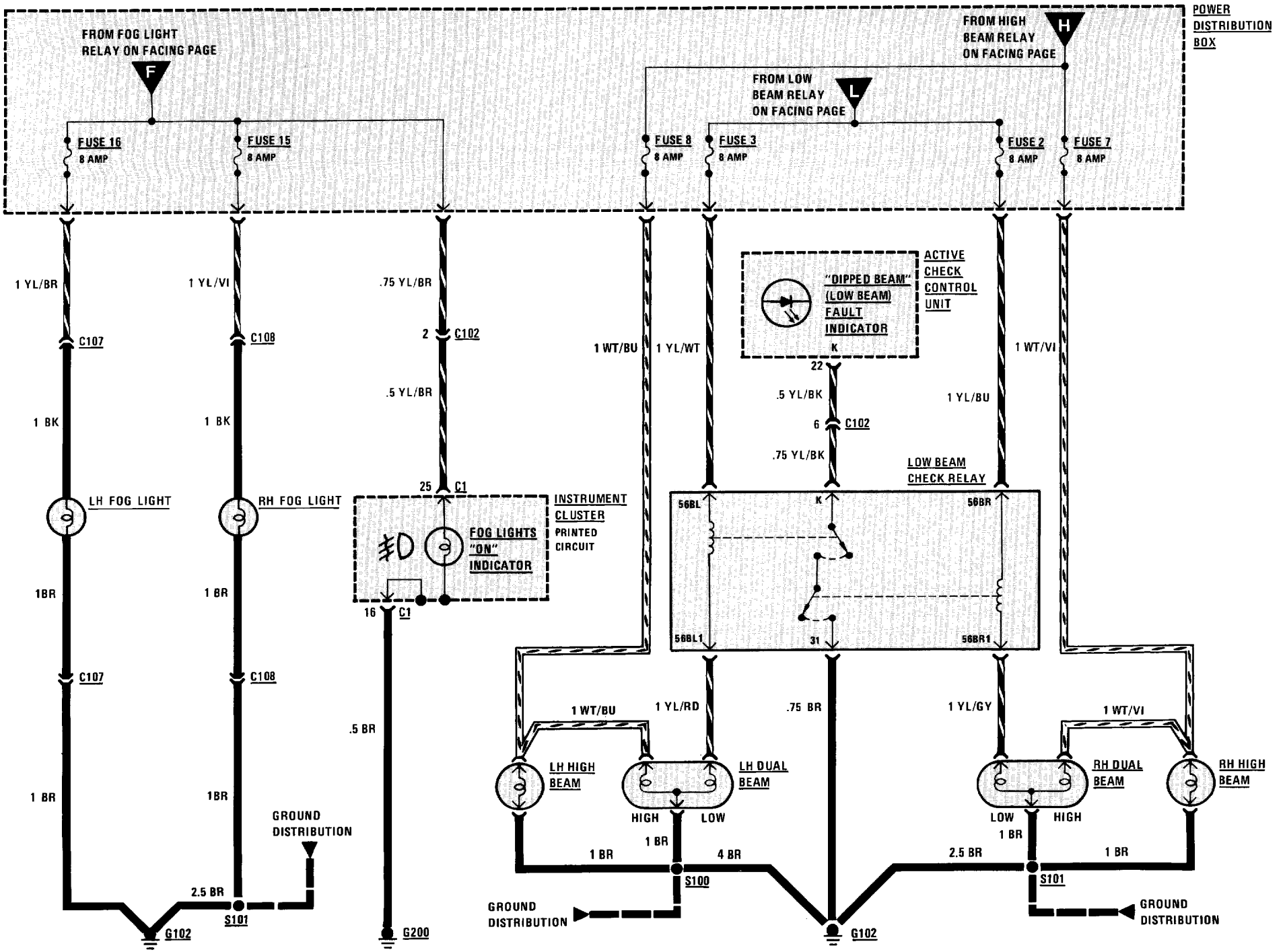
LIGHTS: DASH/TRANSMISSION RANGE

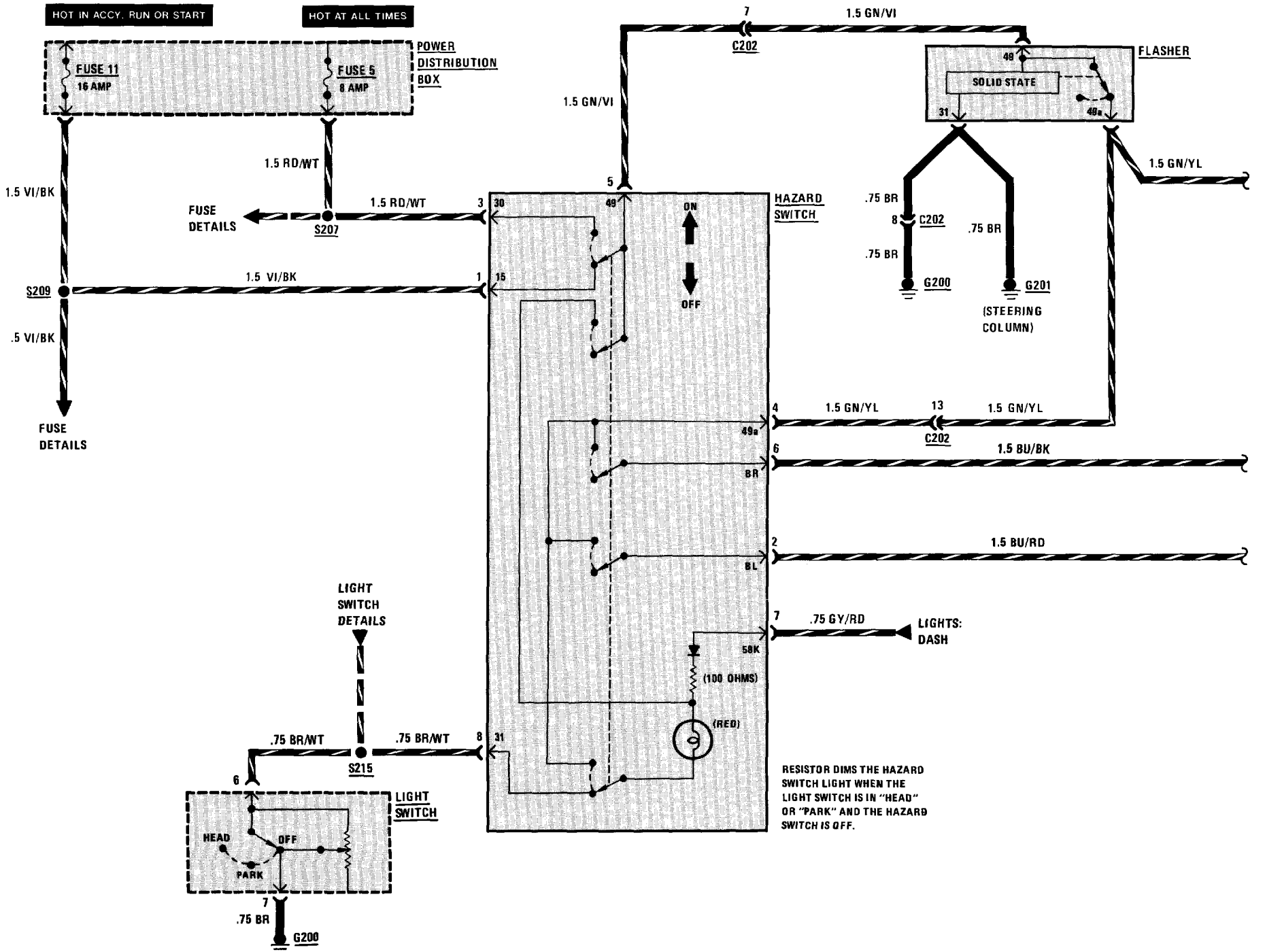


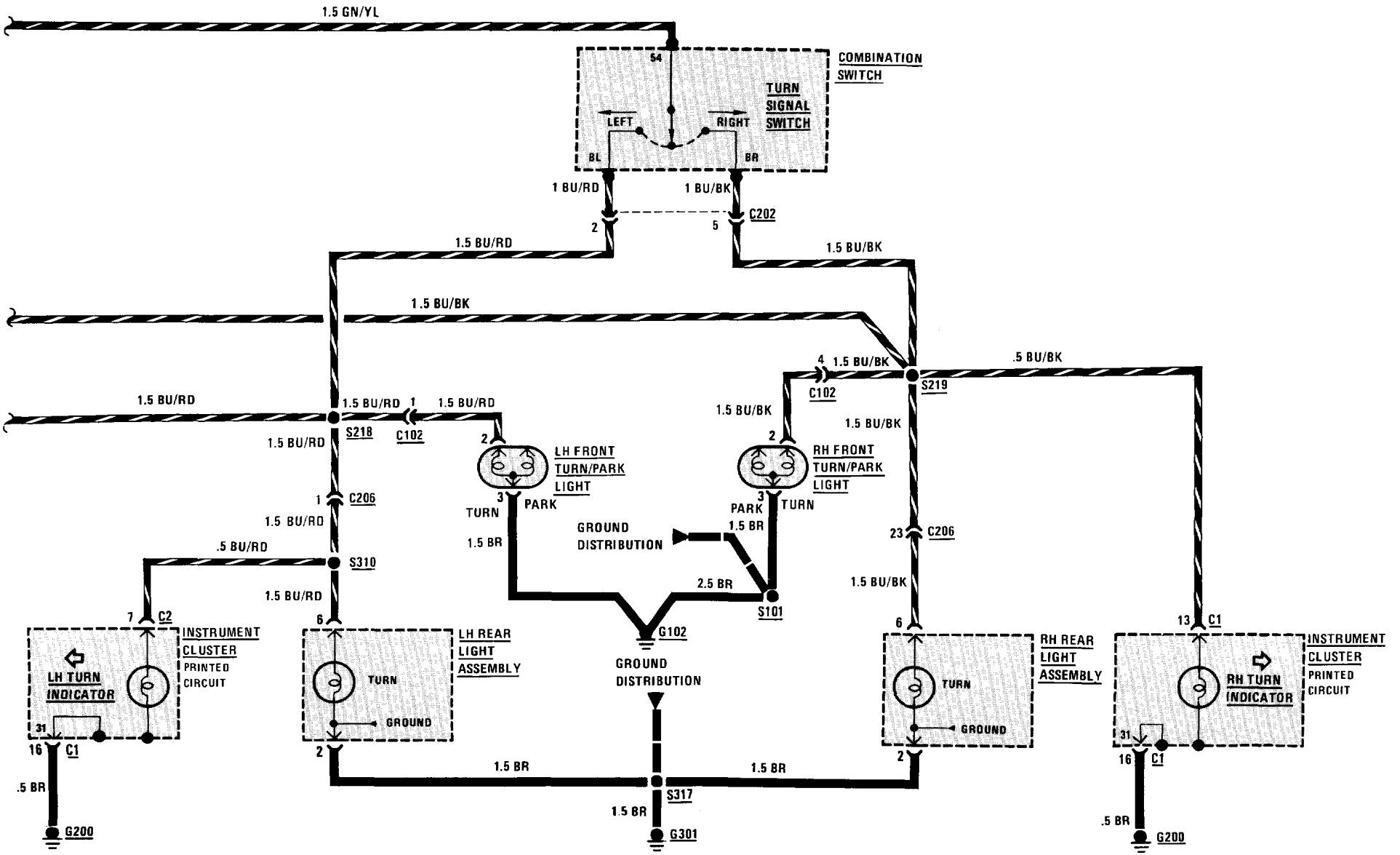


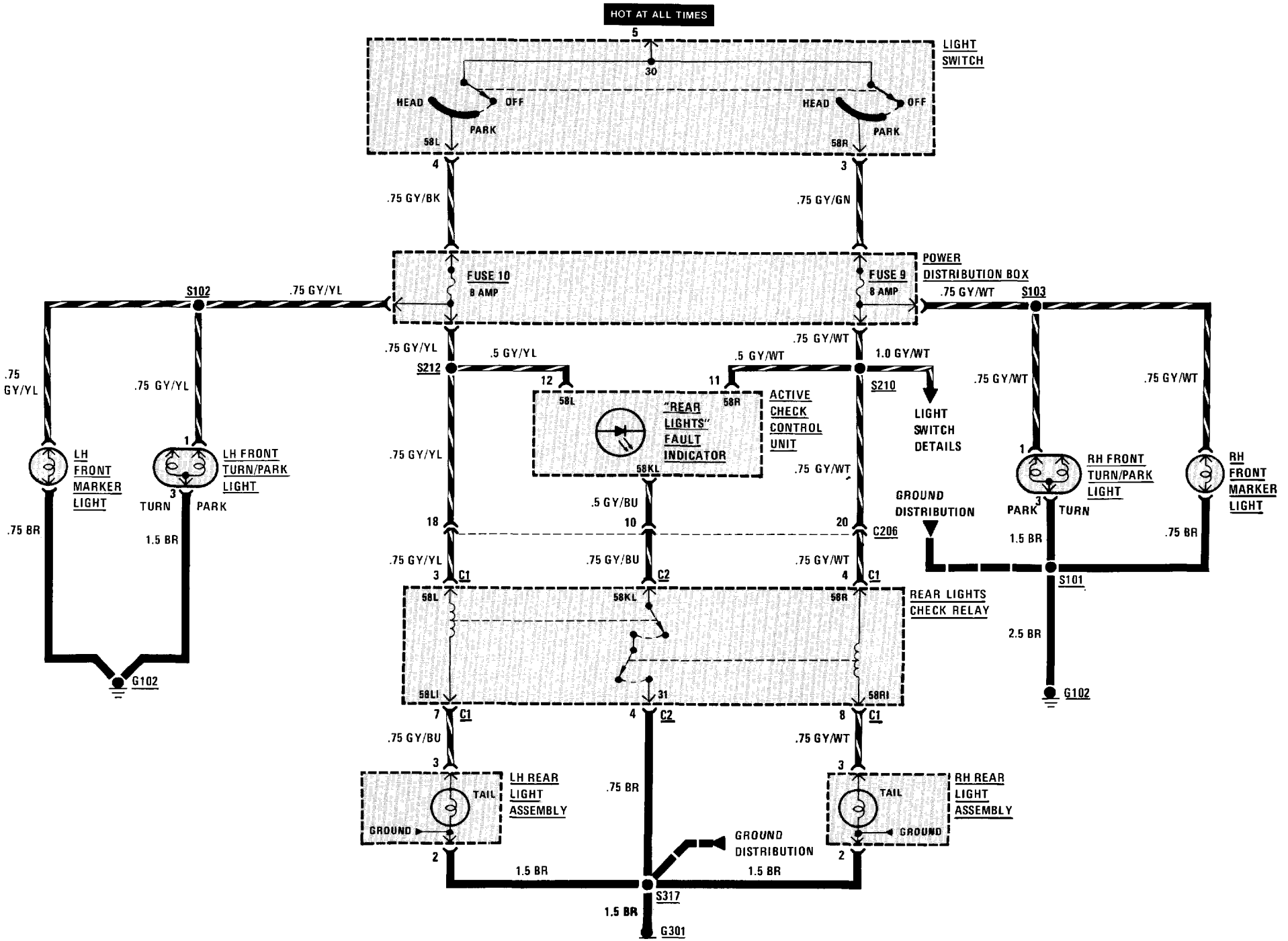
CONTINUED ON PAGE 6312-1

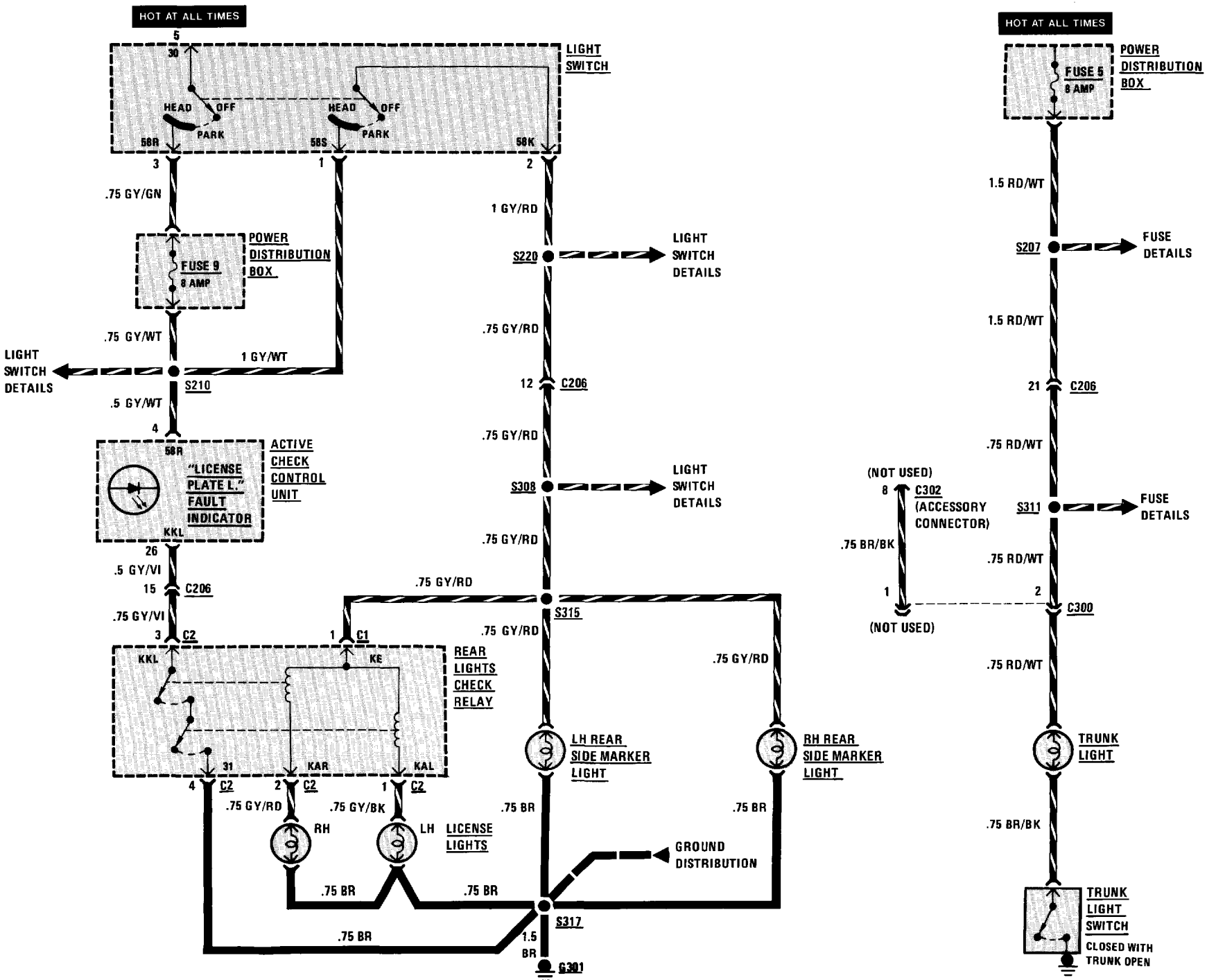
POWER

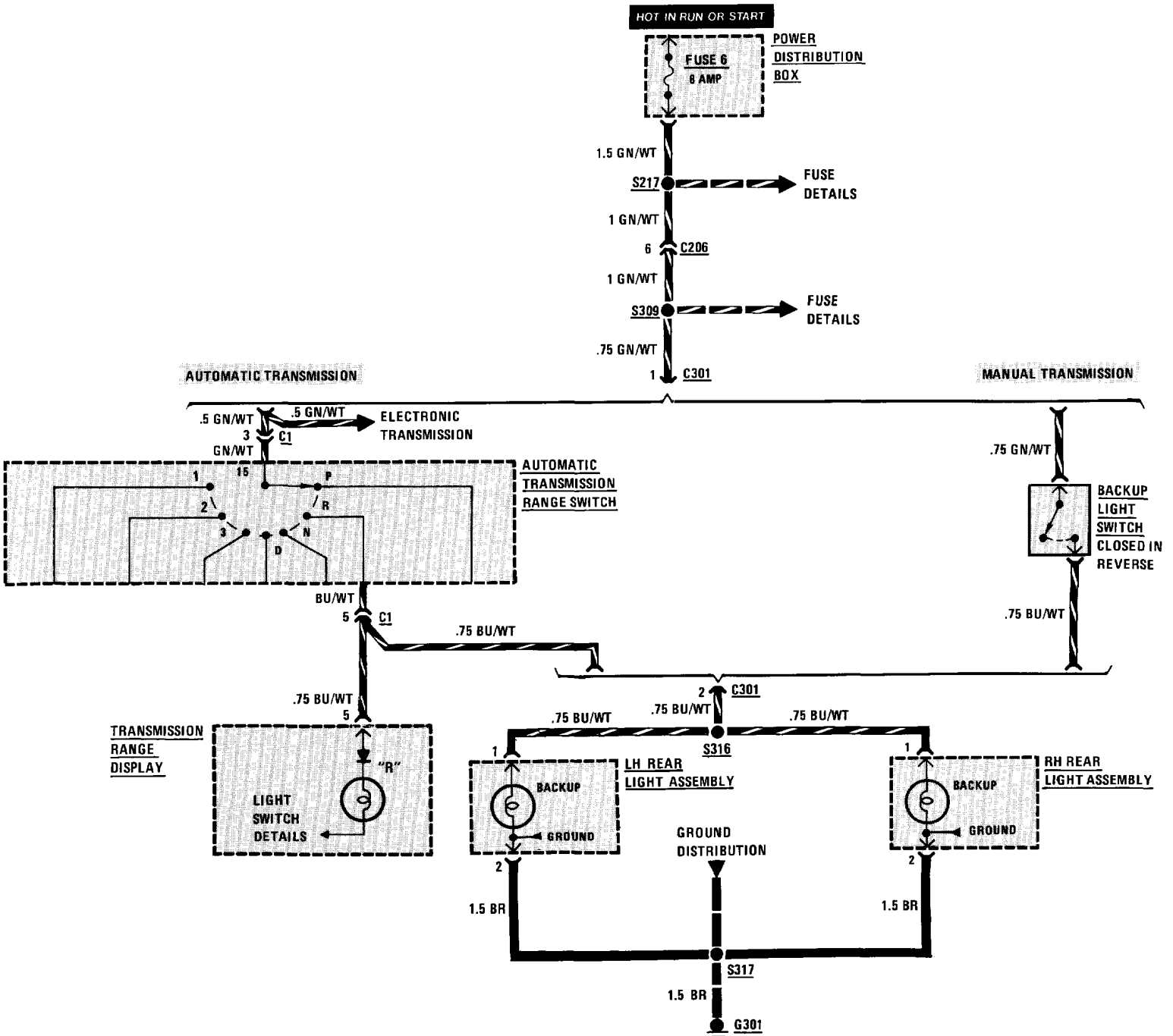

POWER DISTRIBUTION BOX
FROM FOG LIGHT RELAY ON FACING PAGE
F
FROM HIGH BEAM RELAY ON FACING PAGE
H
FROM LOW BEAM RELAY ON FACING PAGE
L
FUSE 16 8 AMP
FUSE 15 8 AMP
FUSE 8 8 AMP
FUSE 3 8 AMP
FUSE 2 8 AMP
FUSE 7 8 AMP
1 YL/BR
1 YL/VI
.75 YL/BR
1 WT/BU
1 YL/WT
1 WT/VI
C107
C108
2 C102
.5 YL/BR
1 BK
1 BK
25 C1
LH FOG LIGHT
RH FOG LIGHT
INSTRUMENT CLUSTER PRINTED CIRCUIT
FOG LIGHTS "ON" INDICATOR
16 C1
.5 BR
1BR
1 BR
"DIPPED BEAM" (LOW BEAM) FAULT INDICATOR
K
ACTIVE CHECK CONTROL UNIT
22
.5 YL/BK
6 C102
.75 YL/BK
1 YL/BU
LOW BEAM CHECK RELAY
56BL
K
56BR
56BL1
31
56BR1
1 WT/BU
1 YL/RD
.75 BR
1 YL/GY
1 WT/VI
LH HIGH BEAM
LH DUAL BEAM
HIGH
LOW
RH DUAL BEAM
RH HIGH BEAM
LOW
HIGH
1 BR
4 BR
2.5 BR
S100
S101
GROUND DISTRIBUTION
G102
G200

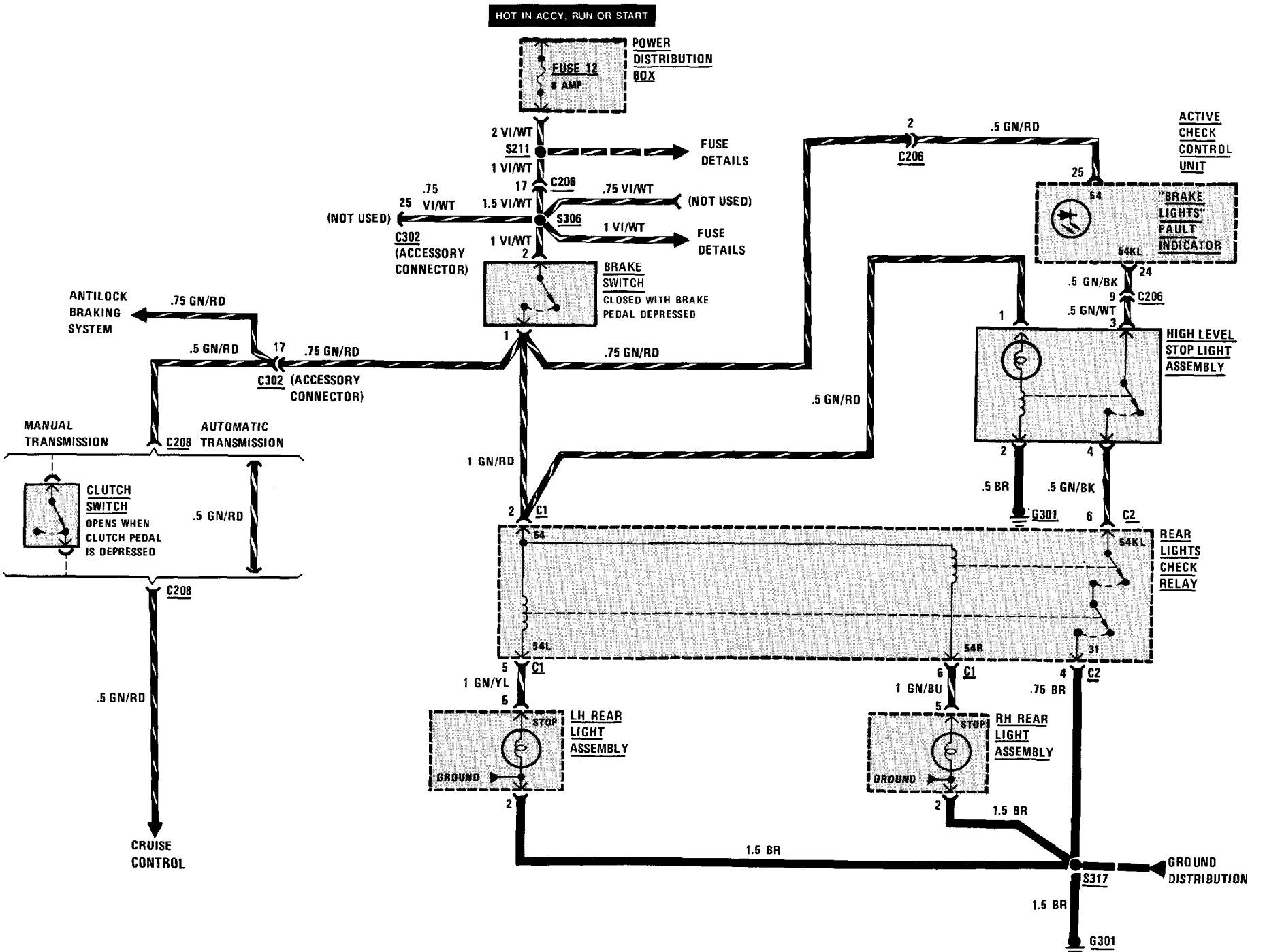

HOT IN ACCY. RUN OR START
HOT AT ALL TIMES
FUSE 11
15 AMP
FUSE 5
8 AMP
POWER DISTRIBUTION BOX
1.5 RD/WT
1.5 VI/BK
FUSE DETAILS
S207
1.5 RD/WT
3
30
S209
1.5 VI/BK
1
15
.5 VI/BK
FUSE DETAILS
5
1.5 GN/VI
7
1.5 GN/VI
C202
FLASHER
SOLID STATE
49
49a
31
1.5 GN/YL
.75 BR
8
C202
.75 BR
.75 BR
G200
G201
(STEERING COLUMN)
HAZARD SWITCH
49
ON
OFF
4
1.5 GN/YL
13
1.5 GN/YL
C202
49a
6
1.5 BU/BK
BR
2
1.5 BU/RD
BL
7
.75 GY/RD
LIGHTS: DASH
58K
(100 OHMS)
(RED)
LIGHT SWITCH DETAILS
.75 BR/WT
.75 BR/WT
8
31
S215
6
LIGHT SWITCH
HEAD
OFF
PARK
7
.75 BR
G200
RESISTOR DIMS THE HAZARD SWITCH LIGHT WHEN THE LIGHT SWITCH IS IN "HEAD" OR "PARK" AND THE HAZARD SWITCH IS OFF.

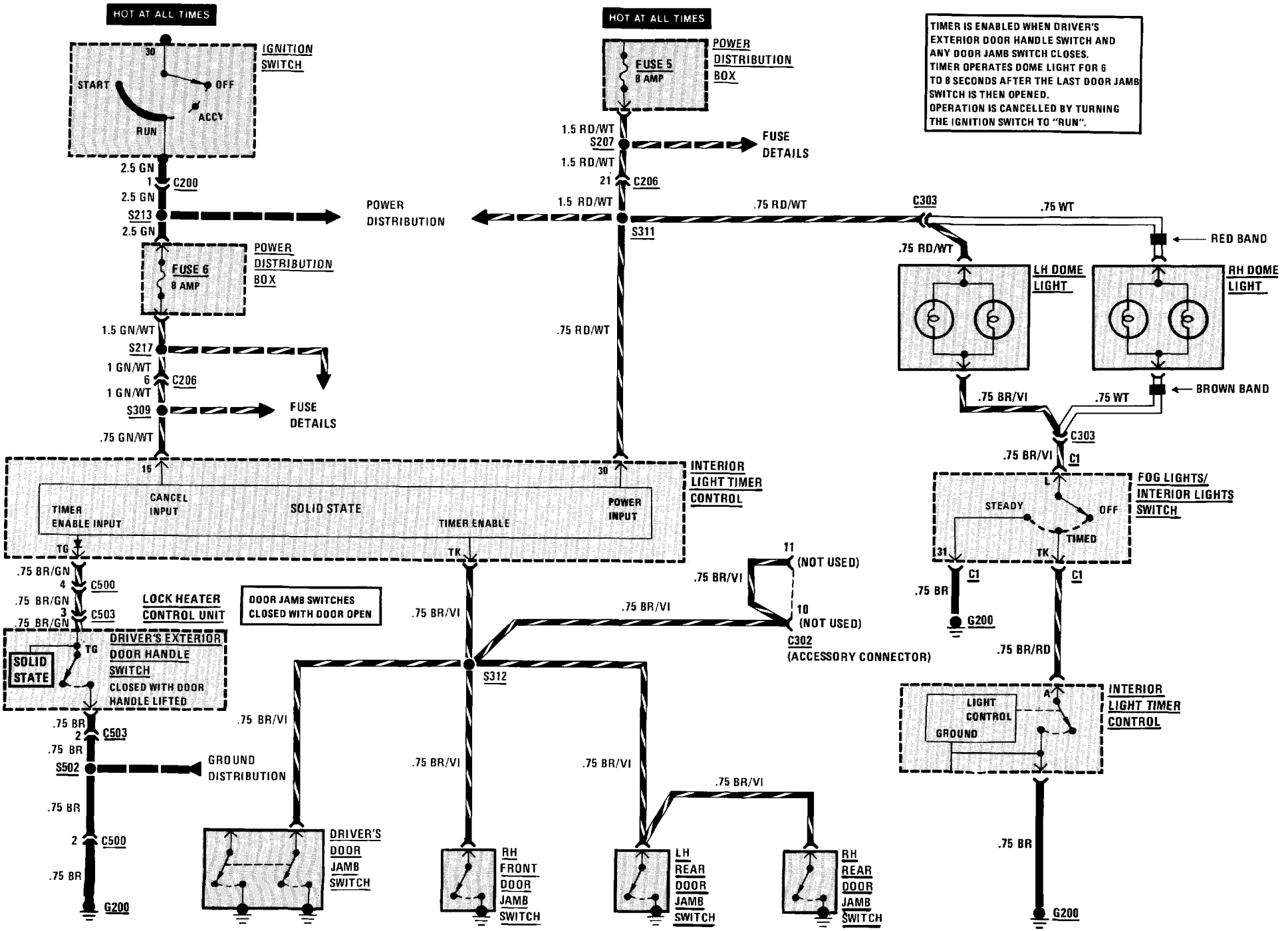

1.5 GN/YL
54
COMBINATION SWITCH
TURN SIGNAL SWITCH
LEFT
RIGHT
BL
BR
1 BU/RD
1 BU/BK
2
5
C202
1.5 BU/RD
1.5 BU/BK
4
1.5 BU/BK
.5 BU/BK
S219
C102
1.5 BU/BK
1.5 BU/BK
1.5 BU/RD
1.5 BU/RD
1
1.5 BU/RD
S218
C102
2
LH FRONT TURN/PARK LIGHT
3
TURN
PARK
2
RH FRONT TURN/PARK LIGHT
3
PARK
TURN
1.5 BU/RD
1
C206
1.5 BU/RD
.5 BU/RD
S310
1.5 BU/RD
GROUND DISTRIBUTION
1.5 BR
1.5 BR
2.5 BR
S101
23
C206
1.5 BU/BK
7
C2
6
6
13
C1
INSTRUMENT CLUSTER PRINTED CIRCUIT
LH TURN INDICATOR
31
16
C1
LH REAR LIGHT ASSEMBLY
TURN
GROUND
2
G102
GROUND DISTRIBUTION
RH REAR LIGHT ASSEMBLY
TURN
GROUND
2
INSTRUMENT CLUSTER PRINTED CIRCUIT
RH TURN INDICATOR
31
16
C1
1.5 BR
1.5 BR
S317
1.5 BR
.5 BR
.5 BR
G200
G301
G200


HOT AT ALL TIMES
5
30
LIGHT SWITCH
HEAD
OFF
PARK
58L
58R
4
3
.75 GY/BK
.75 GY/GN
FUSE 10
8 AMP
FUSE 9
8 AMP
POWER DISTRIBUTION BOX
S102
.75 GY/YL
.75 GY/WT
S103
.75 GY/YL
.5 GY/YL
.5 GY/WT
1.0 GY/WT
S212
12
11
S210
LIGHT SWITCH DETAILS
.75 GY/WT
.75 GY/WT
.75 GY/YL
.75 GY/YL
.75 GY/YL
58L
58R
"REAR LIGHTS" FAULT INDICATOR
58KL
ACTIVE CHECK CONTROL UNIT
.75 GY/WT
LH FRONT MARKER LIGHT
LH FRONT TURN/PARK LIGHT
1
3
TURN
PARK
RH FRONT TURN/PARK LIGHT
RH FRONT MARKER LIGHT
PARK
TURN
.75 BR
1.5 BR
1.5 BR
.75 BR
.5 GY/BU
18
10
20
C206
GROUND DISTRIBUTION
.75 GY/YL
.75 GY/BU
.75 GY/WT
3
C1
C2
4
C1
S101
2.5 BR
58L
58KL
58R
REAR LIGHTS CHECK RELAY
58LI
31
58RI
G102
7
C1
4
C2
8
C1
.75 GY/BU
.75 GY/WT
3
3
TAIL
GROUND
LH REAR LIGHT ASSEMBLY
.75 BR
GROUND DISTRIBUTION
TAIL
GROUND
RH REAR LIGHT ASSEMBLY
2
2
1.5 BR
1.5 BR
S317
1.5 BR
G301

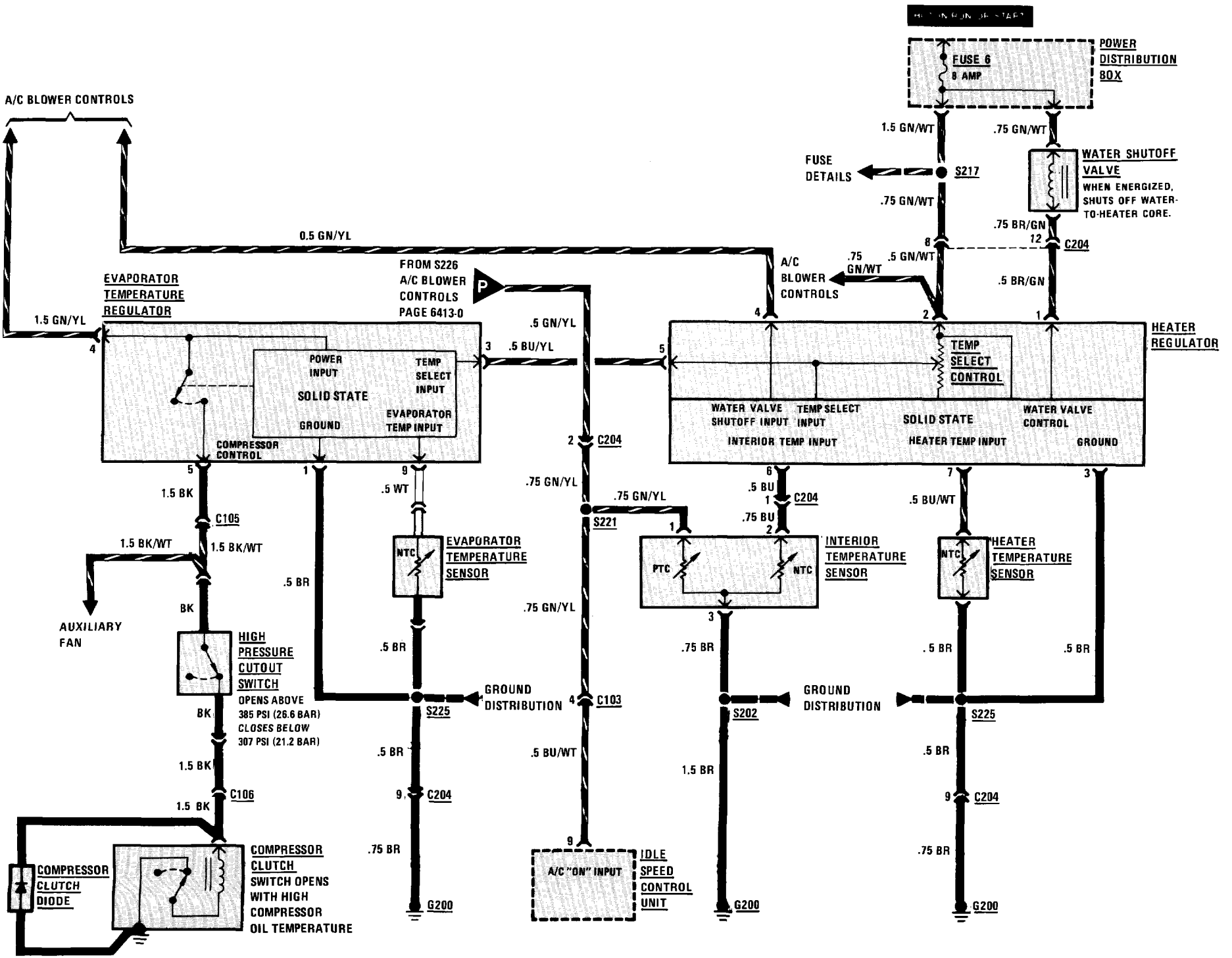

HOT AT ALL TIMES
5
30
HEAD
OFF
PARK
58R
58S
58K
LIGHT SWITCH
3
1
2
.75 GY/GN
1 GY/RD
POWER DISTRIBUTION BOX
FUSE 9
8 AMP
S220
LIGHT SWITCH DETAILS
.75 GY/WT
1 GY/WT
.75 GY/RD
LIGHT SWITCH DETAILS
S210
12
C206
.5 GY/WT
4
58R
ACTIVE CHECK CONTROL UNIT
"LICENSE PLATE L." FAULT INDICATOR
KKL
S308
LIGHT SWITCH DETAILS
.75 GY/RD
26
.5 GY/VI
15
C206
.75 GY/RD
S315
.75 GY/VI
3
C2
1
C1
KE
.75 GY/RD
.75 GY/RD
REAR LIGHTS CHECK RELAY
KKL
31
KAR
KAL
LH REAR SIDE MARKER LIGHT
RH REAR SIDE MARKER LIGHT
4
C2
2
C2
1
C2
.75 GY/RD
.75 GY/BK
.75 BR
.75 BR
RH
LH
LICENSE LIGHTS
GROUND DISTRIBUTION
.75 BR
.75 BR
S317
.75 BR
1.5 BR
G301
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5
8 AMP
1.5 RD/WT
S207
FUSE DETAILS
1.5 RD/WT
21
C206
.75 RD/WT
(NOT USED)
8
C302
(ACCESSORY CONNECTOR)
S311
FUSE DETAILS
.75 BR/BK
.75 RD/WT
1
2
C300
(NOT USED)
.75 RD/WT
TRUNK LIGHT
.75 BR/BK
TRUNK LIGHT SWITCH
CLOSED WITH TRUNK OPEN


HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
FUSE DETAILS
1 GN/WT
6
C206
1 GN/WT
S309
FUSE DETAILS
.75 GN/WT
1
C301
AUTOMATIC TRANSMISSION
MANUAL TRANSMISSION
.5 GN/WT
.5 GN/WT
ELECTRONIC TRANSMISSION
3
C1
GN/WT
AUTOMATIC TRANSMISSION RANGE SWITCH
1
15
P
R
2
3
N
D
.75 GN/WT
BACKUP LIGHT SWITCH CLOSED IN REVERSE
BU/WT
5
C1
.75 BU/WT
.75 BU/WT
2
C301
.75 BU/WT
.75 BU/WT
.75 BU/WT
5
TRANSMISSION RANGE DISPLAY
"R"
LIGHT SWITCH DETAILS
S316
1
LH REAR LIGHT ASSEMBLY
BACKUP
GROUND
1
RH REAR LIGHT ASSEMBLY
BACKUP
GROUND
GROUND DISTRIBUTION
2
1.5 BR
2
1.5 BR
S317
1.5 BR
G301

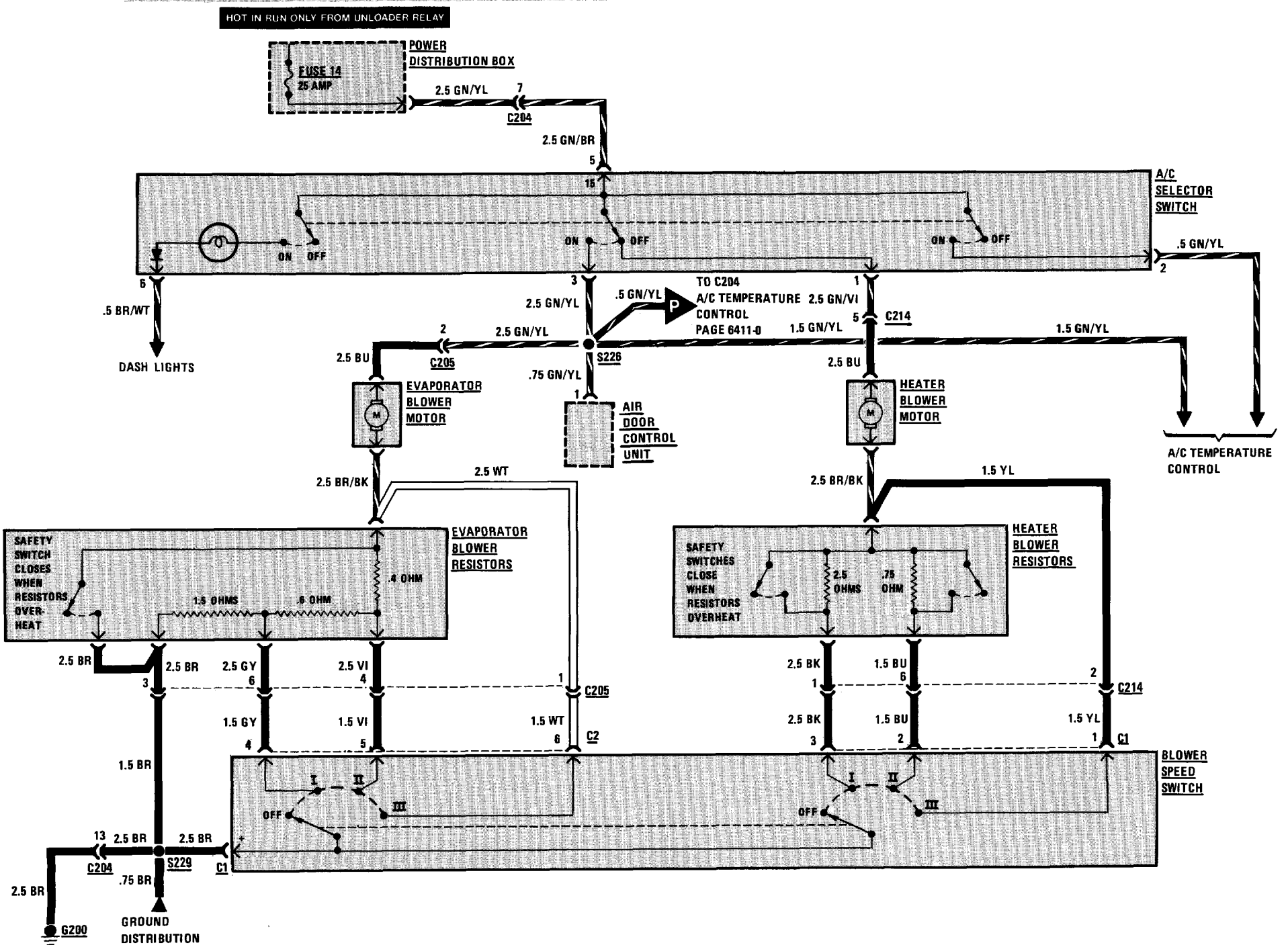

HOT IN ACCY, RUN OR START
POWER DISTRIBUTION BOX
FUSE 12
8 AMP
2 VI/WT
S211
1 VI/WT
FUSE DETAILS
C206
17
.75 VI/WT
(NOT USED)
.75 VI/WT
25
1.5 VI/WT
(NOT USED)
S306
C302 (ACCESSORY CONNECTOR)
1 VI/WT
FUSE DETAILS
2
BRAKE SWITCH
CLOSED WITH BRAKE PEDAL DEPRESSED
1
ANTILOCK BRAKING SYSTEM
.75 GN/RD
.5 GN/RD
17
.75 GN/RD
C302 (ACCESSORY CONNECTOR)
.75 GN/RD
2
.5 GN/RD
C206
ACTIVE CHECK CONTROL UNIT
25
54
"BRAKE LIGHTS" FAULT INDICATOR
54KL
.5 GN/BK
24
9
C206
.5 GN/WT
3
1
HIGH LEVEL STOP LIGHT ASSEMBLY
2
4
.5 GN/RD
MANUAL TRANSMISSION
C208
AUTOMATIC TRANSMISSION
CLUTCH SWITCH
OPENS WHEN CLUTCH PEDAL IS DEPRESSED
.5 GN/RD
C208
1 GN/RD
2
C1
.5 BR
G301
.5 GN/BK
6
C2
54
54KL
REAR LIGHTS CHECK RELAY
54L
54R
31
5
C1
1 GN/YL
6
C1
1 GN/BU
4
C2
.75 BR
5
5
.5 GN/RD
STOP
LH REAR LIGHT ASSEMBLY
GROUND
STOP
RH REAR LIGHT ASSEMBLY
GROUND
2
2
1.5 BR
1.5 BR
GROUND DISTRIBUTION
S317
1.5 BR
G301
CRUISE CONTROL


HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
ACCY
RUN
2.5 GN
1
C200
2.5 GN
S213
2.5 GN
POWER DISTRIBUTION
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
1 GN/WT
6
C206
1 GN/WT
S309
FUSE DETAILS
.75 GN/WT
HOT AT ALL TIMES
FUSE 5
8 AMP
POWER DISTRIBUTION BOX
1.5 RD/WT
S207
FUSE DETAILS
1.5 RD/WT
21
C206
1.5 RD/WT
.75 RD/WT
S311
.75 RD/WT
TIMER IS ENABLED WHEN DRIVER'S EXTERIOR DOOR HANDLE SWITCH AND ANY DOOR JAMB SWITCH CLOSES.
TIMER OPERATES DOME LIGHT FOR 6 TO 8 SECONDS AFTER THE LAST DOOR JAMB SWITCH IS THEN OPENED.
OPERATION IS CANCELLED BY TURNING THE IGNITION SWITCH TO "RUN".
C303
.75 WT
RED BAND
.75 RD/WT
LH DOME LIGHT
RH DOME LIGHT
.75 BR/VI
.75 WT
BROWN BAND
C303
.75 BR/VI
C1
FOG LIGHTS/ INTERIOR LIGHTS SWITCH
L
STEADY
OFF
TIMED
31
TK
C1
C1
.75 BR
G200
.75 BR/RD
INTERIOR LIGHT TIMER CONTROL
A
LIGHT CONTROL
GROUND
.75 BR
G200
15
30
INTERIOR LIGHT TIMER CONTROL
TIMER ENABLE INPUT
CANCEL INPUT
SOLID STATE
TIMER ENABLE
POWER INPUT
TG
TK
.75 BR/GN
4
C500
.75 BR/GN
3
C503
.75 BR/GN
LOCK HEATER CONTROL UNIT
DOOR JAMB SWITCHES CLOSED WITH DOOR OPEN
11
(NOT USED)
.75 BR/VI
.75 BR/VI
10
(NOT USED)
C302
(ACCESSORY CONNECTOR)
SOLID STATE
TG
DRIVER'S EXTERIOR DOOR HANDLE SWITCH CLOSED WITH DOOR HANDLE LIFTED
S312
.75 BR
2
C503
.75 BR
S502
GROUND DISTRIBUTION
.75 BR/VI
.75 BR/VI
.75 BR/VI
.75 BR/VI
.75 BR
2
C500
.75 BR
G200
DRIVER'S DOOR JAMB SWITCH
RH FRONT DOOR JAMB SWITCH
LH REAR DOOR JAMB SWITCH
RH REAR DOOR JAMB SWITCH

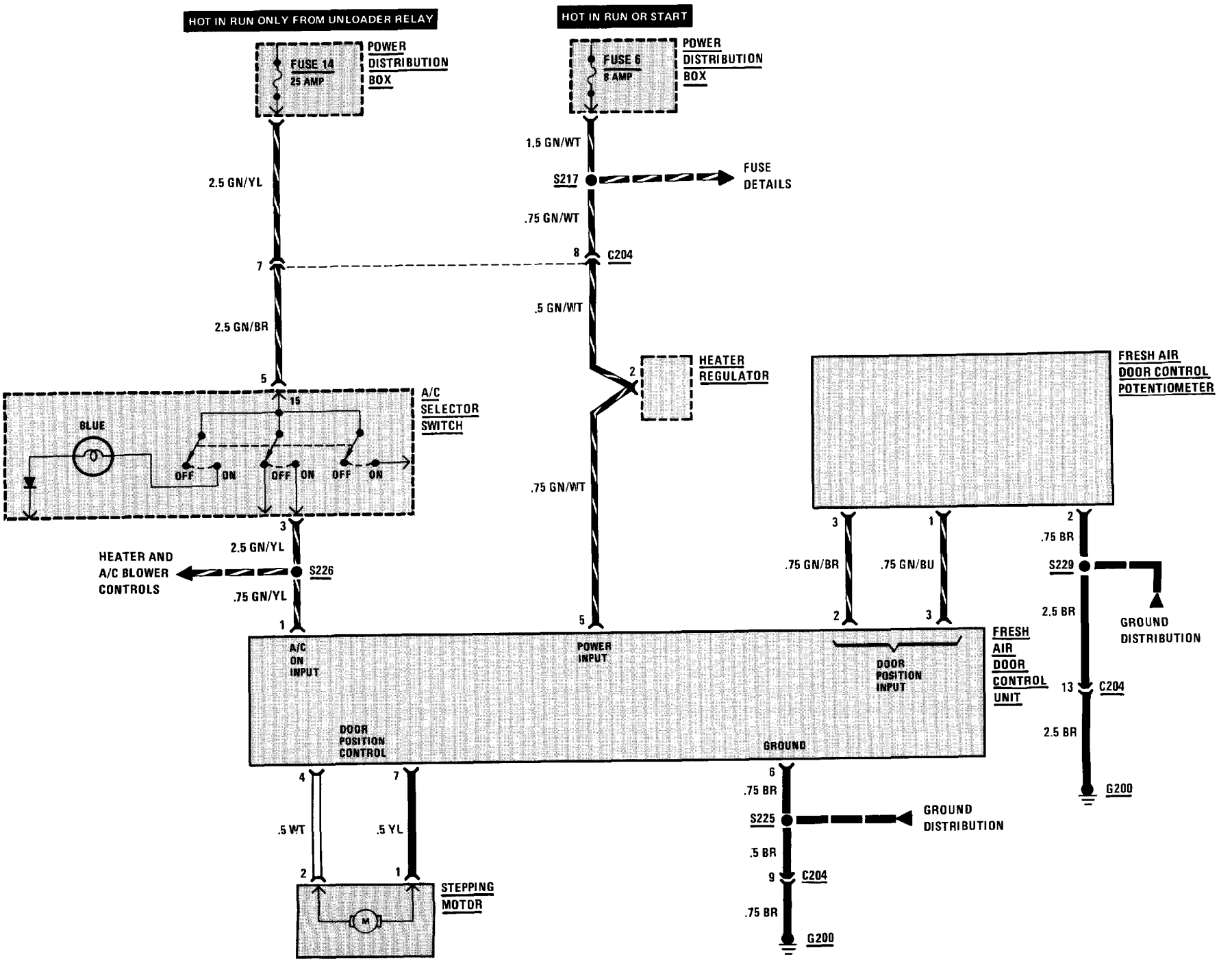
HEATER AND A/C TEMPERATURE CONTROL

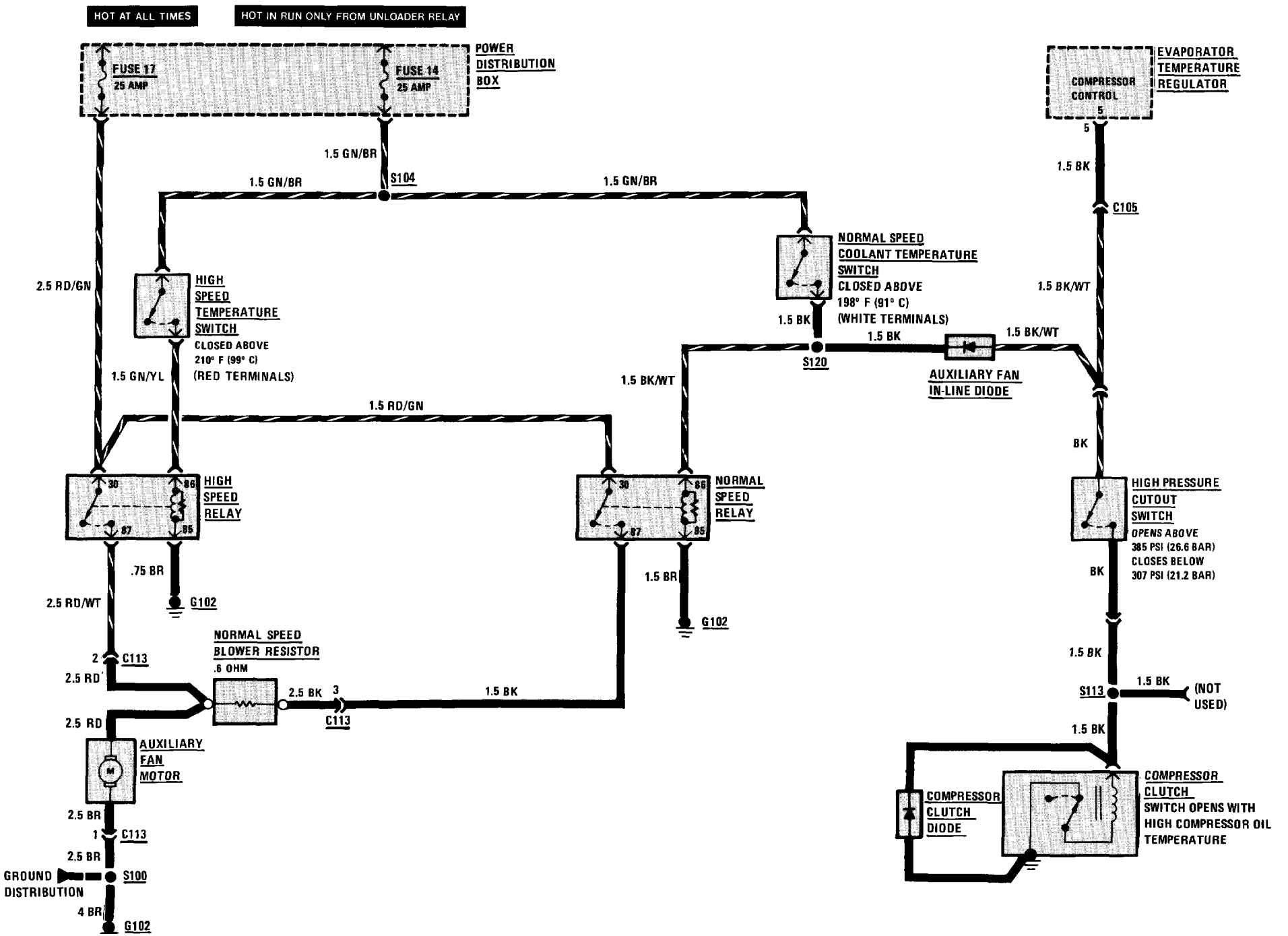


HEATER AND A/C BLOWER CONTROLS

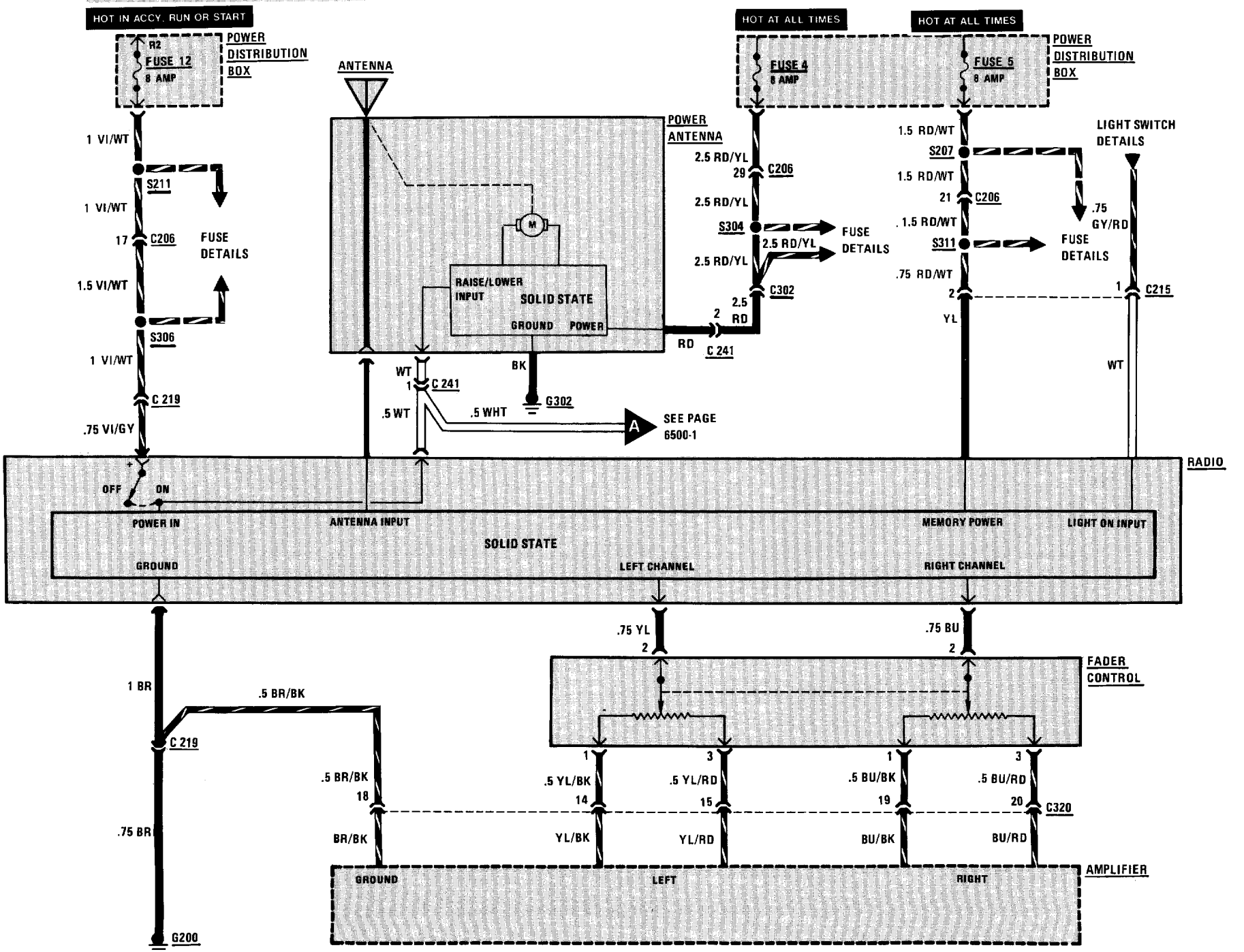


A/C FRESH AIR DOOR CONTROL

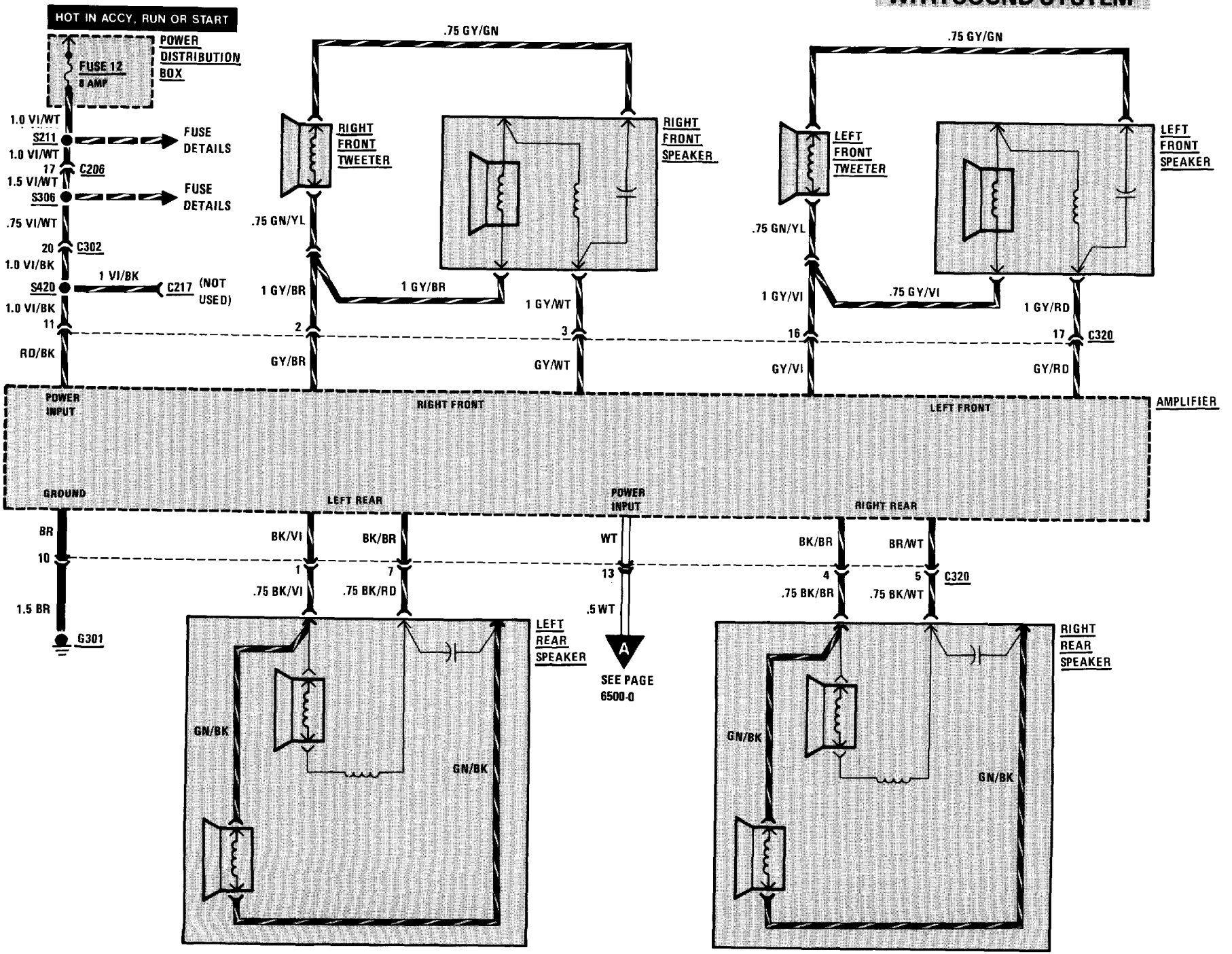



HOT AT ALL TIMES
HOT IN RUN ONLY FROM UNLOADER RELAY
FUSE 17
25 AMP
FUSE 14
25 AMP
POWER DISTRIBUTION BOX
1.5 GN/BR
S104
1.5 GN/BR
1.5 GN/BR
2.5 RD/GN
HIGH SPEED TEMPERATURE SWITCH
CLOSED ABOVE 210° F (99° C)
(RED TERMINALS)
1.5 GN/YL
NORMAL SPEED COOLANT TEMPERATURE SWITCH
CLOSED ABOVE 198° F (91° C)
(WHITE TERMINALS)
1.5 BK
S120
1.5 BK
1.5 BK/WT
AUXILIARY FAN IN-LINE DIODE
1.5 BK/WT
1.5 RD/GN
1.5 BK/WT
COMPRESSOR CONTROL
5
5
1.5 BK
C105
1.5 BK/WT
EVAPORATOR TEMPERATURE REGULATOR
BK
HIGH SPEED RELAY
30
86
87
85
.75 BR
G102
2.5 RD/WT
NORMAL SPEED RELAY
30
86
87
85
1.5 BR
G102
HIGH PRESSURE CUTOUT SWITCH
OPENS ABOVE 385 PSI (26.6 BAR)
CLOSES BELOW 307 PSI (21.2 BAR)
BK
2
C113
2.5 RD
NORMAL SPEED BLOWER RESISTOR
.6 OHM
2.5 BK
3
C113
1.5 BK
1.5 BK
S113
1.5 BK
(NOT USED)
2.5 RD
1.5 BK
AUXILIARY FAN MOTOR
M
COMPRESSOR CLUTCH DIODE
COMPRESSOR CLUTCH
SWITCH OPENS WITH HIGH COMPRESSOR OIL TEMPERATURE
2.5 BR
1
C113
2.5 BR
GROUND DISTRIBUTION
S100
4 BR
G102

WITH SOUND SYSTEM

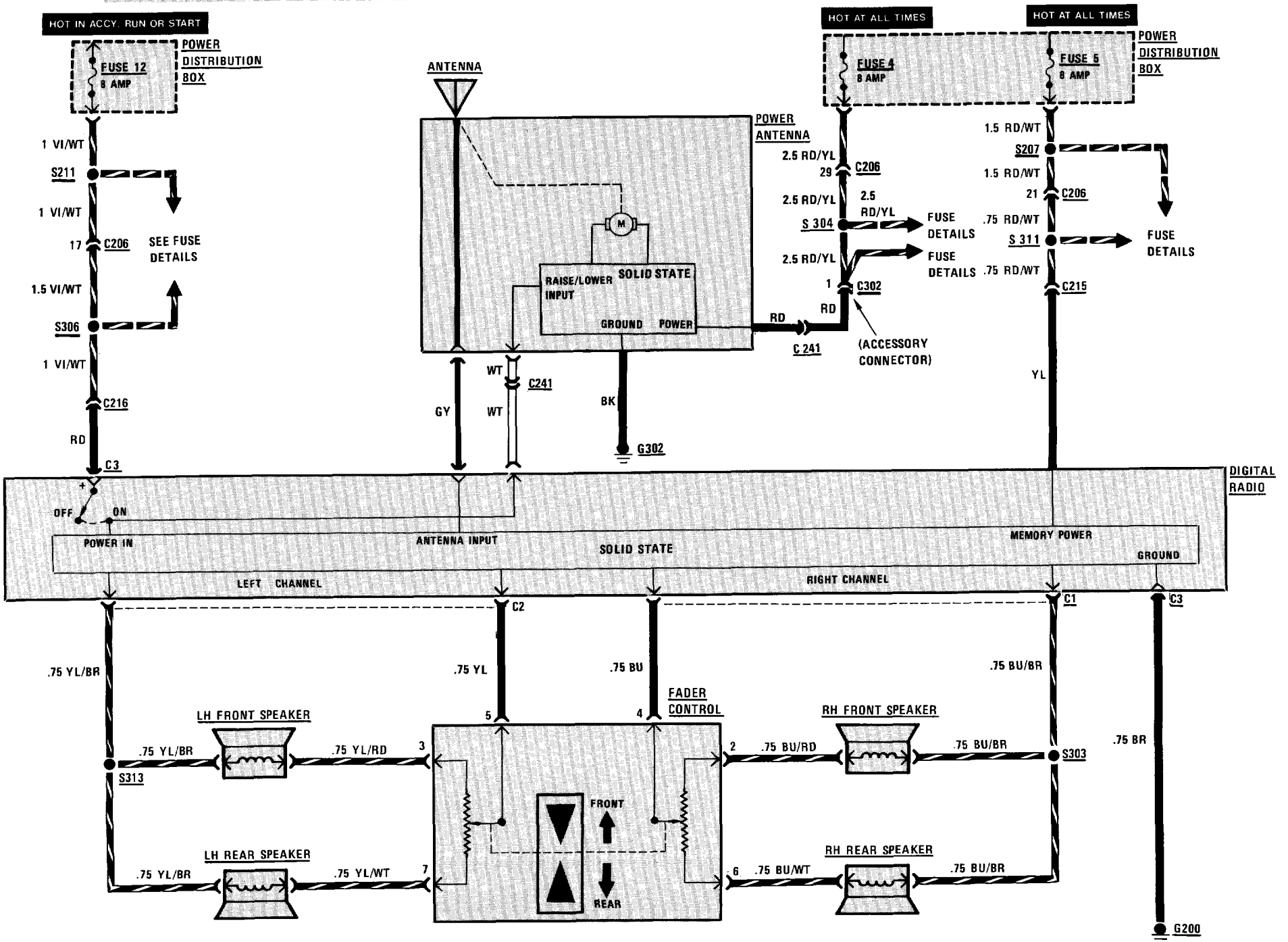


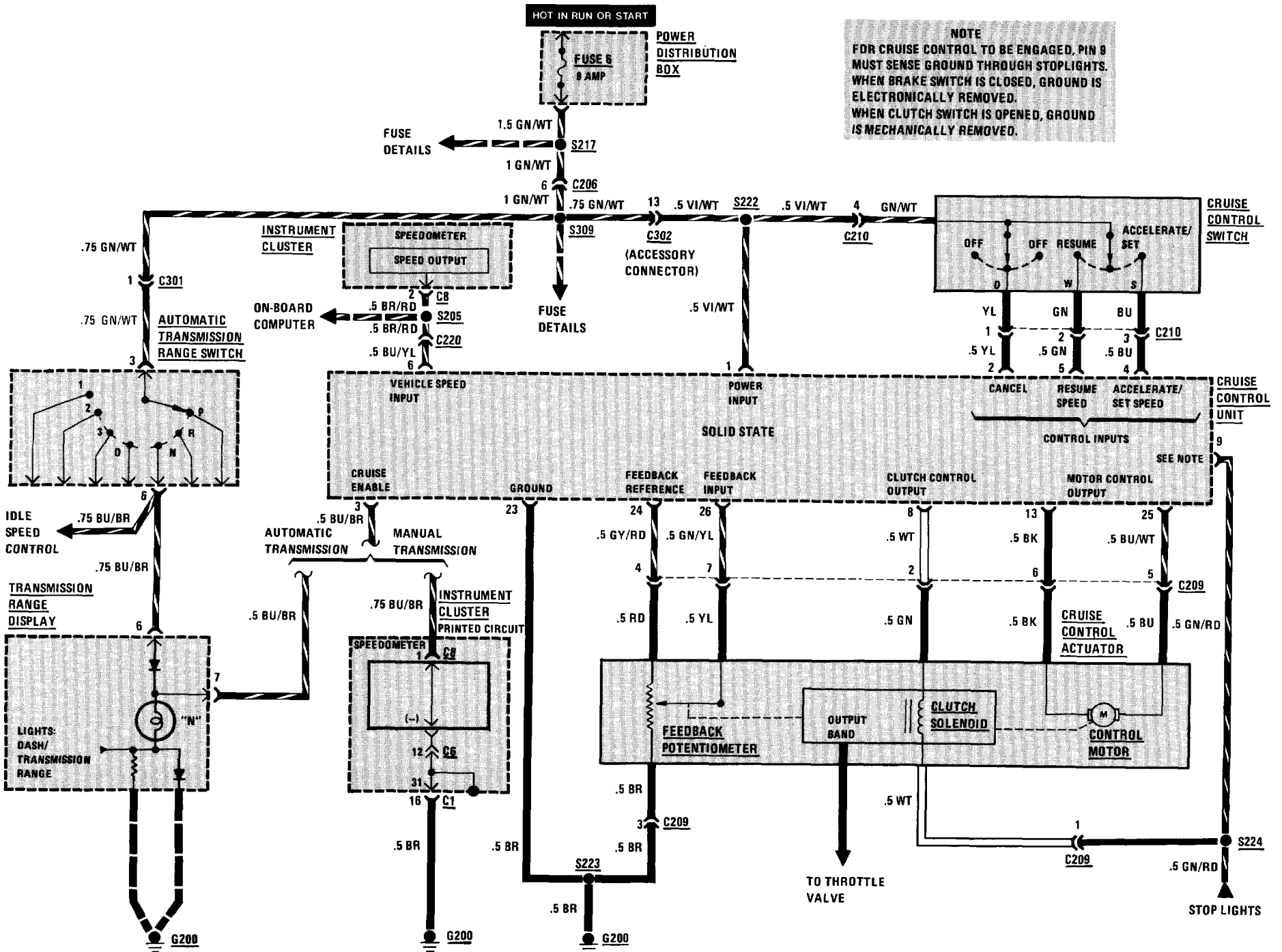
WITH SOUND SYSTEM

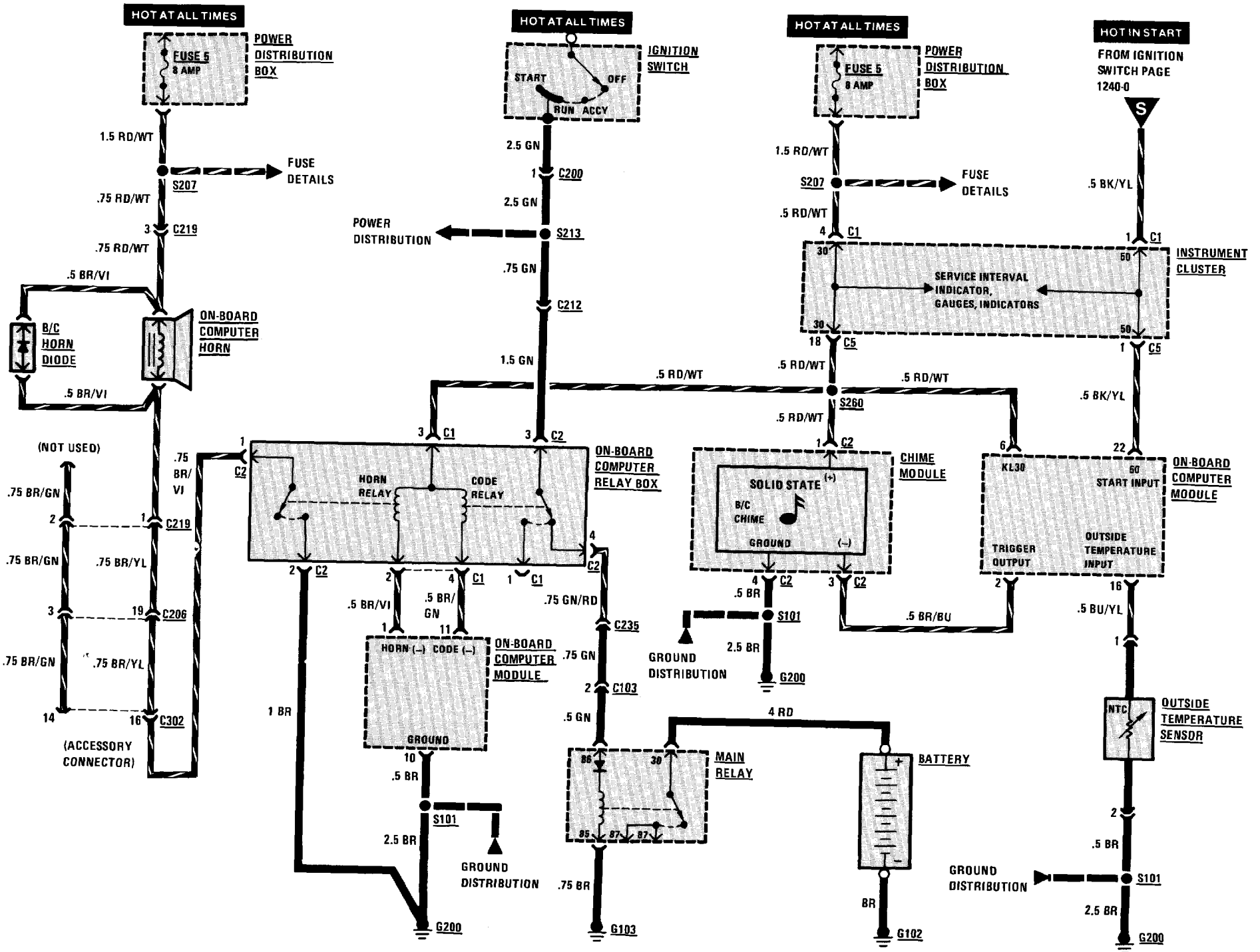


WITHOUT SOUND SYSTEM

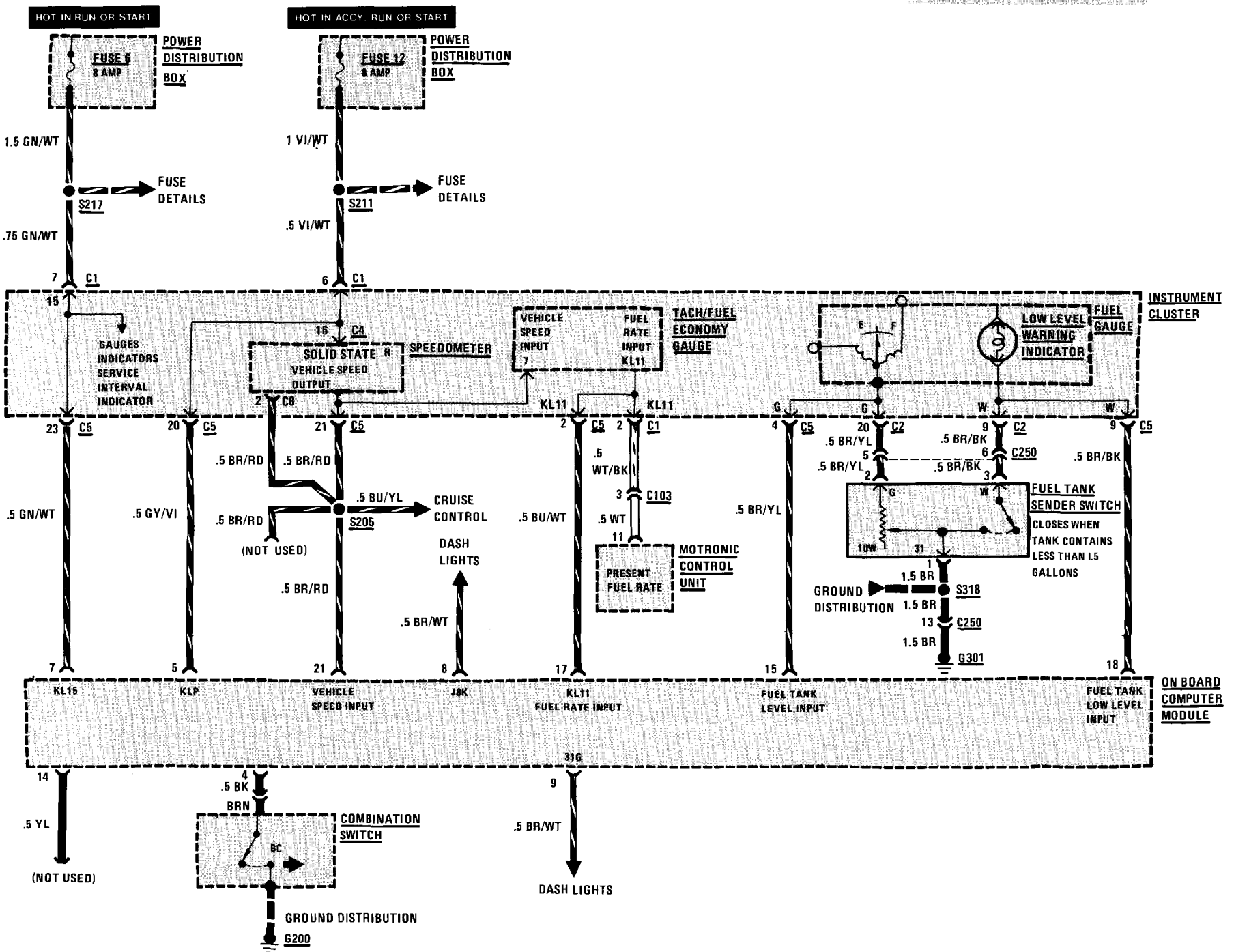
(For Component Locations See Page 211)

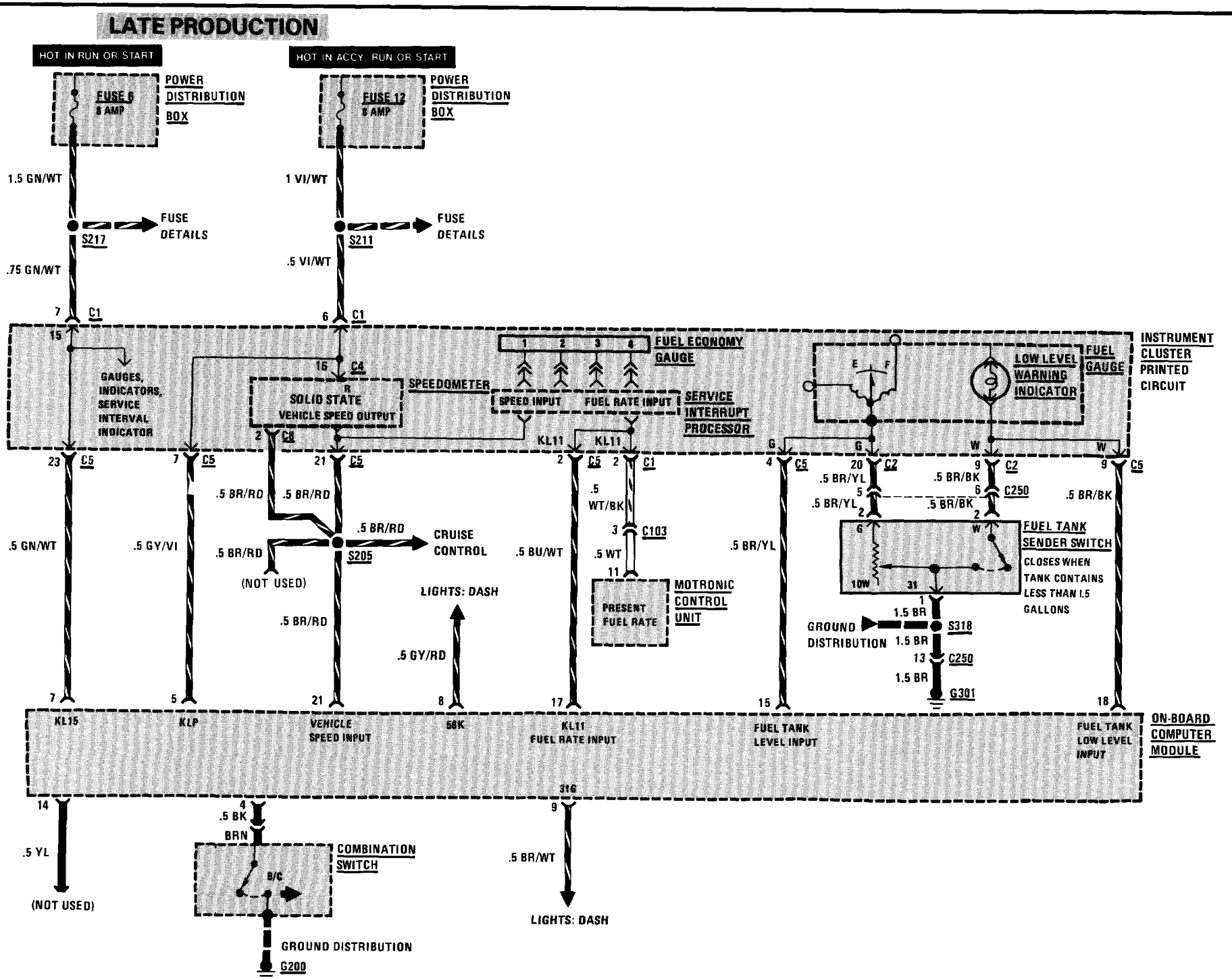



HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
NOTE
FOR CRUISE CONTROL TO BE ENGAGED, PIN 9 MUST SENSE GROUND THROUGH STOPLIGHTS.
WHEN BRAKE SWITCH IS CLOSED, GROUND IS ELECTRONICALLY REMOVED.
WHEN CLUTCH SWITCH IS OPENED, GROUND IS MECHANICALLY REMOVED.
FUSE DETAILS
1.5 GN/WT
S217
1 GN/WT
6
C206
1 GN/WT
.75 GN/WT
13
.5 VI/WT
S222
.5 VI/WT
4
GN/WT
C210
S309
C302
(ACCESSORY CONNECTOR)
FUSE DETAILS
CRUISE CONTROL SWITCH
OFF
OFF
RESUME
ACCELERATE/ SET
O
W
S
YL
GN
BU
1
2
3
C210
.5 YL
.5 GN
.5 BU
2
5
4
INSTRUMENT CLUSTER
SPEEDOMETER
SPEED OUTPUT
2
C8
ON-BOARD COMPUTER
.5 BR/RD
S205
.5 BR/RD
C220
.5 BU/YL
6
.75 GN/WT
1
C301
.75 GN/WT
AUTOMATIC TRANSMISSION RANGE SWITCH
3
P
R
N
D
1
2
3
6
IDLE SPEED CONTROL
.75 BU/BR
.75 BU/BR
TRANSMISSION RANGE DISPLAY
6
LIGHTS: DASH/ TRANSMISSION RANGE
"N"
7
.5 BU/BR
3
.5 BU/BR
AUTOMATIC TRANSMISSION
MANUAL TRANSMISSION
.75 BU/BR
INSTRUMENT CLUSTER PRINTED CIRCUIT
SPEEDOMETER
1
C8
(-)
12
C6
31
16
C1
.5 BR
G200
.5 BR
S223
.5 BR
G200
G200
VEHICLE SPEED INPUT
POWER INPUT
SOLID STATE
CRUISE CONTROL UNIT
CANCEL
RESUME SPEED
ACCELERATE/ SET SPEED
CONTROL INPUTS
9
SEE NOTE
CRUISE ENABLE
GROUND
FEEDBACK REFERENCE
FEEDBACK INPUT
CLUTCH CONTROL OUTPUT
MOTOR CONTROL OUTPUT
23
24
26
8
13
25
.5 GY/RD
.5 GN/YL
.5 WT
.5 BK
.5 BU/WT
4
7
2
6
5
C209
.5 RD
.5 YL
.5 GN
.5 BK
.5 BU
.5 GN/RD
CRUISE CONTROL ACTUATOR
FEEDBACK POTENTIOMETER
OUTPUT BAND
CLUTCH SOLENOID
CONTROL MOTOR
M
.5 BR
3
C209
.5 BR
.5 BR
.5 WT
1
C209
S224
.5 GN/RD
TO THROTTLE VALVE
STOP LIGHTS


HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5 8 AMP
1.5 RD/WT
FUSE DETAILS
S207
.75 RD/WT
3 C219
.75 RD/WT
.5 BR/VI
B/C HORN DIODE
ON-BOARD COMPUTER HORN
.5 BR/VI
(NOT USED)
.75 BR/GN
2
1 C219
.75 BR/GN
.75 BR/YL
3
19 C206
.75 BR/GN
.75 BR/YL
14
16 C302
(ACCESSORY CONNECTOR)
.75 BR/VI
1 C2
HOT AT ALL TIMES
IGNITION SWITCH
START
OFF
RUN
ACCY
2.5 GN
1 C200
2.5 GN
POWER DISTRIBUTION
S213
.75 GN
C212
1.5 GN
3 C1
3 C2
ON-BOARD COMPUTER RELAY BOX
HORN RELAY
CODE RELAY
2 C2
2
4 C1
1 C1
4 C2
.5 BR/VI
.5 BR/GN
1
11
HORN (–) CODE (–)
ON-BOARD COMPUTER MODULE
GROUND
10
.5 BR
S101
2.5 BR
GROUND DISTRIBUTION
G200
1 BR
.75 GN/RD
C235
.75 GN
2 C103
.5 GN
86
30
MAIN RELAY
85
87
87
.75 BR
G103
4 RD
BATTERY
+
–
BR
G102
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5 8 AMP
1.5 RD/WT
S207
FUSE DETAILS
.5 RD/WT
4 C1
30
INSTRUMENT CLUSTER
SERVICE INTERVAL INDICATOR, GAUGES, INDICATORS
30
50
18 C5
.5 RD/WT
.5 RD/WT
S260
.5 RD/WT
1 C2
CHIME MODULE
SOLID STATE
(+)
B/C CHIME
GROUND
(–)
4 C2
3 C2
.5 BR
S101
2.5 BR
GROUND DISTRIBUTION
G200
.5 BR/BU
6
KL30
50
START INPUT
TRIGGER OUTPUT
OUTSIDE TEMPERATURE INPUT
2
16
ON-BOARD COMPUTER MODULE
HOT IN START
FROM IGNITION SWITCH PAGE 1240-0
S
.5 BK/YL
1 C1
50
.5 BK/YL
1 C5
22
.5 BU/YL
1
NTC
OUTSIDE TEMPERATURE SENSOR
2
.5 BR
GROUND DISTRIBUTION
S101
2.5 BR
G200

EARLY PRODUCTION




LATE PRODUCTION
HOT IN RUN OR START
HOT IN ACCY, RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
FUSE 12
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
1 VI/WT
FUSE DETAILS
S217
S211
.75 GN/WT
.5 VI/WT
INSTRUMENT CLUSTER PRINTED CIRCUIT
GAUGES, INDICATORS, SERVICE INTERVAL INDICATOR
SOLID STATE VEHICLE SPEED OUTPUT
SPEEDOMETER
FUEL ECONOMY GAUGE
SPEED INPUT
FUEL RATE INPUT
SERVICE INTERRUPT PROCESSOR
LOW LEVEL WARNING INDICATOR
FUEL GAUGE
.5 GN/WT
.5 GY/VI
.5 BR/RD
.5 BR/RD
.5 BR/RD
CRUISE CONTROL
S205
(NOT USED)
LIGHTS: DASH
.5 GY/RD
.5 BR/RD
.5 BU/WT
.5 WT/BK
.5 WT
C103
PRESENT FUEL RATE
MOTRONIC CONTROL UNIT
.5 BR/YL
.5 BR/YL
.5 BR/BK
.5 BR/BK
.5 BR/BK
C250
FUEL TANK SENDER SWITCH
CLOSES WHEN TANK CONTAINS LESS THAN 1.5 GALLONS
10W
GROUND DISTRIBUTION
1.5 BR
S318
1.5 BR
C250
1.5 BR
G301
KL15
KLP
VEHICLE SPEED INPUT
56K
KL11 FUEL RATE INPUT
FUEL TANK LEVEL INPUT
FUEL TANK LOW LEVEL INPUT
ON-BOARD COMPUTER MODULE
.5 YL
(NOT USED)
.5 BK BRN
COMBINATION SWITCH
B/C
GROUND DISTRIBUTION
G200
.5 BR/WT
LIGHTS: DASH

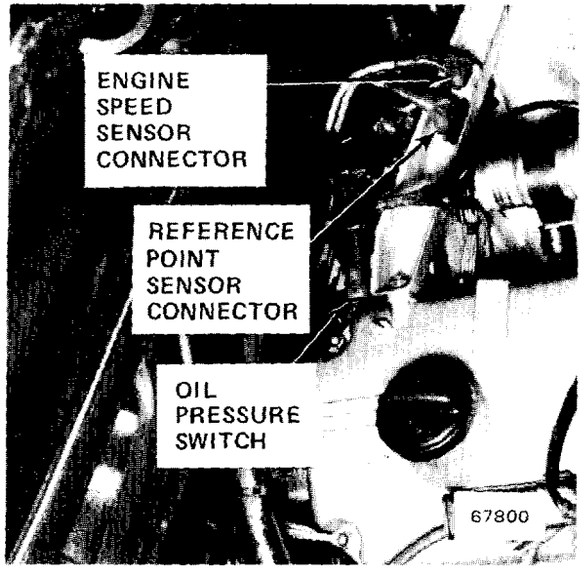


Figure 1 - Rear of 535i Engine

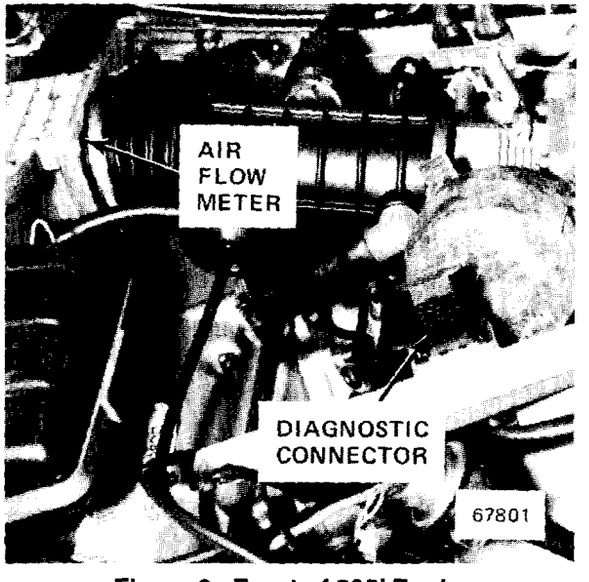


Figure 2 - Front of 535i Engine

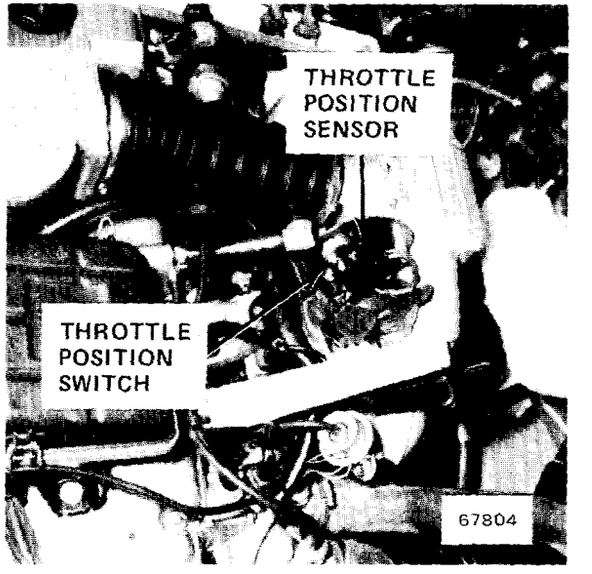


Figure 3 - Center of 535i Engine

Figure 4 - Center of 535i Engine

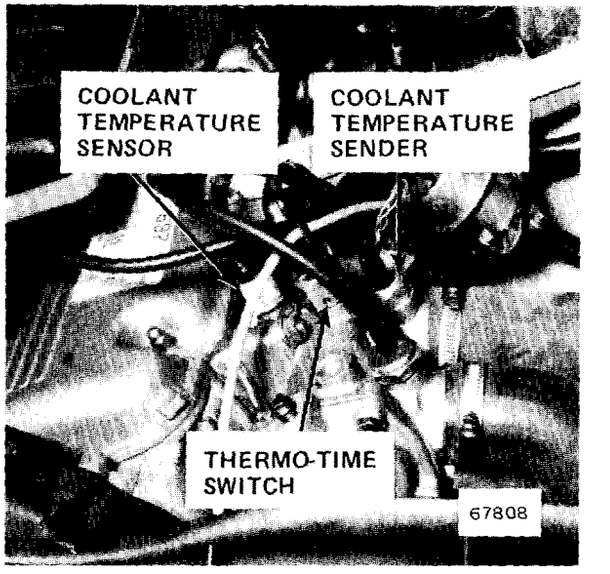


Figure 5 - Front of 535i Engine

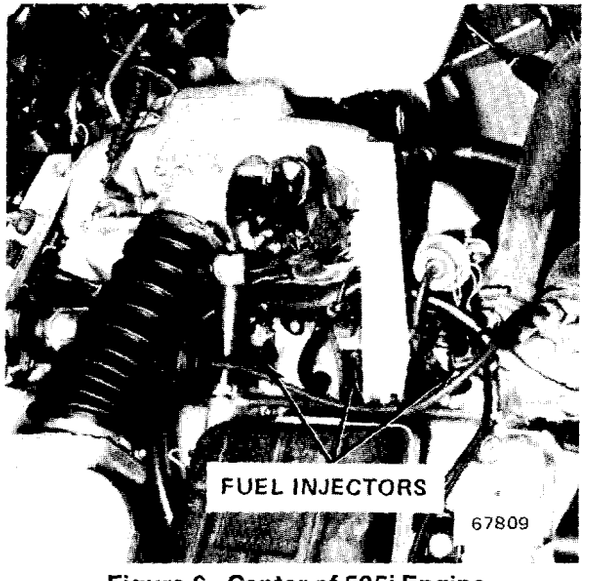


Figure 6 - Center of 535i Engine

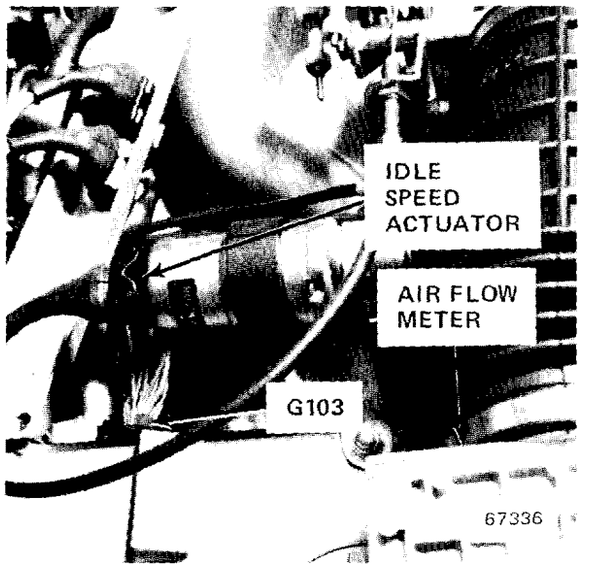


Figure 1 - Rear of 535i Engine

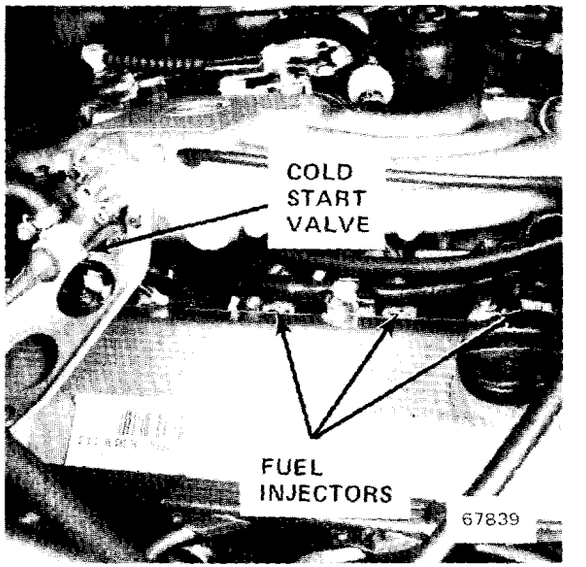


Figure 3 - Center of 528e Engine

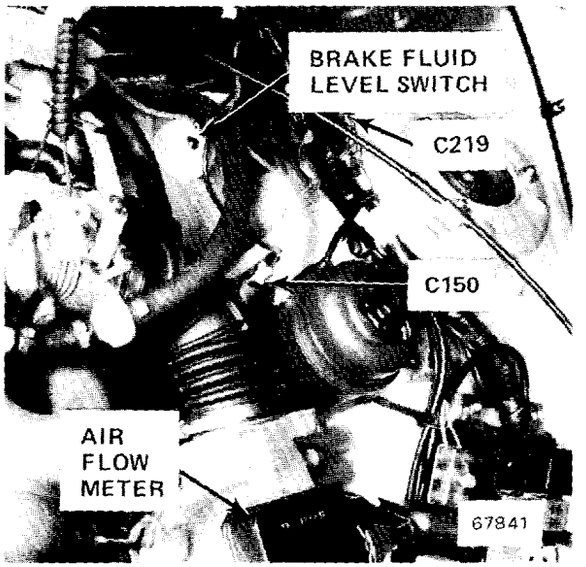


Figure 5 - LH Rear of 528e Engine Compartment

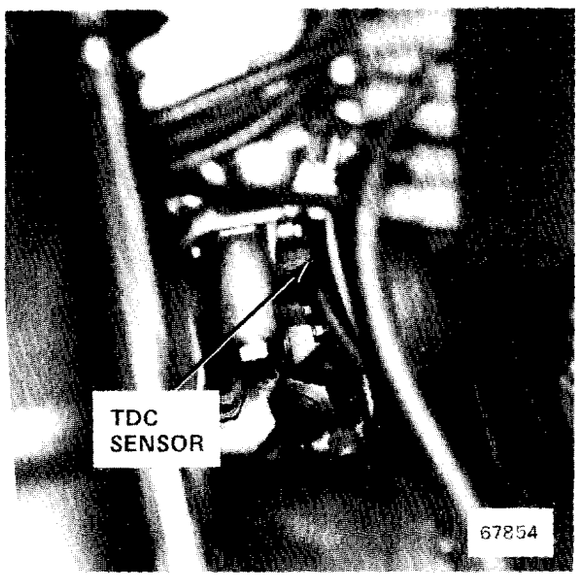


Figure 2 - RH Front of 535i Engine

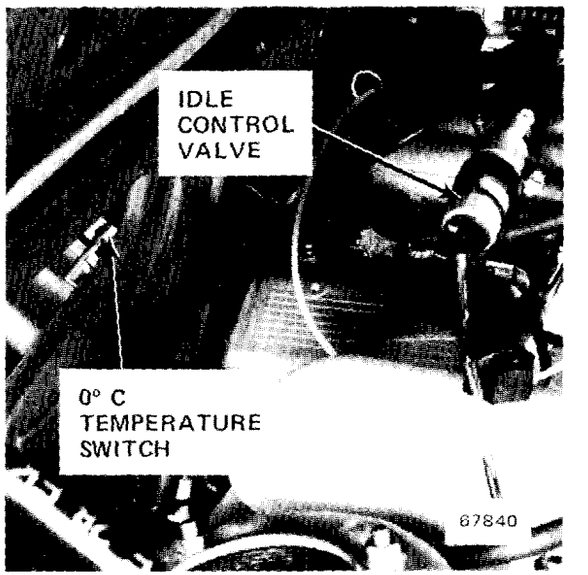


Figure 4 - RH Rear of 528e Engine Compartment

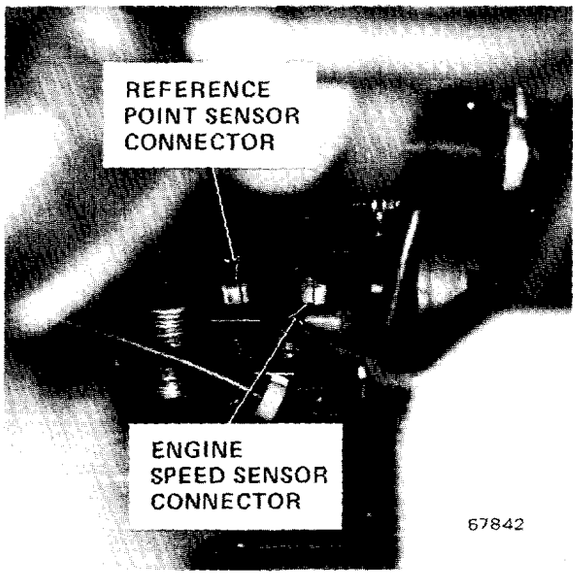


Figure 6 - LH Side of 528e Engine, Near Starter

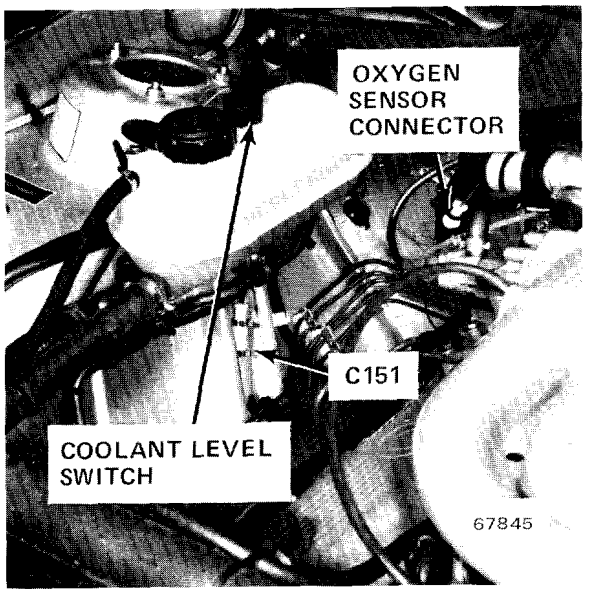


Figure 1 - LH Rear of 528e Engine Compartment

Figure 2 - Front of 528e Engine

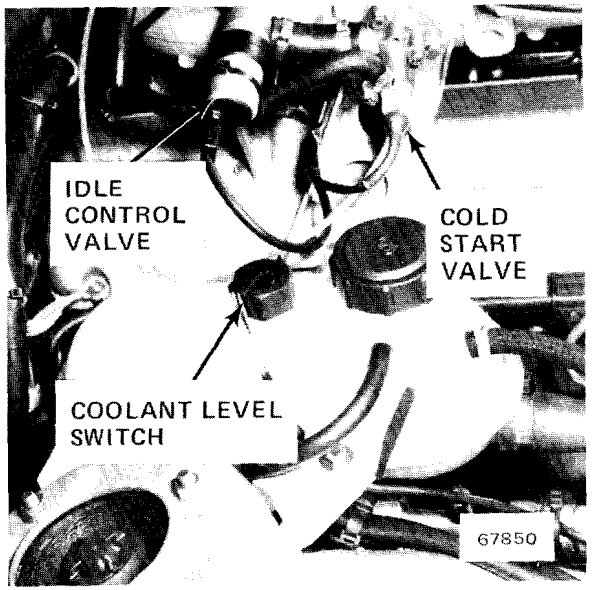


Figure 3 - RH Rear of 528e Engine Compartment

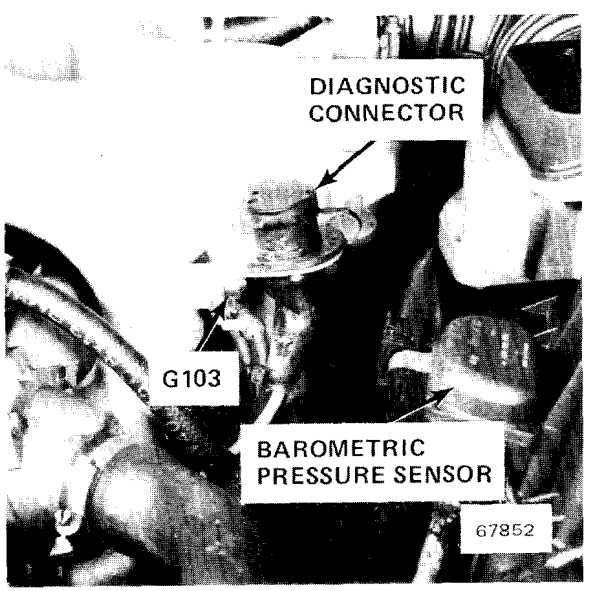


Figure 4 - LH Front of 528e Engine Compartment

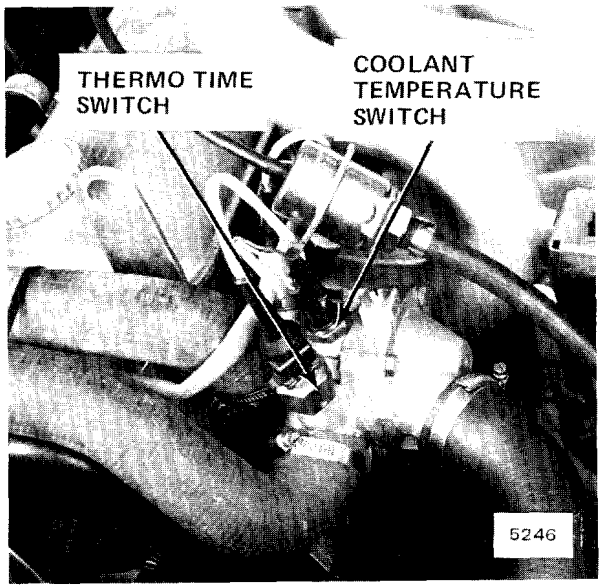


Figure 5 - Front of 528e Engine

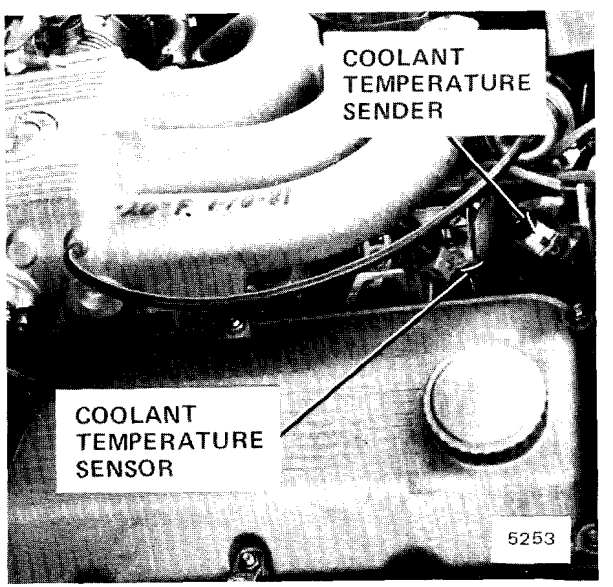


Figure 6 - Top RH Front of 528e Engine

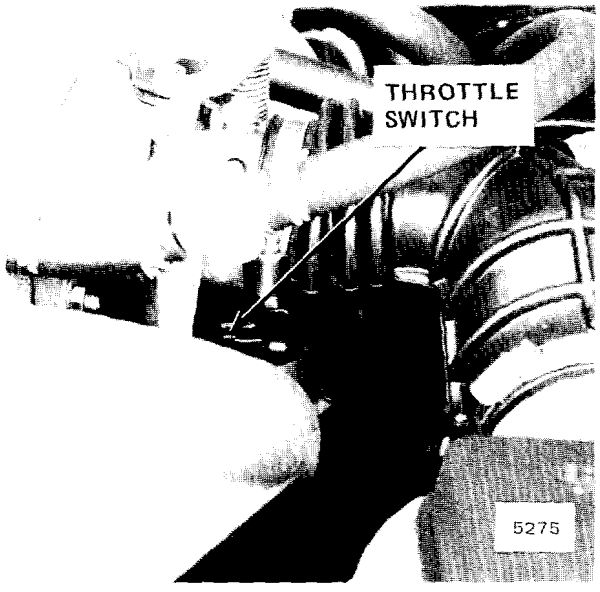


Figure 1 - Below Throttle of 528e Engine

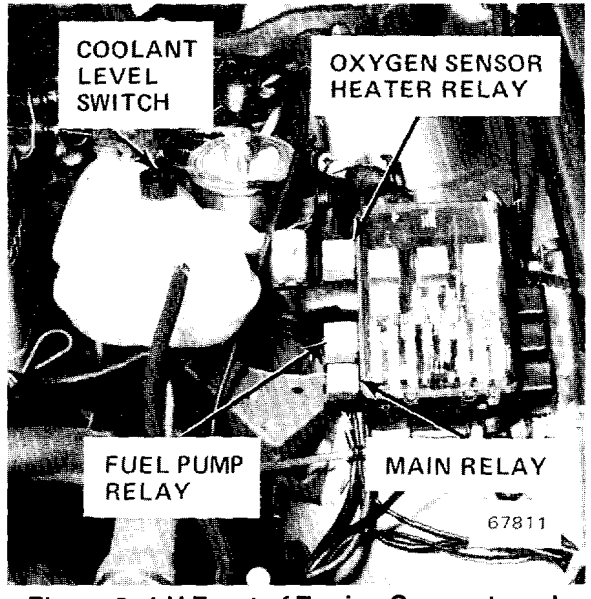


Figure 3 - LH Front of Engine Compartment (535i Shown, 528e Similar)

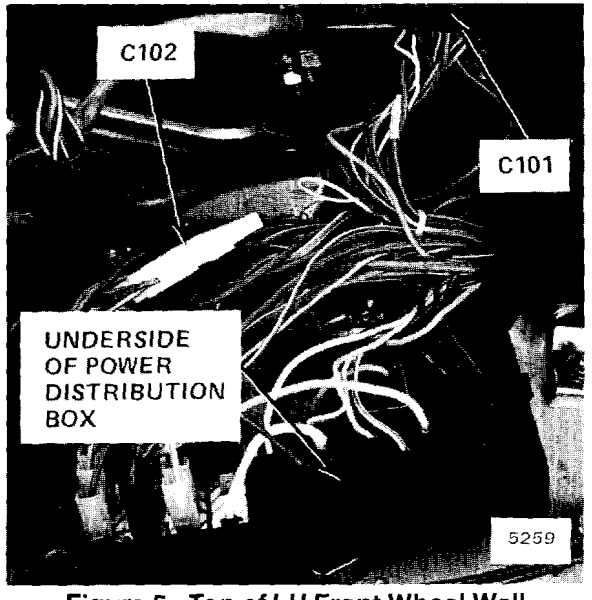


Figure 5 - Top of LH Front Wheel Well

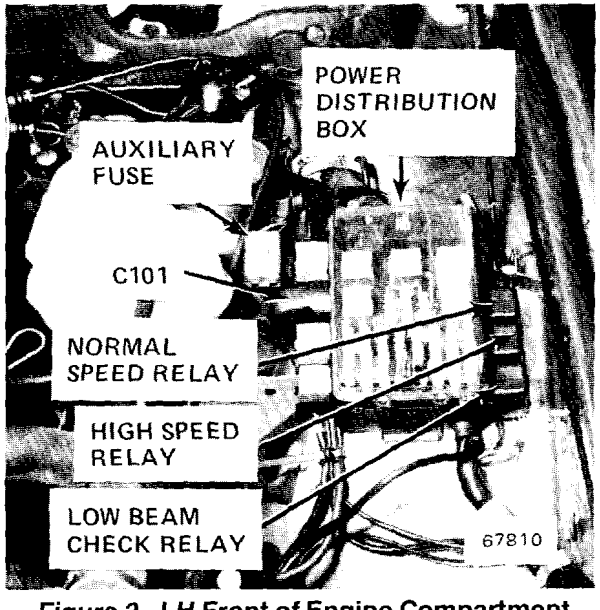


Figure 2 - LH Front of Engine Compartment (535i Shown, 528e Similar)

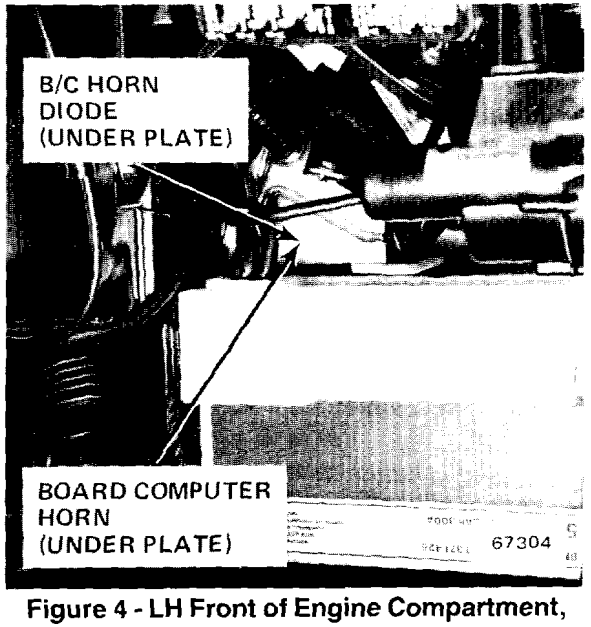


Figure 4 - LH Front of Engine Compartment, Behind Battery

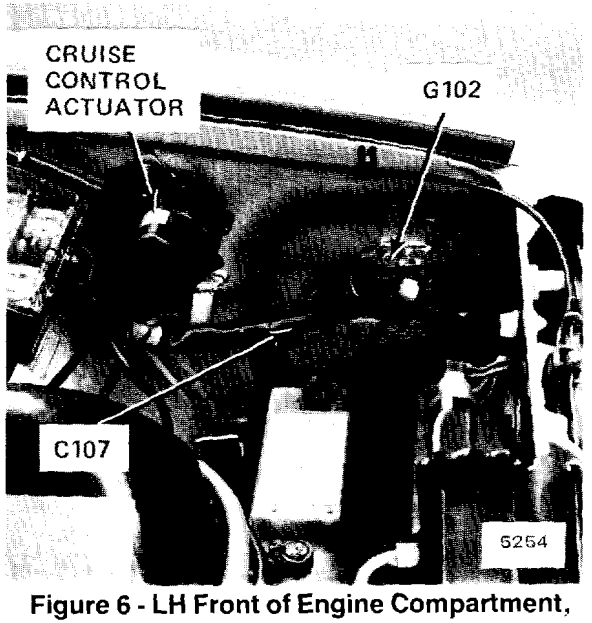


Figure 6 - LH Front of Engine Compartment, Above Battery

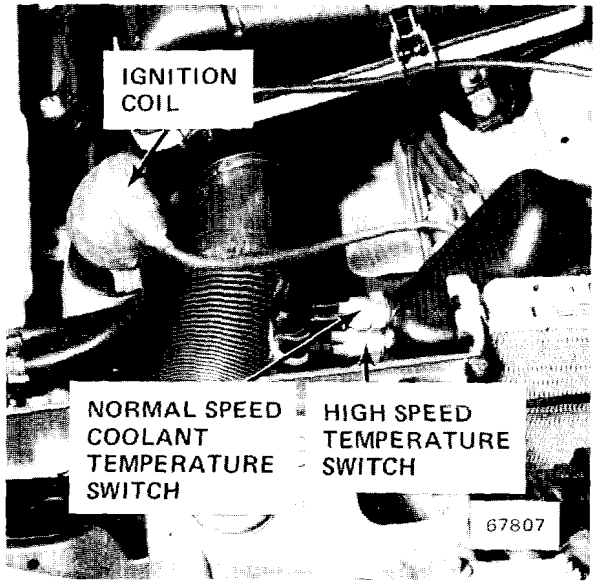


Figure 1 - RH Front of 535i Engine Compartment

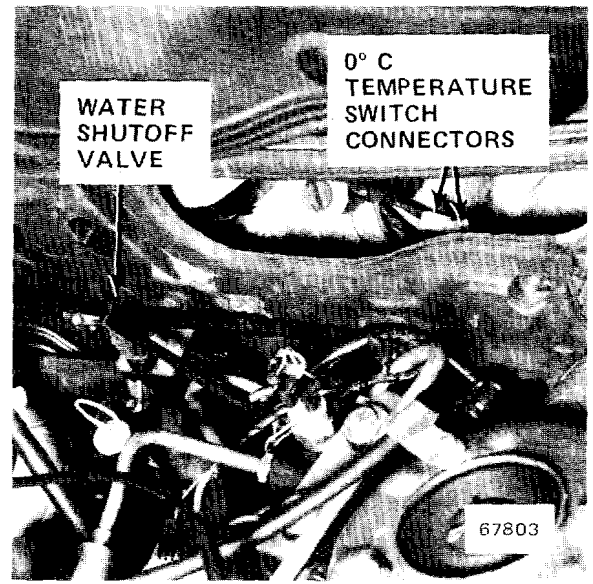


Figure 3 - LH Rear of 535i Engine Compartment

Figure 5 - LH Rear of 535i Engine Compartment

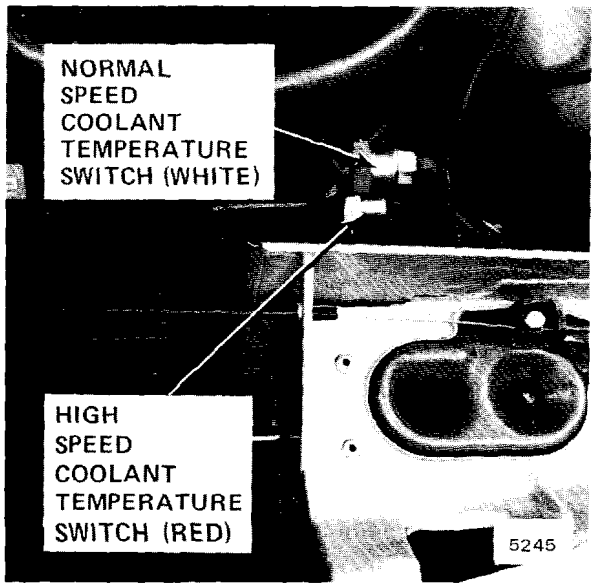


Figure 2 - LH Side of 528e Radiator

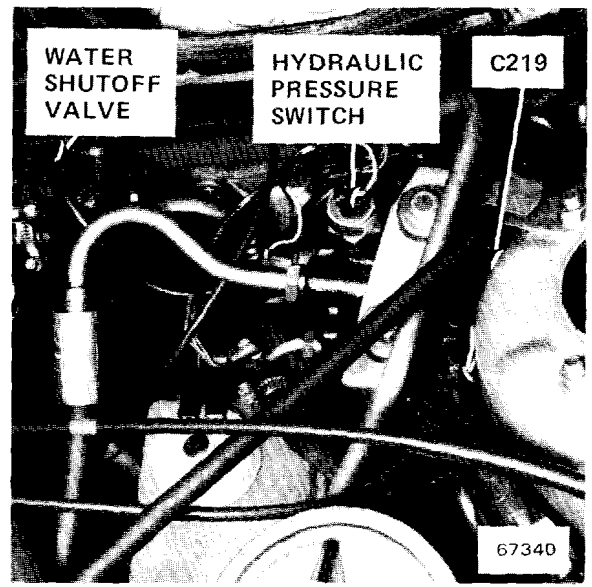


Figure 4 - LH Rear of 535i Engine Compartment

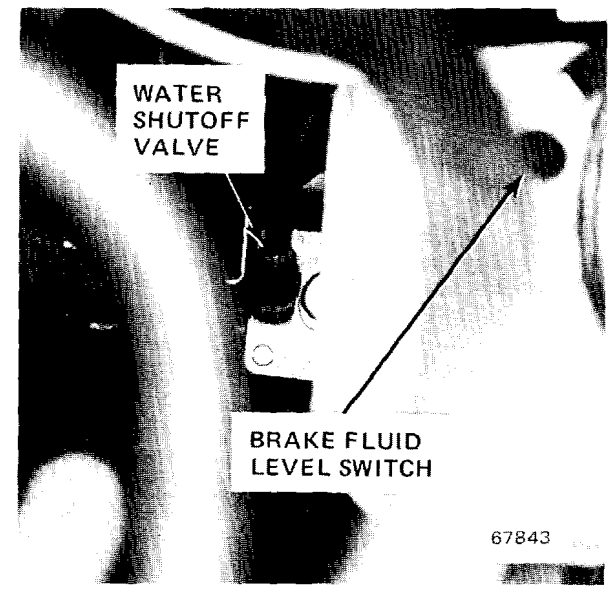


Figure 6 - LH Rear of 528e Engine Compartment

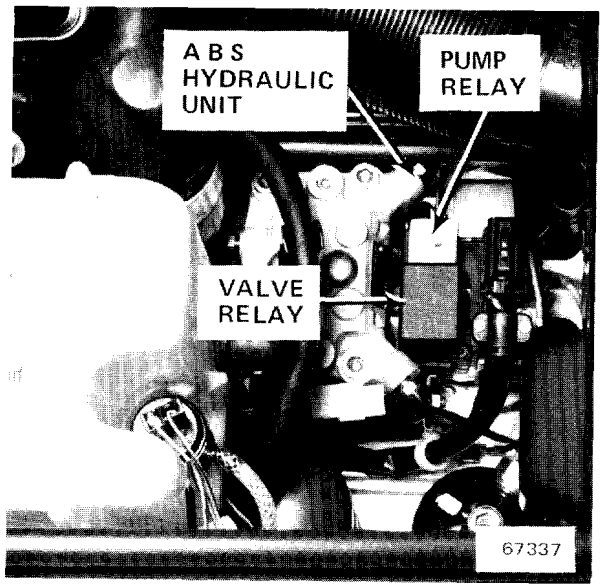


Figure 1 - RH Front of Engine Compartment

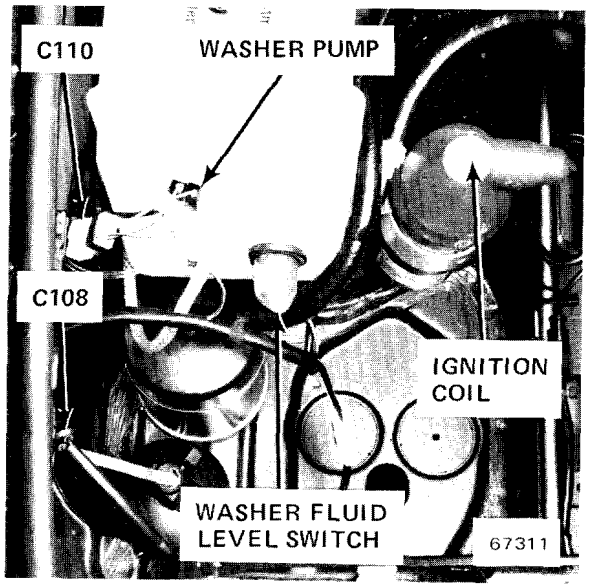


Figure 3 - RH Front of Engine Compartment

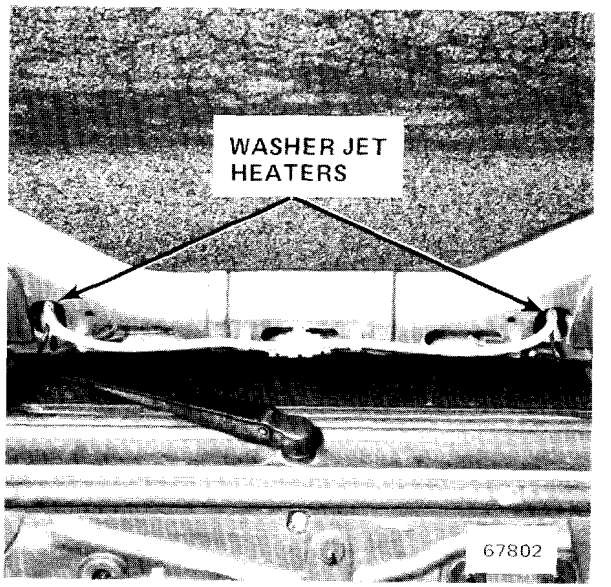


Figure 5 - Inside Center of Hood (535i Shown, 528e Similar)

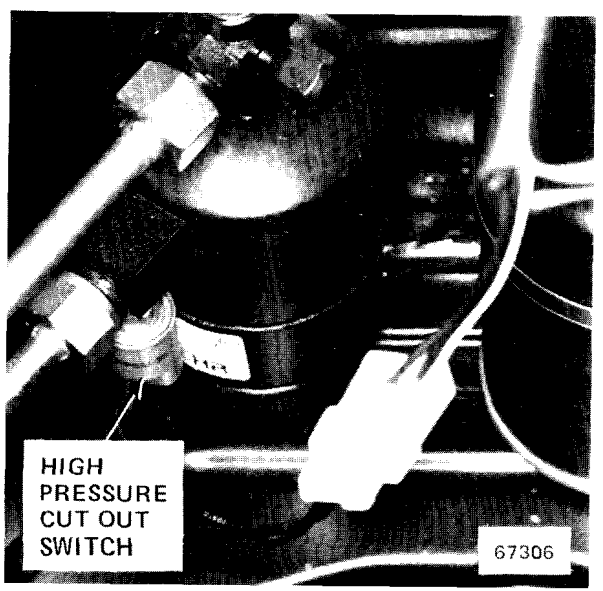


Figure 2 - RH Front of Engine Compartment

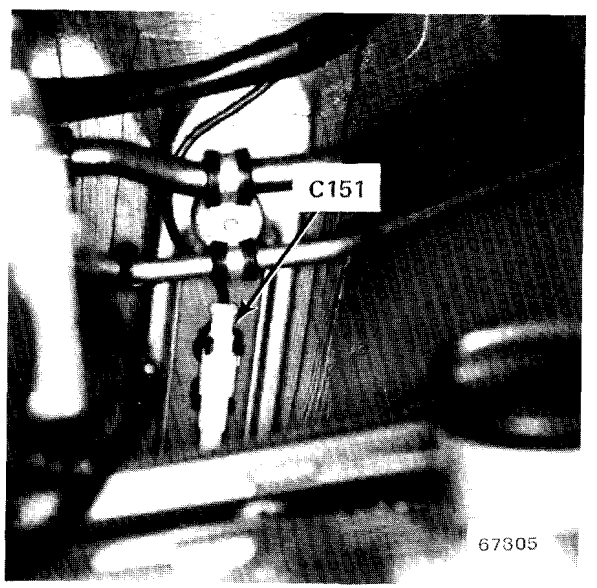


Figure 4 - RH Side of Engine Compartment, Inside Shock Tower (535i Shown, 528e Similar)

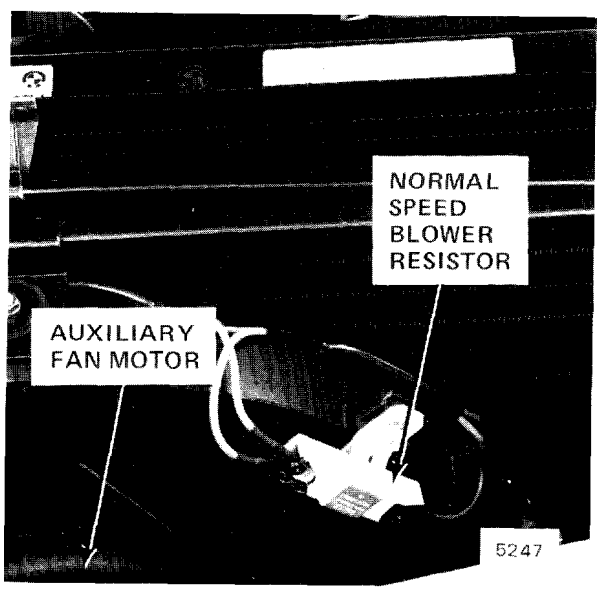


Figure 6 - In Front of Radiator (528e)

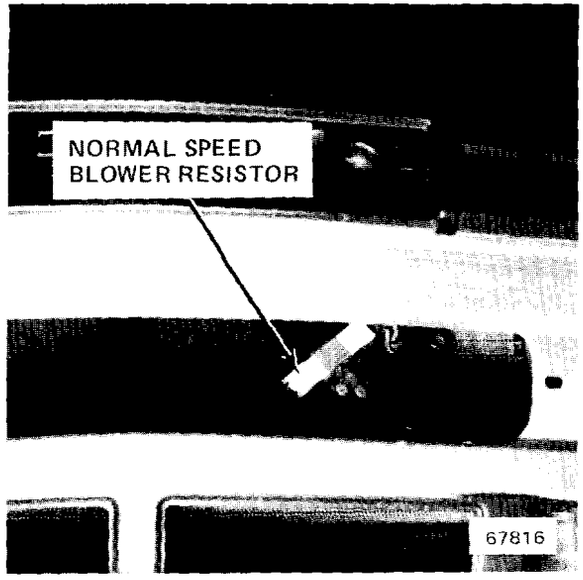


Figure 1 - Front of Radiator, Bottom of Auxiliary Fan Shield (535i)

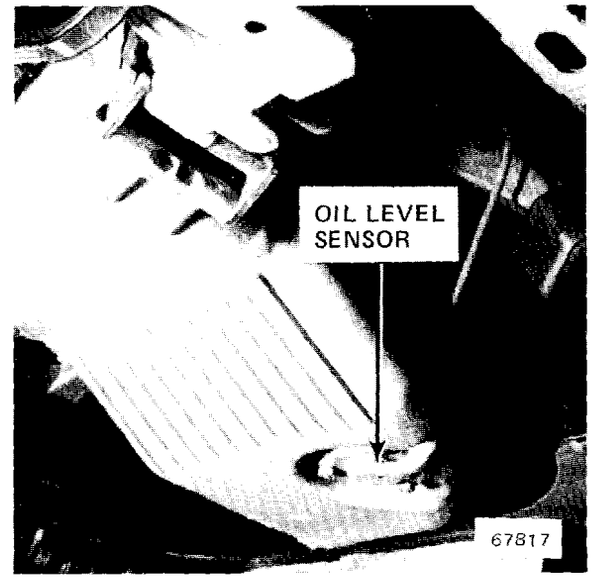


Figure 3 - Bottom of 535i Engine Oil Pan

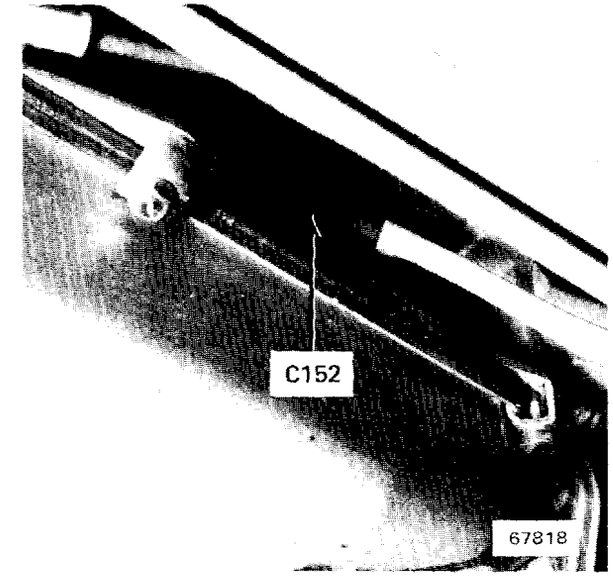


Figure 5 - LH Side of Transmission Near Shift Linkage (535i)

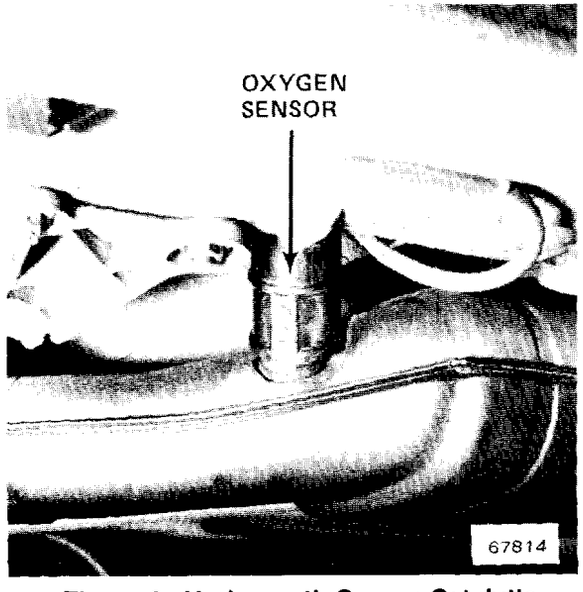


Figure 2 - Underneath Car, on Catalytic Convertor

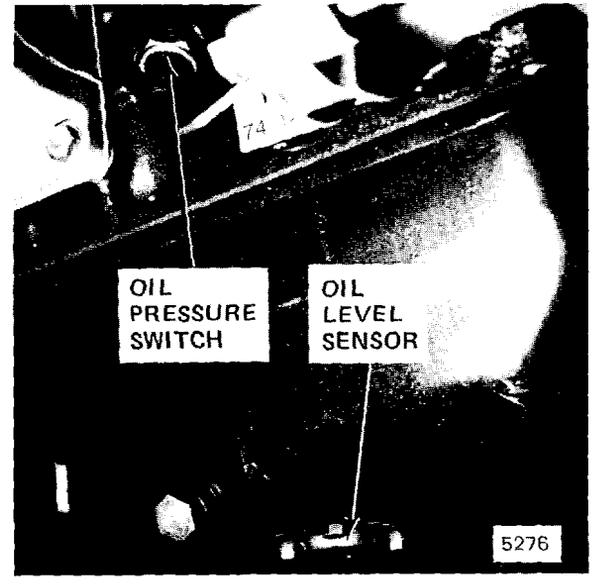


Figure 4 - RH Side of 528e Engine Oil Pan

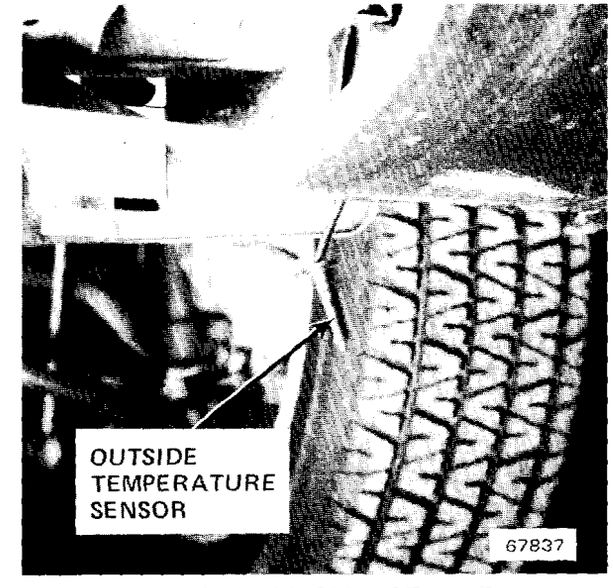


Figure 6 - Under LH Side of Front Bumper

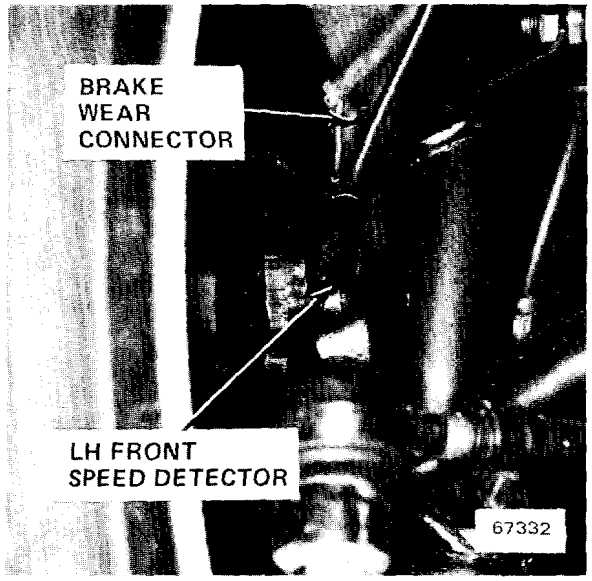


Figure 1 - Behind Wheel Dust Shield

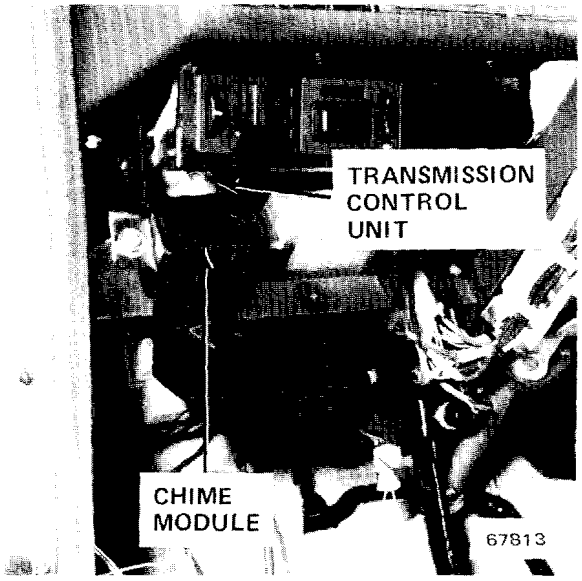


Figure 3 - Under LH Side of Dash (535i)

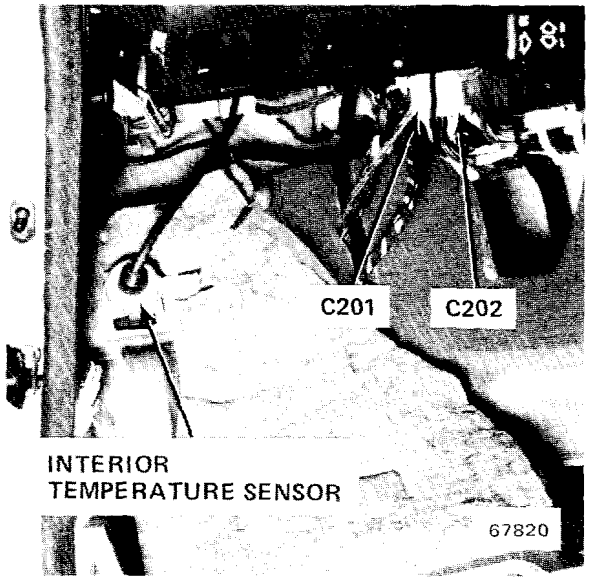


Figure 5 - Behind LH Dash Panel

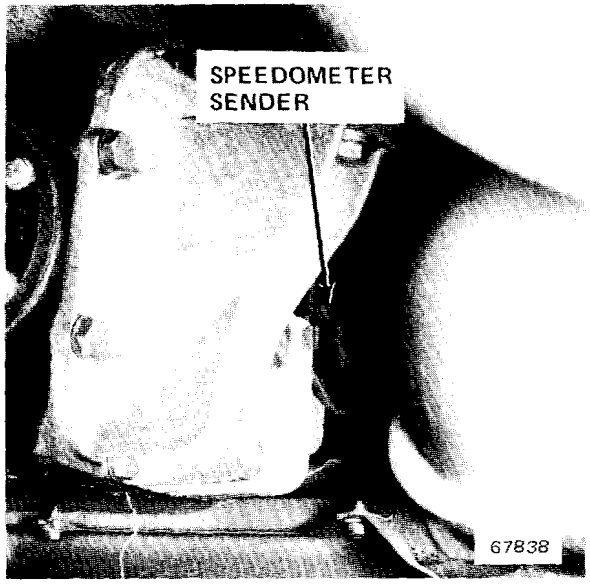


Figure 2 - Rear of Differential

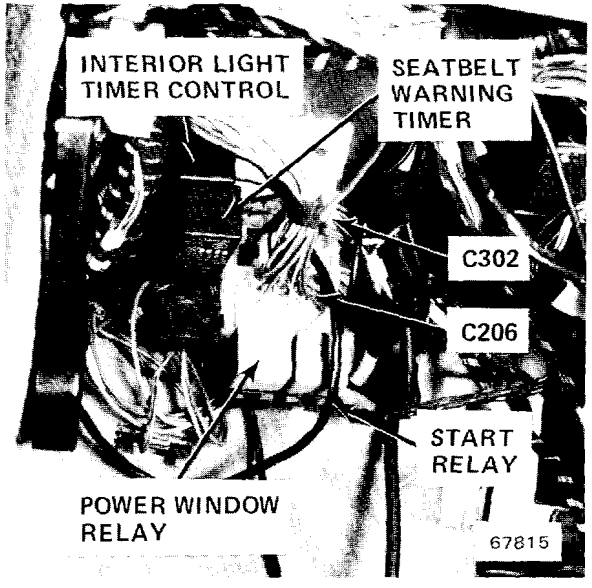


Figure 4 - Behind LH Dash Panel (535i Shown, 528e Similar)

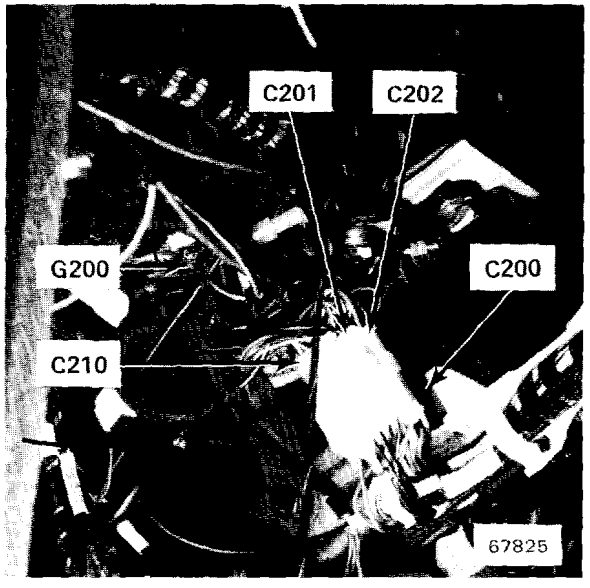


Figure 6 - Behind LH Dash Panel

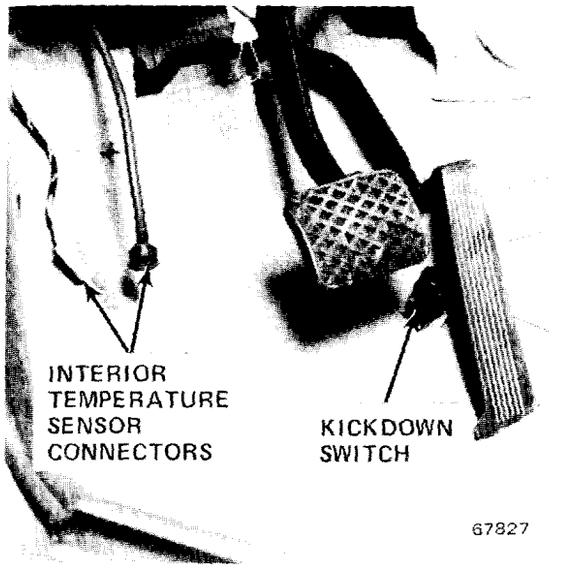


Figure 1 - LH Foot Well

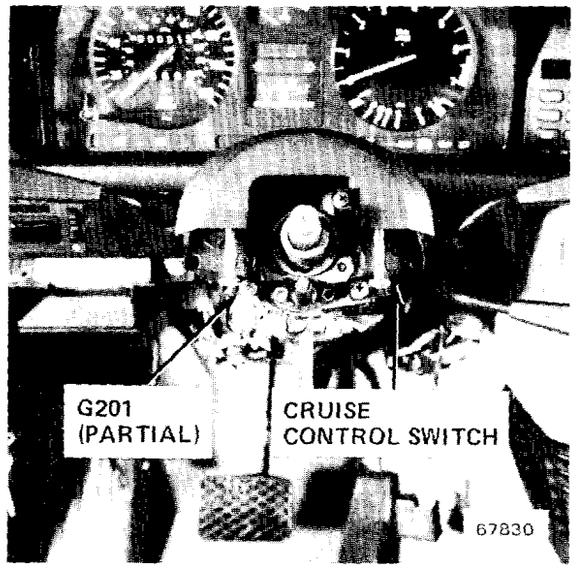


Figure 3 - Upper Part of Steering Column

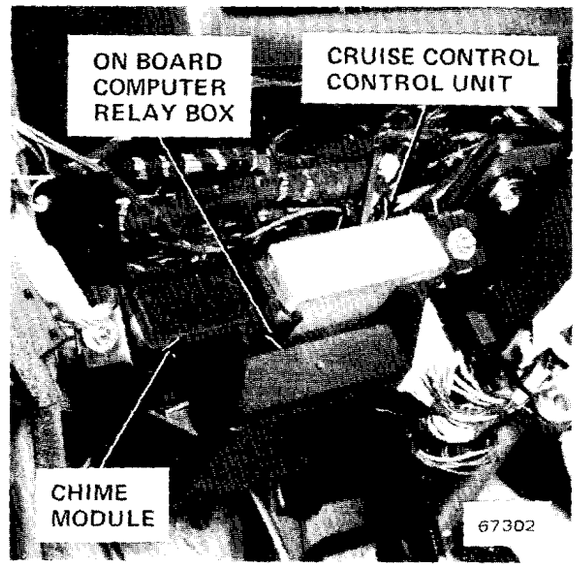


Figure 5 - Behind LH Dash Panel

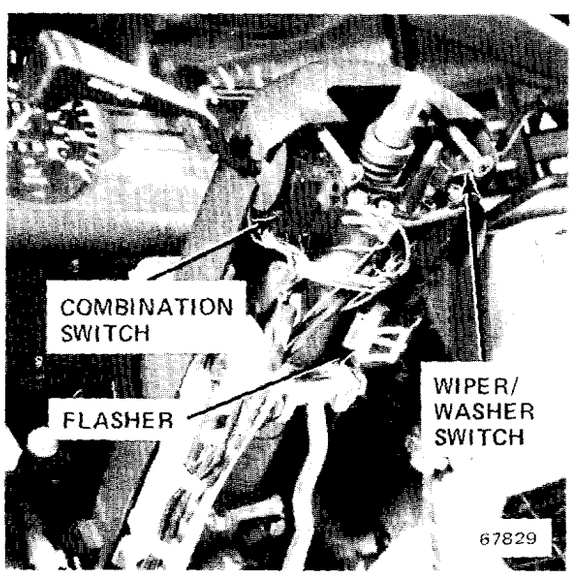


Figure 2 - Upper Part of Steering Column

Figure 4 - Behind LH Dash Panel (528e)

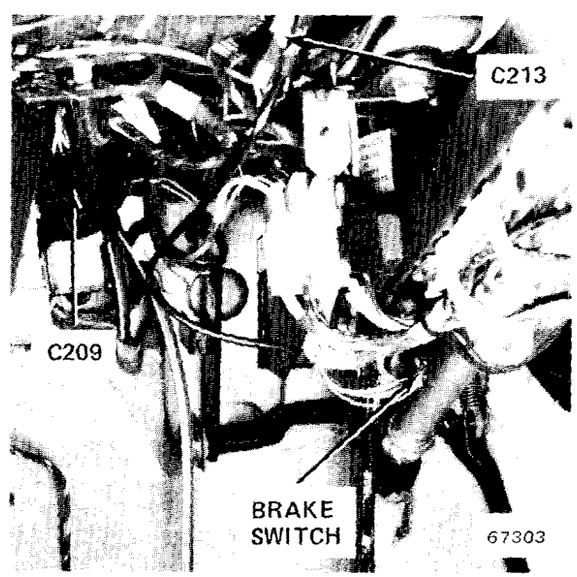


Figure 6 - Behind LH Dash Panel

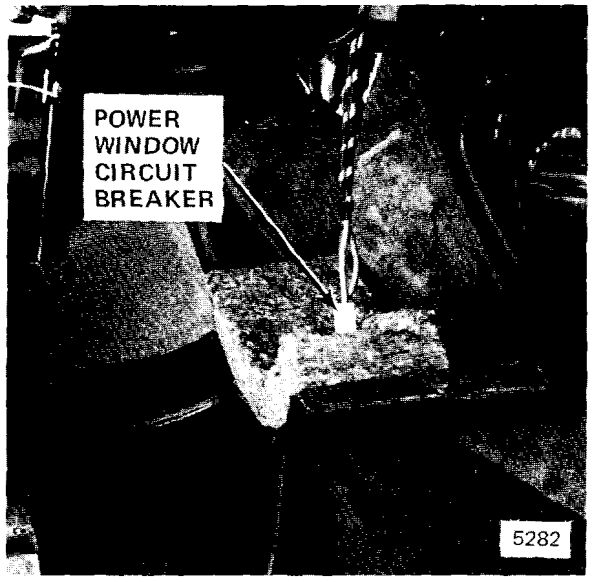


Figure 1 - In LH Dash Panel

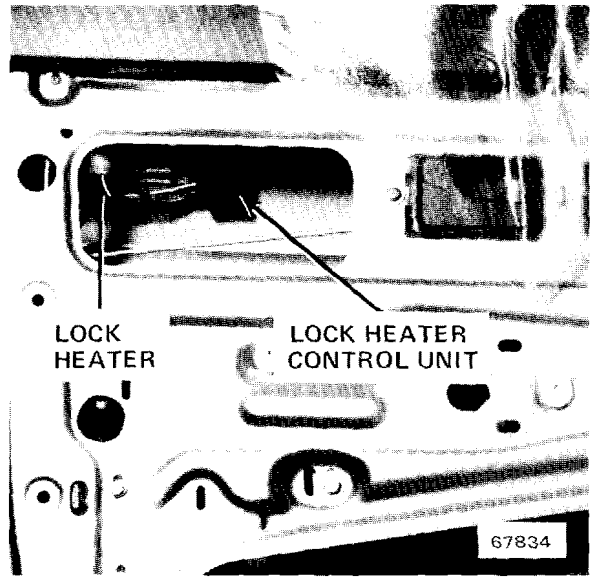


Figure 3 - Inside LH Front Door

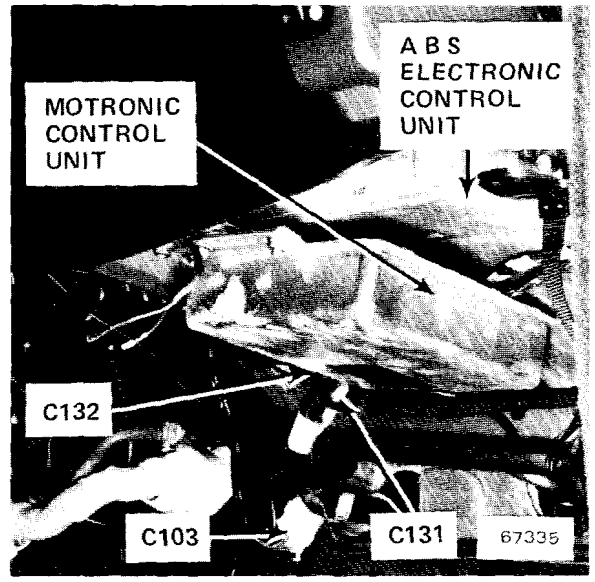


Figure 5 - Under RH Side of Dash (535i, Manual Only)

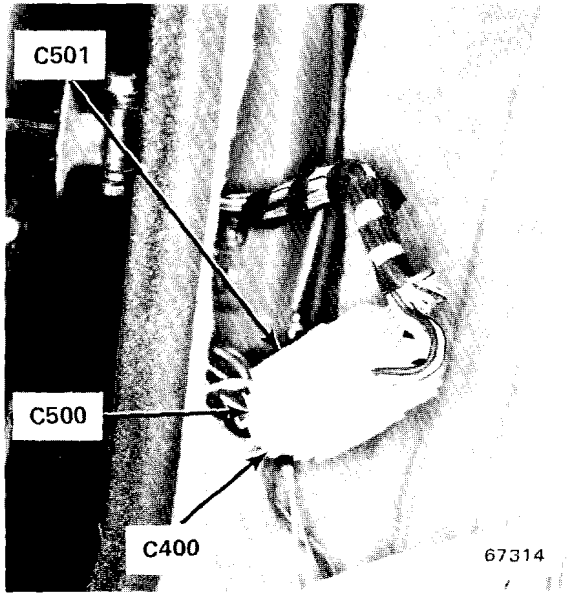


Figure 2 - Behind LH Front Speaker

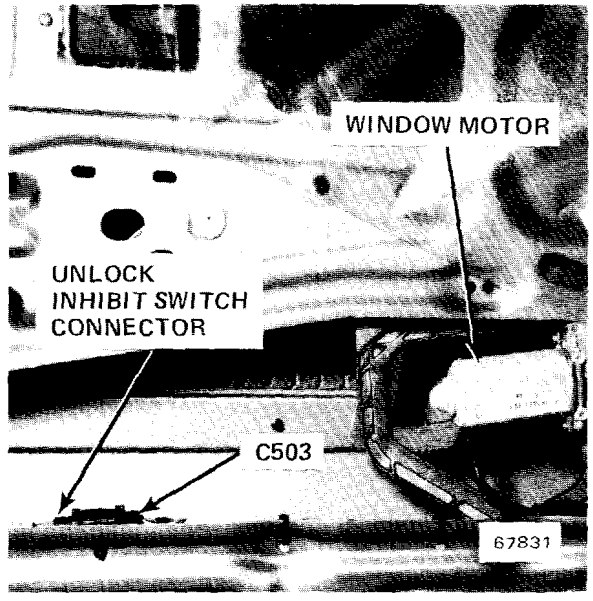


Figure 4 - Inside LH Front Door

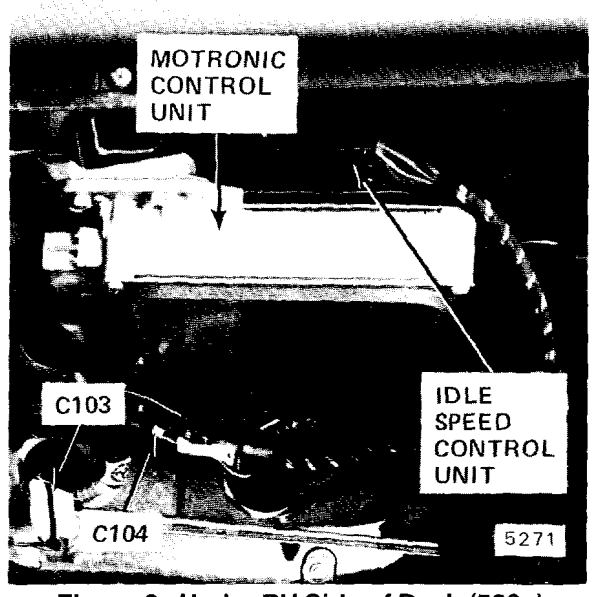


Figure 6 - Under RH Side of Dash (528e)

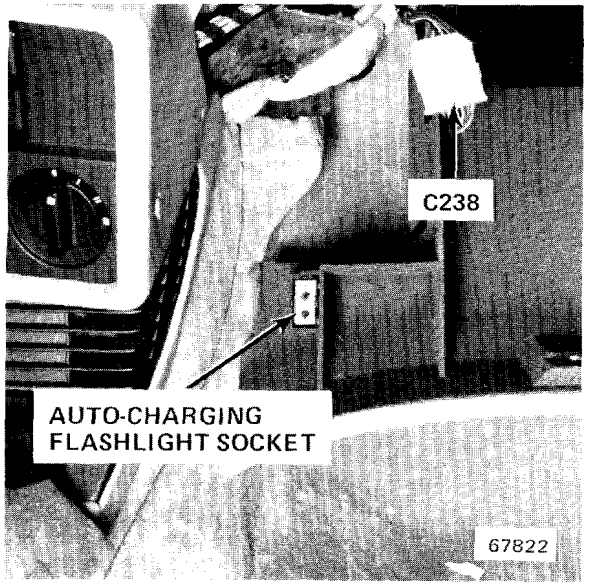


Figure 1 - Inside Glove Box

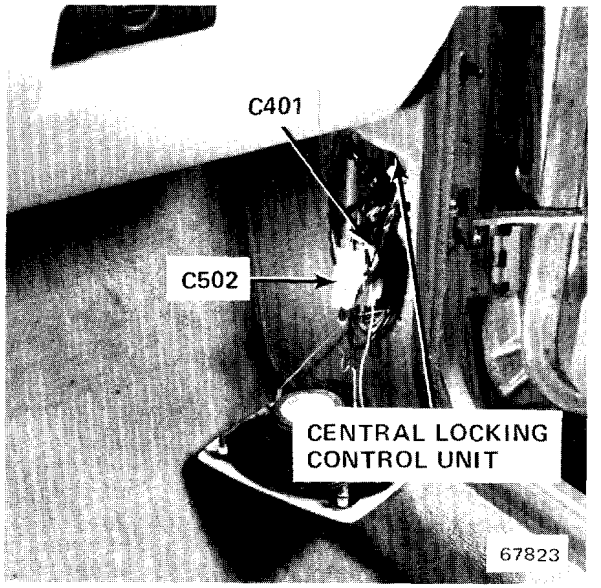


Figure 3 - Behind RH Front Speaker

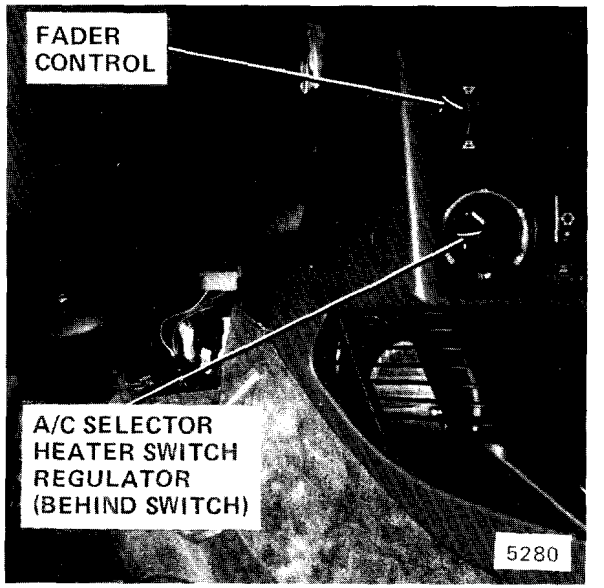


Figure 5 - LH Side of Upper Console

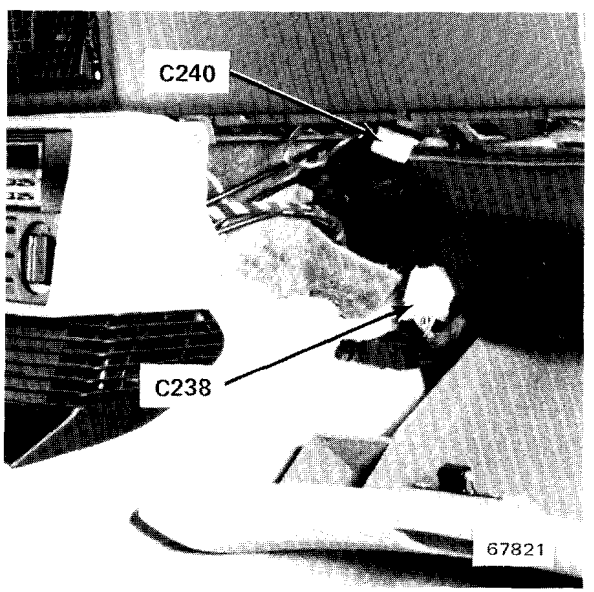


Figure 2 - Under RH Side of Dash, Beside Glove Box

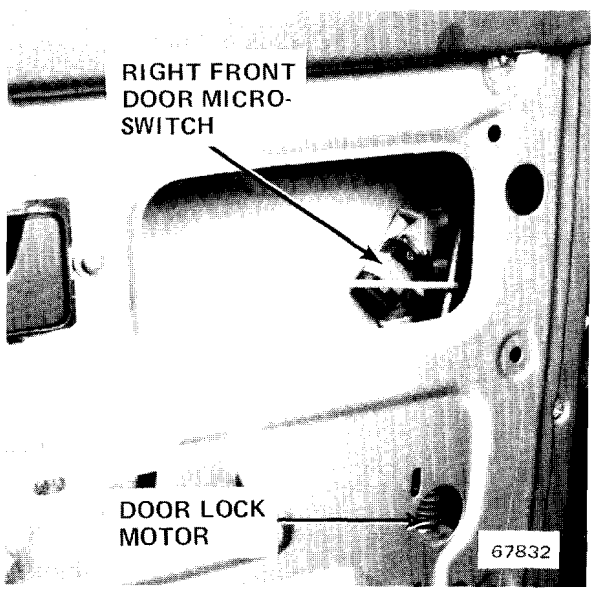


Figure 4 - Inside RH Front Door

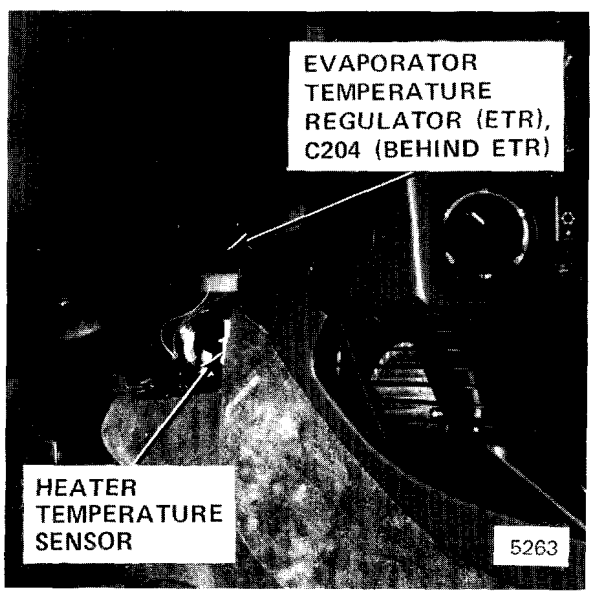


Figure 6 - LH Side of Upper Console

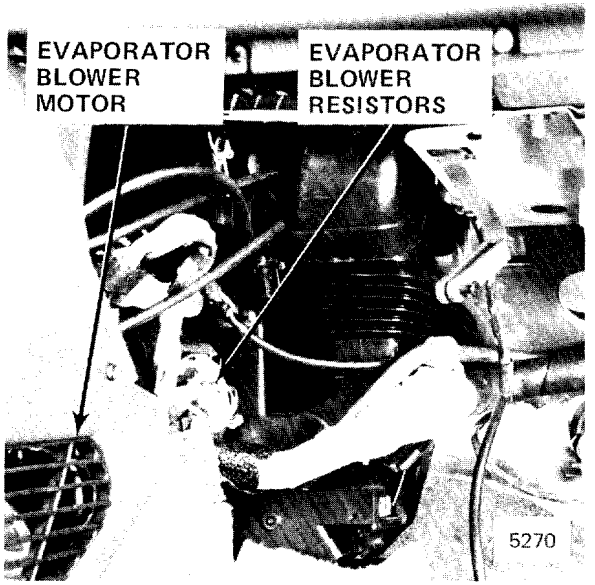


Figure 1 - RH Side of Upper Console

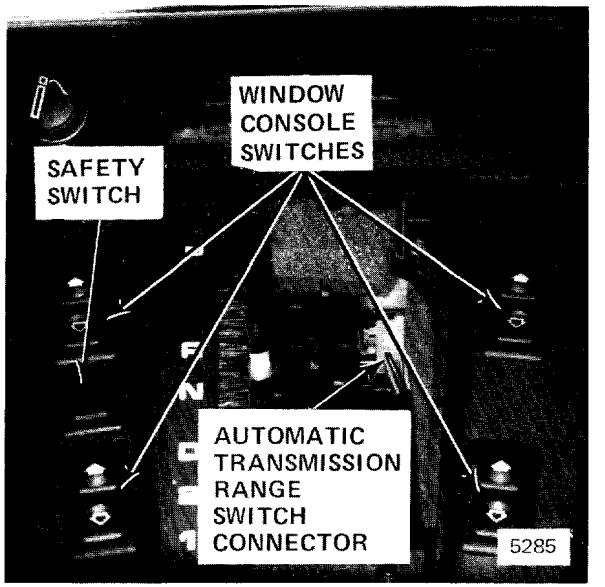


Figure 3 - Center Console, Near Shift Lever

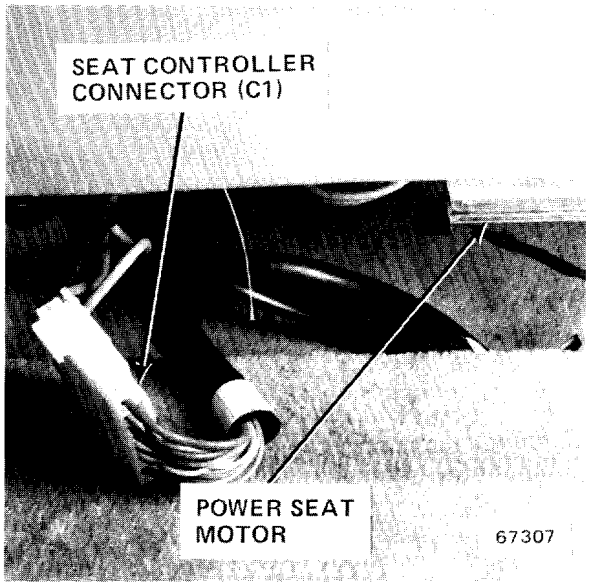


Figure 5 - Underneath Seat

Figure 2 - Above Rear View Mirror (528e Shown, 535i Similar)

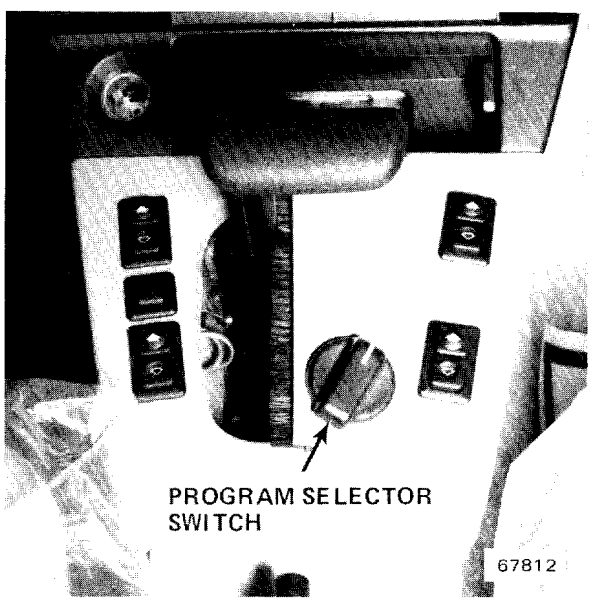


Figure 4 - Center Console (535i)

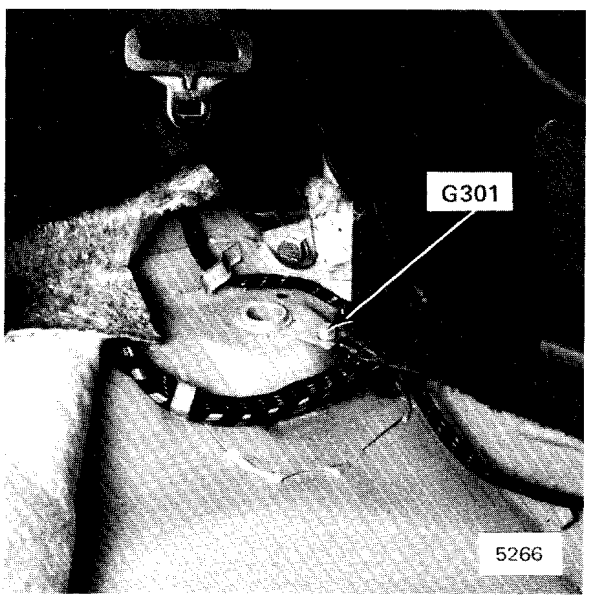


Figure 6 - Under LH Side of Rear Seat

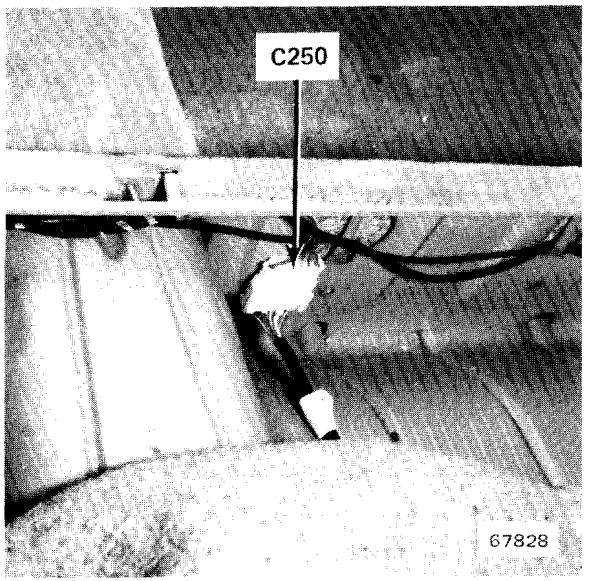


Figure 1 - Under RH Side of Rear Seat

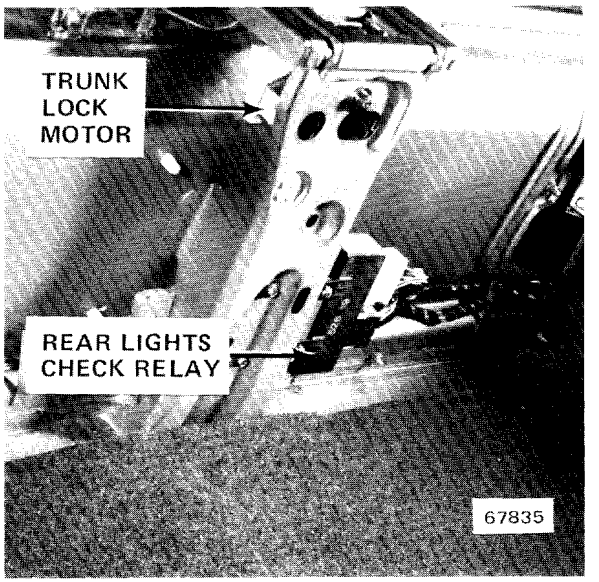


Figure 3 - In Rear Panel of Trunk

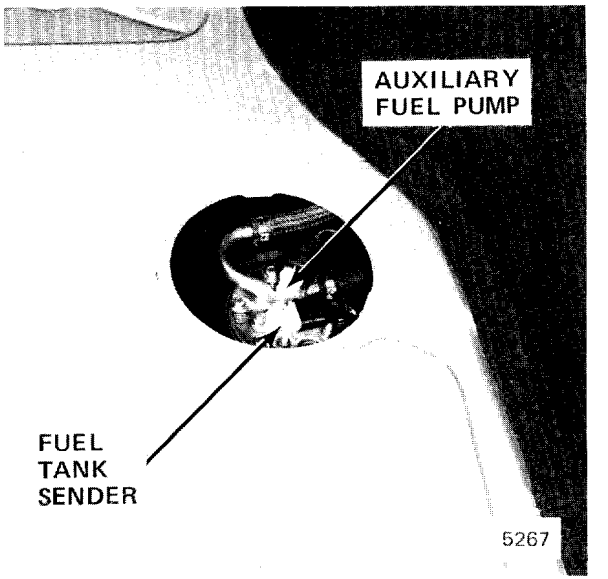


Figure 5 - Bottom RH Side of Trunk, Under Access Plate

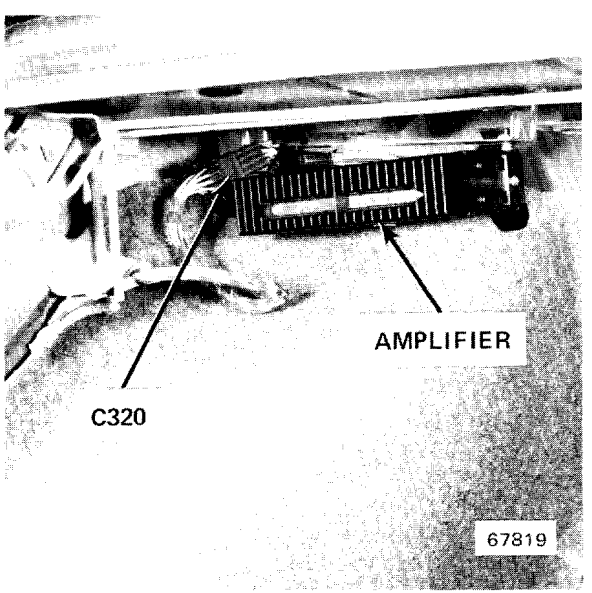


Figure 2 - LH Front of Trunk (535i)

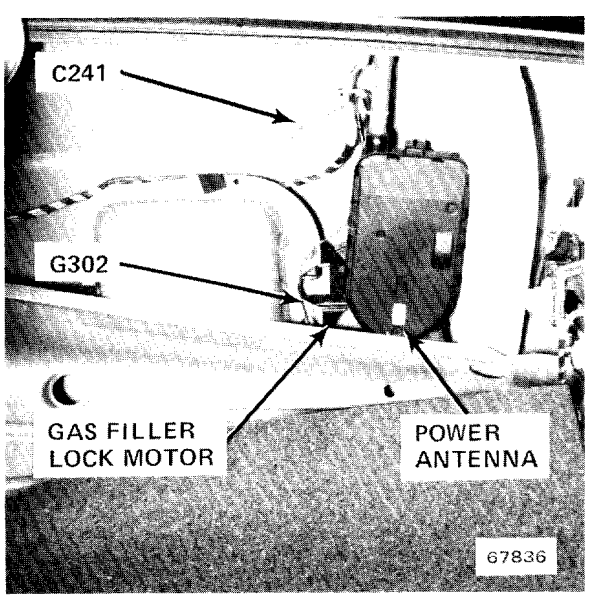


Figure 4 - RH Side of Trunk

INDEX

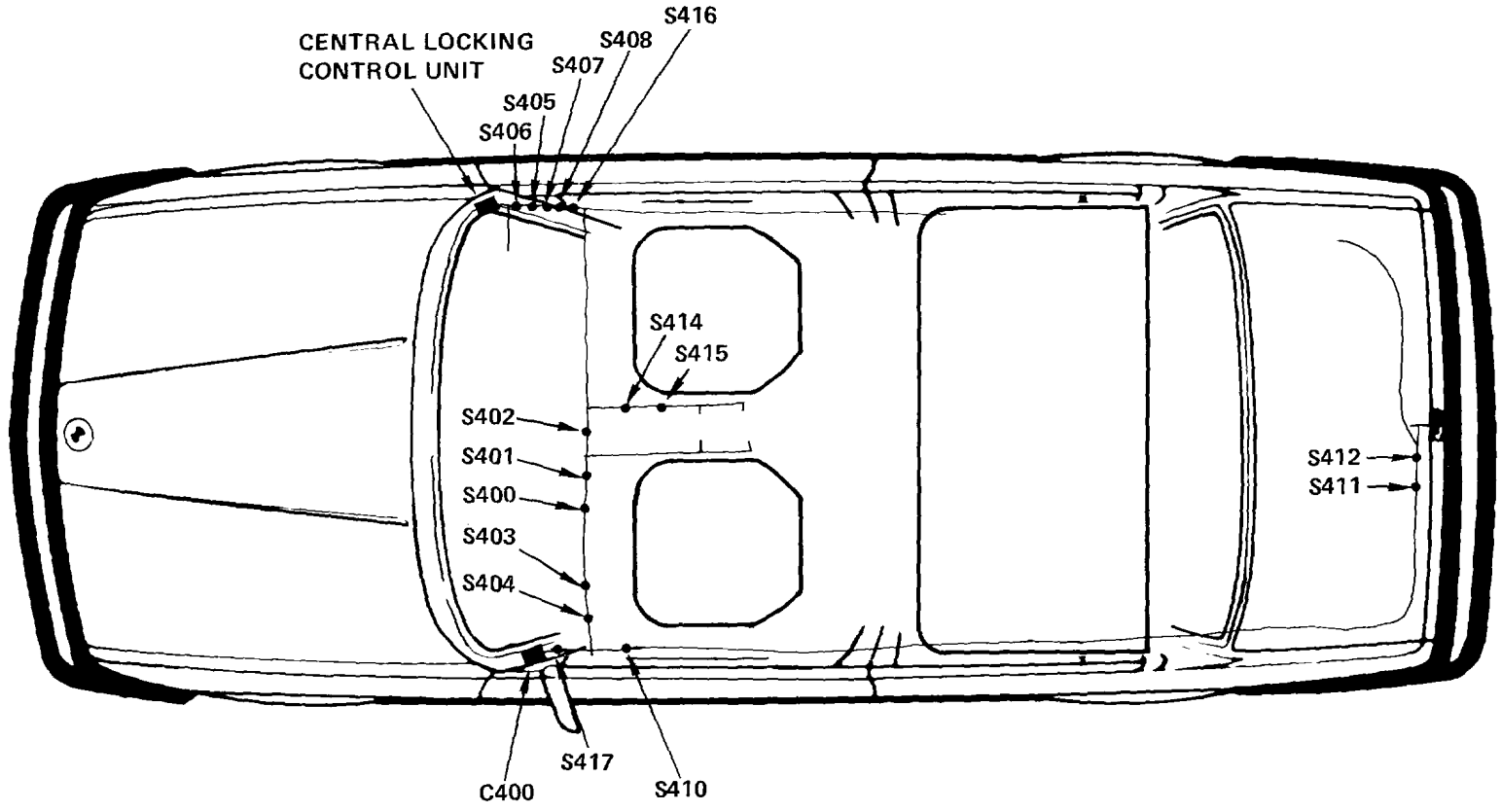
This index contains all the splices in the car, what harness each one is in, and the page that the splices appear on. The drawings after the index show how the harness is routed through the car and where the splices are located on the harness.

SPLICE	HARNESS	PAGE NUMBER
S100	FRONT	8000-5
S101	FRONT	8000-5
S102	FRONT	8000-5
S103	FRONT	8000-5
S104	FRONT	8000-5
S105	ENGINE	NOT SHOWN
S106	ENGINE	8000-8
S107	ENGINE	8000-8
S109	ENGINE	8000-8
S110	ENGINE	8000-8
S112	ENGINE	8000-8
S113	ENGINE	8000-8
S118	HEATED WASHER JETS	NOT SHOWN
S119	HEATED WASHER JETS	NOT SHOWN
S120	FRONT	8000-5
S200	MIDDLE	8000-6
S201	MIDDLE	8000-6
S202	MIDDLE	8000-6
S203	MIDDLE	8000-6
S204	MIDDLE	8000-6
S205	MIDDLE	8000-6
S206	MIDDLE	8000-6
S207	MIDDLE	8000-6
S208	MIDDLE	8000-6
S209	MIDDLE	8000-6
S210	MIDDLE	8000-6
S211	MIDDLE	8000-6
S212	MIDDLE	8000-6
S213	MIDDLE	8000-6
S214	MIDDLE	8000-6
S215	MIDDLE	8000-6
S216	MIDDLE	8000-6
S217	MIDDLE	8000-6
S218	MIDDLE	8000-6
S219	MIDDLE	8000-6
S220	MIDDLE	8000-6
S221	MIDDLE	8000-6
S222	CRUISE CONTROL	8000-7
S223	CRUISE CONTROL	8000-7
S224	CRUISE CONTROL	8000-7
S225	A/C	8000-7
S226	A/C	8000-7
S227	A/C	8000-7
S228	A/C	8000-7
S229	A/C	8000-7
S231	MIDDLE	8000-6
S232	POWER SEATS	NOT SHOWN
S233	POWER SEATS	NOT SHOWN
S234	MIDDLE	NOT SHOWN
S235	REAR	NOT SHOWN

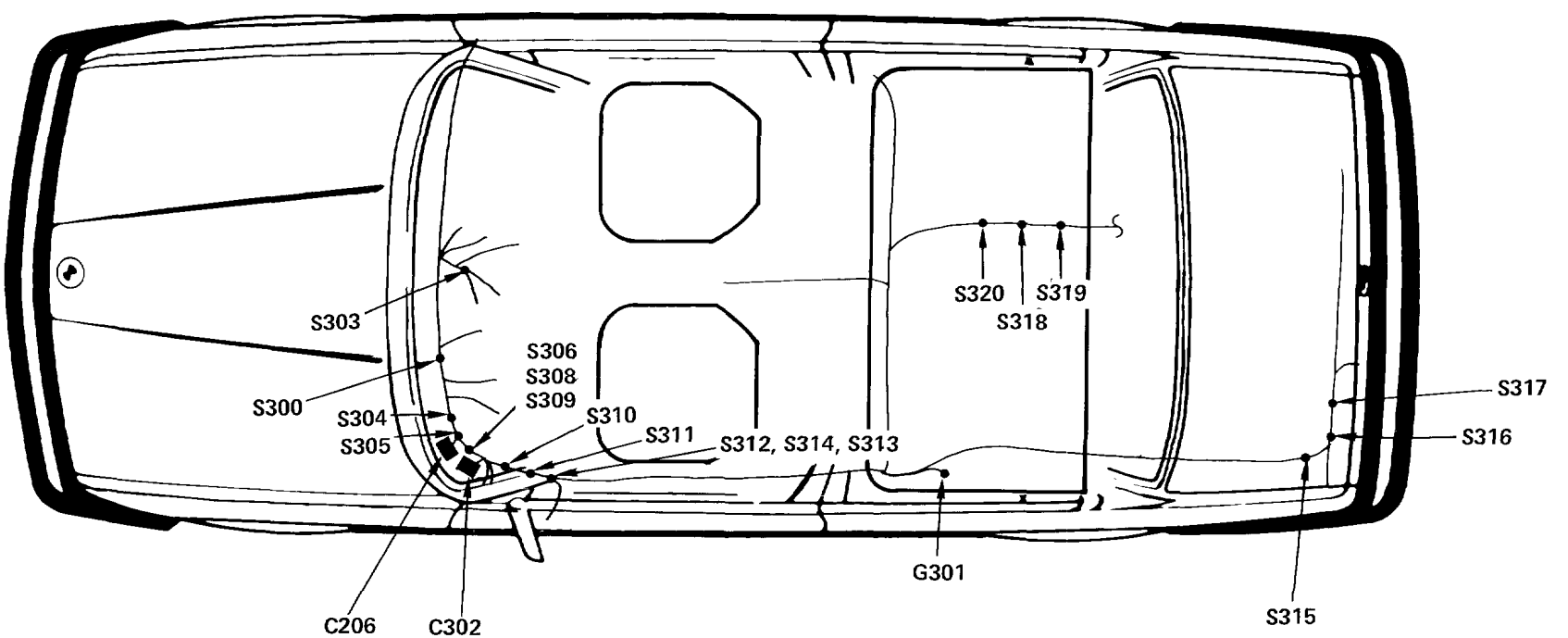
INDEX

SPLICE	HARNESS	PAGE NUMBER
S300	REAR	8000-3
S303	REAR	8000-3
S304	REAR	8000-3
S305	REAR	8000-3
S306	REAR	8000-3
S308	REAR	8000-3
S309	REAR	8000-3
S310	REAR	8000-3
S311	REAR	8000-3
S312	REAR	8000-3
S313	REAR	8000-3
S314	REAR	8000-3
S315	REAR	8000-3
S316	REAR	8000-3
S317	REAR	8000-3
S318	REAR	8000-3
S319	REAR	8000-3
S320	REAR	8000-3
S400	ELEC LOCK/ CENTRAL LOCK	8000-2
S401	ELEC LOCK/ CENTRAL LOCK	8000-2
S402	ELEC LOCK/ CENTRAL LOCK	8000-2
S403	ELEC LOCK/ CENTRAL LOCK	8000-2
S404	ELEC LOCK/ CENTRAL LOCK	8000-2
S405	ELEC LOCK/ CENTRAL LOCK	8000-2
S406	ELEC LOCK/ CENTRAL LOCK	8000-2
S407	ELEC LOCK/ CENTRAL LOCK	8000-2
S408	ELEC LOCK/ CENTRAL LOCK	8000-2
S409	ELEC LOCK/ CENTRAL LOCK	NOT SHOWN
S410	ELEC LOCK/ CENTRAL LOCK	8000-2
S411	ELEC LOCK/ CENTRAL LOCK	8000-2
S412	ELEC LOCK/ CENTRAL LOCK	8000-2
S414	ELEC LOCK/ CENTRAL LOCK	8000-2
S415	ELEC LOCK/ CENTRAL LOCK	8000-2
S416	ELEC LOCK/ CENTRAL LOCK	8000-2
S417	ELEC LOCK/ CENTRAL LOCK	8000-2
S418	PASSENGER DOOR	8000-4
S420	RADIO	NOT SHOWN
S500	DRIVER'S DOOR	8000-4
S501	DRIVER'S DOOR	8000-4
S502	DRIVER'S DOOR	8000-4
S503	DRIVER'S DOOR	8000-4
S504	DRIVER'S DOOR	8000-4
S600	SUNROOF	NOT SHOWN
S601	SUNROOF	NOT SHOWN

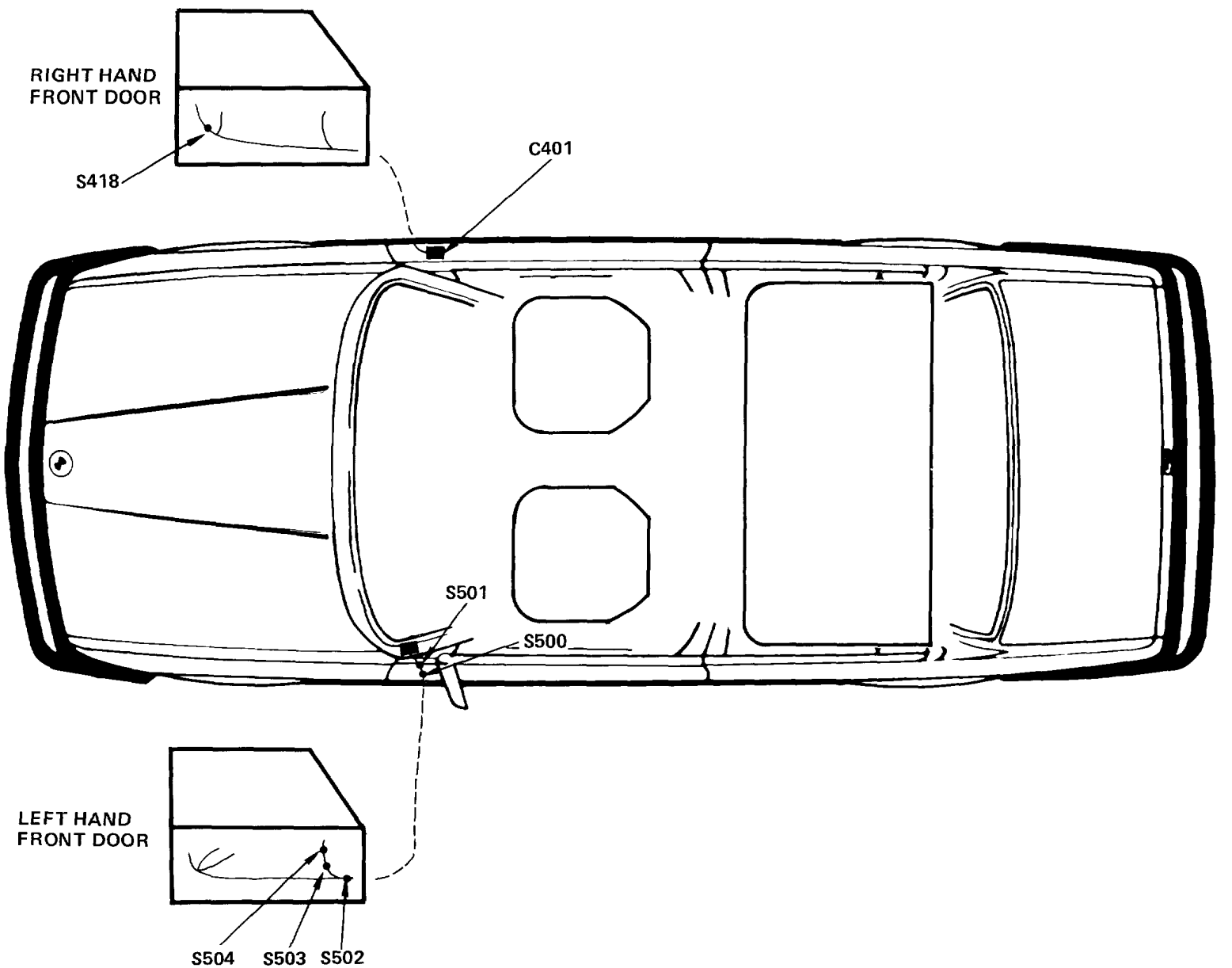
CENTRAL LOCKING HARNESS



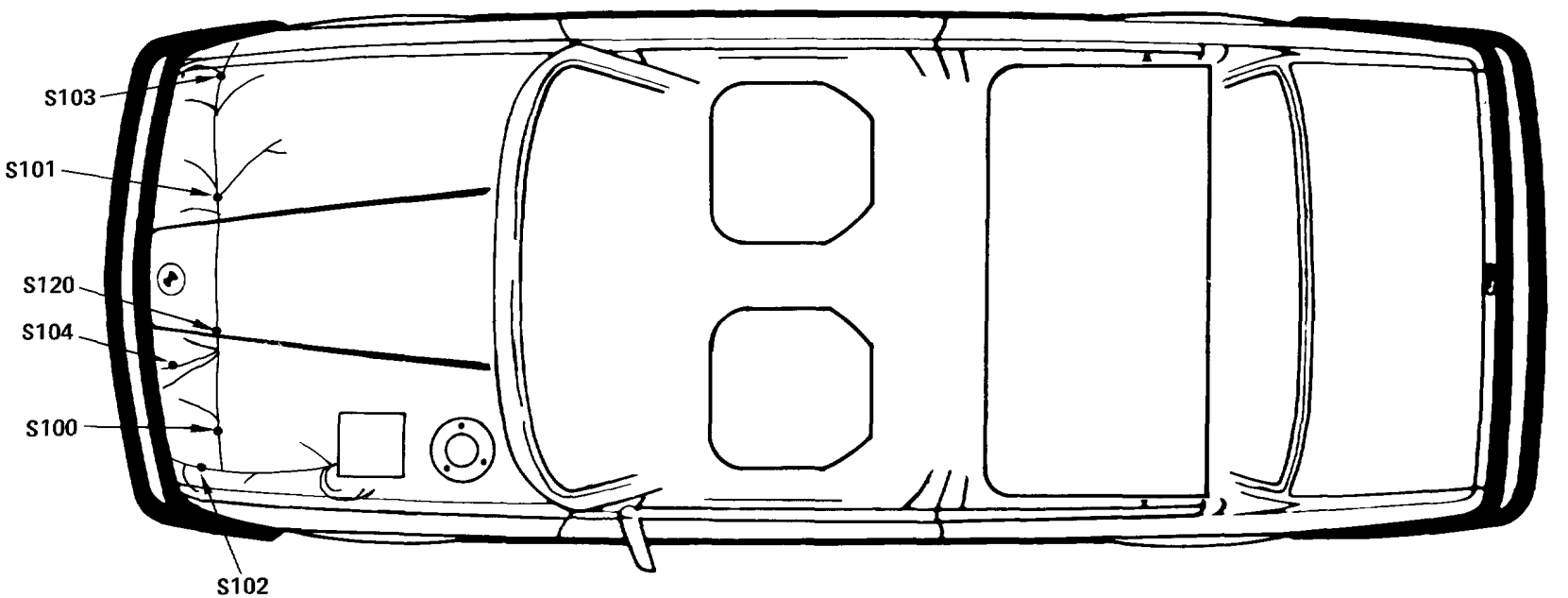
REAR HARNESS



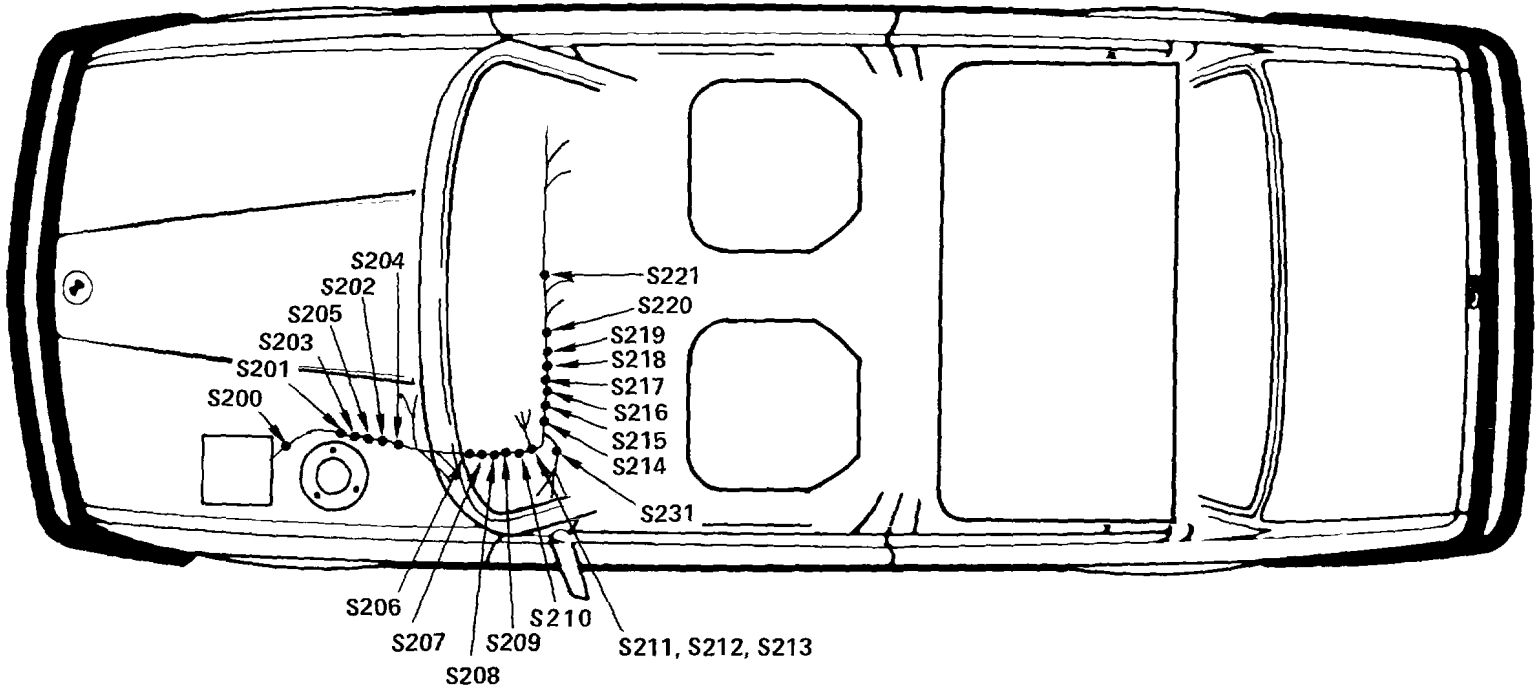
DOOR HARNESS



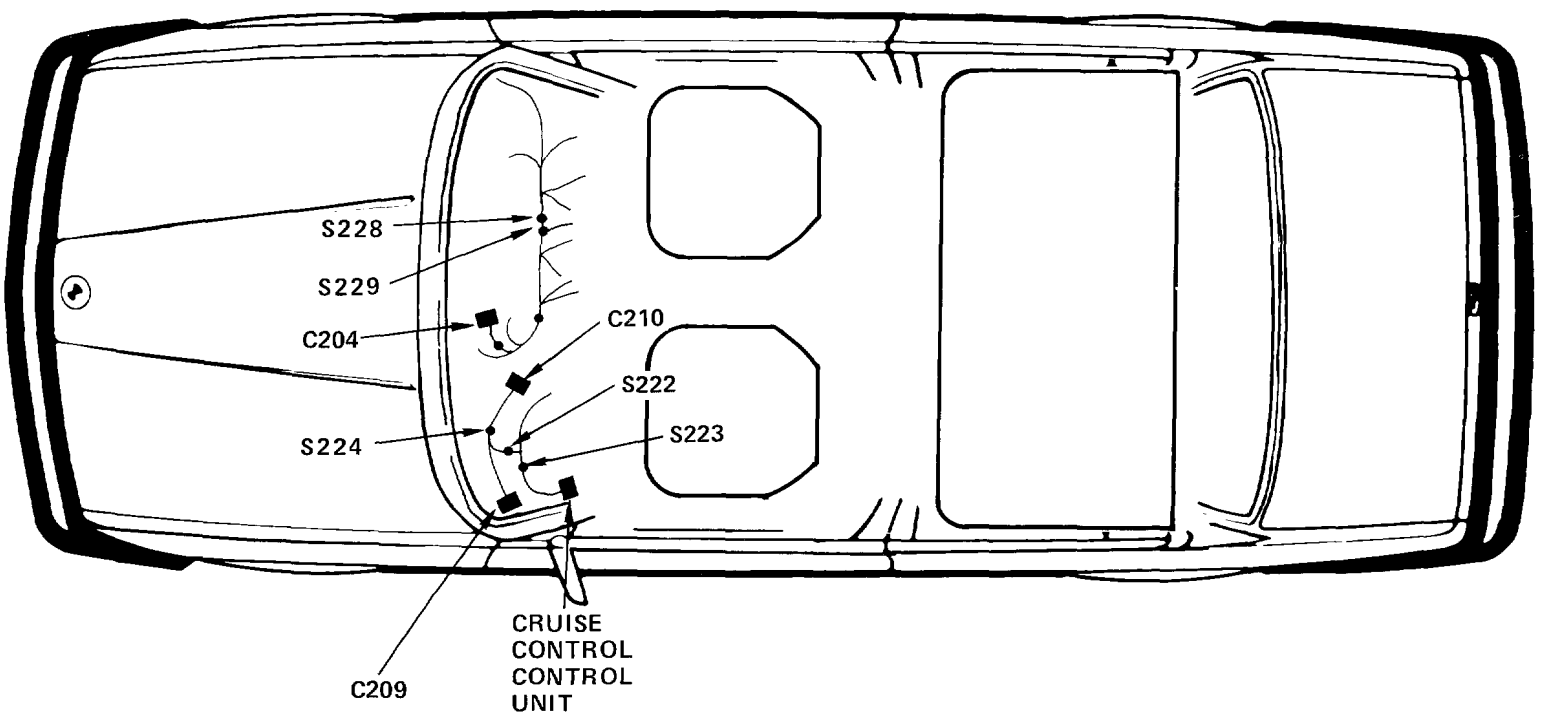
FRONT HARNESS



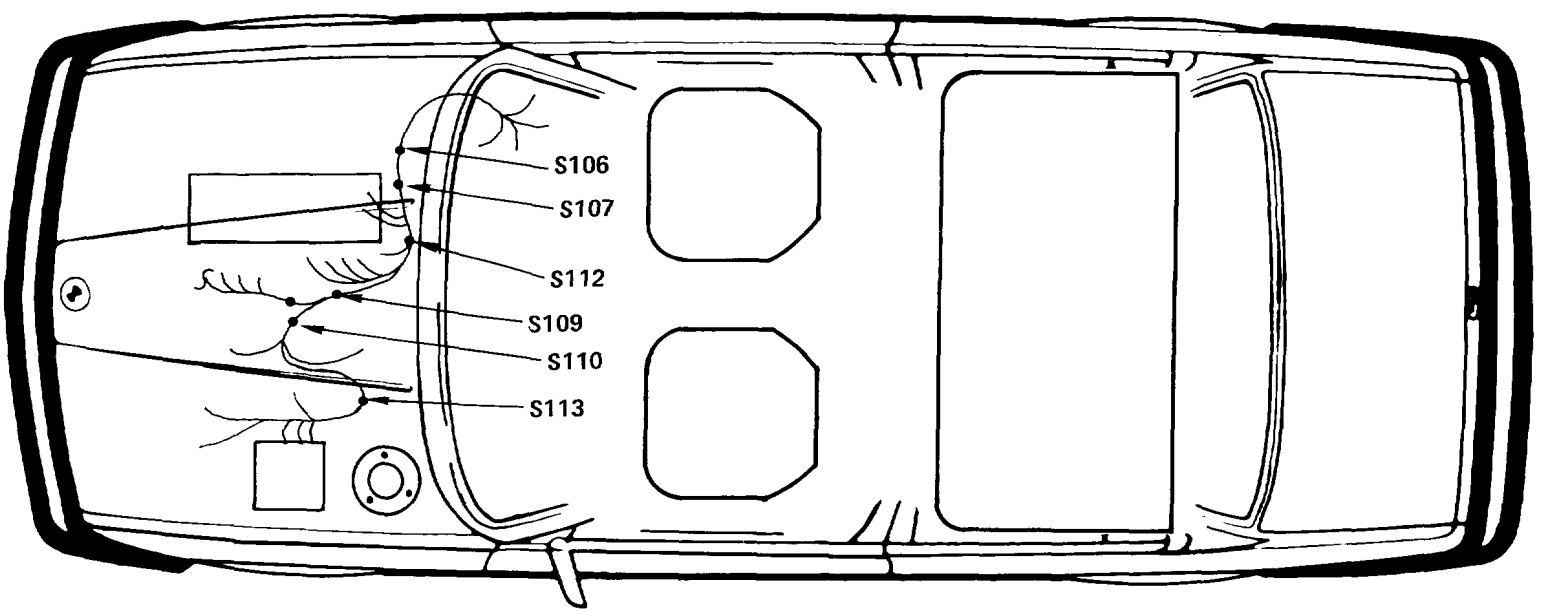
MIDDLE HARNESS



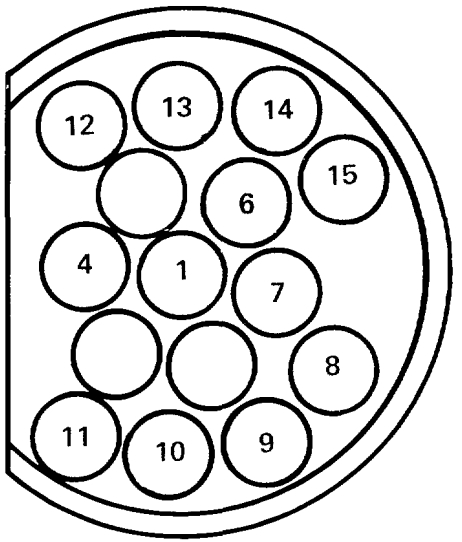
A/C AND CRUISE HARNESS



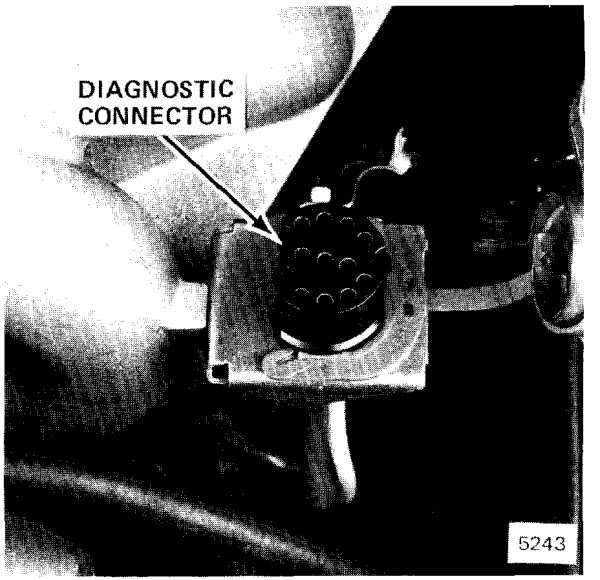
ENGINE HARNESS



DIAGNOSTIC CONNECTOR



DIAGNOSTIC CONNECTOR FACE

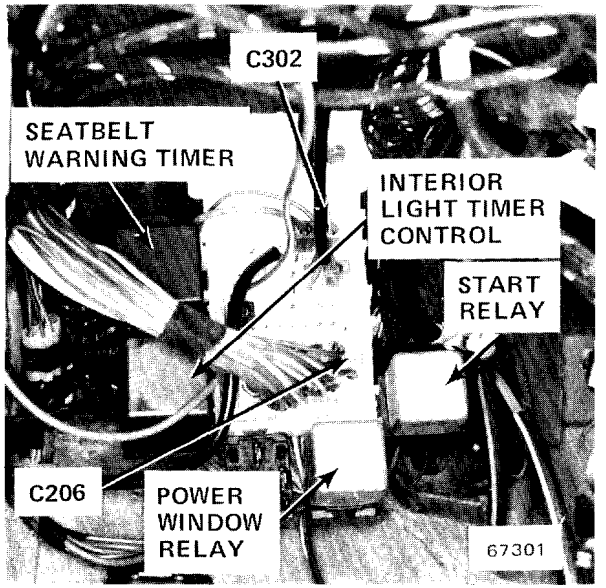


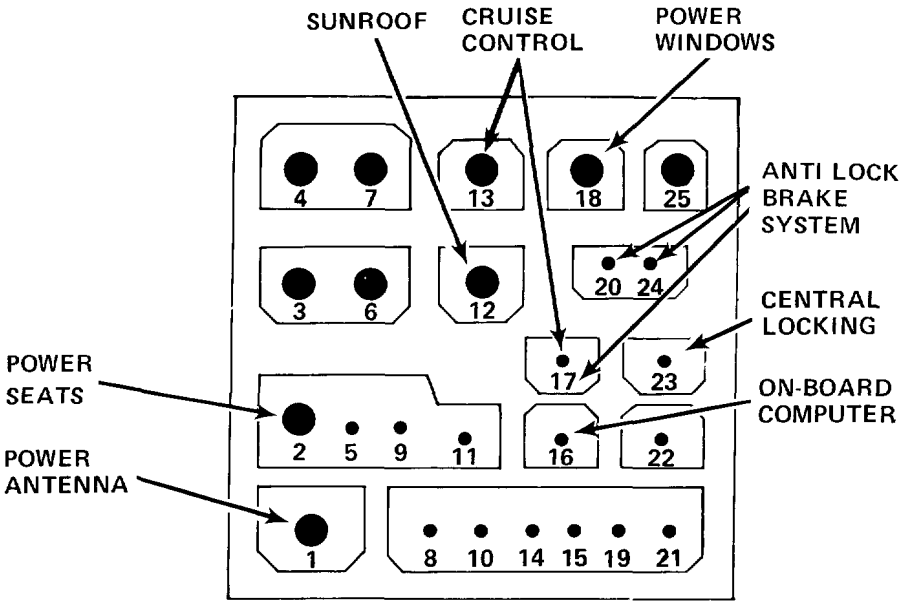
528e - AS MOUNTED ON MANIFOLD

Figure 1 - Top Of Engine

PIN	WIRE SIZE	WIRE COLOR	CIRCUIT AND COMPONENT CONNECTED
1	1.5	BR	Ground Distribution, G103.
4	.5	BR/VI	Gauges/Warning Indicators, Coolant Temperature Sender.
6	.5	WT/BK	Not Used.
7	.5	WT/BU	Service Interval Indicator, Service Interval Processor (Reset).
8	.5	YL	Ignition, TDC Sensor.
9		SHIELD	Ignition, TDC Sensor.
10	.5	BK	Ignition, TDC Sensor.
11	2.5	BK/YL	Start, Start Signal.
12	.75	BU	Charge System, Alternator.
13	1	GN	Ignition, Ignition Coil.
14	2.5	RD	Charge System, Alternator.
15	1.5	GN/YL	Idle Speed, Idle Speed Control Unit.

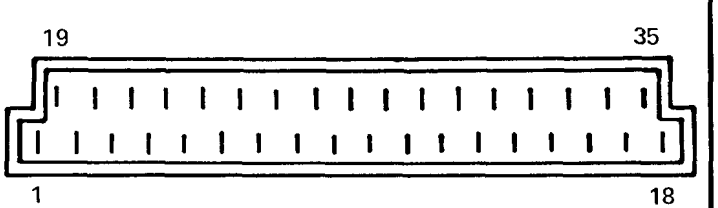
ACCESSORY CONNECTOR



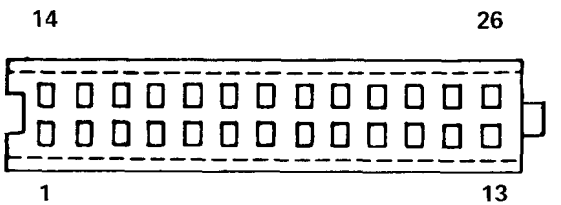


ACCESSORY CONNECTOR–C302
FRONT VIEW

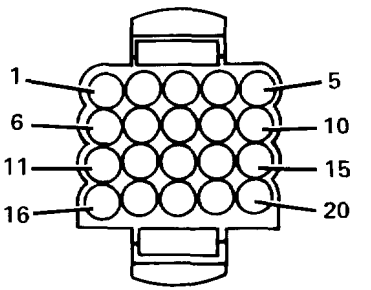
Figure 1 - Under Left Side Of Dash



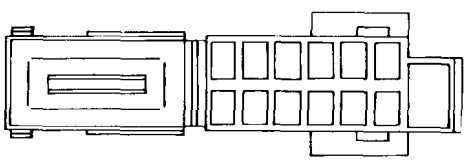
Wiring Face
ABS ELECTRONIC CONTROL UNIT



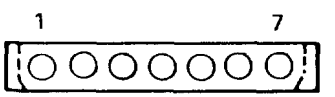
Wiring Face
ACTIVE CHECK CONTROL UNIT



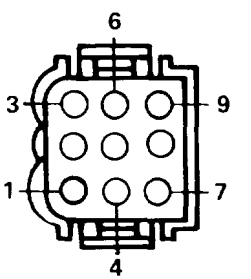
Wiring Face
AMPLIFIER



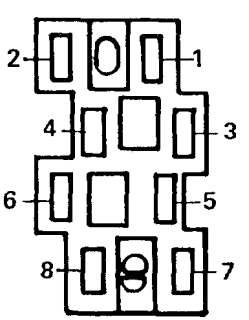
Wiring Face
ABS HYDRAULIC UNIT



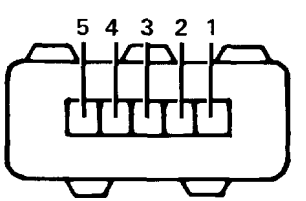
Wiring Face
AIR DOOR CONTROL



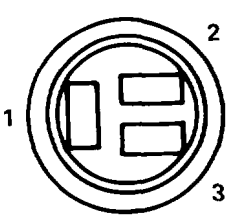
Wiring Face
AUTOMATIC TRANSMISSION RANGE SWITCH



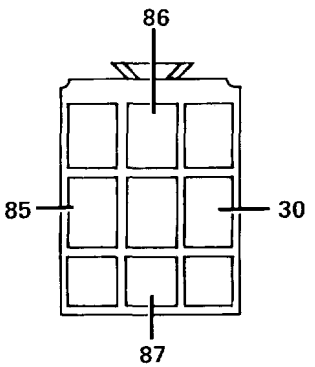
Mating Face
A/C SELECTOR SWITCH



Mating Face
AIR FLOW METER

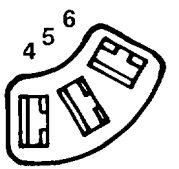


Wiring Face
AUXILIARY FAN



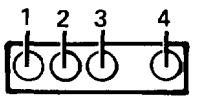
Wiring Face

AUXILIARY FAN RELAY



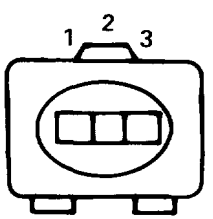
Wiring Face

BLOWER SPEED SWITCH (C2)



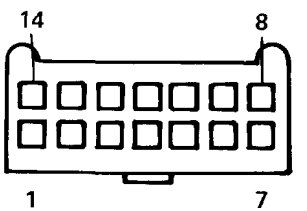
Wiring Face

CHIME MODULE (C2)



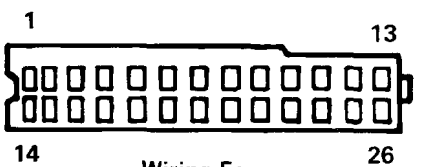
Wiring Face

BAROMETRIC PRESSURE SENSOR



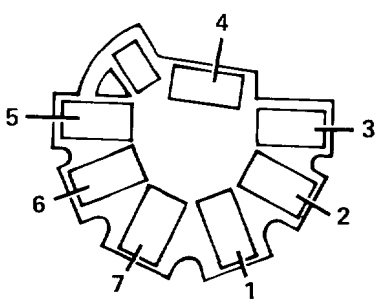
Wiring Face

CENTRAL LOCKING CONTROL UNIT



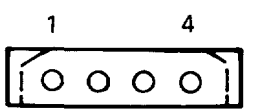
Wiring Face

CRUISE CONTROL



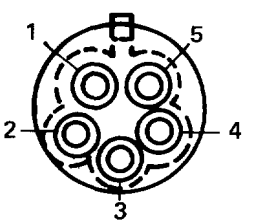
Wiring Face

BLOWER SPEED SWITCH



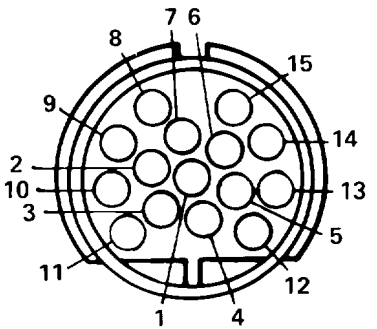
Wiring Face

CHIME MODULE (C1)



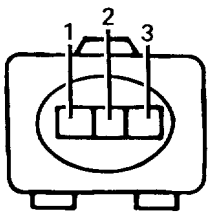
Wiring Face

DASH WARNING DISPLAY



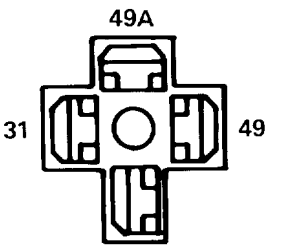
Mating Face

DIAGNOSTIC CONNECTOR



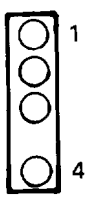
Wiring Face

ENGINE SPEED SENSOR



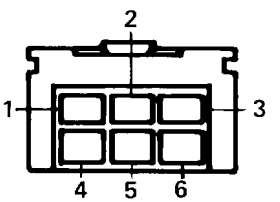
Wiring Face

FLASHER



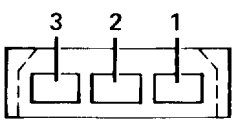
Wiring Face

DIGITAL CLOCK



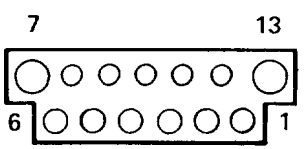
Wiring Face

EVAPORATOR TEMPERATURE REGULATOR



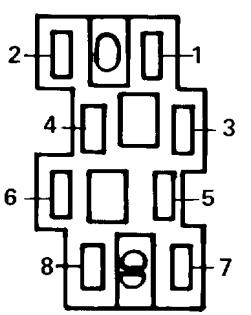
Wiring Face

FLASHER RELAY



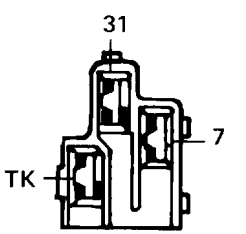
Wiring Face

DRIVERS SEAT CONTROLLER (C1)



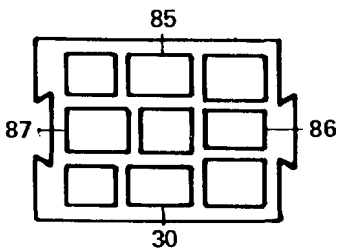
Mating Face

FADER CONTROL



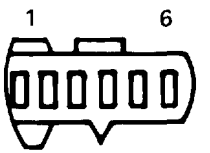
Wiring Face

FOG LIGHTS/INTERNAL LIGHTS SWITCH (C1)



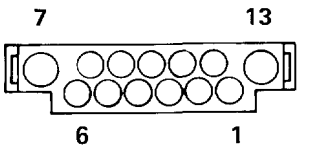
Wiring Face

FUEL HEATER RELAY



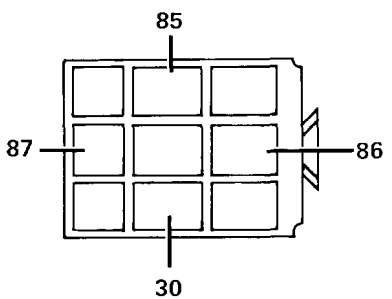
Wiring Face

GAS FILLER LOCK MOTOR



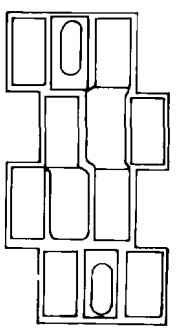
Wiring Face

HEATER CONTROL



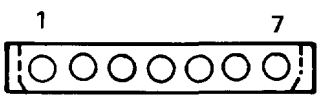
Wiring Face

FUEL PUMP RELAY



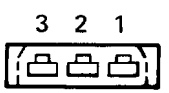
Wiring Face

HAZARD SWITCH



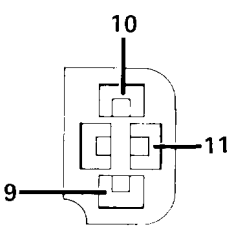
Wiring Face

HEATER REGULATOR



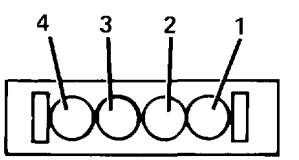
Wiring Face

FUEL TANK SENDER



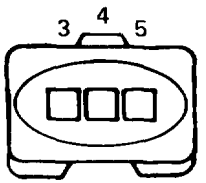
Wiring Face

HEADREST CONTROL SWITCH



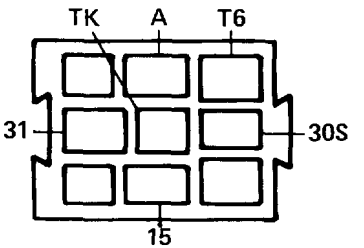
Wiring Face

HIGH LEVEL STOP LIGHT



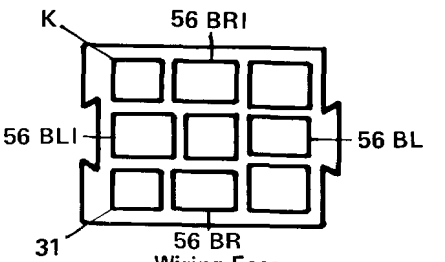
Wiring Face

IDLE SPEED ACTUATOR



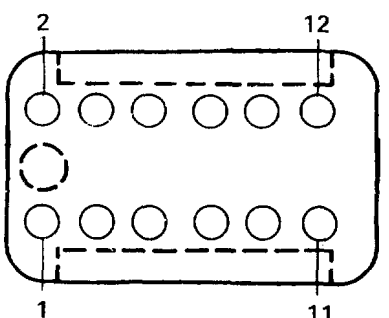
Wiring Face

INTERIOR LIGHT TIMER CONTROL



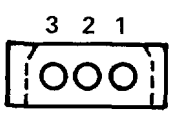
Wiring Face

LOW BEAM CHECK RELAY



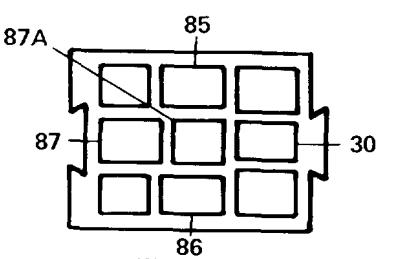
Mating Face

IDLE SPEED CONTROL (528 ONLY)



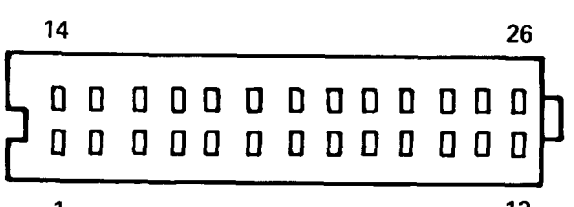
Wiring Face

INTERIOR TEMPERATURE SENSOR



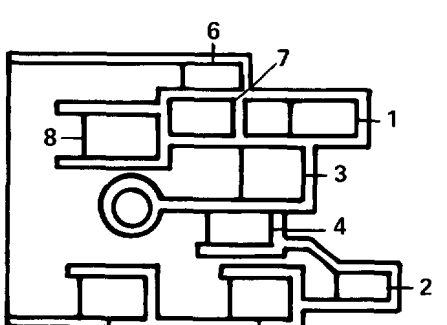
Wiring Face

MAIN RELAY



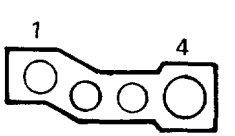
Wiring Face

INSTRUMENT CLUSTER



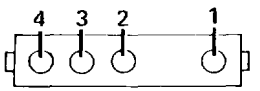
Wiring Face

LIGHT SWITCH



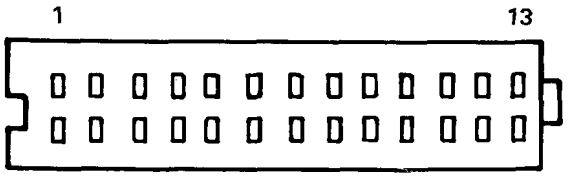
Wiring Face

MEMORY SEAT ACCESSORY CONNECTOR (C302)



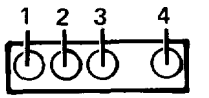
Wiring Face

MIRROR



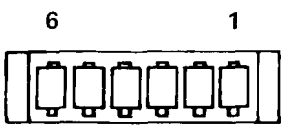
Wiring Face

ON BOARD COMPUTER MODULE



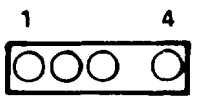
Wiring Face

OUTSIDE MIRROR



Wiring Face

MIRROR CONTROL SWITCH



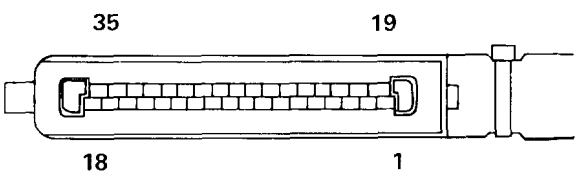
Wiring Face

ON BOARD COMPUTER

RELAY BOX (C1)

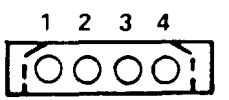
Wiring Face

POTENTIOMETER



Mating Face

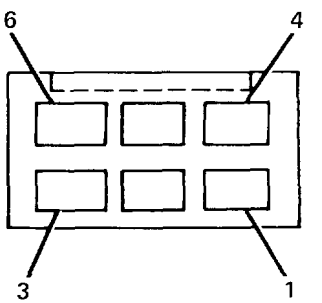
MOTRONIC CONTROL UNIT



Wiring Face

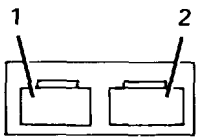
ON BOARD COMPUTER

RELAY BOX (C2)



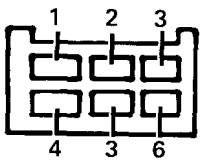
Wiring Face

POWER SEAT CONTROL UNIT (C2)



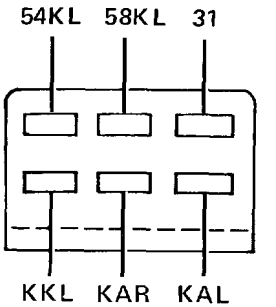
Wiring Face

PROGRAM SWITCH (C1)



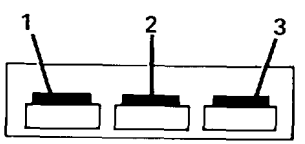
Wiring Face

REAR LIGHT ASSEMBLY



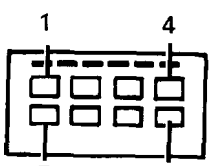
Wiring Face

REAR CHECK LIGHTS CHECK RELAY (C2)



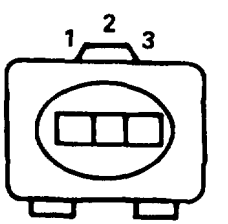
Wiring Face

PROGRAM SWITCH (C2)



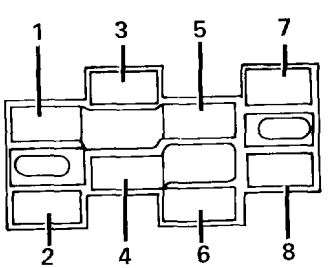
Wiring Face

REAR LIGHTS CHECK RELAY



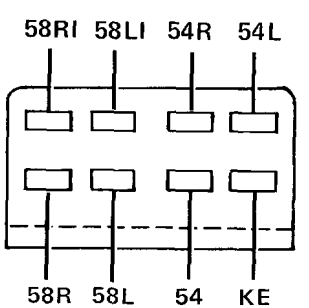
Wiring Face

REFERENCE POINT SENSOR



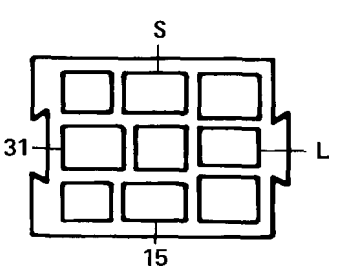
Wiring Face

REAR DEFOGGER



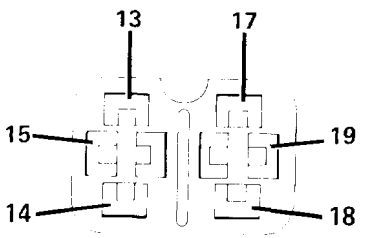
Wiring Face

REAR LIGHTS CHECK RELAY (C1)

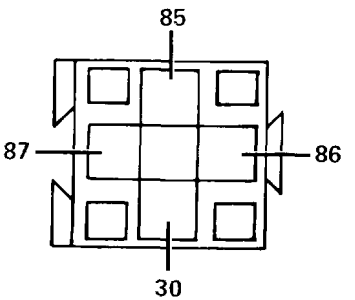


Wiring Face

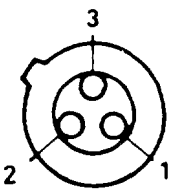
SEAT BELT WARNING TIMER



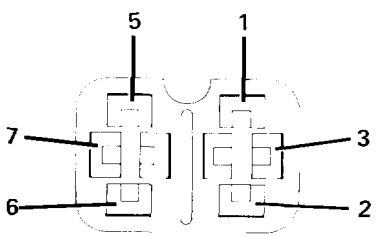
Wiring Face
SEAT SWITCHES BACK
& SEAT CUSHIONS



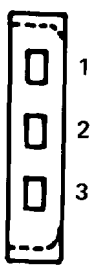
Wiring Face
START RELAY



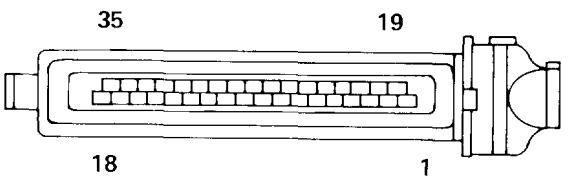
Wiring Face
THROTTLE POSITION SENSOR



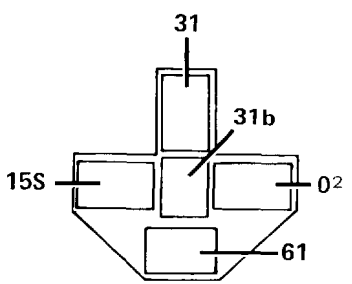
Wiring Face
SEAT SWITCHES FRONT
& REAR HEIGHT



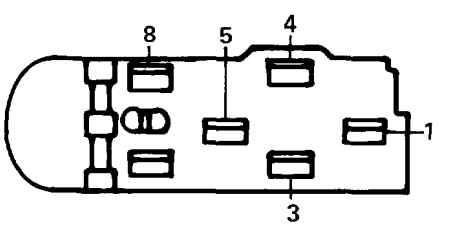
Wiring Face
SUNROOF MOTOR (CI)



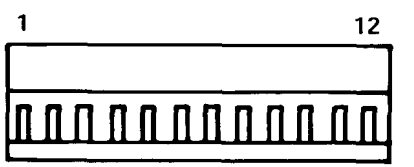
Mating Face
TRANSMISSION CONTROL UNIT
(535i ONLY)



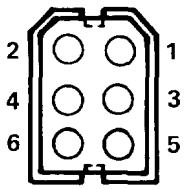
Wiring Face
SERVICE REMINDER SWITCH



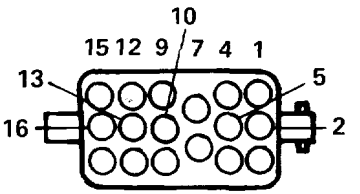
Wiring Face
SUNROOF SWITCH



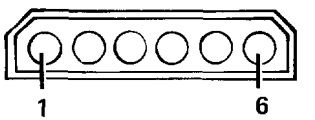
Wiring Face
TRANSMISSION RANGE DISPLAY



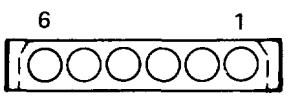
Wiring Face
WIPER MOTOR



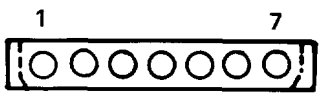
Wiring Face
C101



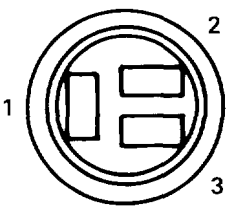
Wiring Face
C103
(535i only)



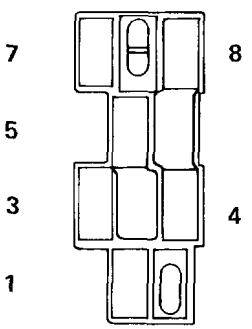
Wiring Face
WIPER SWITCH



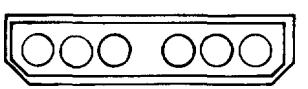
Wiring Face
C102



Wiring Face
C113

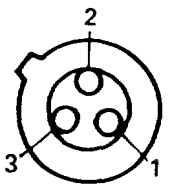


Wiring Face
WINDOW SWITCHES

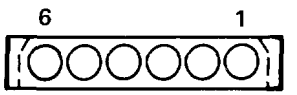


Wiring Face
C103
(528e only)

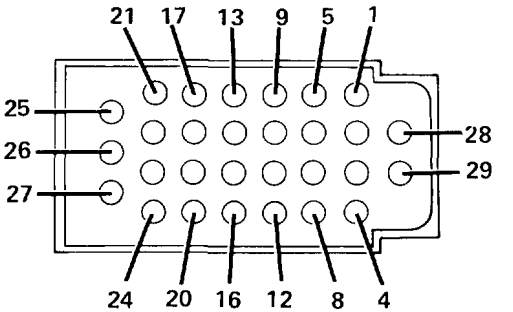
Wiring Face
C114



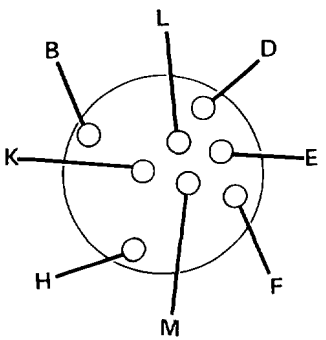
Wiring Face
C141



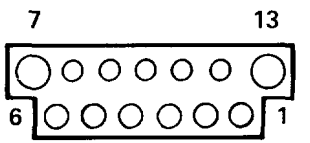
Wiring Face
C201



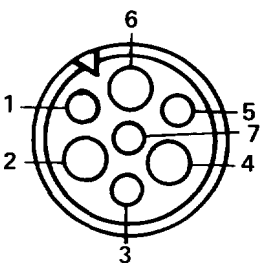
Wiring Face
C206



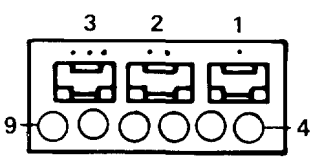
Wiring Face
C152



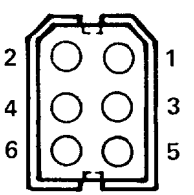
Wiring Face
C202



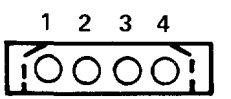
Wiring Face
C209



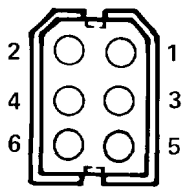
Wiring Face
C200



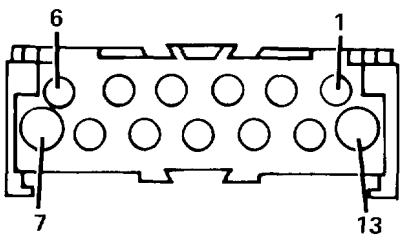
Wiring Face
C205



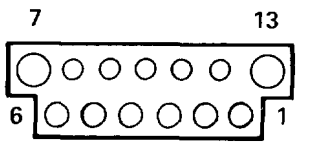
Wiring Face
C210



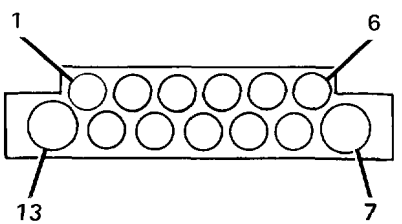
Wiring Face
C214



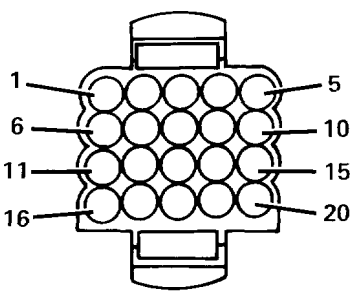
Wiring Face
C250



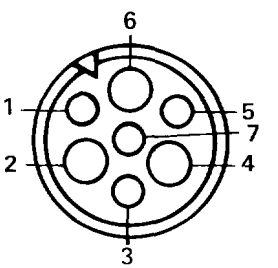
Wiring Face
C401



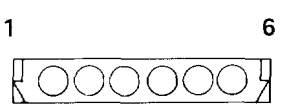
Wiring Face
C238
(535i only)



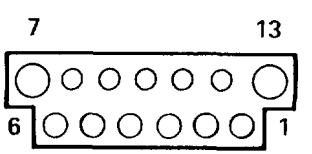
Wiring Face
C320



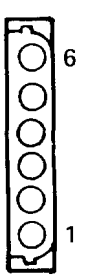
Wiring Face
C402



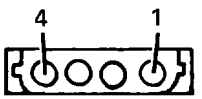
Wiring Face
C240



Wiring Face
C400

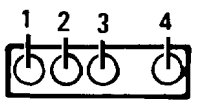


Wiring Face
C500



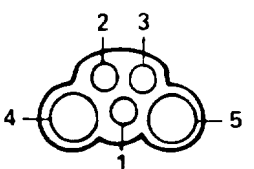
Wiring Face

C501



Wiring Face

C502



Wiring Face

C550

COMPONENTS

COMPONENTS		Page-Figure
0 Degrees C Temperature Switch (528e)	On right inlet of heater blower housing	7000- 1-4
0 Degrees C Temperature Switch (535i)	On right inlet of heater blower housing	7000- 4-3
A/C Compressor Clutch	On front of A/C compressor	
ABS Electronic Control Unit	Under RH side of dash	7000- 9-5
ABS Hydraulic Unit	RH front of engine compartment	7000- 5-1
Active Check Control Unit	Above rear view mirror	7000-11-2
Air Flow Meter (528e)	LH side of engine	7000- 1-5
Air Flow Meter (535i)	RH side of engine	7000- 1-1
Amplifier	LH side of trunk, below rear shelf	7000-12-2
Auto-Charging Flashlight	In glove box	7000-10-1
Auto. Trans. Range Switch	At base of shift lever	7000-11-3
Auxiliary Fan In-Line Diode	RH side of engine compartment, in harness, behind headlights	
Auxiliary Fan Motor	In front of radiator	7000- 5-6
Auxiliary Fuel Pump	In fuel tank, below trunk RH side access plate	7000-12-5
Auxiliary Fuse	On power distribution box	7000- 3-2
B/C Horn Diode	LH front of engine compartment, behind battery	7000- 3-4
Backup Light Switch	On LH side of transmission	
Barometric Pressure Sensor	On RH front of air cleaner housing	7000- 2-4
Blower Speed Switch	RH side of upper console	
Board Computer Horn	LH front of engine compartment, behind battery	7000- 3-4
Brake Accumulator Pressure Switch	LH rear of engine compartment	7000- 4-5
Brake Fluid Level Switch (528e)	LH rear of engine compartment, on brake fluid reservoir	7000- 1-5
Brake Fluid Level Switch (535i)	LH rear of engine compartment, on brake fluid reservoir	7000- 4-5
Brake Switch	Above brake pedal	7000- 8-6
Central Locking Control Unit	Behind RH kick panel, above speaker	7000-10-3
Chime Module	Under LH side of dash	7000- 8-5
Clutch Switch	Above clutch pedal	
Cold Start Valve (528e)	RH side of engine, above valve cover	7000- 2-3
Cold Start Valve (535i)	Between intake ports 3 and 4	7000- 0-4
Combination Switch	On LH side of steering column	7000- 8-2
Coolant Level Switch (528e)	RH side of engine compartment, in coolant reservoir	7000- 2-3
Coolant Level Switch (535i)	LH rear of engine compartment, in coolant reservoir	7000- 3-3
Coolant Temperature Sender (528e)	Front of engine, on thermostat housing	7000- 2-6
Coolant Temperature Sender (535i)	Front of engine, on thermostat housing	7000- 0-5
Coolant Temperature Sensor (528e)	Front of engine, top of thermostat housing	7000- 2-6
Coolant Temperature Sensor (535i)	Front of engine, on thermostat housing	7000- 0-5

COMPONENTS

		Page-Figure
Coolant Temperature Switch	Front of engine, top of thermostat housing	7000- 2-5
Cruise Control Actuator	LH front of engine compartment, in front of power distribution box	7000- 3-6
Cruise Control Control Unit	Under LH side of dash	7000- 8-5
Cruise Control Switch	On RH side of steering column	7000- 8-3
Diagnostic Connector (528e)	LH side of engine, on intake manifold	7000- 2-4
Diagnostic Connector (535i)	Top front of engine	7000- 0-2
Door Lock Motors	Center rear of respective door	7000-10-4
Engine Speed Sensor (528e)	On transmission bell housing	7000- 1-6
Engine Speed Sensor (535i)	On transmission bell housing	7000- 0-1
Evaporator Blower Motor	Under center of dash	7000-11-1
Evaporator Blower Resistors	On RH side of evaporator housing	7000-11-1
Evaporator Temperature Regulator	LH side of upper console	7000-10-6
Evaporator Temperature Sensor	In evaporator, above evaporator blower motor	
Fader Control	LH side of upper console	7000-10-5
Flasher	Upper part of steering column	7000- 8-2
Fuel Injectors (528e)	Mounted in intake port of each cylinder	7000- 1-3
Fuel Injectors (535i)	Mounted in intake port of each cylinder	7000- 0-6
Fuel Pump Relay	On power distribution box	7000- 3-3
Fuel Tank Sender	In fuel tank, below trunk, RH side access plate	7000-12-5
Gas Filler Lock Motor	In trunk, right of power antenna	7000-12-4
Hazard Switch	To right of instrument cluster	
Heater Blower Motor	Below windshield, behind cover panel	
Heater Blower Resistors	Below heater cover motor	
Heater Regulator	Behind A/C selector switch	7000-10-5
Heater Temperature Sensor	LH side of upper console	7000-10-6
Heater-A/C Panel Lights	Behind heater-air conditioning control panel	
High Pressure Cut-Out Switch	RH front of engine compartment, on receiver-drier	7000- 5-2
High Speed Relay	Attached to power distribution box	7000- 3-2
High Speed Temperature Switch (528e)	On upper LH side of radiator (red terminals)	7000- 4-2
High Speed Temperature Switch (535i)	On upper RH side of radiator (red terminals)	7000- 4-1
Horn Brush/Slip Ring	Below hub of steering wheel	
Horn Switches	In each spoke on steering wheel	
Hydraulic Pressure Switch	LH rear of engine compartment	7000- 4-4
Idle Control Valve	Top rear RH side of engine	7000- 1-4
Idle Speed Actuator	Top center of engine	7000- 1-1
Idle Speed Control Unit	Under RH side of dash, above glove box	7000- 9-6
Ignition Coil	RH front of engine compartment	7000- 5-3
Ignition Key Switch	In upper part of steering column	

COMPONENTS

		Page-Figure
Ignition Switch	Upper part of steering column	
Interior Light Timer Control	Under LH side of dash	7000- 7-4
Interior Temperature Sensor	Mounted in left, under dash cover	7000- 7-5
Kickdown Switch	Underneath accelerator pedal	7000- 8-1
Lock Heater	In LH front door	7000- 9-3
Lock Heater Control Unit	In LH front door	7000- 9-3
Low Beam Check Relay	Attached to power distribution box	7000- 3-2
Main Fuel Pump	Forward and right of differential housing	
Main Relay	On power distribution box	7000- 3-3
Mirror Control Switch	On LH front door	
Motor Relay	Behind header, above rear view mirror	
Motronic Control Unit	Under RH side of dash, above glove box	7000- 9-5
Normal Speed Blower Resistor (528e)	In front of radiator, on top of auxiliary fan shield	7000- 5-6
Normal Speed Blower Resistor (535i)	In front of radiator, on bottom of auxiliary fan shield	7000- 6-1
Normal Speed Coolant Temperature Switch	On upper LH side of radiator (white terminals)	7000- 4-2
Normal Speed Coolant Temperature Switch (535i)	On upper RH side of radiator (white terminals)	7000- 4-1
Normal Speed Relay	Attached to power distribution box	7000- 3-2
Oil Level Sensor (528e)	Bottom of engine oil pan	7000- 6-4
Oil Level Sensor (535i)	Bottom of engine oil pan	7000- 6-3
Oil Pressure Switch (528e)	RH side of engine, below oil filter	7000- 6-4
Oil Pressure Switch (535i)	Rear of engine, in cylinder head	7000- 0-1
On-Board Computer Module	On dash, right of instrument cluster	
On-Board Computer Relay Box	Under LH side of dash	7000- 8-5
Outside Temperature Sensor	Under left side of front bumper	7000- 6-6
Oxygen Sensor (528e)	In exhaust manifold, at rear of engine	7000- 2-1
Oxygen Sensor (535i)	On catalytic convertor	7000- 6-2
Oxygen Sensor Heater Relay	On power distribution box	7000- 3-3
Parking Brake Switch	In shift console, at base of parking brake	
Power Antenna	RH side of trunk	7000-12-4
Power Distribution Box	On LH front wheel well	7000- 3-2
Power Window Circuit Breaker	Mounted in left, under dash cover	7000- 9-1
Power Window Relay	Under LH side of dash	7000- 7-4
Program Selector Switch	Center console, near shift lever	7000-11-4
Rear Lights Check Relay	Mounted on trunk lock support	7000-12-3
Reference Point Sensor (528e)	On transmission bell housing	7000- 1-6
Reference Point Sensor (535i)	On transmission bell housing	7000- 0-1
Right Front Door Micro Switch	Inside RH front door, mounted on door lock	7000-10-4
Safety Switch	On shift console, next to shift lever	7000-11-3
Seat Controllers	Under respective seat, on frame	7000-11-5

COMPONENTS

		Page-Figure
Seatbelt Switch	In driver's seatbelt buckle	
Seatbelt Warning Timer	Under LH side of dash	7000- 7-4
Service Reminder Switch	Behind LH dash panel, mounted on RH side of steering column	7000- 8-4
Speed Detector	Behind wheel dust shield	7000- 7-1
Speedometer Sender	In rear of differential	7000- 7-2
Start Relay	On connector bracket, under LH side of dash	7000- 7-4
Starter	Lower rear LH side of engine	
Sunroof Motor	Behind header, above rear view mirror	
Sunroof Switch	Above rear view mirror	
TDC Sensor (528e)	Above crankshaft vibration damper	7000- 2-2
TDC Sensor (535i)	Above crankshift vibration damper	7000- 1-2
Thermo-Time Switch (528e)	Front of engine, top of thermostat housing	7000- 2-5
Thermo-Time Switch (535i)	Front of engine, top of thermostat housing	7000- 0-5
Throttle Position Sensor	Top of engine, front of air intake assembly	7000- 0-3
Throttle Position Switch	Top of engine, front of air intake assembly	7000- 0-3
Throttle Switch	Top LH side of engine, below throttle body	7000- 3-1
Transmission Control Unit	Under LH side of dash	7000- 7-3
Trunk Lock Motor	In rear panel of trunk	7000-12-3
Unlock Inhibit Switch	In LH front door, on door lock	7000- 9-4
Washer Fluid Level Switch	RH front of engine compartment, in washer reservoir	7000- 5-3
Washer Jet Heaters	Attached to washer jet nozzles	7000- 5-5
Washer Jet Heaters	On washer jet nozzles	7000- 5-5
Washer Pump	RH front of engine compartment, in washer reservoir	7000- 5-3
Water Shut-Off Valve (528e)	Below brake master cylinder	7000- 4-6
Water Shut-Off Valve (535i)	LH rear of engine compartment	7000- 4-4
Window Console Switches	On shift console, next to shift lever	7000-11-3
Window Motors	In each door	7000- 9-4
Wiper Motor	Above brake master cylinder	
Wiper/Washer Switch	On RH side of steering column	7000- 8-2

CONNECTORS

C101 (17 pin) (528e)	Engine compartment, on RH side of power distribution box	7000- 3-2
C102 (7 pin)	In power distribution box	7000- 3-5
C103 (6 pin)	RH side of dash, near motronic control unit	7000- 9-5
C104 (2 pin)	RH side of dash, near motronic control unit	7000- 9-6
C105 (1 pin) (528e)	At RH wheel well, below coolant reservoir	
C105 (1 pin) (535i)	At RH wheel well, below coolant reservoir	
C107 (2 pin)	LH front of engine compartment	7000- 3-6

COMPONENTS

		Page-Figure
C108 (2 pin)	RH front of engine compartment	7000- 5-3
C110 (2 pin)	RH front of engine compartment	7000- 5-3
C113 (3 pin) (528e)	Forward of radiator, on auxiliary fan shield	
C113 (535i)	LH side of engine compartment, below headlights	
C131 (1 pin)	RH side of dash, near motronic control unit	7000- 9-5
C132 (1 pin)	RH side of dash, near motronic control unit	7000- 9-5
C141	Rear of engine, in exhaust manifold	
C150 (2 pin) (528e)	LH side of engine compartment, in shock tower	7000- 1-5
C150 (2 pin) (535i)	LH side of engine compartment, under master cylinder	
C151 (2 pin)	RH side of engine compartment, in shock tower	7000- 5-4
C152 (8 pin)	Mounted on LH side of transmission, near shift linkage	7000- 6-5
C200 (10 pin)	On LH side of steering column	7000- 7-6
C201 (6 pin)	On LH side of steering column	7000- 7-6
C202 (13 pin)	On LH side of steering column	7000- 7-6
C203 (2 pin)	At upper end of steering column	
C204 (13 pin)	On LH side of heater/evaporator housing	7000-10-6
C206 (29 pin)	On connector bracket, under LH side of dash	7000- 7-4
C208 (2 pin)	Near clutch pedal	
C209 (7 pin)	Under LH side of dash	7000- 8-6
C210 (4 pin)	On LH side of steering column	7000- 7-6
C212 (1 pin)	Under LH side of dash, taped to harness	
C213 (1 pin)	Under LH side of dash	7000- 8-6
C214 (6 pin)	Behind center of dash, near heater blower	
C215 (2 pin)	Behind radio	
C216 (2 pin)	Behind radio	
C217 (2 pin)	Behind radio	
C218 (2 pin)	Behind radio	
C219 (3 pin) (528e)	Taped to harness, near LH shock tower	7000- 1-5
C219 (3 pin) (535i)	Taped to harness, near LH shock tower	7000- 4-4
C220 (1 pin)	Under LH side of dash	
C235 (1 pin)	Under LH side of dash, near on-board computer	
C238 (11 pin)	Under RH side of dash, above glove box	7000-10-2
C240 (6 pin)	Under RH side of dash, above glove box	7000-10-2
C250 (13 pin)	Under center of rear seat	7000-12-1
C300 (2 pin)	Near trunk light	
C301 (2 pin)	In center console, ahead of shift lever	
C302 (Accessory Connector)	Under LH side of dash	7000- 7-4
C303 (2 pin)	In headliner, near LH dome light	

COMPONENTS

		Page-Figure
C320 (20 pin)	LH side of trunk, below rear shelf	7000-12-2
C351 (2 pin)	Under RH side of rear seat, behind grommet	
C352 (2 pin)	Under LH side of rear seat, behind grommet	
C400 (13 pin)	Behind LH front speaker	7000- 9-2
C401 (13 pin)	Behind RH front speaker	7000-10-3
C402 (7 pin)	In LH B pillar	
C403 (7 pin)	In RH B pillar	
C404 (5 pin)	In bottom rear of LH front door	
C405 (2 pin)	In trunk, near trunk lock	
C500 (6 pin)	Behind LH front speaker	7000- 9-2
C501 (4 pin)	Behind LH front speaker	7000- 9-2
C502 (4 pin)	Behind RH front speaker	7000-10-3
C503 (8 pin)	In LH front door	7000- 9-4
C550 (2 pin)	Under center console	
C551 (2 pin)	Under center console	
C560 (2 pin)	In LH front door	

GROUNDS

G102 (Main Body Ground)	LH front of engine compartment, on fender well	7000- 3-6
G103 (Engine Ground) (528e)	Front of engine, under diagnostic connector	7000- 2-4
G103 (Engine Ground) (535i)	Top rear of engine	7000- 1-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	7000- 7-6
G201 (Steering Column Ground)	Upper part of steering column	7000- 8-3
G301 (Rear Interior Ground)	Under LH side of rear seat	7000-11-6
G302	RH side of trunk	7000-12-4
G600	Near sunroof switch	

SECTION B: 535i

1986
BMW 535i
Electrical
Troubleshooting
Manual

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POWER DISTRIBUTION BOX

NOTE
On some cars, the position of the side mounted relays may be interchanged on their respective sides. Check relay wire colors for positive identification.

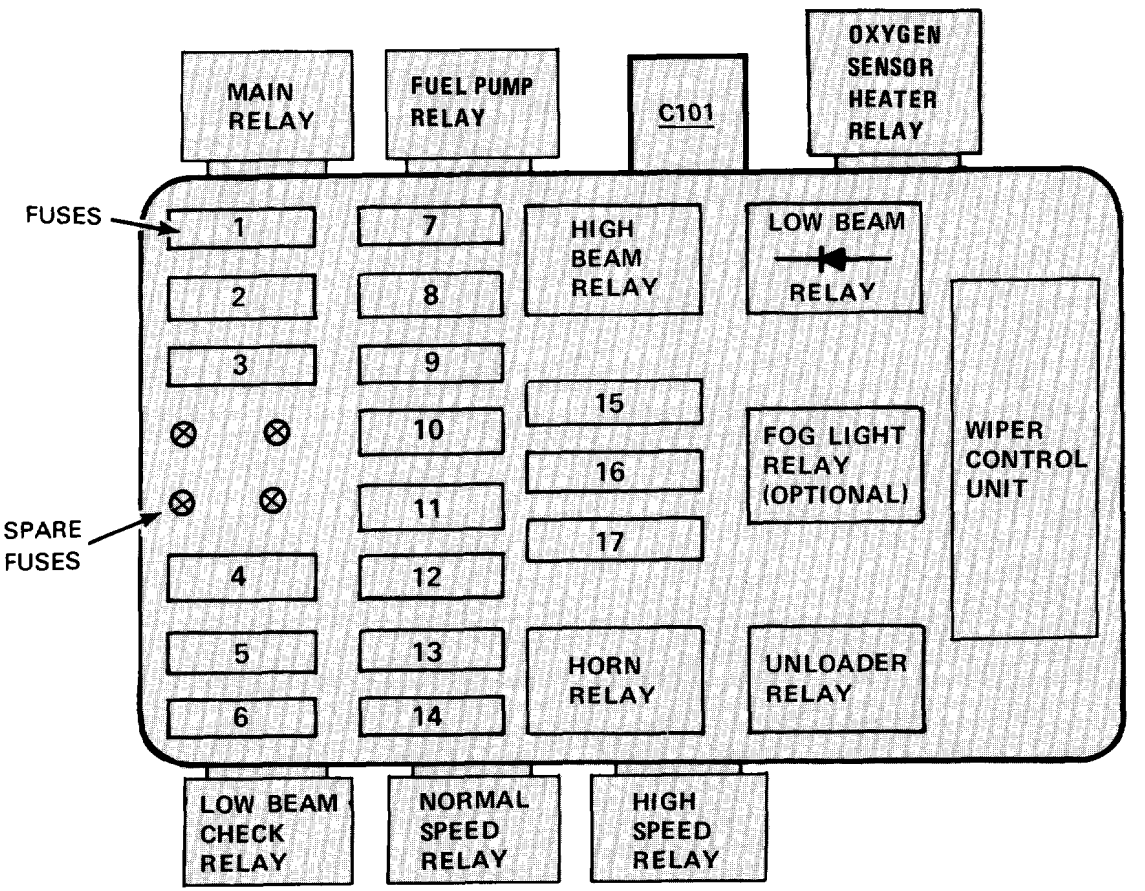
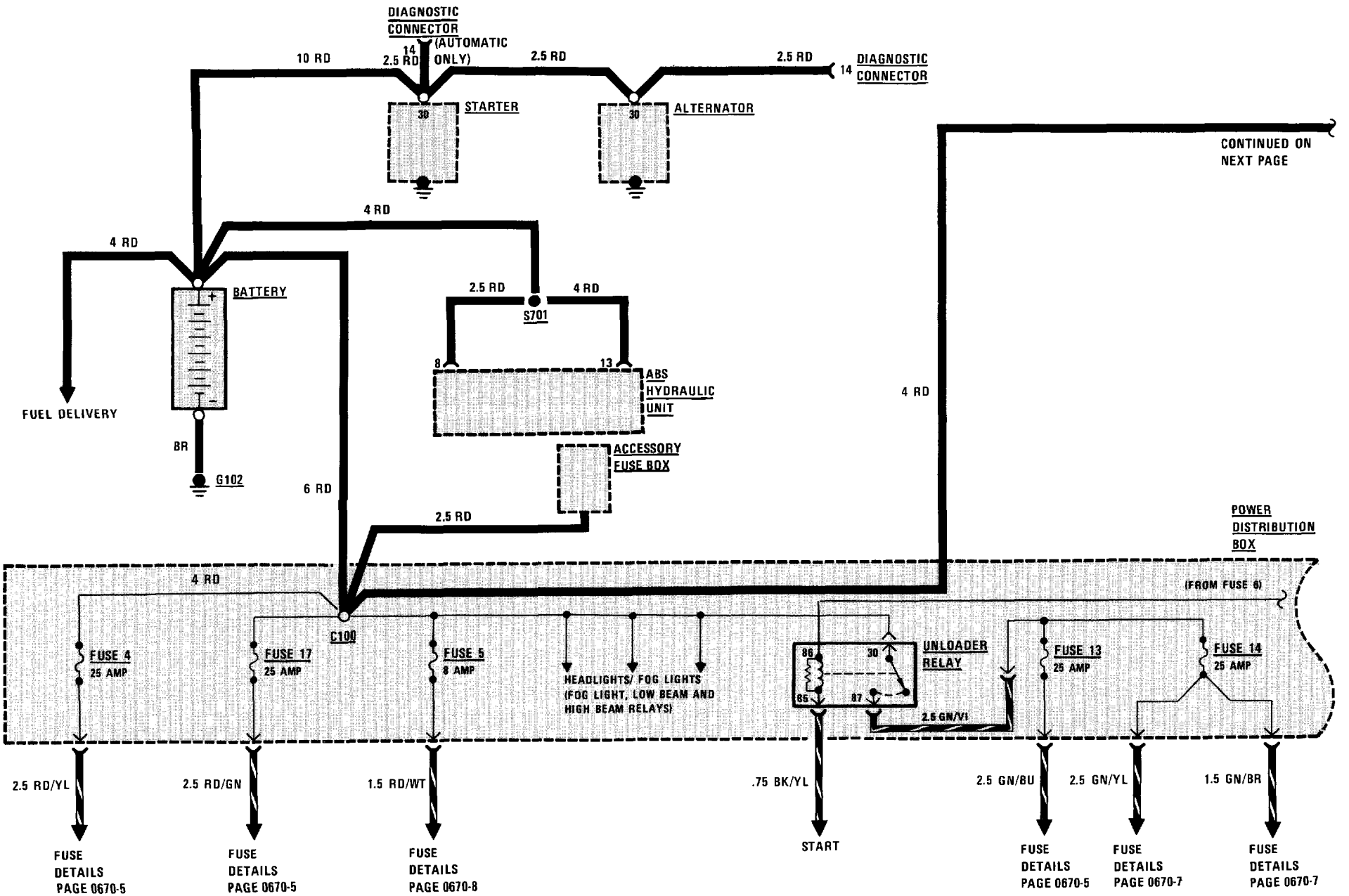
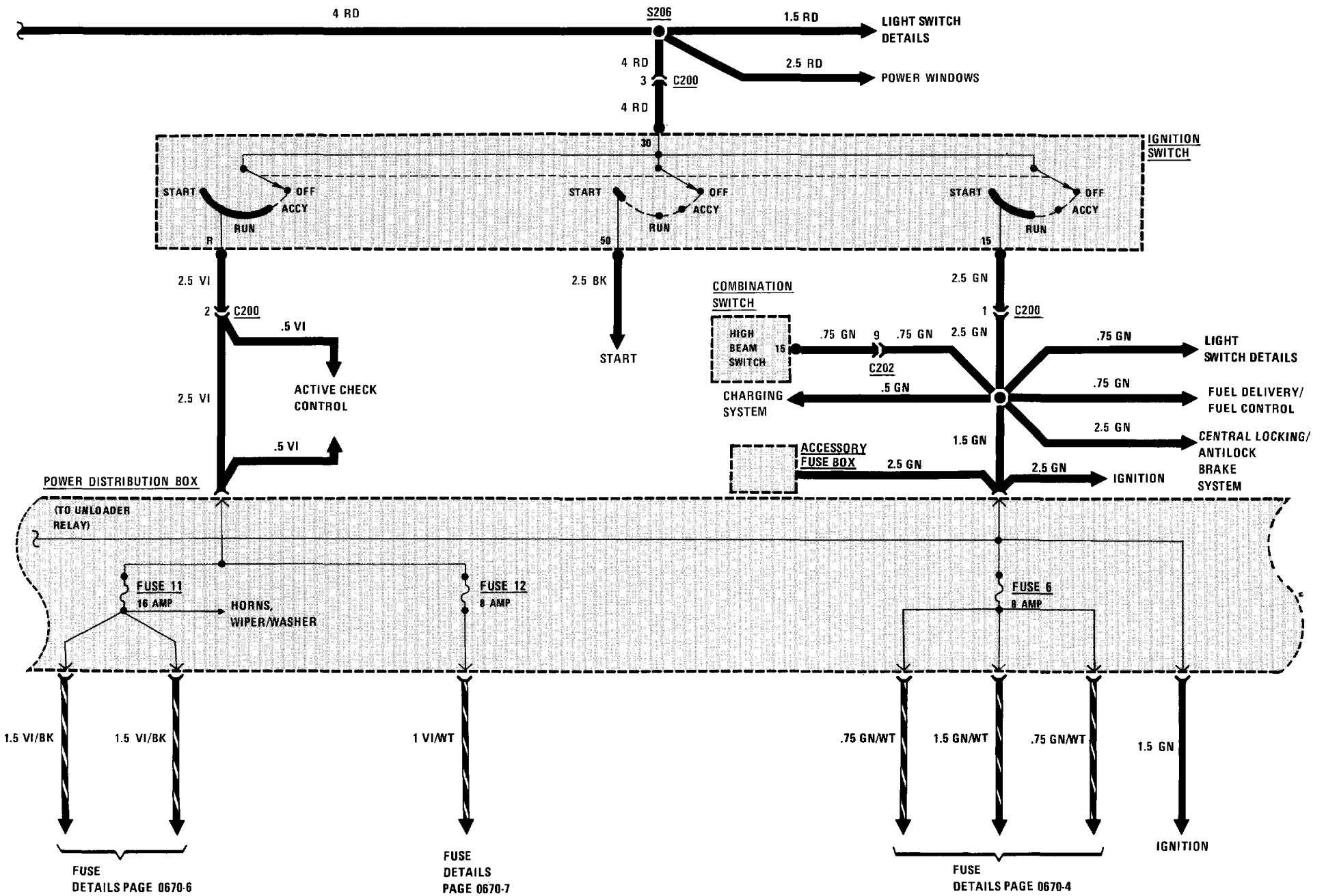


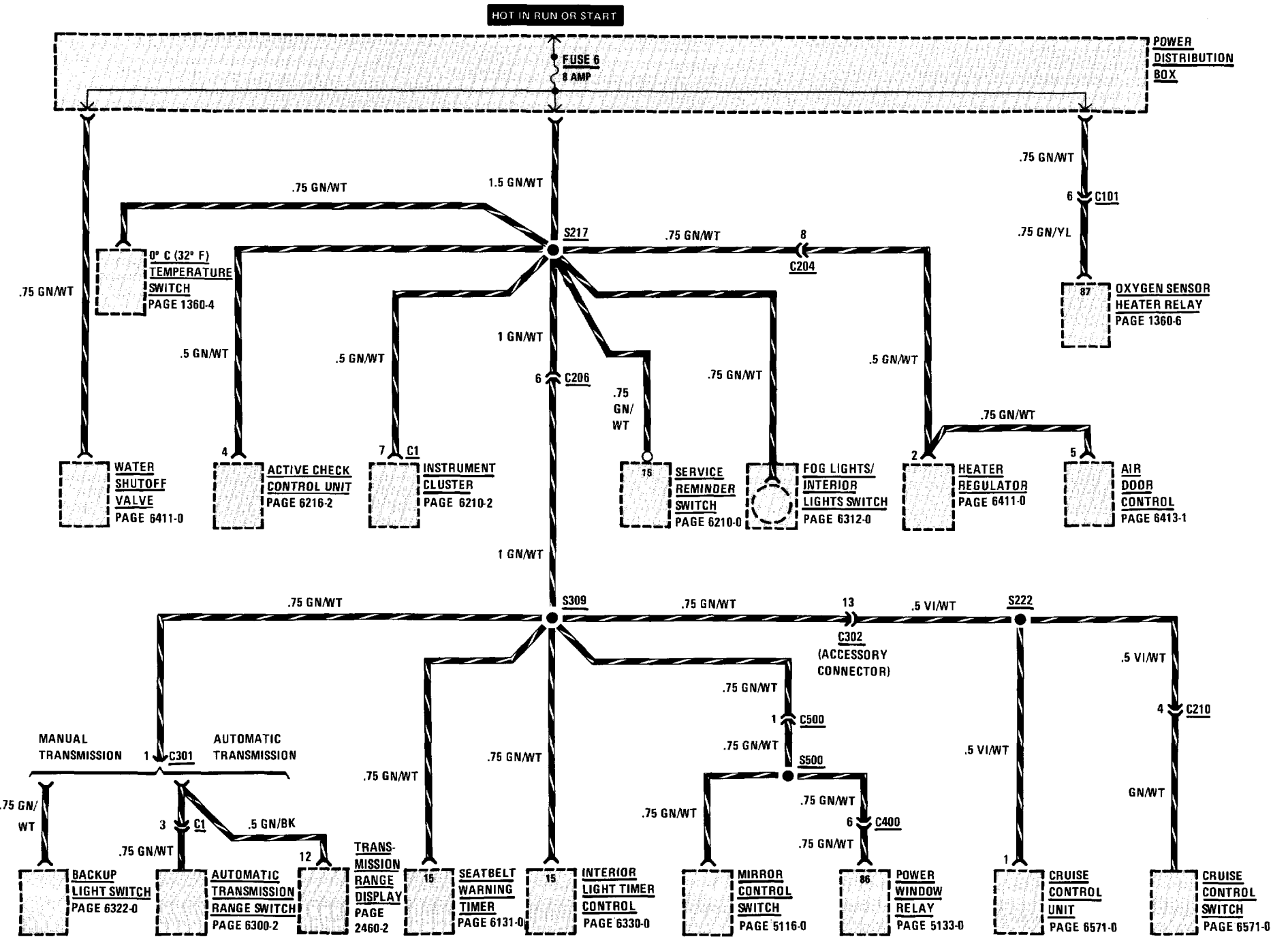
Figure 1 - Top Of Left Front Wheel Well

Fuse No.	Size/ Color	Circuit Name
1	16A (RD)	Fuel Delivery.
2	8A (WT)	Active Check Control (also fuses 5, 6, 9, 10, 11, 12); Headlights (RH Low Beam).
3	8A (WT)	Active Check Control (also fuses 5, 6, 9, 10, 11, 12); Headlights (LH Low Beam).
4	25A (BU)	Cigar Lighter; Power Seats; Radio/Power Antenna (also fuses 5, 12).
5	8A (WT)	Active Check Control (also fuses 2, 3, 6, 9, 10, 11, 12); Central Locking; Electronic Transmission Control; Glove Box/Auto-Charging Flashlight; Heated Door Locks; Ignition Key Warning/Seatbelt Warning (also fuse 6); Lights: Turn/Hazard Warning (also fuse 11); Lights: Trunk; On-Board Computer (also fuses 6, 12); Radio/Power Antenna (also fuses 4, 12); Service Interval Indicator (also fuse 6).
6	8A (WT)	Active Check Control (also fuses 2, 3, 5, 9, 10, 11, 12); Back Up Lights/Transmission Range Lights; Cruise Control (also fuse 12); Fog Lights (also fuses 15, 16); Fuel Control; Gauges; Heater/Air Conditioning (also fuse 14); Idle Speed Control; Ignition; Interior Lights (also fuse 5); On-Board Computer (also fuses 5, 12); Power Mirrors; Power Windows (also Power Window Circuit Breaker); Seatbelt Warning (also fuse 5); Service Interval Indicator (also fuse 5); Speedometer; Warning Indicators (also fuse 15).
7	8A (WT)	Headlights (RH High Beams).
8	8A (WT)	Headlights (LH High Beams).
9	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 10, 11, 12); Dash Lights (also fuses 6, 14); Lights: Front Park/Front Marker/Tail: (also fuse 10); Lights: Rear Marker/License: (also fuse 10).
10	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 9, 11, 12); Lights: Front Park/Front Marker/Tail (also fuse 9); Lights: Rear Marker/License (also fuse 9).
11	16A (RD)	Active Check Control (also fuses 2, 3, 5, 6, 9, 11, 12); Horn; Lights: Turn/Hazard Warning (also fuse 5); Wiper/Washer and Heater Washer Jets.
12	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 9, 10, 11); Cruise Control; Radio (also fuses 4, 5); Stop Lights; On-Broad Computer (also fuses 5, 6); Power Antenna (also fuses 4, 5).
13	16A(RD)	Rear Defogger; Sunroof.
14	25A (BU)	Auxiliary Fan (also fuse 17); Dash Lights (also fuses 6, 9); Heater/Air Conditioning (also fuse 6).
15	8A (WT)	Fog Lights (RH).
16	8A (WT)	Fog Lights (LH).
17	25A (BU)	Auxiliary Fan (also fuse 14).
Power Window Circuit Breaker	25A (BU)	Power Windows (also fuse 6).

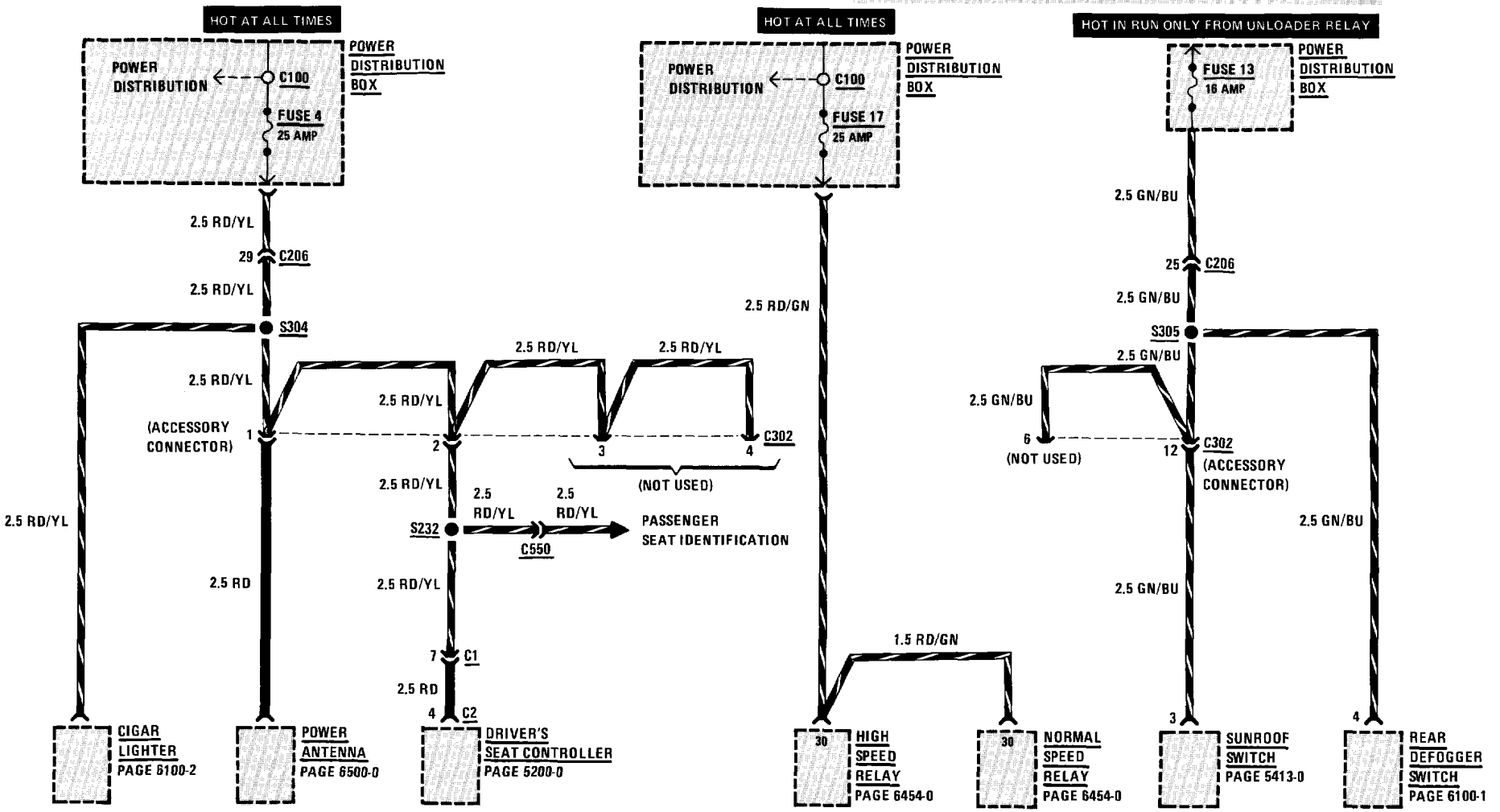

DIAGNOSTIC CONNECTOR
14
(AUTOMATIC ONLY)
10 RD
2.5 RD
2.5 RD
2.5 RD
14 DIAGNOSTIC CONNECTOR
30 STARTER
30 ALTERNATOR
CONTINUED ON NEXT PAGE
4 RD
4 RD
BATTERY
2.5 RD
4 RD
S701
8
13
ABS HYDRAULIC UNIT
FUEL DELIVERY
BR
G102
6 RD
ACCESSORY FUSE BOX
4 RD
2.5 RD
POWER DISTRIBUTION BOX
4 RD
(FROM FUSE 6)
C100
FUSE 4
25 AMP
FUSE 17
25 AMP
FUSE 5
8 AMP
HEADLIGHTS/ FOG LIGHTS
(FOG LIGHT, LOW BEAM AND HIGH BEAM RELAYS)
86
30
85
87
UNLOADER RELAY
2.5 GN/VI
FUSE 13
25 AMP
FUSE 14
25 AMP
2.5 RD/YL
2.5 RD/GN
1.5 RD/WT
.75 BK/YL
2.5 GN/BU
2.5 GN/YL
1.5 GN/BR
START
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-8
FUSE DETAILS PAGE 0670-5
FUSE DETAILS PAGE 0670-7
FUSE DETAILS PAGE 0670-7


4 RD
S206
1.5 RD
LIGHT SWITCH DETAILS
4 RD
3
C200
2.5 RD
POWER WINDOWS
4 RD
30
IGNITION SWITCH
START
OFF
ACCY
RUN
R
START
OFF
ACCY
RUN
50
START
OFF
ACCY
RUN
15
2.5 VI
2
C200
.5 VI
ACTIVE CHECK CONTROL
2.5 VI
.5 VI
2.5 BK
START
COMBINATION SWITCH
HIGH BEAM SWITCH
15
.75 GN
9
.75 GN
C202
.5 GN
CHARGING SYSTEM
2.5 GN
1
C200
2.5 GN
.75 GN
LIGHT SWITCH DETAILS
.75 GN
FUEL DELIVERY/ FUEL CONTROL
2.5 GN
CENTRAL LOCKING/ ANTILOCK BRAKE SYSTEM
1.5 GN
ACCESSORY FUSE BOX
2.5 GN
2.5 GN
IGNITION
POWER DISTRIBUTION BOX
(TO UNLOADER RELAY)
FUSE 11
16 AMP
HORNS, WIPER/WASHER
FUSE 12
8 AMP
FUSE 6
8 AMP
1.5 VI/BK
1.5 VI/BK
1 VI/WT
.75 GN/WT
1.5 GN/WT
.75 GN/WT
1.5 GN
IGNITION
FUSE DETAILS PAGE 0670-6
FUSE DETAILS PAGE 0670-7
FUSE DETAILS PAGE 0670-4

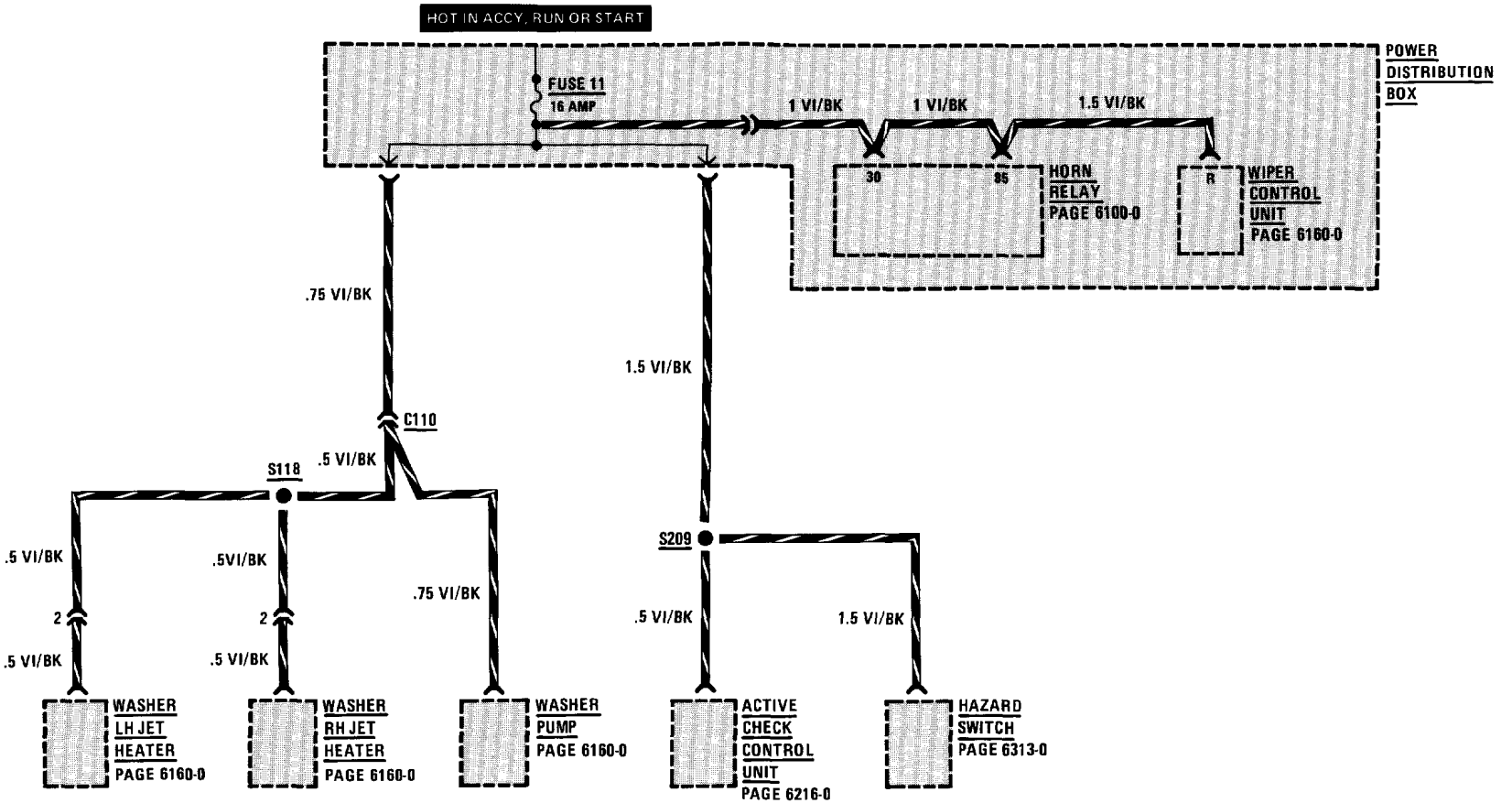
FUSE DETAILS: FUSE 6



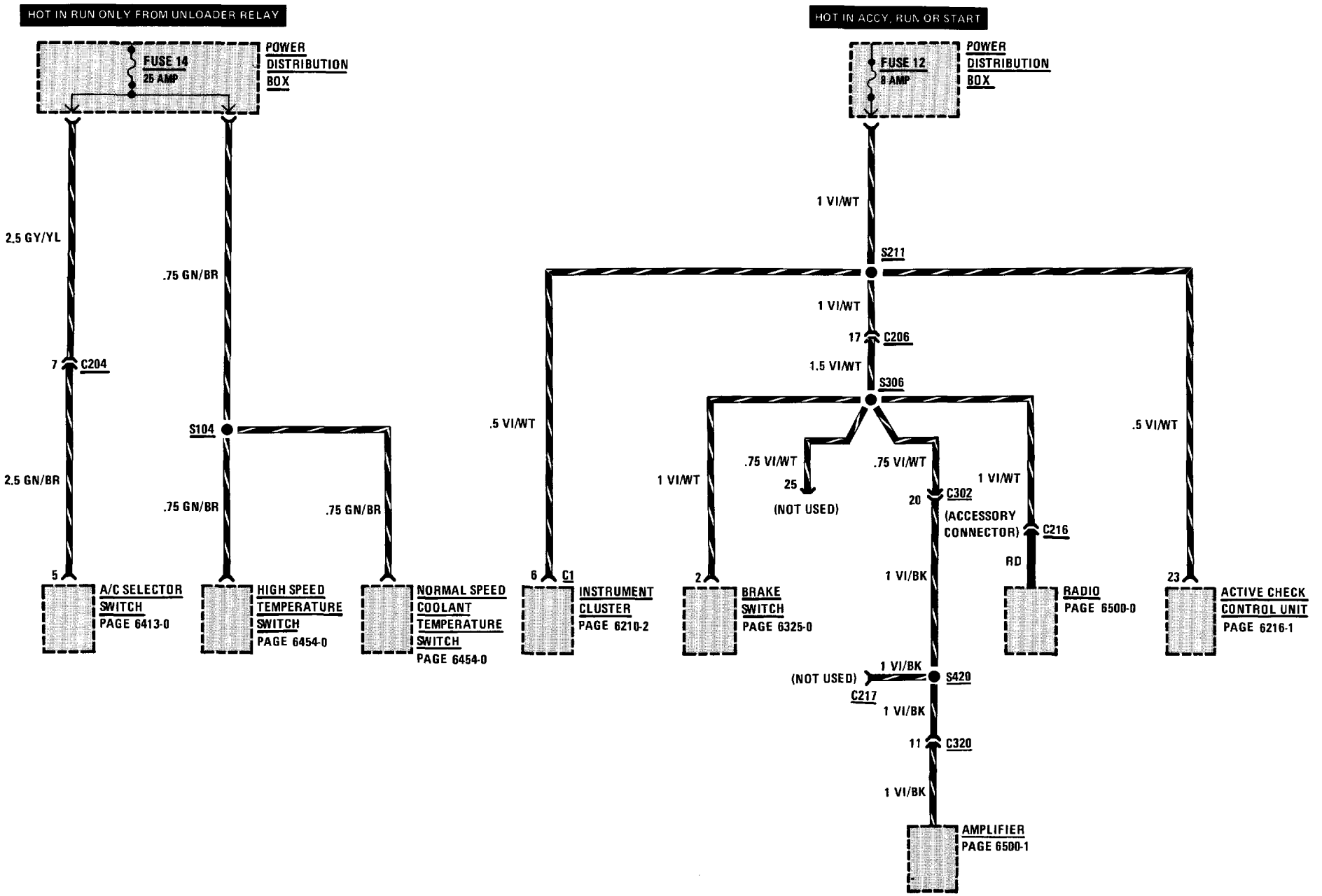
FUSE DETAILS: FUSES 4, 17 and 13



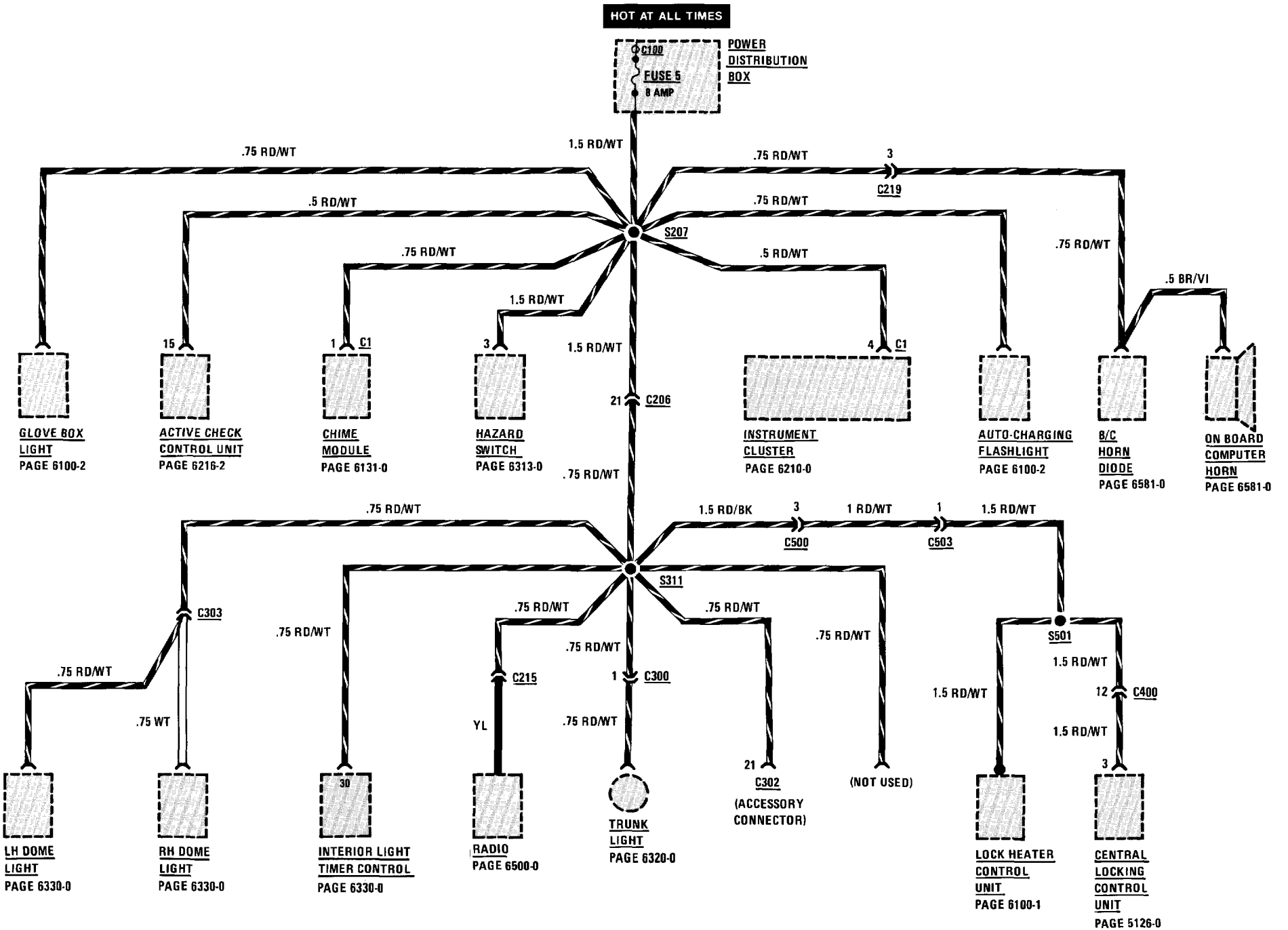
FUSE DETAILS: FUSE 11



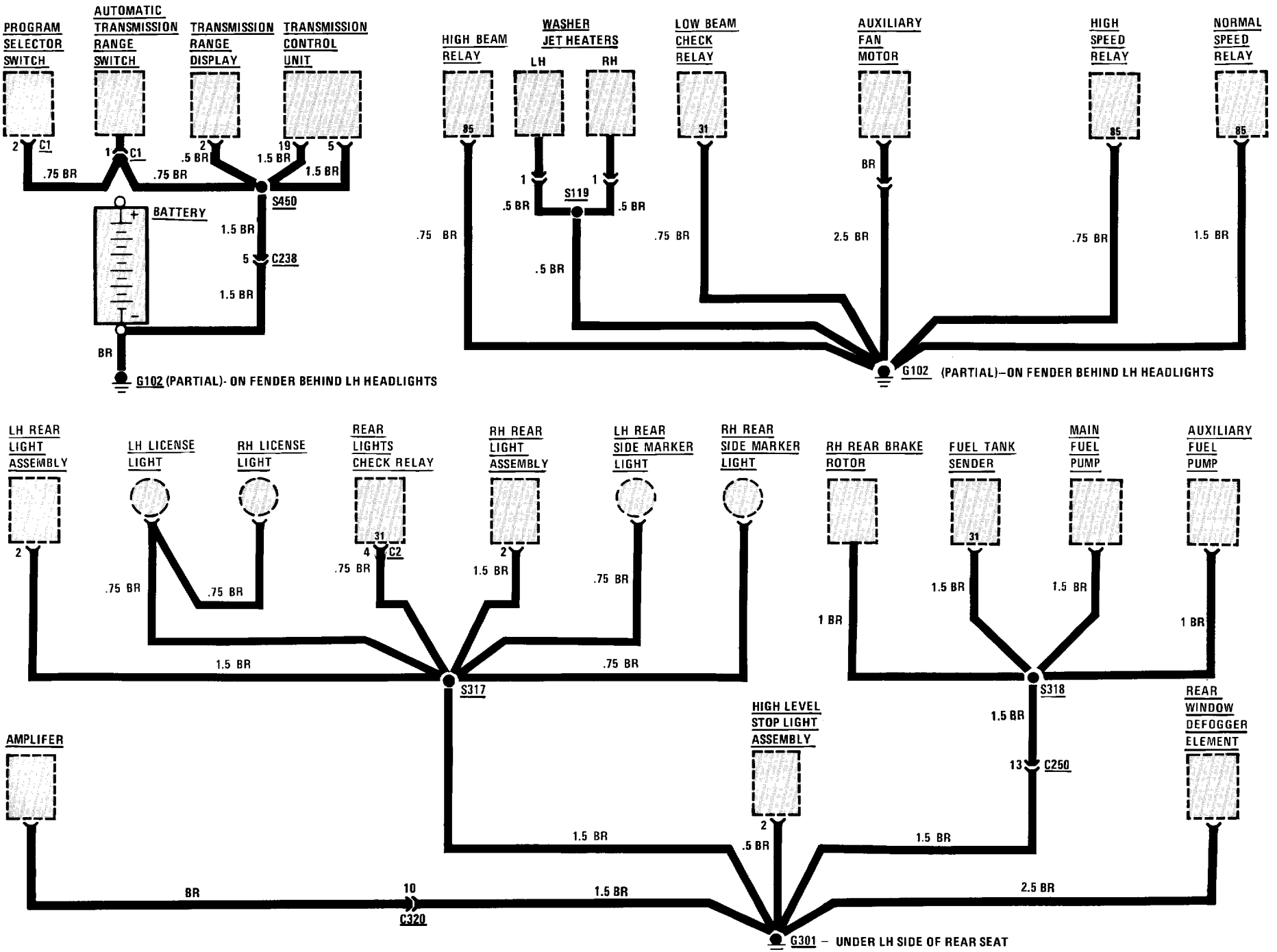
FUSE DETAILS: FUSES 12 AND 14



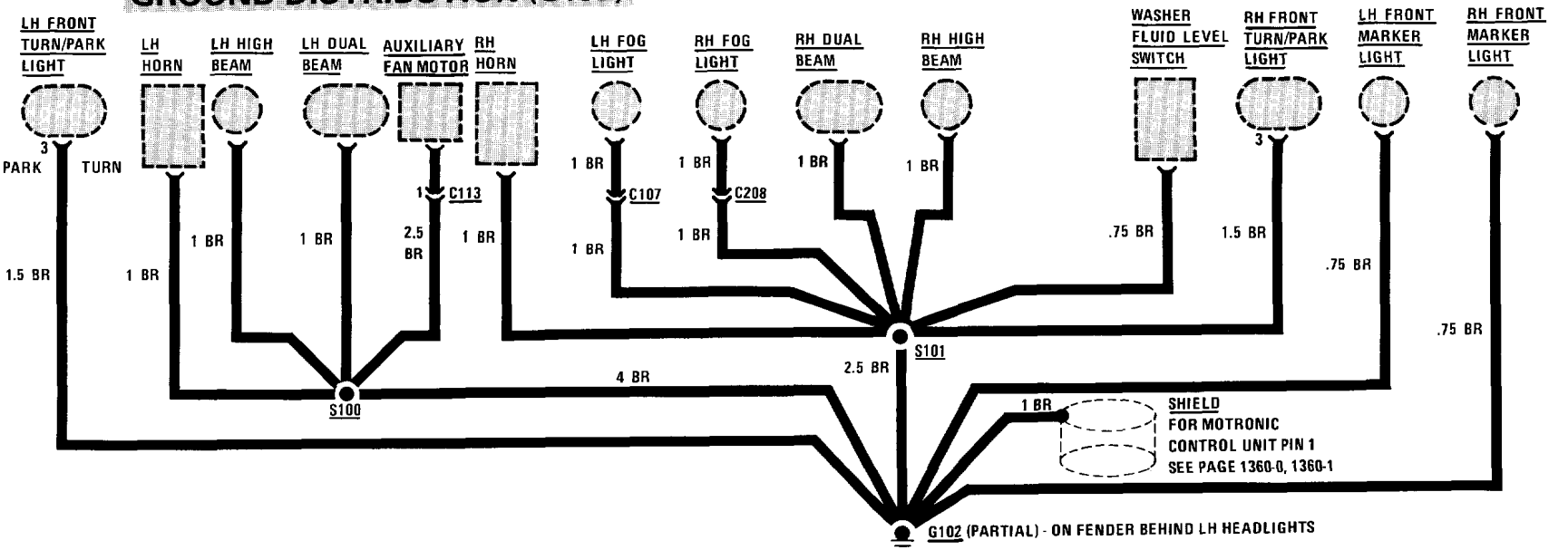
FUSE DETAILS: FUSE 5

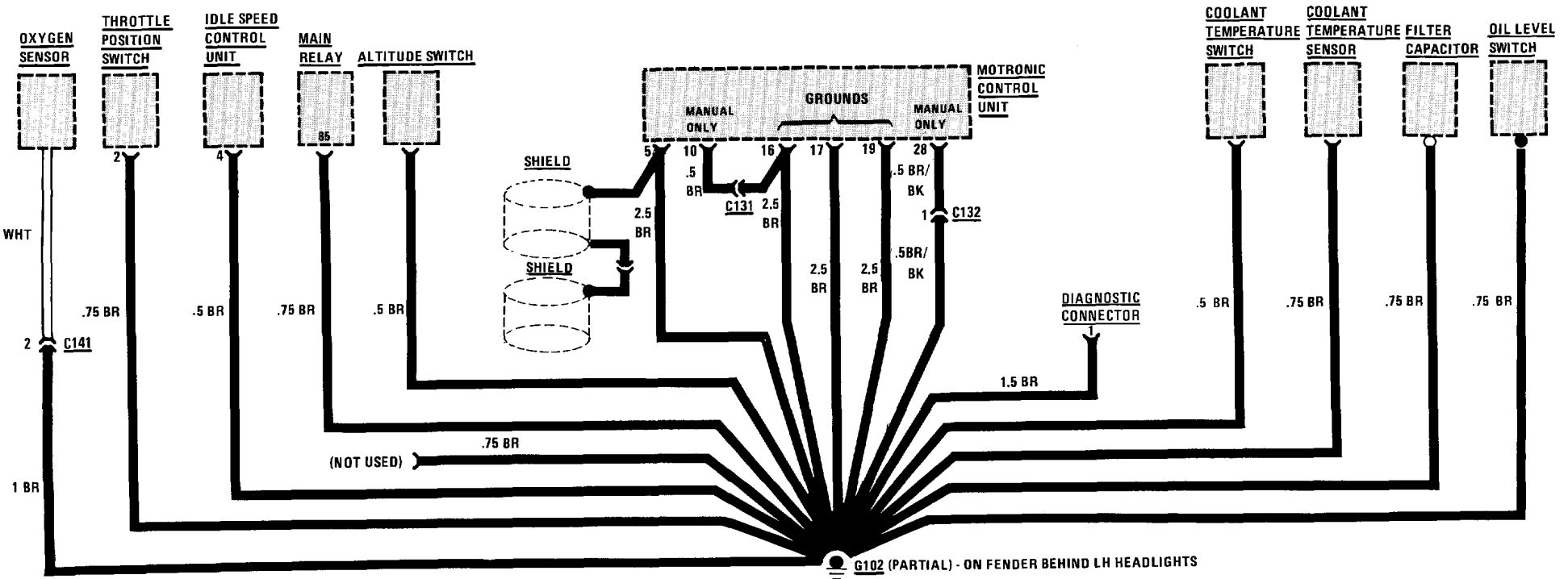


GROUND DISTRIBUTION (G102, AND G301)

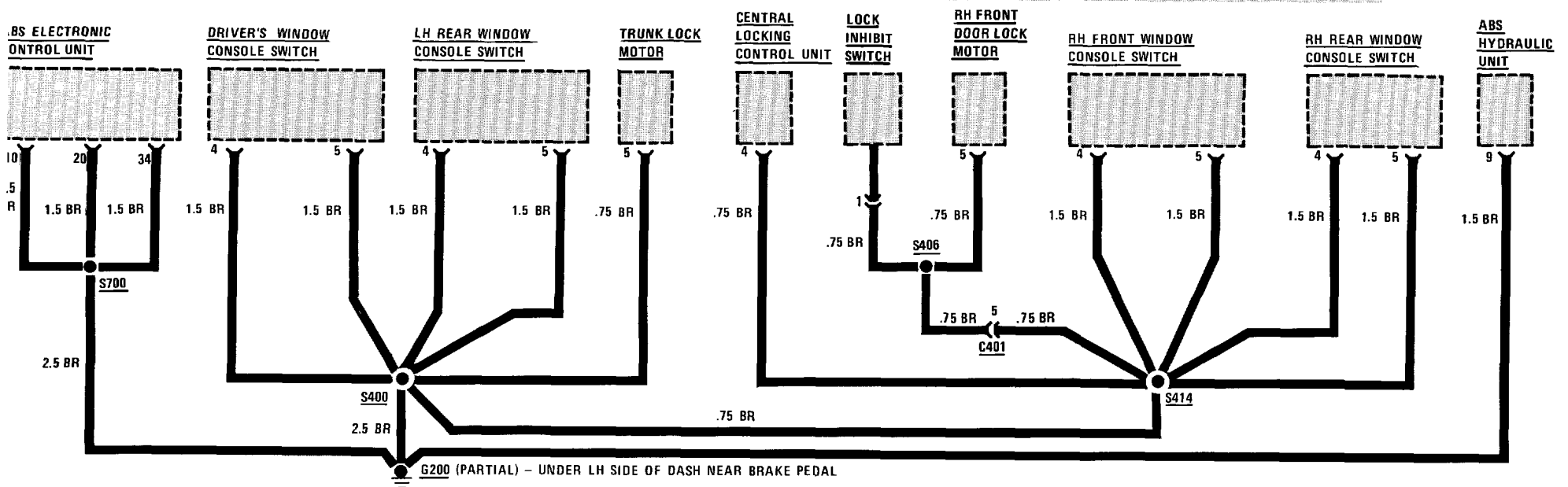


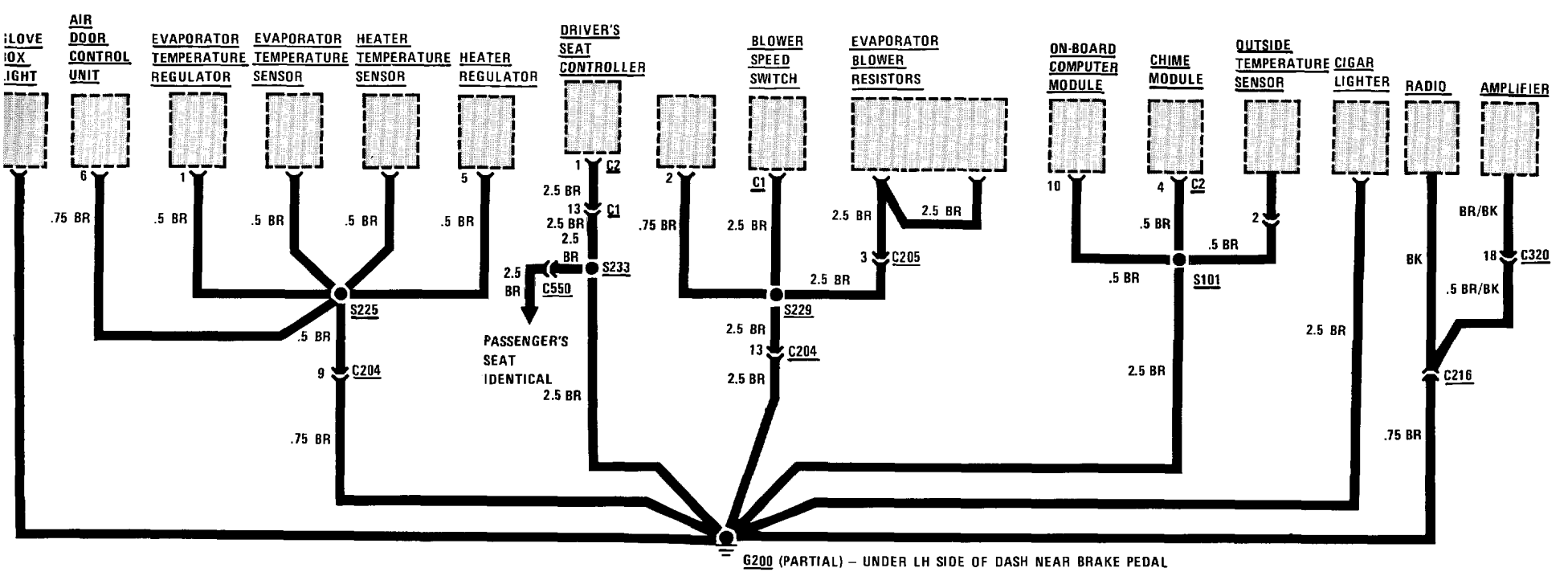
GROUND DISTRIBUTION (G102)



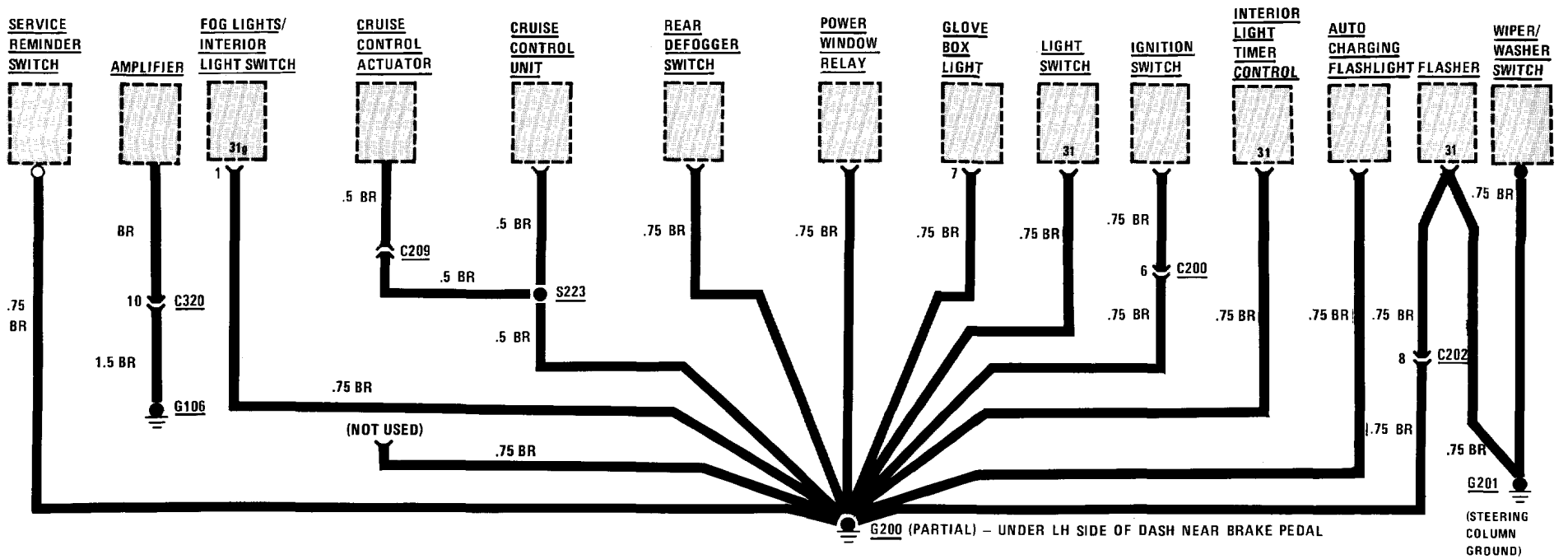


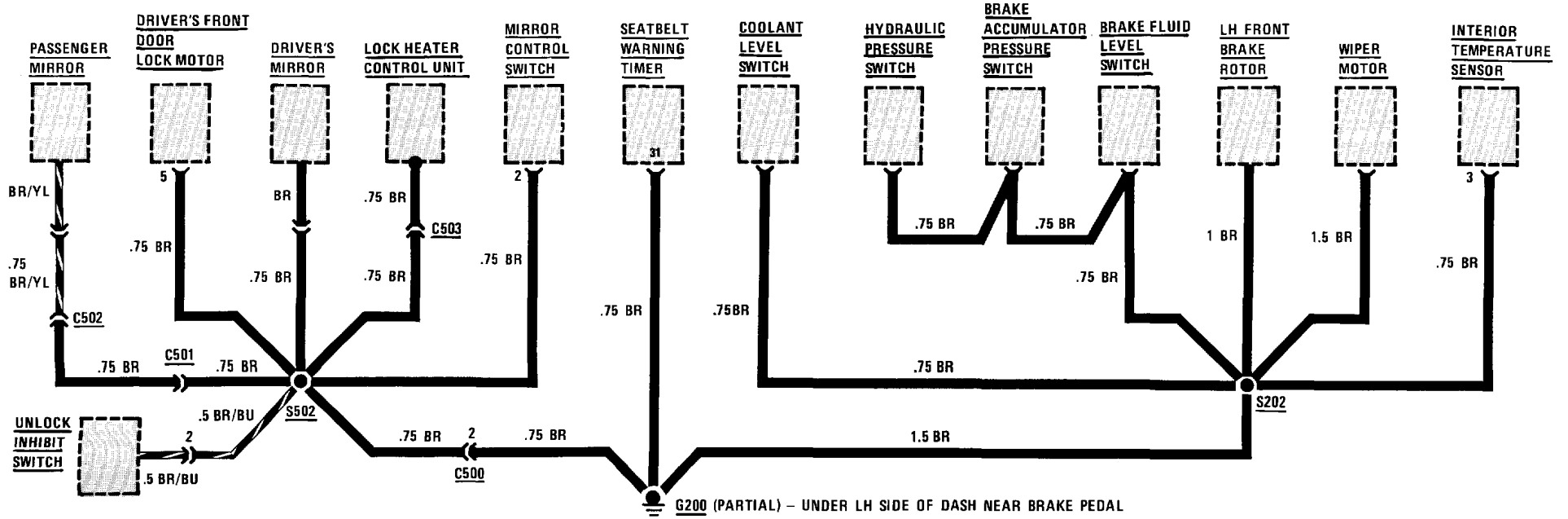
GROUND DISTRIBUTION (G200)

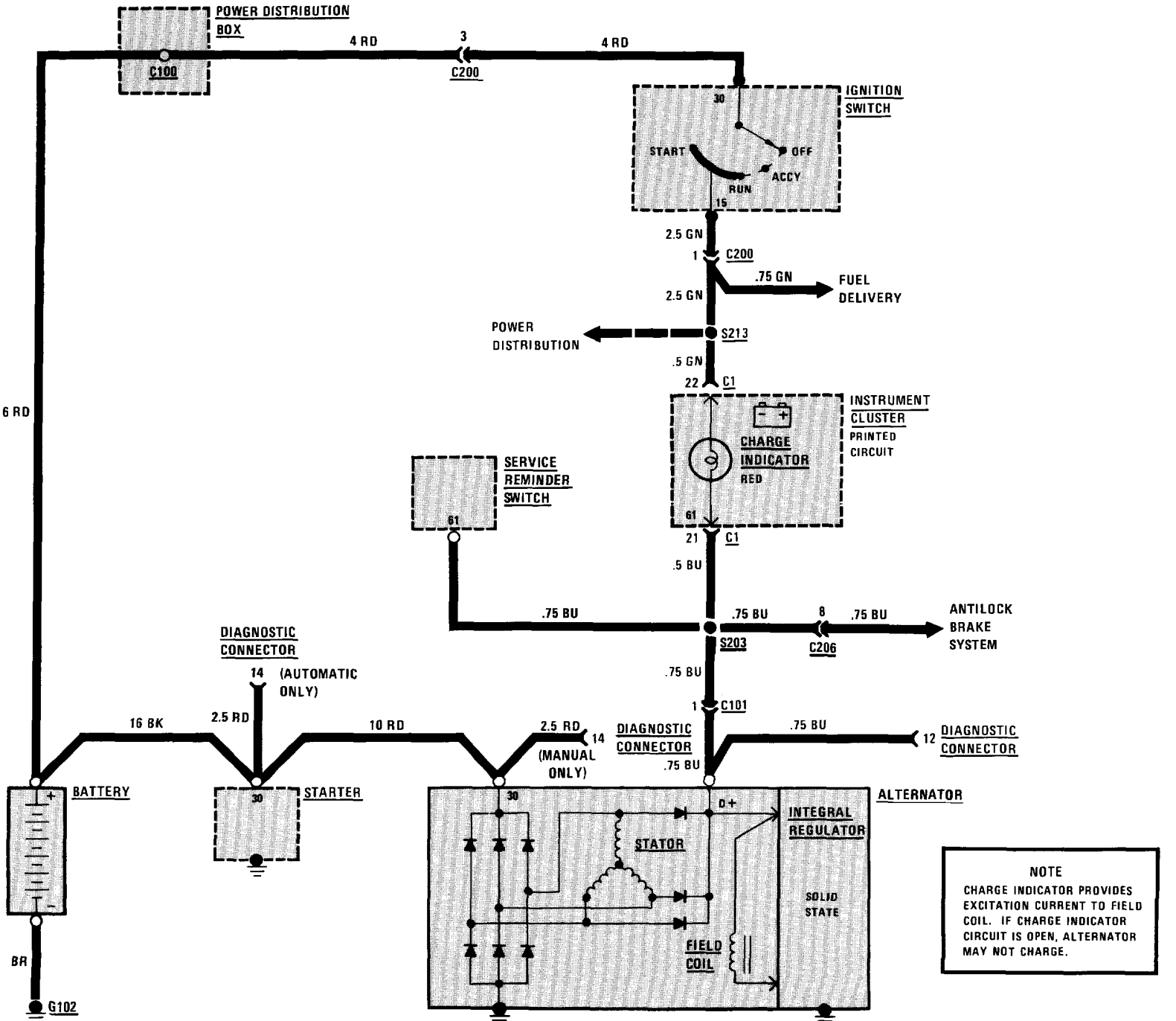




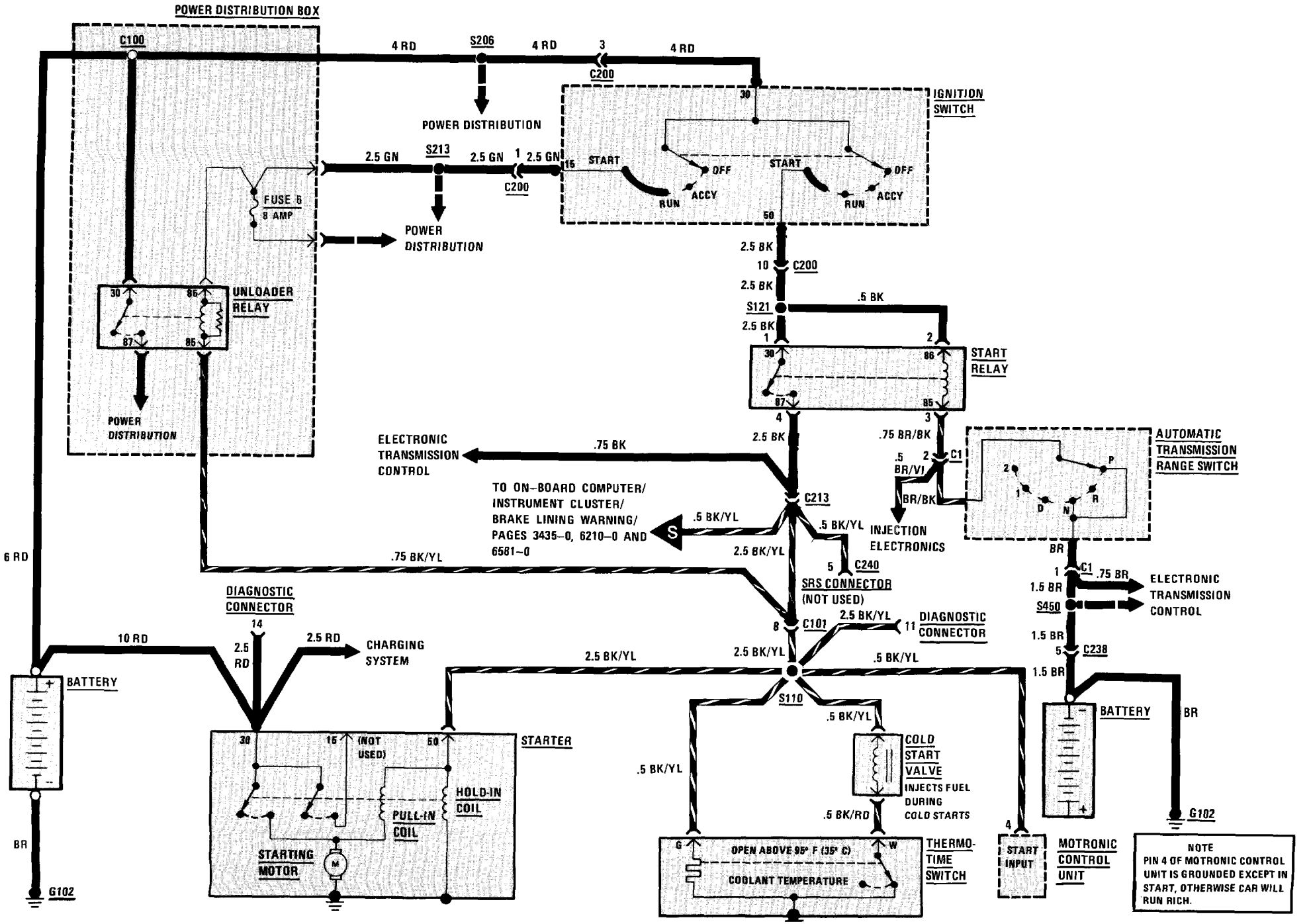
GROUND DISTRIBUTION (G200 AND G106)



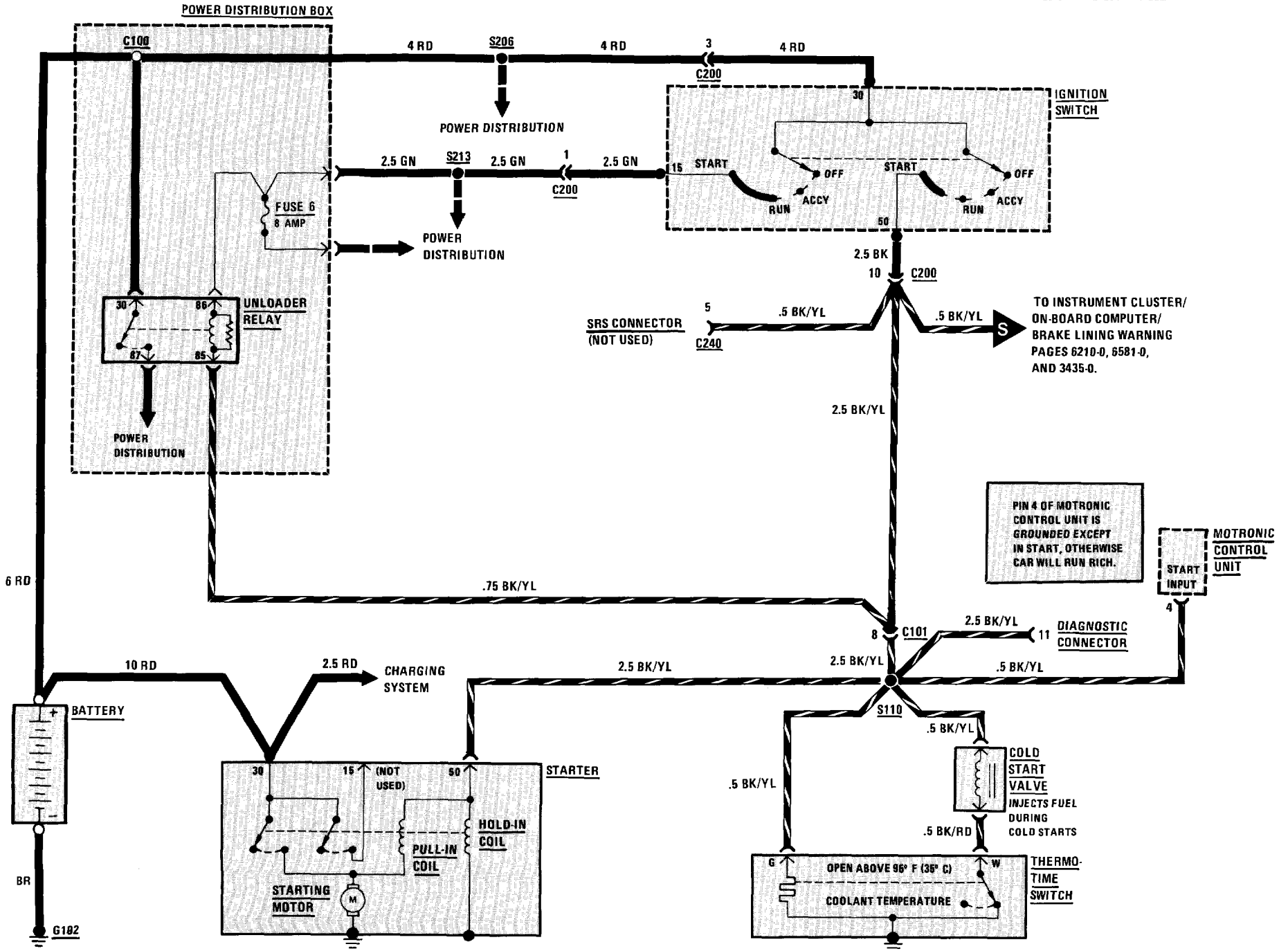


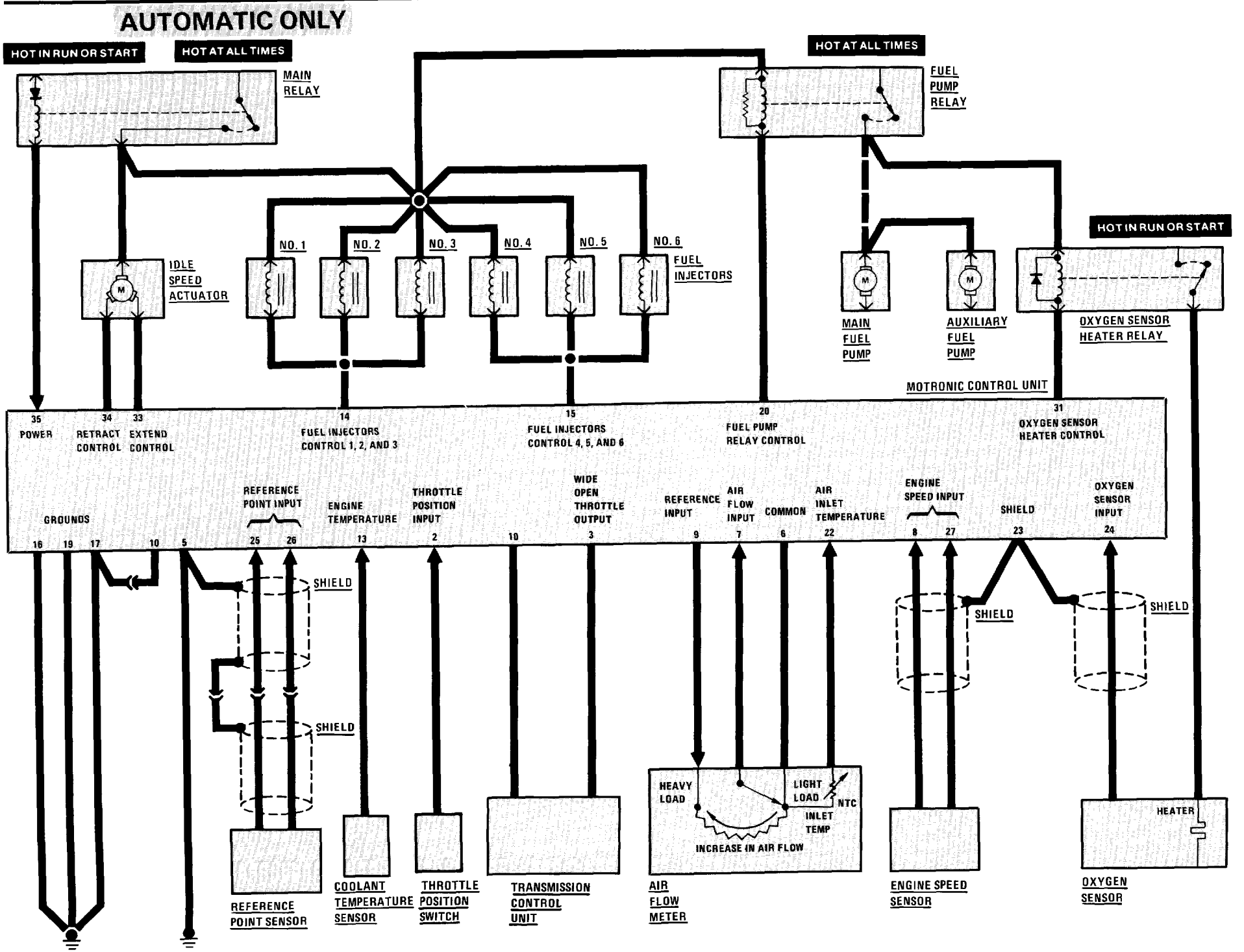

POWER DISTRIBUTION BOX
C100
4 RD
3
C200
4 RD
IGNITION SWITCH
30
START
OFF
ACCY
RUN
15
2.5 GN
1
C200
.75 GN
FUEL DELIVERY
2.5 GN
POWER DISTRIBUTION
S213
.5 GN
22
C1
INSTRUMENT CLUSTER
PRINTED CIRCUIT
CHARGE INDICATOR
RED
61
21
C1
6 RD
SERVICE REMINDER SWITCH
61
.5 BU
.75 BU
.75 BU
8
.75 BU
ANTILOCK BRAKE SYSTEM
S203
C206
DIAGNOSTIC CONNECTOR
14
(AUTOMATIC ONLY)
.75 BU
1
C101
16 BK
2.5 RD
10 RD
2.5 RD
14
(MANUAL ONLY)
DIAGNOSTIC CONNECTOR
.75 BU
.75 BU
12
DIAGNOSTIC CONNECTOR
BATTERY
+
-
30
STARTER
30
D+
INTEGRAL REGULATOR
ALTERNATOR
STATOR
SOLID STATE
FIELD COIL
BR
G102
NOTE
CHARGE INDICATOR PROVIDES EXCITATION CURRENT TO FIELD COIL. IF CHARGE INDICATOR CIRCUIT IS OPEN, ALTERNATOR MAY NOT CHARGE.

AUTOMATIC ONLY

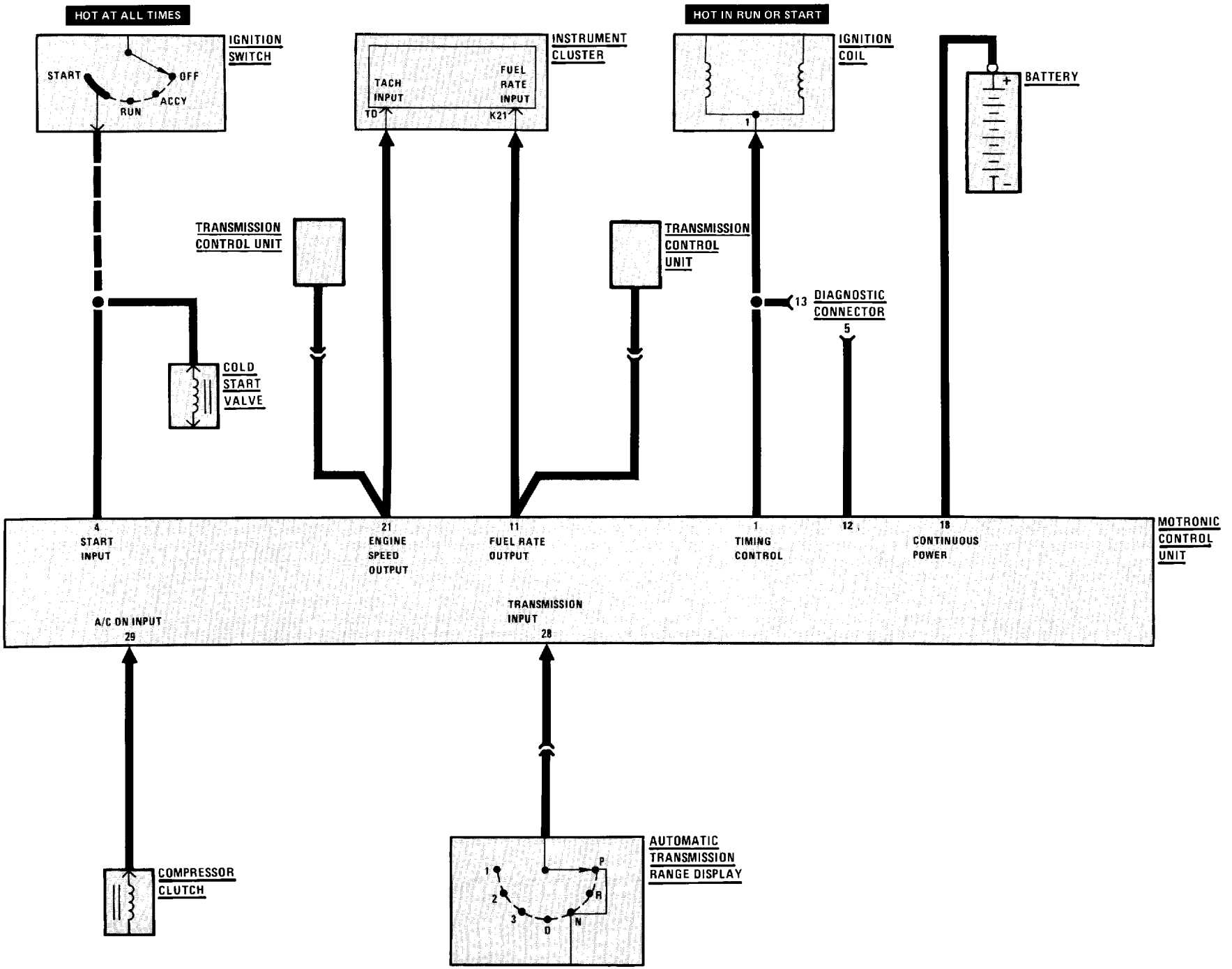


MANUAL ONLY

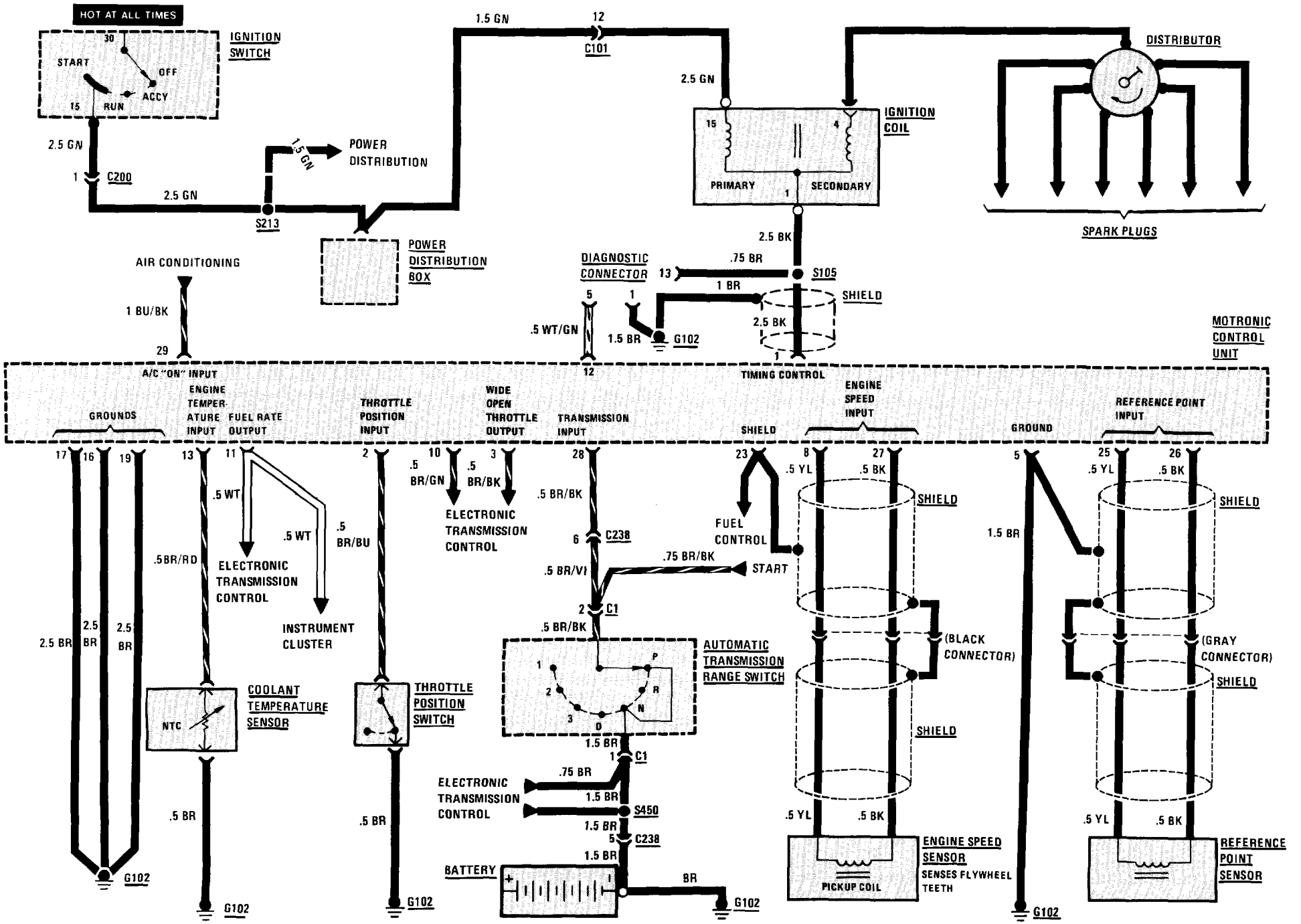

POWER DISTRIBUTION BOX
C100
4 RD
S206
4 RD
3
C200
4 RD
IGNITION SWITCH
30
POWER DISTRIBUTION
2.5 GN
S213
2.5 GN
1
C200
2.5 GN
15
START
OFF
RUN
ACCY
START
OFF
RUN
ACCY
50
FUSE 6
8 AMP
POWER DISTRIBUTION
2.5 BK
10
C200
UNLOADER RELAY
30
86
87
85
POWER DISTRIBUTION
SRS CONNECTOR
(NOT USED)
5
C240
.5 BK/YL
.5 BK/YL
S
TO INSTRUMENT CLUSTER/ ON-BOARD COMPUTER/ BRAKE LINING WARNING PAGES 6210-0, 6581-0, AND 3435-0.
2.5 BK/YL
PIN 4 OF MOTRONIC CONTROL UNIT IS GROUNDED EXCEPT IN START, OTHERWISE CAR WILL RUN RICH.
MOTRONIC CONTROL UNIT
START INPUT
4
6 RD
.75 BK/YL
8
C101
2.5 BK/YL
11
DIAGNOSTIC CONNECTOR
10 RD
2.5 RD
CHARGING SYSTEM
2.5 BK/YL
2.5 BK/YL
.5 BK/YL
S110
.5 BK/YL
BATTERY
+
-
30
15
(NOT USED)
50
STARTER
HOLD-IN COIL
PULL-IN COIL
STARTING MOTOR
M
.5 BK/YL
COLD START VALVE
INJECTS FUEL DURING COLD STARTS
.5 BK/RD
BR
G182
G
OPEN ABOVE 96° F (35° C)
W
COOLANT TEMPERATURE
THERMO-TIME SWITCH


AUTOMATIC ONLY
HOT IN RUN OR START
HOT AT ALL TIMES
MAIN RELAY
HOT AT ALL TIMES
FUEL PUMP RELAY
IDLE SPEED ACTUATOR
NO. 1
NO. 2
NO. 3
NO. 4
NO. 5
NO. 6
FUEL INJECTORS
MAIN FUEL PUMP
AUXILIARY FUEL PUMP
HOT IN RUN OR START
OXYGEN SENSOR HEATER RELAY
MOTRONIC CONTROL UNIT
35 POWER
34 RETRACT CONTROL
33 EXTEND CONTROL
14 FUEL INJECTORS CONTROL 1, 2, AND 3
15 FUEL INJECTORS CONTROL 4, 5, AND 6
20 FUEL PUMP RELAY CONTROL
31 OXYGEN SENSOR HEATER CONTROL
GROUNDS
16 19 17 10 5
REFERENCE POINT INPUT
25 26
ENGINE TEMPERATURE
13
THROTTLE POSITION INPUT
2
WIDE OPEN THROTTLE OUTPUT
10
3
REFERENCE INPUT
9
AIR FLOW INPUT
7
COMMON
6
AIR INLET TEMPERATURE
22
ENGINE SPEED INPUT
8 27
SHIELD
23
OXYGEN SENSOR INPUT
24
SHIELD
SHIELD
SHIELD
SHIELD
REFERENCE POINT SENSOR
COOLANT TEMPERATURE SENSOR
THROTTLE POSITION SWITCH
TRANSMISSION CONTROL UNIT
HEAVY LOAD
LIGHT LOAD
NTC
INLET TEMP
INCREASE IN AIR FLOW
AIR FLOW METER
ENGINE SPEED SENSOR
HEATER
OXYGEN SENSOR

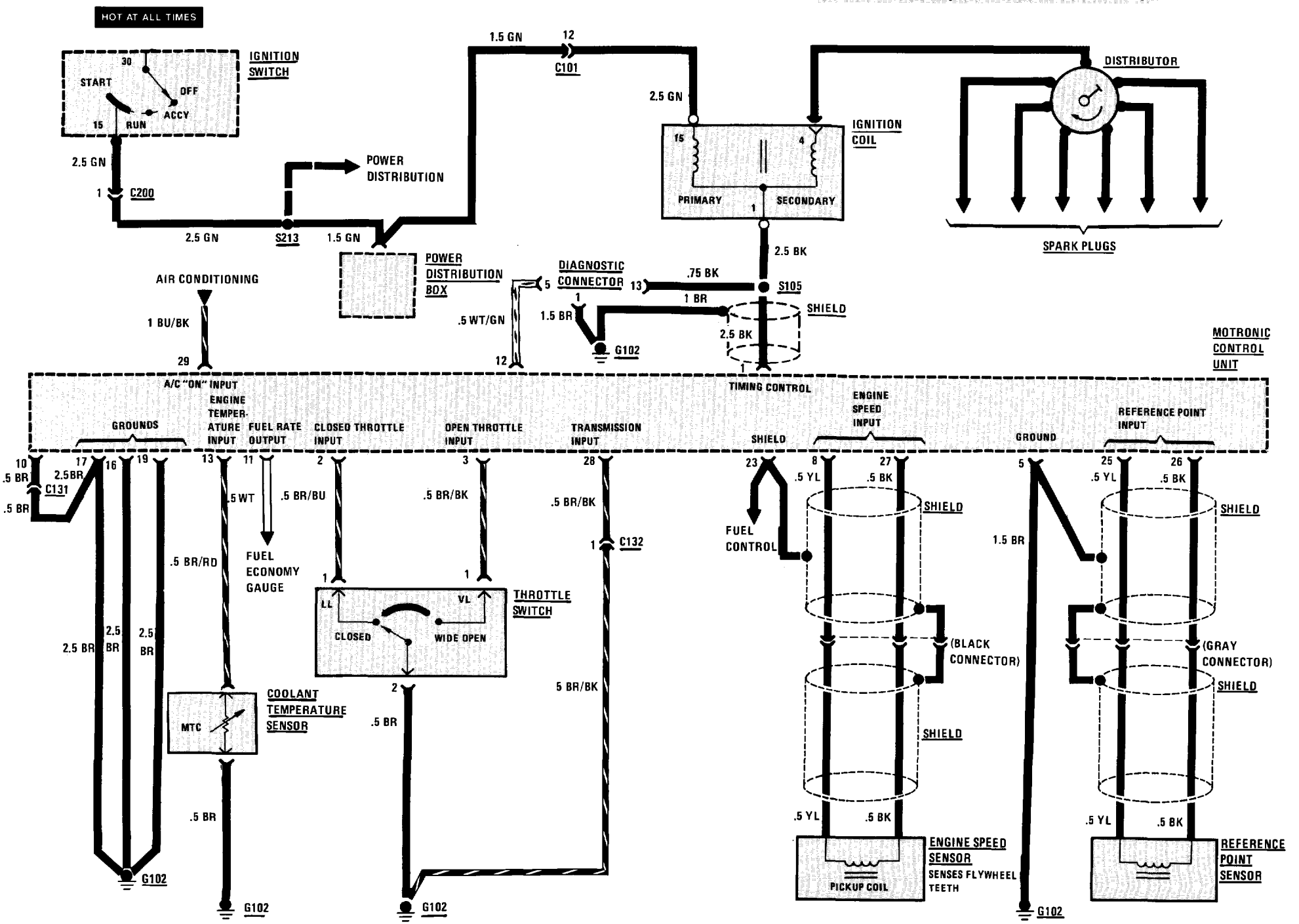
AUTOMATIC ONLY



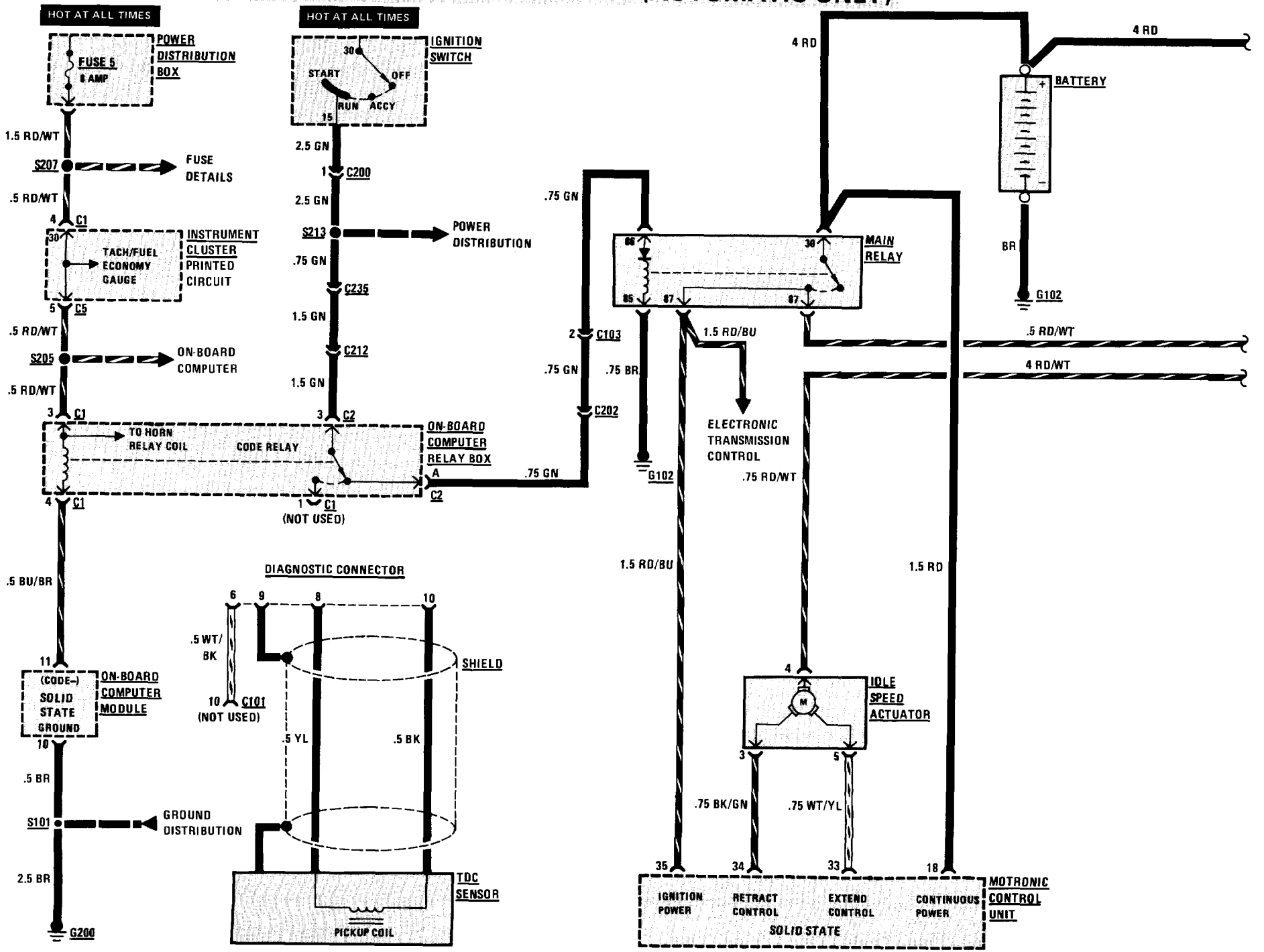
IGNITION (AUTOMATIC ONLY)



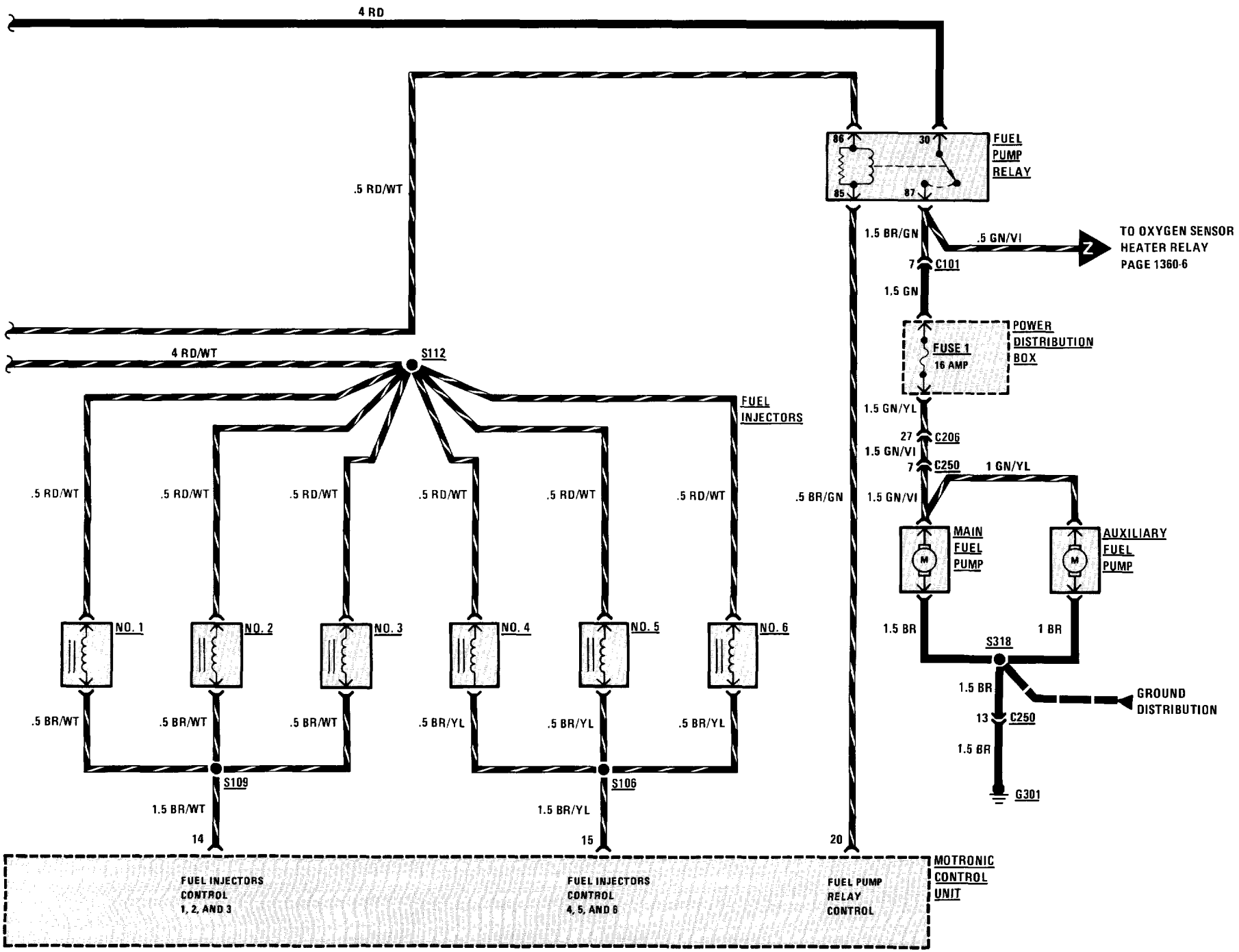
IGNITION (MANUAL ONLY)



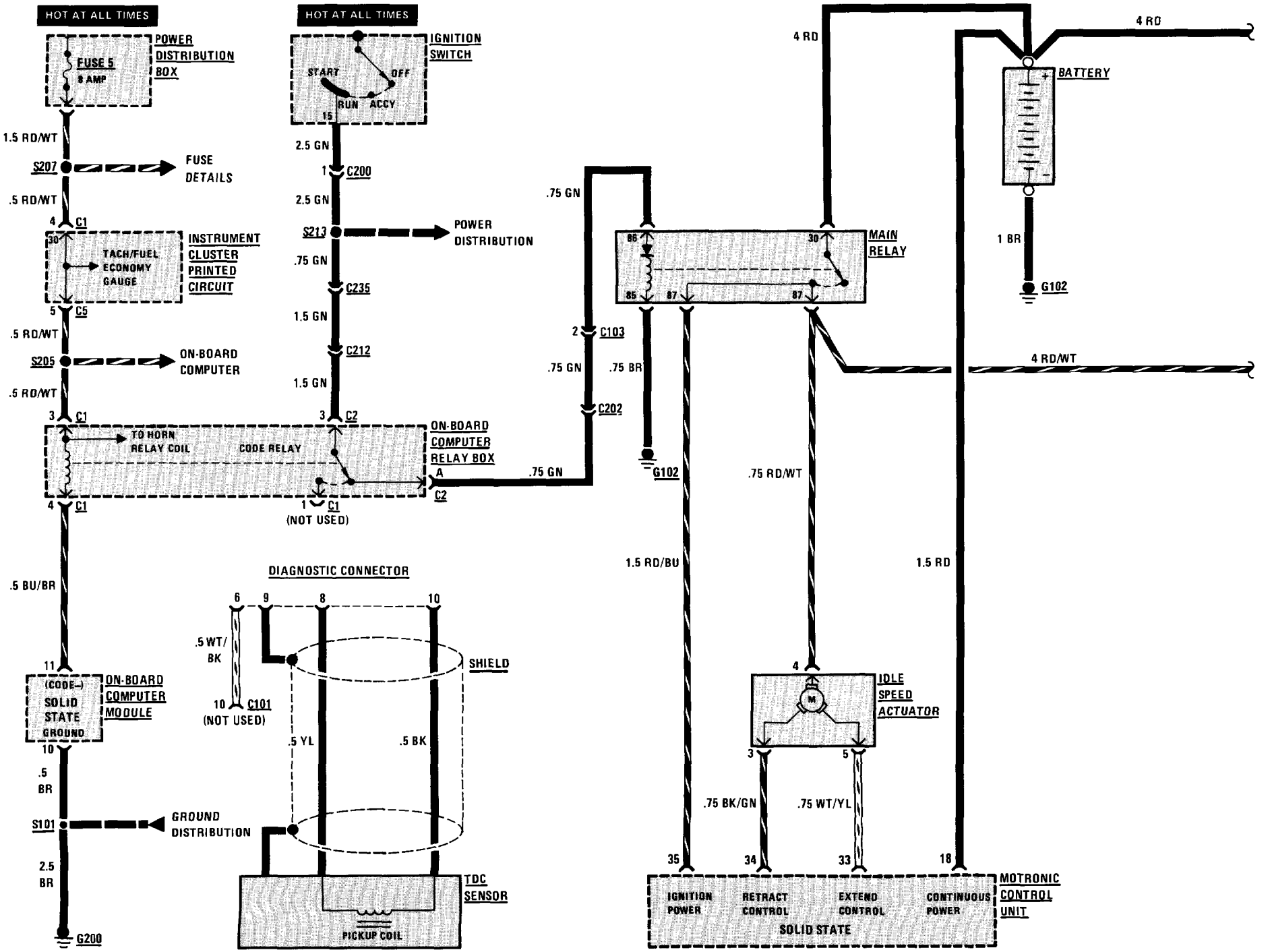
FUEL DELIVERY AND IDLE SPEED CONTROL (AUTOMATIC ONLY)



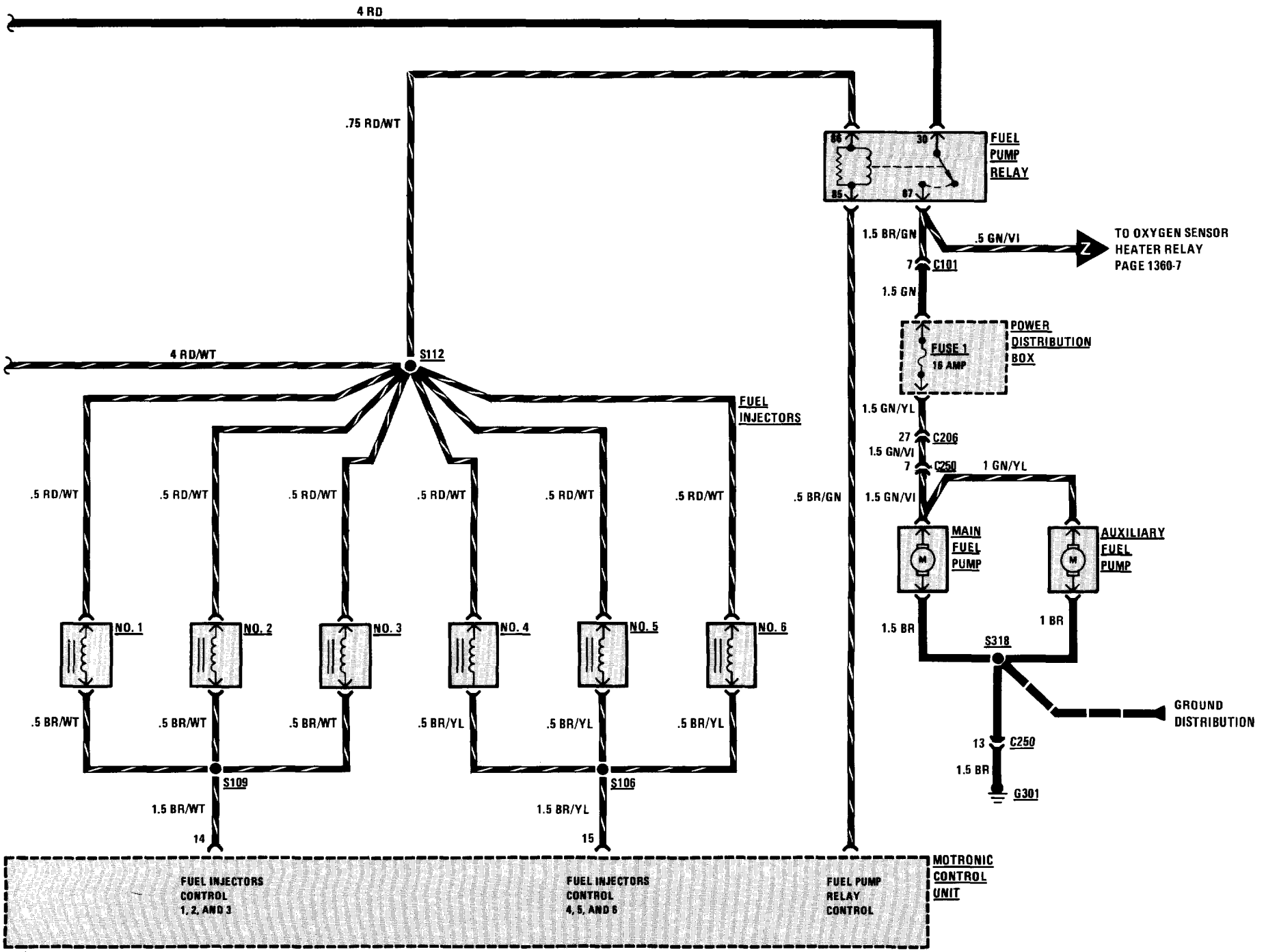
FUEL DELIVERY AND IDLE SPEED CONTROL (AUTOMATIC ONLY)



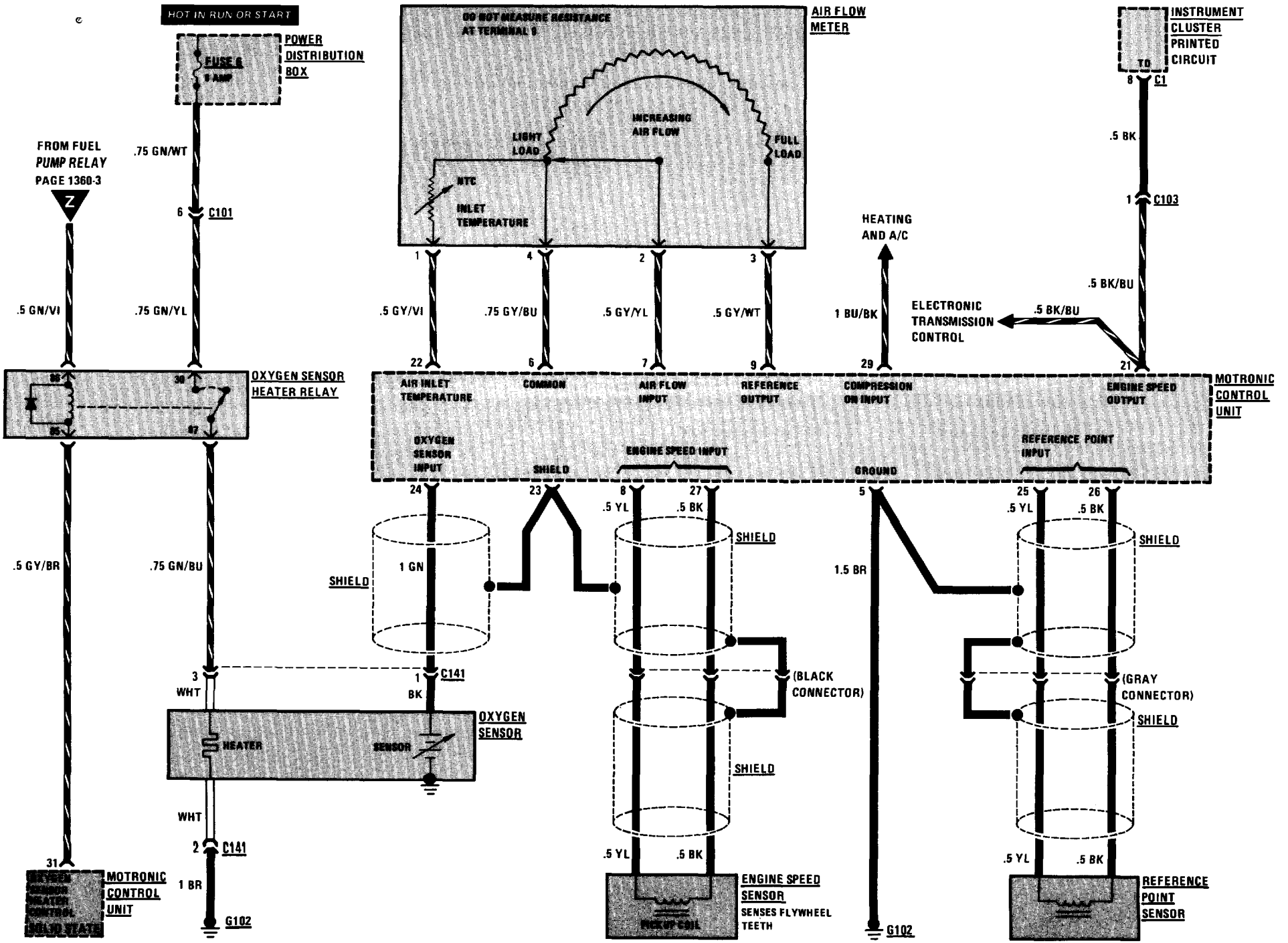
FUEL DELIVERY AND IDLE SPEED CONTROL (MANUAL ONLY)



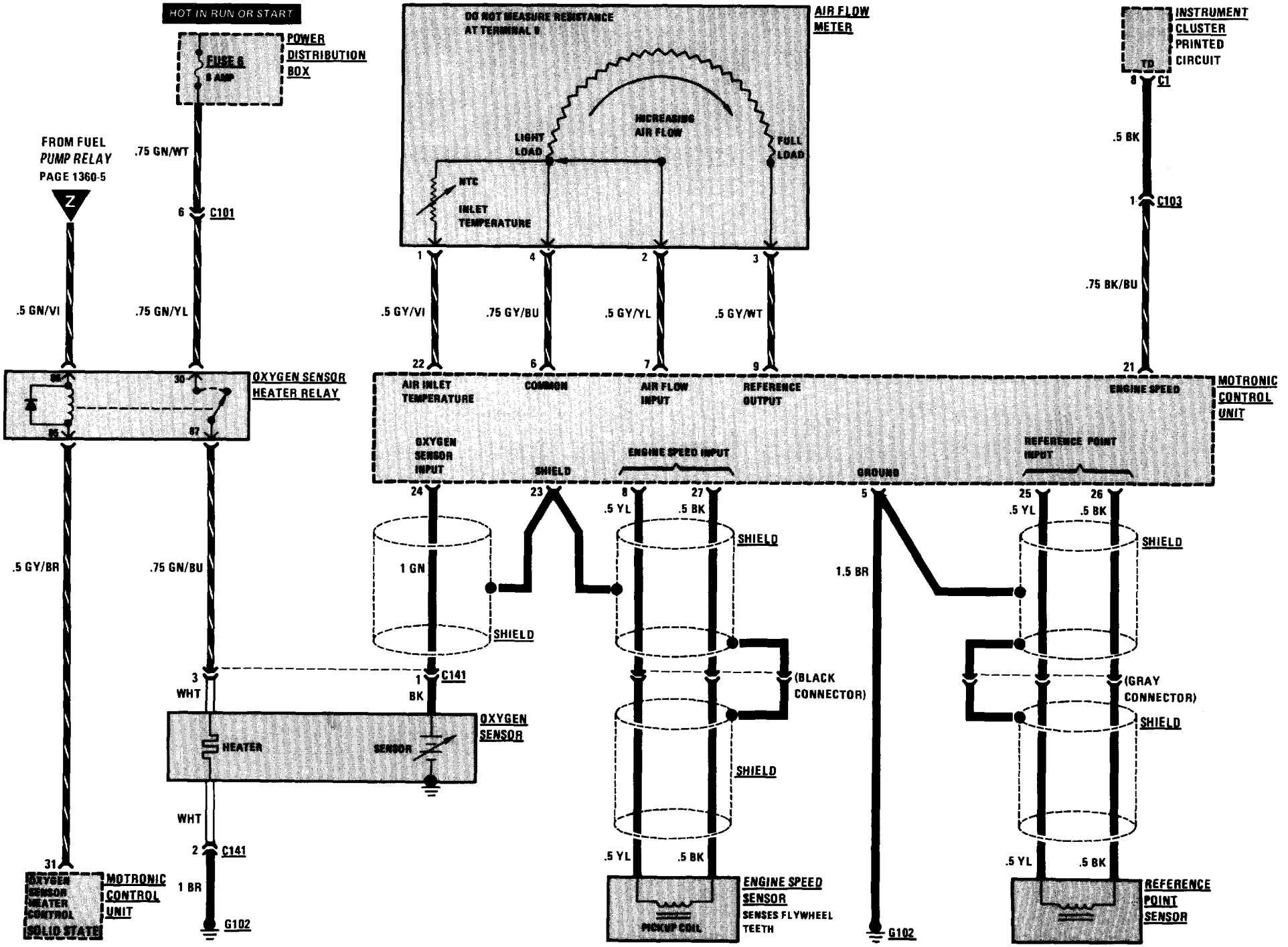
FUEL DELIVERY AND IDLE SPEED CONTROL (MANUAL ONLY)

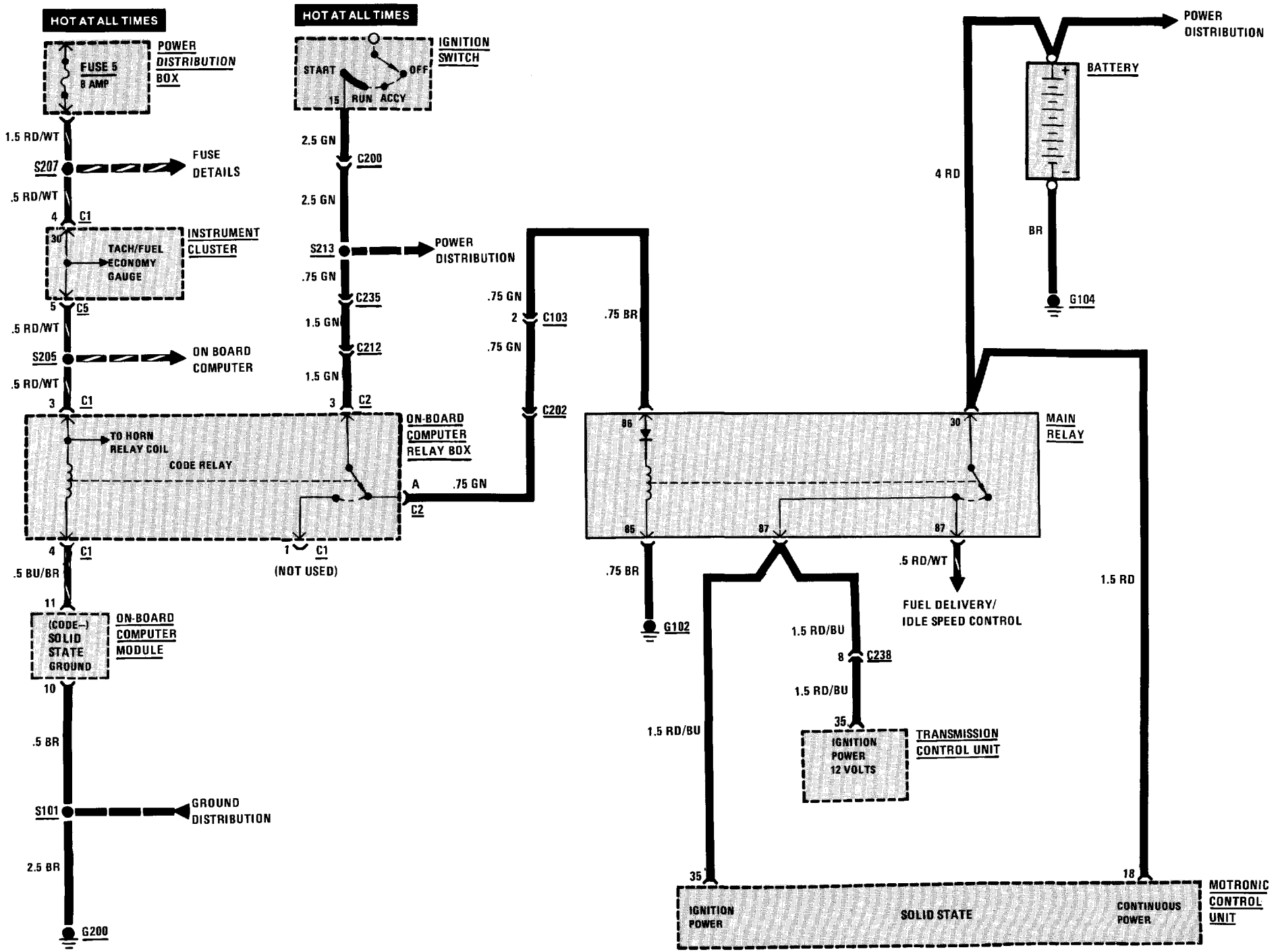


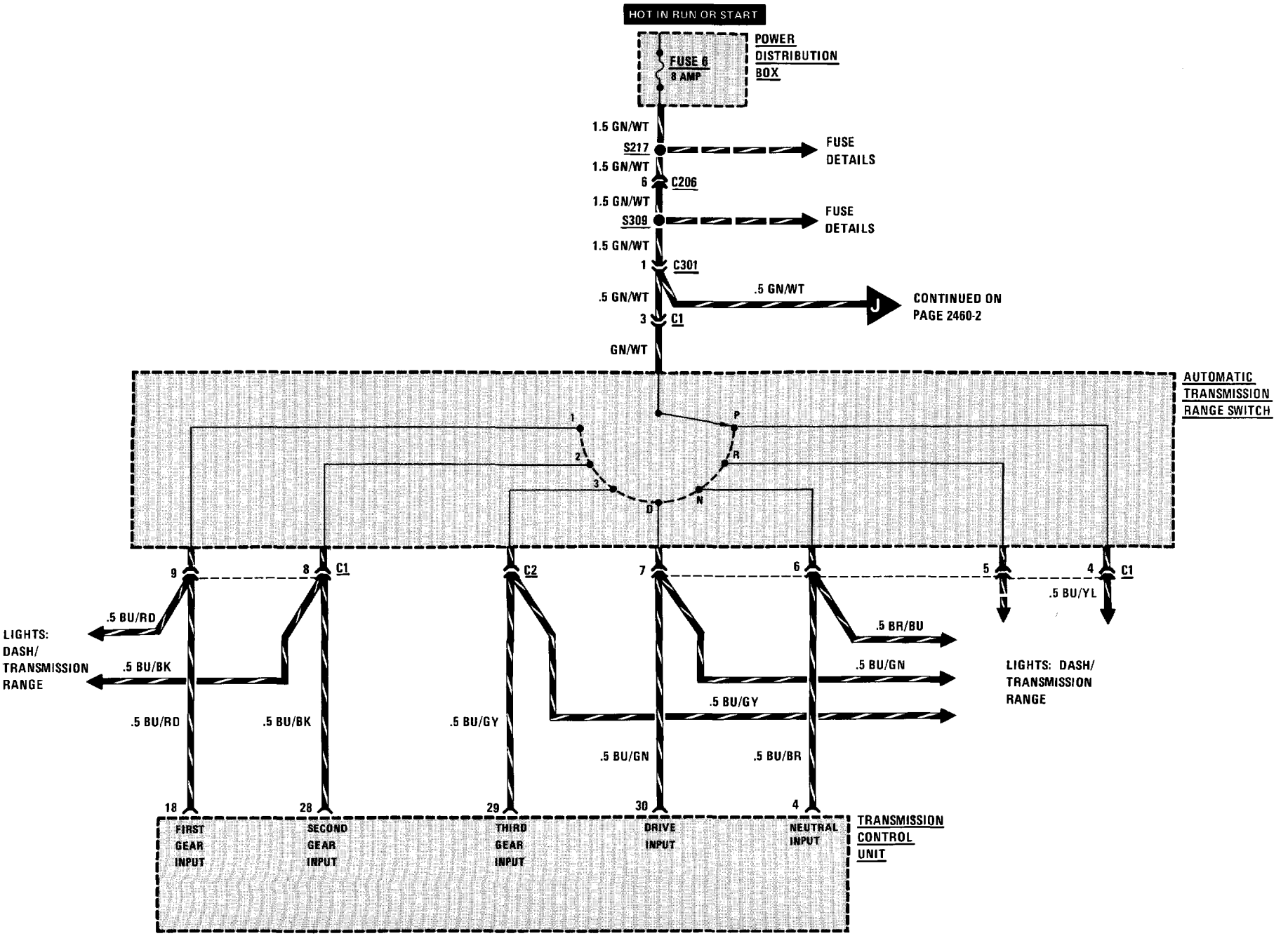
FUEL CONTROL (AUTOMATIC ONLY)

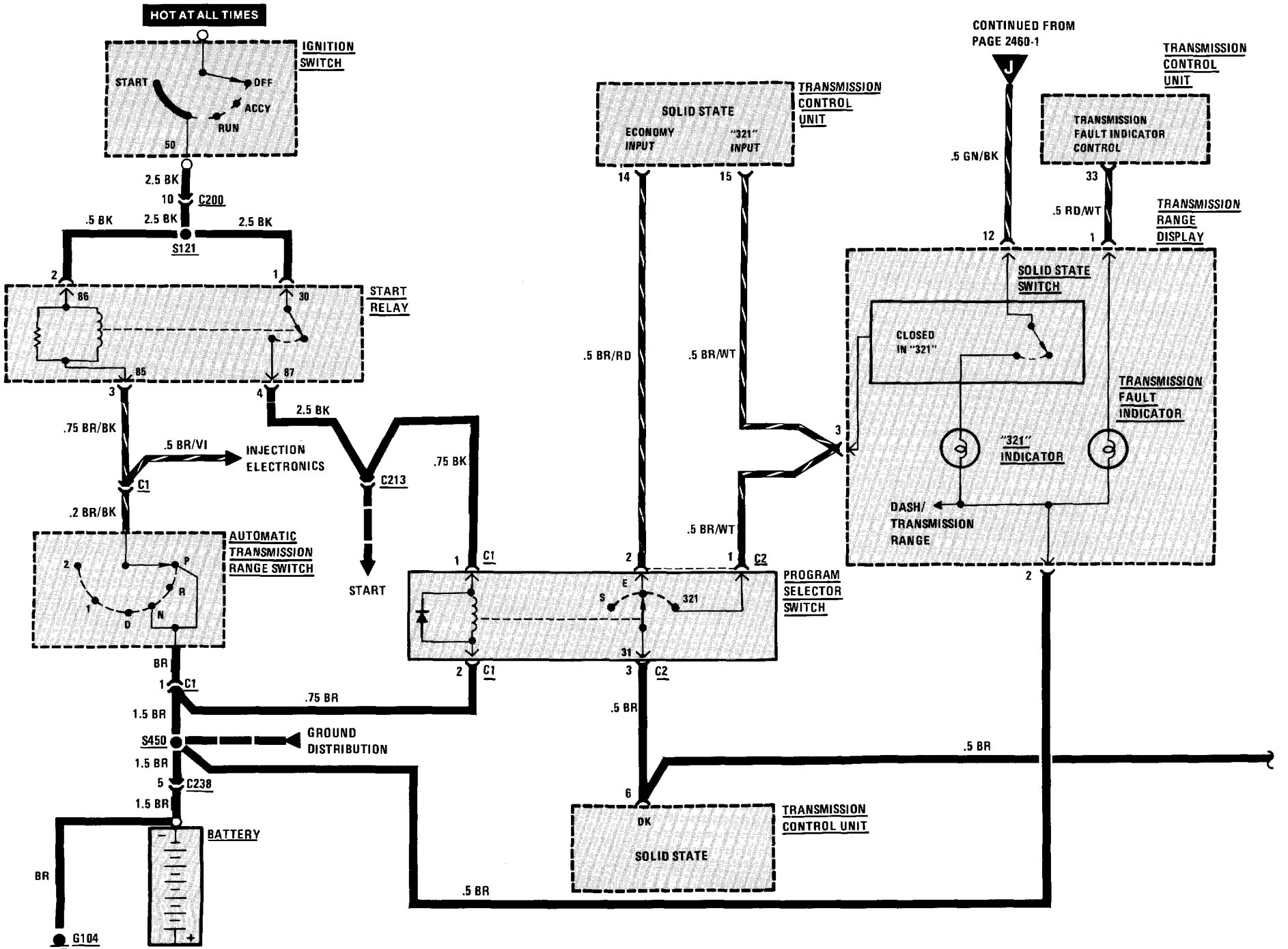


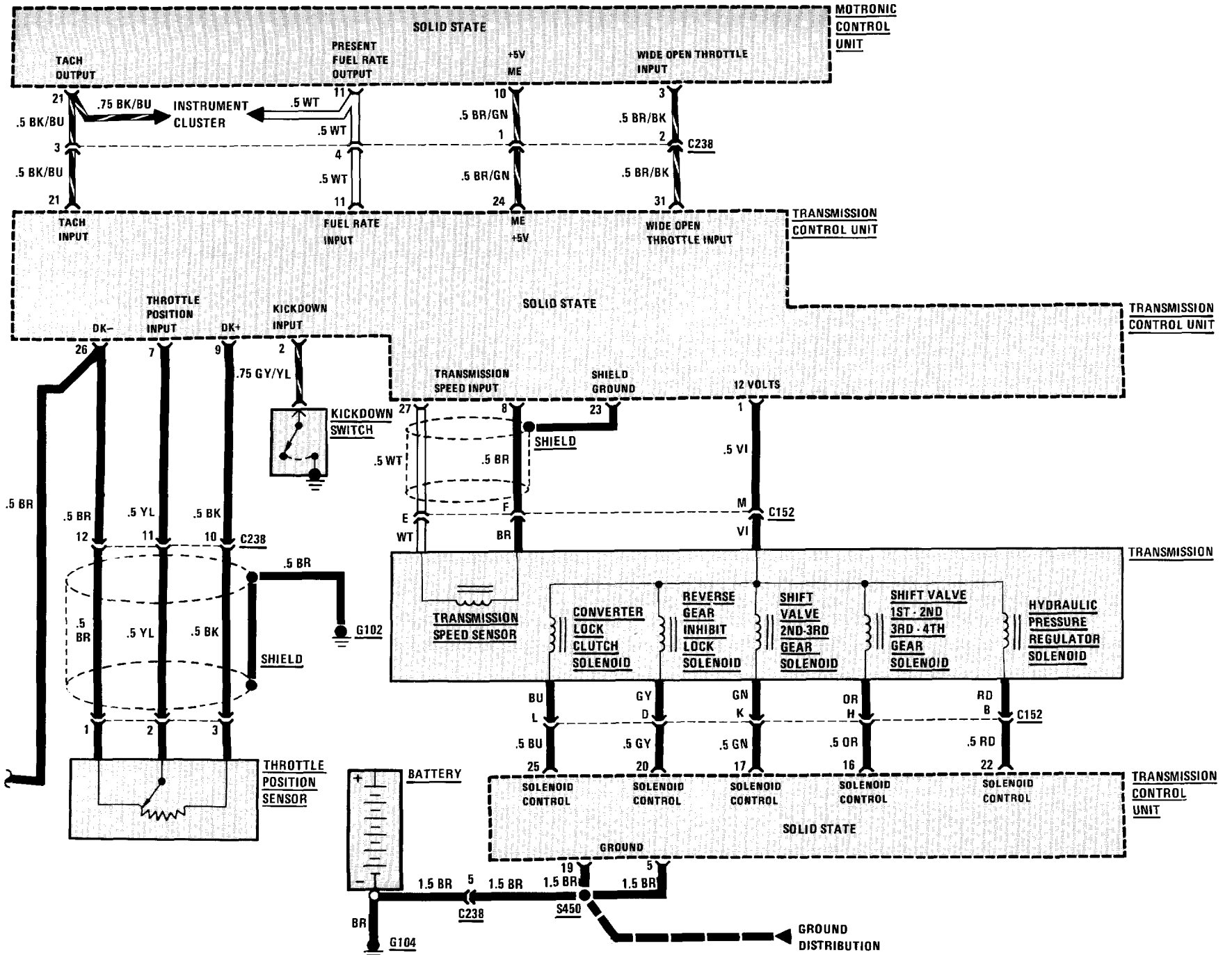
FUEL CONTROL (MANUAL ONLY)




HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5 8 AMP
1.5 RD/WT
S207
FUSE DETAILS
.5 RD/WT
4
C1
INSTRUMENT CLUSTER
30
TACH/FUEL ECONOMY GAUGE
5
C5
.5 RD/WT
S205
ON BOARD COMPUTER
.5 RD/WT
3
C1
TO HORN RELAY COIL
CODE RELAY
4
C1
.5 BU/BR
11
(CODE-) SOLID STATE GROUND
ON-BOARD COMPUTER MODULE
10
.5 BR
S101
GROUND DISTRIBUTION
2.5 BR
G200
HOT AT ALL TIMES
IGNITION SWITCH
START
OFF
15
RUN
ACCY
2.5 GN
C200
2.5 GN
S213
POWER DISTRIBUTION
.75 GN
C235
1.5 GN
C212
1.5 GN
3
C2
ON-BOARD COMPUTER RELAY BOX
A
.75 GN
C2
1
C1
(NOT USED)
.75 GN
2
C103
.75 GN
C202
.75 BR
POWER DISTRIBUTION
BATTERY
4 RD
BR
G104
86
30
MAIN RELAY
85
87
87
.75 BR
G102
.5 RD/WT
FUEL DELIVERY/ IDLE SPEED CONTROL
1.5 RD
1.5 RD/BU
8
C238
1.5 RD/BU
35
1.5 RD/BU
IGNITION POWER 12 VOLTS
TRANSMISSION CONTROL UNIT
35
18
IGNITION POWER
SOLID STATE
CONTINUOUS POWER
MOTRONIC CONTROL UNIT


HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
FUSE DETAILS
1.5 GN/WT
6
C206
1.5 GN/WT
S309
FUSE DETAILS
1.5 GN/WT
1
C301
.5 GN/WT
.5 GN/WT
J
CONTINUED ON PAGE 2460-2
3
C1
GN/WT
AUTOMATIC TRANSMISSION RANGE SWITCH
1
2
3
P
R
N
D
9
8
C1
C2
7
6
5
4
C1
.5 BU/YL
.5 BU/RD
LIGHTS: DASH/ TRANSMISSION RANGE
.5 BU/BK
.5 BR/BU
.5 BU/GN
LIGHTS: DASH/ TRANSMISSION RANGE
.5 BU/GY
.5 BU/RD
.5 BU/BK
.5 BU/GY
.5 BU/GN
.5 BU/BR
18
28
29
30
4
FIRST GEAR INPUT
SECOND GEAR INPUT
THIRD GEAR INPUT
DRIVE INPUT
NEUTRAL INPUT
TRANSMISSION CONTROL UNIT


HOT AT ALL TIMES
IGNITION SWITCH
START
OFF
ACCY
RUN
50
2.5 BK
10
C200
.5 BK
2.5 BK
2.5 BK
S121
2
1
START RELAY
86
30
85
87
3
4
.75 BR/BK
.5 BR/VI
INJECTION ELECTRONICS
2.5 BK
.75 BK
C213
C1
.2 BR/BK
AUTOMATIC TRANSMISSION RANGE SWITCH
P
R
N
D
2
1
START
BR
1
C1
1.5 BR
.75 BR
S450
GROUND DISTRIBUTION
1.5 BR
5
C238
1.5 BR
BATTERY
BR
G104
SOLID STATE
ECONOMY INPUT
"321" INPUT
TRANSMISSION CONTROL UNIT
14
15
.5 BR/RD
.5 BR/WT
1
C1
2
1
C2
E
S
321
31
2
C1
3
C2
PROGRAM SELECTOR SWITCH
.5 BR/WT
.5 BR
6
DK
SOLID STATE
TRANSMISSION CONTROL UNIT
CONTINUED FROM PAGE 2460-1
J
.5 GN/BK
12
TRANSMISSION CONTROL UNIT
TRANSMISSION FAULT INDICATOR CONTROL
33
.5 RD/WT
1
TRANSMISSION RANGE DISPLAY
SOLID STATE SWITCH
CLOSED IN "321"
3
TRANSMISSION FAULT INDICATOR
"321" INDICATOR
DASH/ TRANSMISSION RANGE
2
.5 BR


MOTRONIC CONTROL UNIT
SOLID STATE
TACH OUTPUT
PRESENT FUEL RATE OUTPUT
+5V ME
WIDE OPEN THROTTLE INPUT
21
.75 BK/BU
INSTRUMENT CLUSTER
.5 BK/BU
.5 WT
11
10
.5 BR/GN
3
.5 BR/BK
C238
TACH INPUT
FUEL RATE INPUT
ME +5V
WIDE OPEN THROTTLE INPUT
TRANSMISSION CONTROL UNIT
SOLID STATE
THROTTLE POSITION INPUT
KICKDOWN INPUT
DK–
DK+
26
7
9
2
.75 GY/YL
KICKDOWN SWITCH
TRANSMISSION SPEED INPUT
SHIELD GROUND
12 VOLTS
27
8
23
1
SHIELD
.5 VI
.5 BR
.5 YL
.5 BK
12
11
10
C238
M
C152
E
F
WT
BR
VI
TRANSMISSION
TRANSMISSION SPEED SENSOR
CONVERTER LOCK CLUTCH SOLENOID
REVERSE GEAR INHIBIT LOCK SOLENOID
SHIFT VALVE 2ND-3RD GEAR SOLENOID
SHIFT VALVE 1ST-2ND 3RD-4TH GEAR SOLENOID
HYDRAULIC PRESSURE REGULATOR SOLENOID
G102
BU
L
GY
D
GN
K
OR
H
RD
B
C152
.5 BU
.5 GY
.5 GN
.5 OR
.5 RD
25
20
17
16
22
SOLENOID CONTROL
TRANSMISSION CONTROL UNIT
SOLID STATE
GROUND
THROTTLE POSITION SENSOR
BATTERY
19
5
1.5 BR
C238
S450
BR
G104
GROUND DISTRIBUTION

TROUBLESHOOTING HINTS

- **Try the following check before doing the System Check.**

  Check Fuse 6 if all the Transmission Range Display bulbs do not operate.

- **Go to System Check for a guide to normal operation.**
- **Go to System Diagnosis for diagnostic tests.**

SYSTEM CHECK

- **Use the System Check Table as a guide to normal operation.**
- **Refer to System Diagnosis for a list of symptoms and diagnostic steps.**

SYSTEM CHECK TABLE

ACTION	NORMAL OPERATION
Turn the Ignition Switch to RUN	The Transmission Fault Indicator flashes twice, then stays on
Set the Program Selector Switch to "321"	The "321" Indicator lights
Crank the engine	The Program Selector Switch returns to E
Start the engine	The Transmission Fault Indicator goes out with the engine running
Drive the car with the Program Selector Switch in "321"	The car operates in selected gear only (first, second, or third gear)
Drive the car with the Program Selector Switch in S	First, second, and third gears are kept selected up to full engine speed. Fourth gear (overdrive) is not selected
Drive the car with the Program Selector Switch in E	Transmission shifts at lower engine speeds and a fourth gear (overdrive) is available

- **Refer to System Diagnosis when a result is not normal.**

COMPONENT LOCATION

		Page-Figure
Auto. Trans. Range Switch	At base of shift lever	7000-11-3
Kickdown Switch	Underneath accelerator pedal	7000- 8-1
Main Relay	On power distribution box	7000- 3-3
Motronic Control Unit	Under RH side of dash, above glove box	7000- 9-5
Power Distribution Box	On LH front wheel well	7000- 3-2
Program Selector Switch	Center console, near shift lever	7000-11-4
Throttle Position Sensor	Top of engine, front of air intake assembly	7000- 0-3
Transmission Control Unit	Under LH side of dash	7000- 7-3
C152 (8 pin)	Mounted on LH side of transmission, near shift linkage	7000- 6-5
C206 (29 pin)	On connector bracket, under LH side of dash	7000- 7-4
C238 (11 pin)	Under RH side of dash, above glove box	7000-10-2
C301 (2 pin)	In center console, ahead of shift lever	
G102 (Main Body Ground)	LH front of engine compartment, on fender well	7000- 3-6

SYSTEM DIAGNOSIS

- **Do the tests listed for your symptom in the Symptom Table below.**
- **Tests follow the Symptom Table.**
- **Perform all tests in the order listed in the Symptom Table.**

SYMPTOM TABLE

SYMPTOM	DO TEST
Transmission Fault Indicator does not flash when the Ignition Switch is turned to RUN and lights when the engine is running	A: Transmission Control Unit 5 Volt Power and Ground Test
Transmission Fault Indicator flashes when the Ignition Switch is turned to RUN and lights with the engine running	C: Engine Speed and Fuel Rate Input Test D: Hydraulic Pressure Regulator and Solenoid Test
Transmission Fault Indicator does not light with the Ignition Switch in RUN and the engine not running	B: Transmission Control Unit Ignition Power Test G: Transmission Fault Indicator Test
Program Selector Switch does not return to E when the engine is cranked	F: Program Selector Switch Return Test
"321" Indicator does not light when the Program Selector Switch is set to "321", but Transmission operates in the 321 mode	H: "321" Indicator Test
Transmission does not operate in selected program and the Transmission Fault Indicator is off with the engine running	I: Program Selector Switch Continuity Test
Kickdown function is inoperative	K: Kickdown Switch Test
Shift Points are inaccurate or rough and the Transmission Fault Indicator is off with the engine running	L: Gear Input Test M: Throttle Position Sensor and Wide Open Throttle Output Test J: Transmission Speed Sensor Test

- **If your symptom does not appear in the Symptom Table, perform all of the following tests.**

A: TRANSMISSION CONTROL UNIT 5 VOLT POWER AND GROUND TEST

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Condition:
- **Ignition Switch: RUN**

Measure Between	Correct Voltage	For Diagnosis
24 (BR/GN) & Ground	Approximately 5 Volts	See 1
24 (BR/GN) & 19 (BR)	Approximately 5 Volts	See 2
24 (BR/GN) & 5 (BR)	Approximately 5 Volts	See 2

- If all the results are correct, replace the Transmission Control Unit.

1. Go to Test E: Motronic Control Unit Test.
2. Check/repair the BR wire for an open (see schematic).

B: TRANSMISSION CONTROL UNIT IGNITION POWER TEST

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Condition:
- **Ignition Switch: RUN**

Measure Between	Correct Voltage	For Diagnosis
35 (RD/BU) & Ground	Battery	See 1

- If the result is correct, go to the Symptom Table.

1. Check/repair the RD/BU wire to the Main Relay for an open (see schematic).

C: ENGINE SPEED AND FUEL RATE INPUT TEST

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Condition:
• Ignition Switch: RUN

Measure Between	Correct Voltage	For Diagnosis
11 (WT) & Ground	Greater than 10 Volts	See 1
21 (BK/BU) & Ground	Greater than 10 Volts	See 2

- If all the results are correct, go to the Symptom Table.

1. • Go to Test E: Motronic Control Unit Test, if the Fuel Rate Gauge does not operate.
   • Check/repair the WT wire, if the Fuel Rate Gauge operates.
2. • Go to Test E: Motronic Control Unit Test, if the Tachometer does not operate.
   • Check/repair the BK/BU wire if the Tachometer operates.

D: HYDRAULIC PRESSURE REGULATOR AND SOLENOID TEST

Measure: RESISTANCE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Disconnected)

Measure Between	Correct Resistance	For Diagnosis
1 (VI) & Ground	Greater than 500 K Ohms	See 1
1 (VI) & 25 (BU)	25 to 46 Ohms	See 2
1 (VI) & 20 (GY)	25 to 46 Ohms	See 2
1 (VI) & 17 (GN)	25 to 46 Ohms	See 2
1 (VI) & 16 (OR)	25 to 46 Ohms	See 2
1 (VI) & 22 (RD)	1.8 to 4.6 Ohms	See 3

- If all the results are correct, replace the Transmission Control Unit.

1. Check the wiring from terminals 1, 16, 17, 20, 22, and 25 for shorts to ground (see schematic). Check the Hydraulic Pressure Regulator and Solenoids for a short to ground if wiring is OK. Repair/replace as necessary.
2. Check/repair wire (see schematic) and connector terminal. Replace the Solenoid Valve (see schematic), if wire and connector terminal are OK.
3. Check/repair wire (see schematic) and connector terminal. Replace the Hydraulic Pressure Regulator Solenoid, if wire and connector terminal are OK.

E: MOTRONIC CONTROL UNIT TEST

Measure: VOLTAGE
At: MOTRONIC CONTROL UNIT CONNECTOR (Connected)
Condition:
• Ignition Switch: RUN

Measure Between	Correct Voltage	For Diagnosis
10 (BR/GN) & Ground	Approximately 5 Volts	See 1
11 (WT) & Ground	Greater than 10 Volts	See 1
21 (BK/BU) & Ground	Greater than 10 Volts	See 1
3 (BR/BK) & Ground	Approximately 5 Volts	See 1

- If all the results are correct, check/repair the wire(s) to the Transmission Control Unit for an open(s).

1. Check the wire to the Transmission Control Unit for a short to ground (see schematic). Check/replace the Motronic Control Unit if wire is OK.

F: PROGRAM SELECTOR SWITCH RETURN TEST

Measure: VOLTAGE
At: PROGRAM SELECTOR SWITCH CONNECTOR C1 (Connected)
Condition:
- **Ignition Switch: START**

Measure Between	Correct Voltage	For Diagnosis
1 (BK) & Ground	Greater than 8 Volts	See 1
1 (BK) & 2 (BR)	Greater than 8 Volts	See 2

- If all the results are correct, replace the Program Selector Switch.

1. Check/repair the BK wire for an open (see schematic).
2. Check/repair the BR wire for an open (see schematic).

G: TRANSMISSION FAULT INDICATOR TEST (TABLE 1)

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Condition:
- **Ignition Switch: RUN**

Measure Between	Correct Voltage	For Diagnosis
33 (RD/WT) & Ground	Greater than 10 Volts	See 1

- If the voltage is correct, go to Table 2.

1. Replace the Transmission Control Unit.

G: TRANSMISSION FAULT INDICATOR TEST (TABLE 2)

Measure: VOLTAGE
At: TRANSMISSION RANGE DISPLAY CONNECTOR (Disconnected)
Condition:
- **Ignition Switch: RUN**

Measure Between	Correct Voltage	For Diagnosis
1 (RD/WT) & Ground	Greater than 10 Volts	See 1
1 (RD/WT) & 2 (BR)	Greater than 10 Volts	See 2

- If all the voltages are correct, check the bulb and printed circuit board. Replace as necessary.

1. Check/repair the RD/WT wire for an open (see schematic).
2. Check/repair the BR wire for an open (see schematic).

H: 321 INDICATOR TEST

Measure: VOLTAGE
At: TRANSMISSION RANGE DISPLAY CONNECTOR (Disconnected)
Conditions:
- **Ignition Switch: RUN**
- **Program Selector Switch: 321**

Measure Between	Correct Voltage	For Diagnosis
3 (BR/WT) & Ground	0 Volts	See 1
12 (GN/BK) & Ground	Greater than 10 Volts	See 2

- If all the results are correct, check the GY wire bulb, printed circuit board, and connector terminals. Repair/replace as necessary.

1. Check/repair the BR/WT wire and the connector terminal (see schematic).
2. Check/repair the GN/BK wire for an open (see schematic).

I: PROGRAM SELECTOR SWITCH CONTINUITY TEST

Measure: RESISTANCE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Disconnected)
Conditions:
- **Transmission Range Display Connector: Disconnected**
- **Program Selector Switch: E**

Measure Between	Correct Resistance	For Diagnosis
14 (BR/RD) & 6 (BR)	Approximately 0 Ohms	See 1
• Set Program Selector Switch to 321.		
15 (BR/WT) & 6 (BR)	Approximately 0 Ohms	See 1
• Set Program Selector Switch to S.		
14 (BR/RD) & 6 (BR)	Infinite Ohms	See 2
15 (BR/WT) & 6 (BR)	Infinite Ohms	See 2

- If all the results are correct, replace the Transmission Control Unit.

1. Check the wires and connector terminals (see schematic). Replace the Program Selector Switch if wires and connector terminals are OK.
2. Replace the Program Selector Switch.

J: TRANSMISSION SPEED SENSOR TEST (TABLE 1)

Measure: RESISTANCE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Disconnected)

Measure Between	Correct Resistance	For Diagnosis
8 (BR/BK) & Ground	Greater than 500 K Ohms	See 1
8 (BR/BK) & 27 (WT)	800 Ohms to 1.6 K Ohms	See 2

- If all the results are correct, go to Table 2.

1. Check/repair the wires from terminals 8 and 27 for shorts to ground (see schematic). Replace the Transmission Speed Sensor if wires are OK.
2. Check/repair the wires from terminals 8 and 27 for opens (see schematic). Replace the Transmission Speed Sensor if wires are OK.

J: TRANSMISSION SPEED SENSOR TEST (TABLE 2)

Measure: AC VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Disconnected)
Conditions:
- **Lift Car (rear wheels must turn freely)**
- **Properly block suspension**
- **Engine running**
- **Gear Selector: D (Drive)**
- **Speedometer: 30 km/h (20 mph)**

Measure Between	Correct Voltage	For Diagnosis
8 (BR/BK) & 27 (WT)	Greater than 3.5 Volts AC	See 1

- If the result is correct, replace the Transmission Control Unit.

1. Replace the Transmission Output Speed Sensor.

K: KICKDOWN SWITCH TEST

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Condition:
- **Ignition Switch: RUN**

Measure Between	Correct Voltage	For Diagnosis
2 (GY/YL) & Ground	Approximately 5 Volts	See 1
• Depress accelerator pedal to Kickdown.		
2 (GY/YL) & Ground	0 Volts	See 2

- If all the results are correct, check the BMW Troubleshooting Manual to verify the problem is not in the Transmission. Replace the Transmission Control Unit, if the problem is not in the Transmission.

1. Check the GY/YL wire and Kickdown Switch for a short to ground (see schematic). Replace the Transmission Control Unit if GY/YL wire and Kickdown Switch are OK.
2. Check the GY/YL wire for an open (see schematic). Replace the Kickdown Switch if GY/YL wire is OK.

L: GEAR INPUT TEST

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Conditions:
- **Ignition Switch: RUN**
- **Gear Selector: N (Neutral)**

Measure Between	Correct Voltage	For Diagnosis
4 (BU/BR) & Ground	Battery	See 1
• Put the Gear Selector in all positions except N (Neutral).		
4 (BU/BR) & Ground	Less than 1 Volt	See 2
• Put the Gear Selector in D (Drive).		
30 (BU/GN) & Ground	Battery	See 1
• Put the Gear Selector in all positions except D (Drive).		
30 (BU/GN) & Ground	Less than 1 Volt	See 2
• Put the Gear Selector in 3 (third gear).		
29 (BU/GY) & Ground	Battery	See 1
• Put the Gear Selector in all positions except 3 (third gear).		
29 (BU/GY) & Ground	Less than 1 Volt	See 2
• Put the Gear Selector in 2 (second gear).		
28 (BU/BK) & Ground	Battery	See 1
• Put the Gear Selector in all positions except 2 (second gear).		
28 (BU/BK) & Ground	Less than 1 Volt	See 2
• Put the Gear Selector in 1 (first gear).		
18 (BU/RD) & Ground	Battery	See 1
• Put the Gear Selector in all positions except 1 (first gear).		
18 (BU/RD) & Ground	Less than 1 Volt	See 2

- If all the results are correct, go to the Symptom Table.

1. • If the associated bulb in the Transmission Range Display lights, check/repair the wire to the Automatic Transmission Range Switch for an open (see schematic).
   • If the associated bulb in the Transmission Range Display does not light, check/repair the Automatic Transmission Range Switch (see schematic).
2. Check/repair the wire for a short to voltage and the Automatic Transmission Range Switch (see schematic).

M: THROTTLE POSITION SENSOR AND WIDE OPEN THROTTLE OUTPUT TEST

Measure: VOLTAGE
At: TRANSMISSION CONTROL UNIT CONNECTOR (Connected)
Condition:
- **Ignition Switch: RUN**

Measure Between	Correct Voltage	For Diagnosis
31 (BR/BK) & Ground	Approximately 5 Volts	See 1
9 (BK) & Ground	Approximately 5 Volts	See 2
9 (BK) & 26 (BR)	Approximately 5 Volts	See 3
• Operate Throttle through its full range.		
7 (YL) & 26 (BR)	.7 Volts (Throttle closed) increasing evenly to 4.77 Volts (Throttle fully opened)	See 4
• Depress throttle pedal to the floor.		
31 (BR/BK) & Ground	Approximately .3 Volts	See 2

- If all the results are correct, go to the Symptom Table.

1. Go to Test E: Motronic Control Unit Test.
2. Replace the Transmission Control Unit.
3. Check/repair BR wire to terminal 6 of the Transmission Control Unit for an open. Check the connector terminals.
4. Check/repair the wiring to the Throttle Position Sensor. Adjust the Throttle Position Sensor if wiring is OK (see note). Replace the Throttle Position Sensor if adjustment does not correct the problem.

NOTE: The highest voltage at full open position should be .22 volts less than the stabilized voltage. Adjust Throttle Position Sensor accordingly.

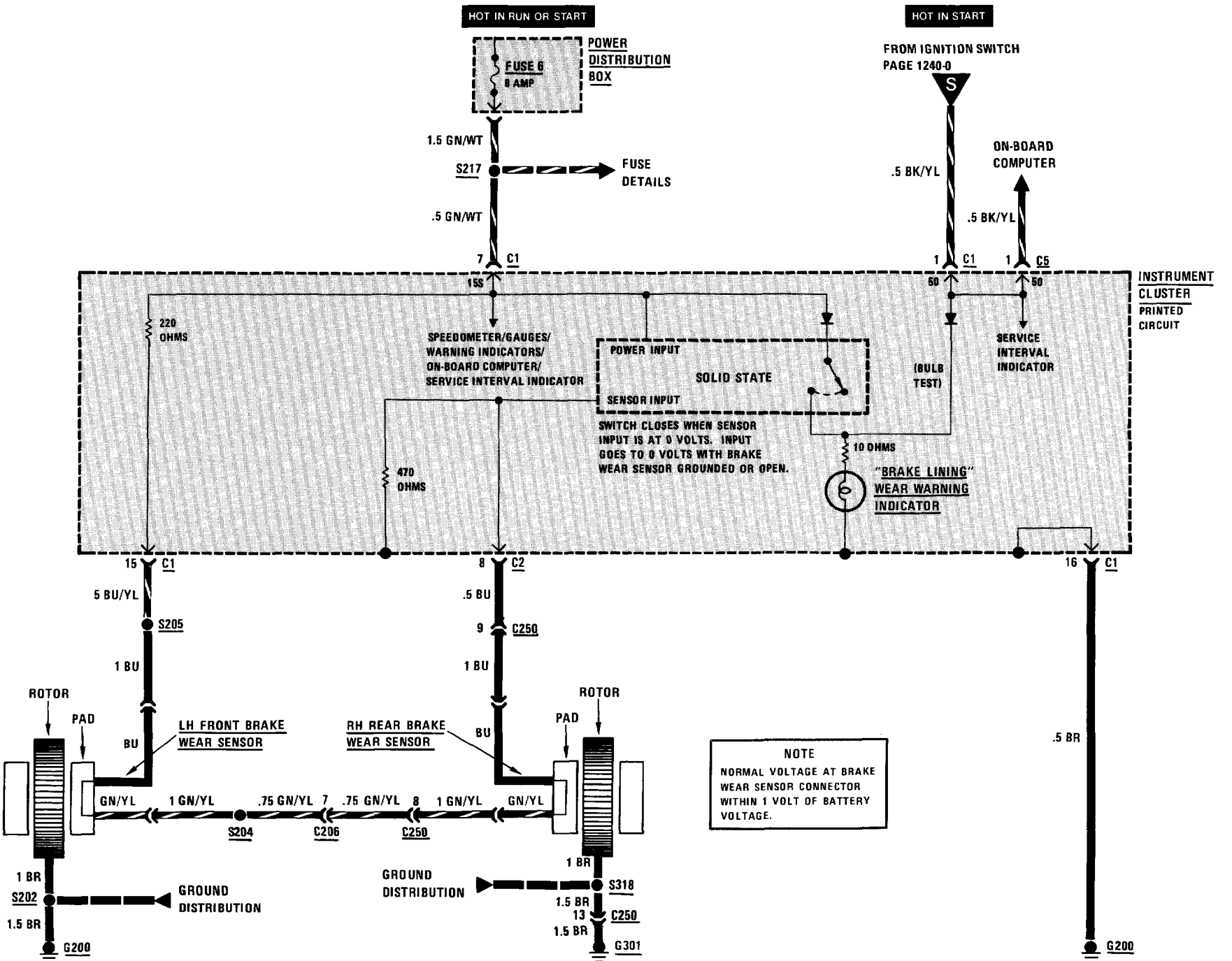
CIRCUIT OPERATION

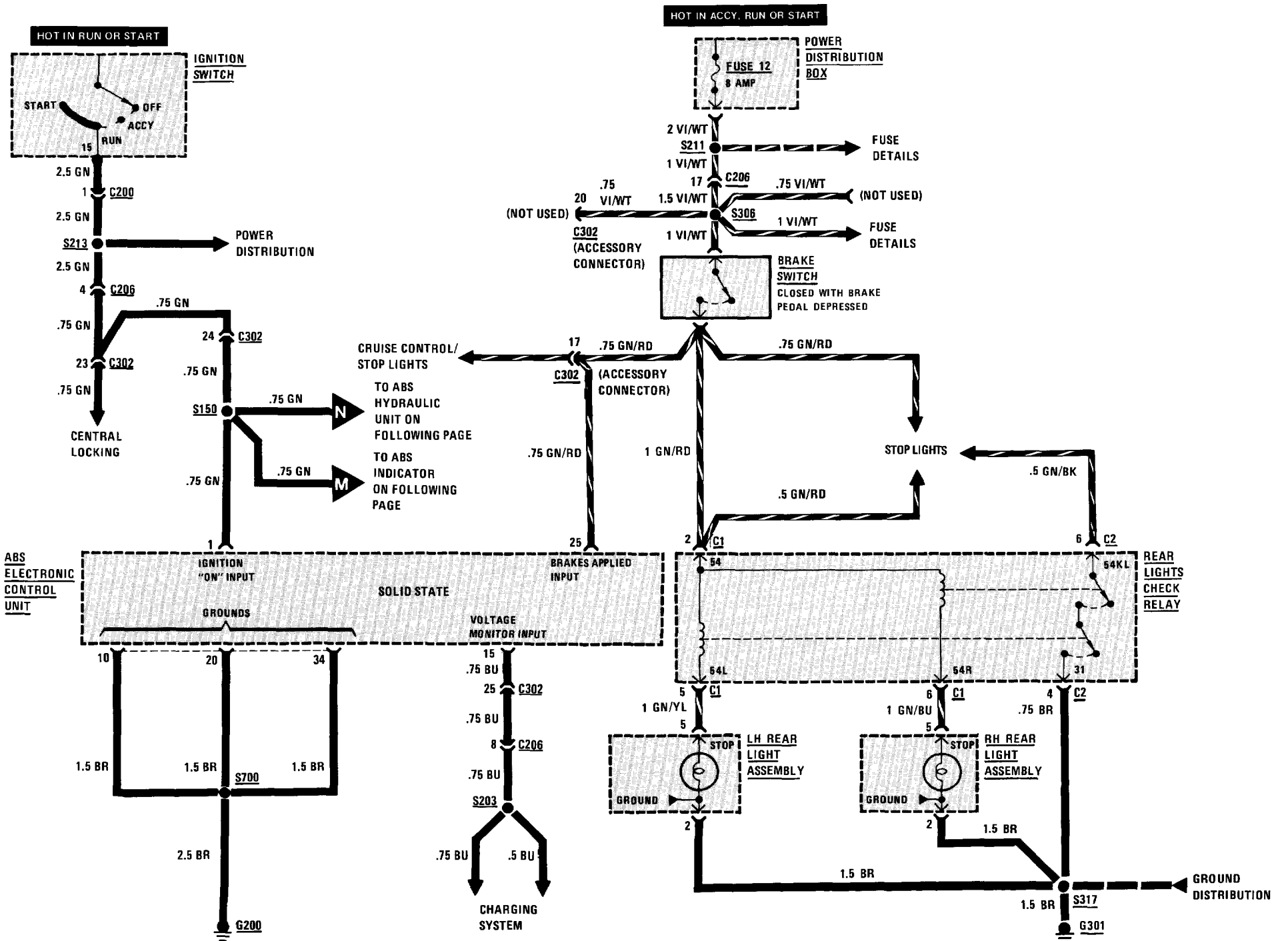
By operating the Program Selector Switch, the driver can select 3 different transmission modes. When the Program Selector Switch is set to E (Economy), the Economy Input (terminal 14) in the Transmission Control Unit is grounded through terminal 6. The Economy Mode is designed for smooth, refined shift points and low fuel consumption. A fourth gear, or overdrive ratio, is available in the Economy Mode to reduce engine speed and noise level. When the Program Selector Switch is set to 321, the 321 Input (terminal 15), in the Transmission Control Unit, is grounded through terminal 6 and the 321 Indicator lights. The Transmission does not shift up or down and will operate in the selected gear only. When the Program Selector Switch is set to S, voltage is present at the Economy and 321 Inputs in the Transmission Control Unit. Fourth gear is not selected and first, second and third gears are kept selected up to full engine speed. The Program Selector Switch is designed to return to E when the engine is cranked. When the engine is cranked, voltage is applied to the coil in the Program Selector Switch through the Ignition Switch and the Start Relay. The coil energizes and the Program Selector Switch returns to E.

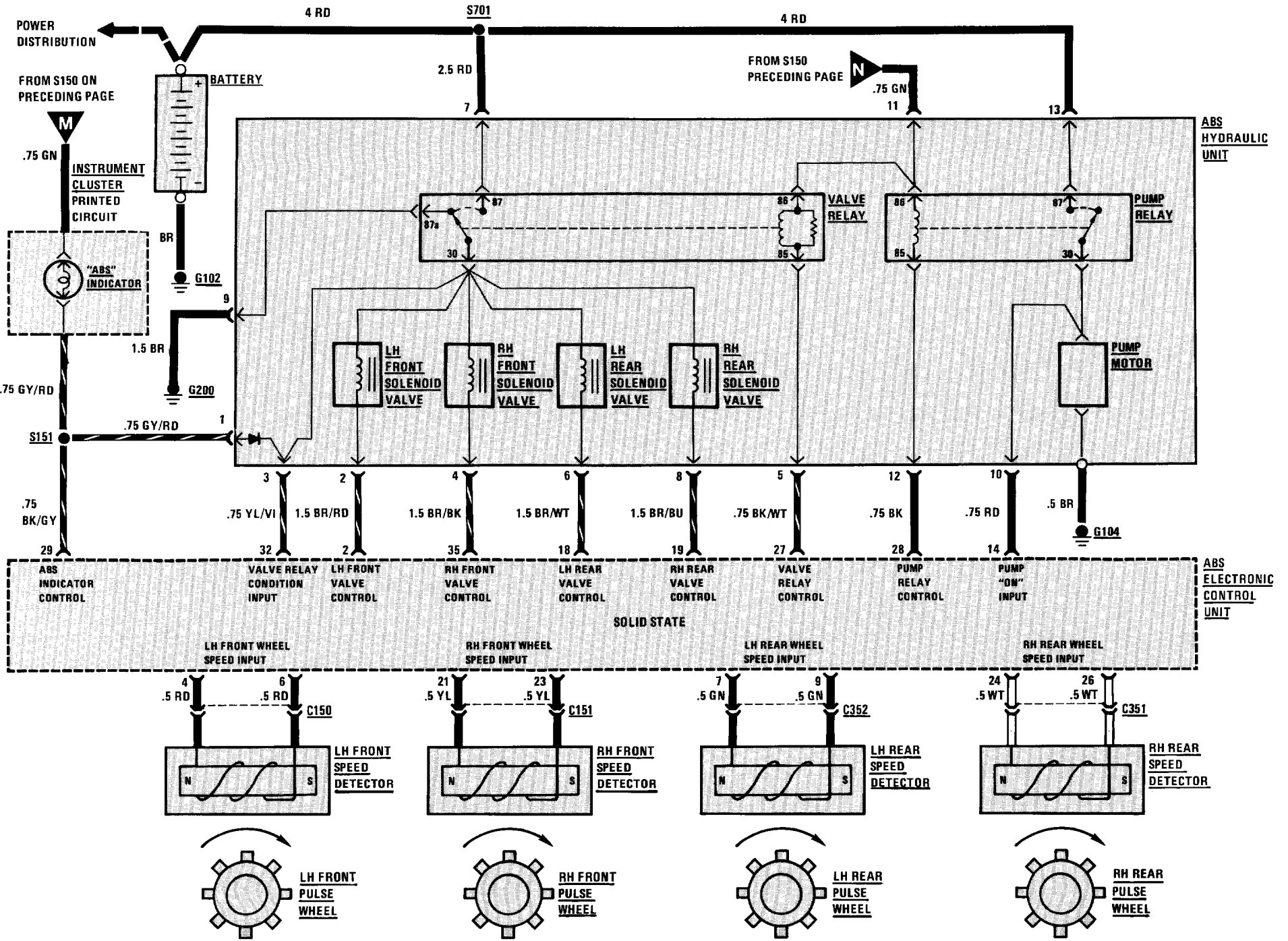
The Transmission Control Unit monitors engine speed (terminal 21), fuel rate (terminal 11), Throttle position (terminal 7), road speed (terminals 8 and 27), Kickdown signal (terminal 2), Gear Selector position (terminals 4, 30, 29, 28 and 18) and Program Selector Switch position (terminals 14 and 15). The Transmission Control Unit's electronic processing circuit compares this information with the program data to establish the correct gear and smooth shift points, by controlling the Shift Valve Solenoids and the Hydraulic Pressure Regulator.

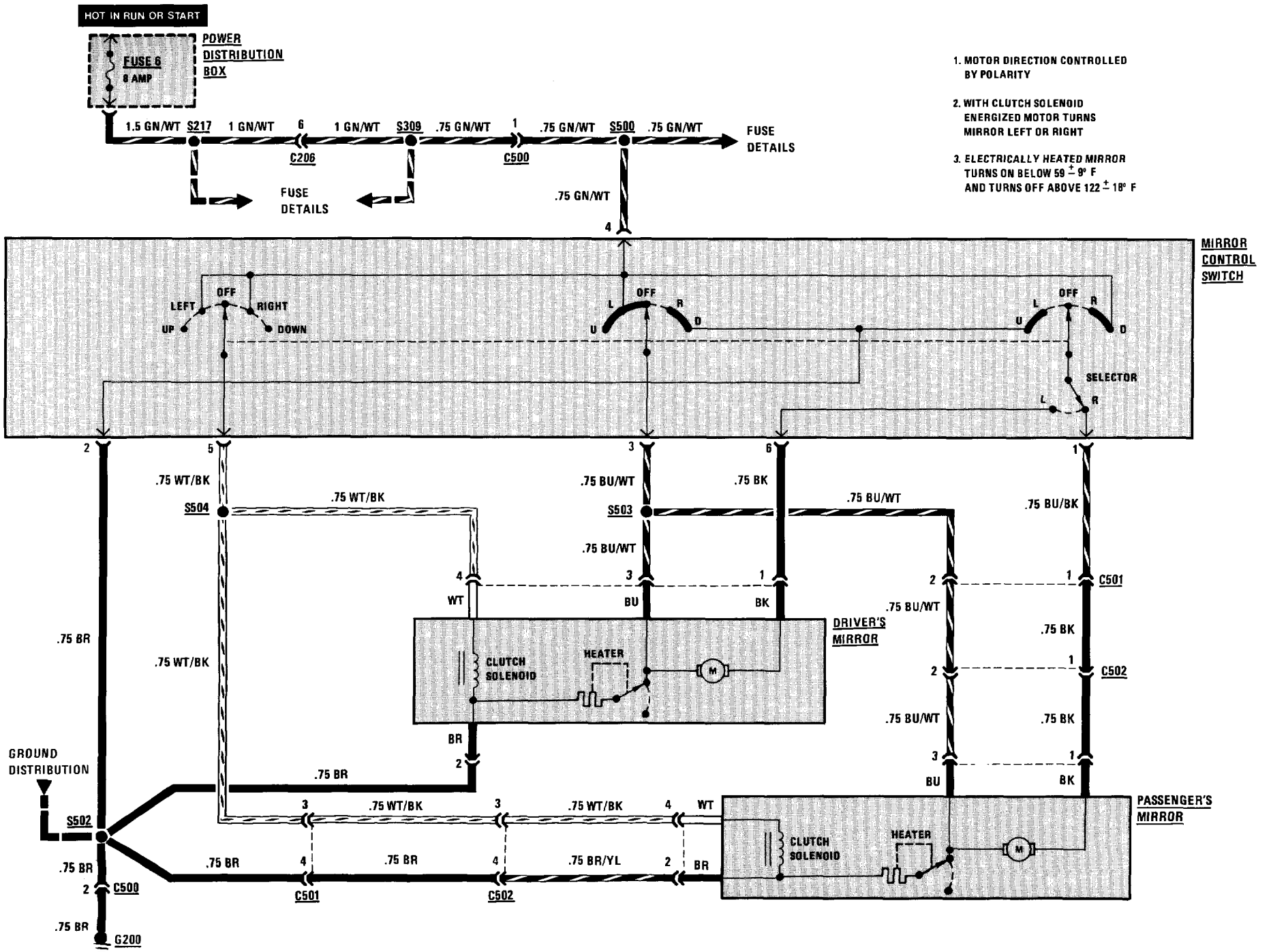
The Transmission Fault Indicator will light with the engine running, if a problem with the control system occurs. When a fault is detected, the vehicle can only be driven in third and reverse gears. Neutral and Park also retain their functions. Voltage to the transmission (terminal 1) is not present when a fault is detected.

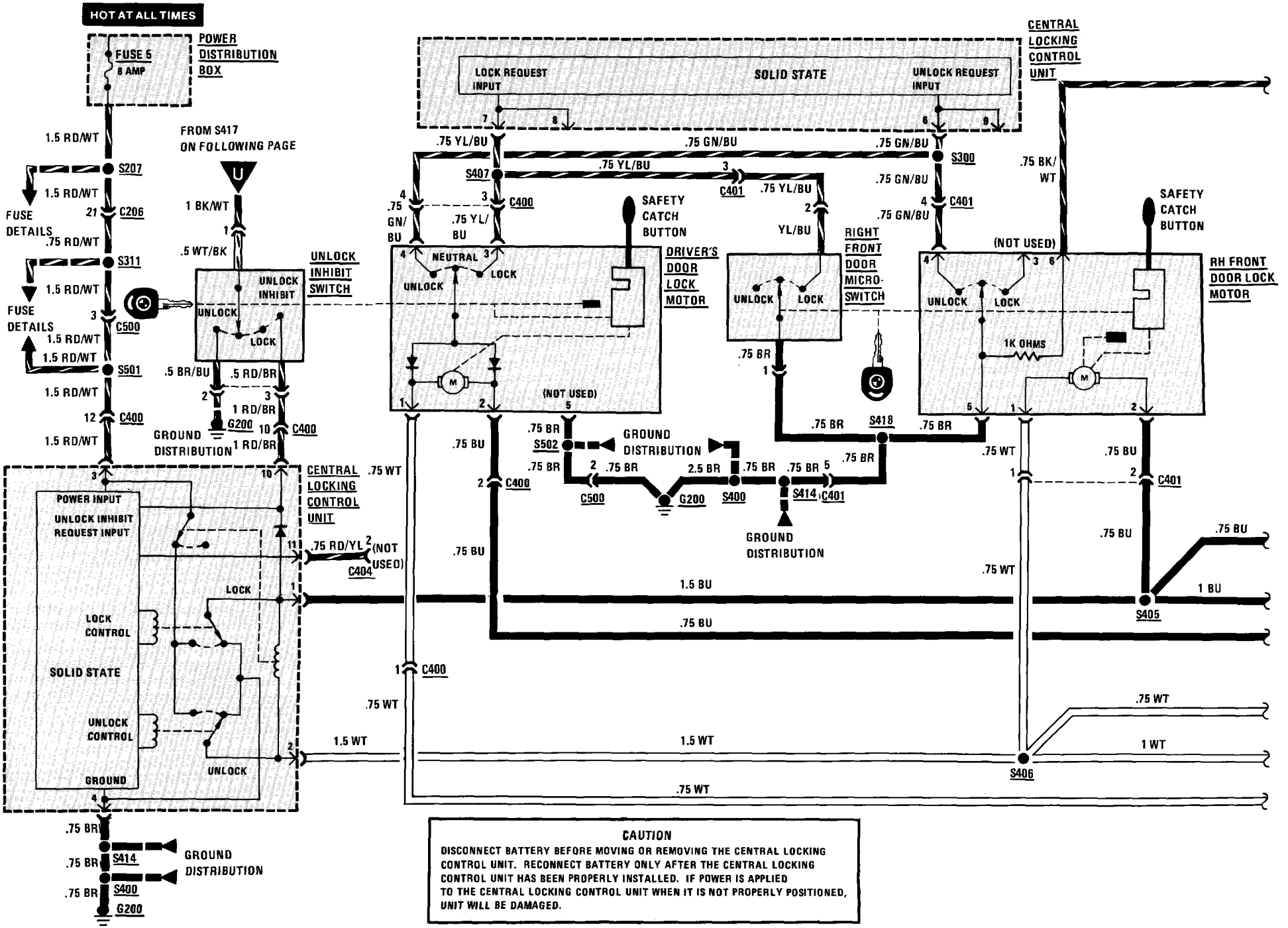
The Reverse Gear Inhibit Lock Solenoid prevents the driver from selecting reverse above 5 mph.


HOT IN RUN OR START
POWER DISTRIBUTION BOX
FUSE 6
8 AMP
1.5 GN/WT
S217
FUSE DETAILS
.5 GN/WT
7 C1
HOT IN START
FROM IGNITION SWITCH
PAGE 1240-0
S
.5 BK/YL
ON-BOARD COMPUTER
.5 BK/YL
1 C1
1 C5
INSTRUMENT CLUSTER
PRINTED CIRCUIT
15S
50
50
220 OHMS
SPEEDOMETER/GAUGES/ WARNING INDICATORS/ ON-BOARD COMPUTER/ SERVICE INTERVAL INDICATOR
POWER INPUT
SOLID STATE
SENSOR INPUT
(BULB TEST)
SERVICE INTERVAL INDICATOR
SWITCH CLOSES WHEN SENSOR INPUT IS AT 0 VOLTS. INPUT GOES TO 0 VOLTS WITH BRAKE WEAR SENSOR GROUNDED OR OPEN.
10 OHMS
470 OHMS
"BRAKE LINING" WEAR WARNING INDICATOR
15 C1
8 C2
16 C1
5 BU/YL
.5 BU
.5 BR
S205
9 C250
1 BU
1 BU
ROTOR
PAD
ROTOR
PAD
LH FRONT BRAKE WEAR SENSOR
RH REAR BRAKE WEAR SENSOR
BU
BU
GN/YL
1 GN/YL
.75 GN/YL 7
.75 GN/YL 8
1 GN/YL
GN/YL
S204
C206
C250
1 BR
1 BR
S202
GROUND DISTRIBUTION
GROUND DISTRIBUTION
S318
1.5 BR
13 C250
1.5 BR
1.5 BR
G200
G301
G200
NOTE
NORMAL VOLTAGE AT BRAKE WEAR SENSOR CONNECTOR WITHIN 1 VOLT OF BATTERY VOLTAGE.


HOT IN RUN OR START
IGNITION SWITCH
START
OFF
ACCY
RUN
15
2.5 GN
1
C200
2.5 GN
S213
POWER DISTRIBUTION
2.5 GN
4
C206
.75 GN
.75 GN
24
C302
23
C302
.75 GN
.75 GN
S150
.75 GN
.75 GN
CENTRAL LOCKING
HOT IN ACCY, RUN OR START
FUSE 12
8 AMP
POWER DISTRIBUTION BOX
2 VI/WT
S211
FUSE DETAILS
1 VI/WT
C206
17
.75 VI/WT
(NOT USED)
.75 VI/WT
1.5 VI/WT
20
(NOT USED)
S306
C302
(ACCESSORY CONNECTOR)
1 VI/WT
1 VI/WT
FUSE DETAILS
BRAKE SWITCH
CLOSED WITH BRAKE PEDAL DEPRESSED
CRUISE CONTROL/ STOP LIGHTS
17
.75 GN/RD
.75 GN/RD
C302
(ACCESSORY CONNECTOR)
TO ABS HYDRAULIC UNIT ON FOLLOWING PAGE
N
TO ABS INDICATOR ON FOLLOWING PAGE
M
.75 GN/RD
1 GN/RD
STOP LIGHTS
.5 GN/BK
.5 GN/RD
1
25
2
C1
6
C2
ABS ELECTRONIC CONTROL UNIT
IGNITION "ON" INPUT
SOLID STATE
BRAKES APPLIED INPUT
GROUNDS
VOLTAGE MONITOR INPUT
54
54KL
REAR LIGHTS CHECK RELAY
54L
54R
31
10
20
34
15
.75 BU
25
C302
.75 BU
8
C206
.75 BU
S203
5
C1
1 GN/YL
6
C1
1 GN/BU
4
C2
.75 BR
5
5
STOP
GROUND
LH REAR LIGHT ASSEMBLY
STOP
GROUND
RH REAR LIGHT ASSEMBLY
1.5 BR
1.5 BR
1.5 BR
S700
1.5 BR
2
2
1.5 BR
2.5 BR
.75 BU
.5 BU
1.5 BR
GROUND DISTRIBUTION
1.5 BR
S317
G200
CHARGING SYSTEM
G301

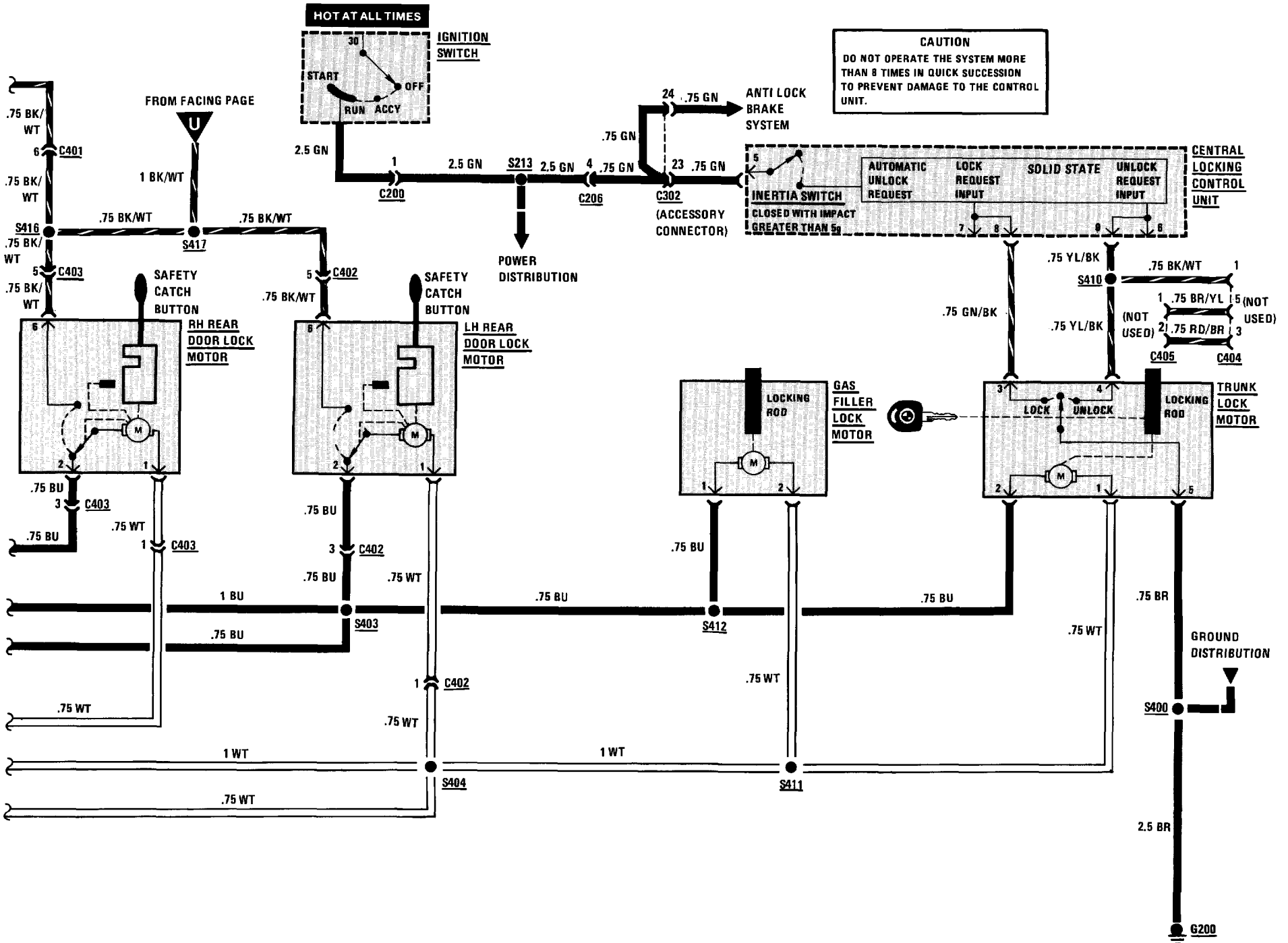

POWER DISTRIBUTION
4 RD
S701
4 RD
FROM S150 ON PRECEDING PAGE
BATTERY
2.5 RD
FROM S150 PRECEDING PAGE
.75 GN
ABS HYDRAULIC UNIT
.75 GN
INSTRUMENT CLUSTER PRINTED CIRCUIT
"ABS" INDICATOR
BR
G102
VALVE RELAY
PUMP RELAY
1.5 BR
G200
LH FRONT SOLENOID VALVE
RH FRONT SOLENOID VALVE
LH REAR SOLENOID VALVE
RH REAR SOLENOID VALVE
PUMP MOTOR
.75 GY/RD
.75 GY/RD
S151
.75 BK/GY
.75 YL/VI
1.5 BR/RD
1.5 BR/BK
1.5 BR/WT
1.5 BR/BU
.75 BK/WT
.75 BK
.75 RD
.5 BR
G104
ABS INDICATOR CONTROL
VALVE RELAY CONDITION INPUT
LH FRONT VALVE CONTROL
RH FRONT VALVE CONTROL
LH REAR VALVE CONTROL
RH REAR VALVE CONTROL
VALVE RELAY CONTROL
PUMP RELAY CONTROL
PUMP "ON" INPUT
SOLID STATE
ABS ELECTRONIC CONTROL UNIT
LH FRONT WHEEL SPEED INPUT
RH FRONT WHEEL SPEED INPUT
LH REAR WHEEL SPEED INPUT
RH REAR WHEEL SPEED INPUT
.5 RD
.5 RD
C150
.5 YL
.5 YL
C151
.5 GN
.5 GN
C352
.5 WT
.5 WT
C351
LH FRONT SPEED DETECTOR
RH FRONT SPEED DETECTOR
LH REAR SPEED DETECTOR
RH REAR SPEED DETECTOR
LH FRONT PULSE WHEEL
RH FRONT PULSE WHEEL
LH REAR PULSE WHEEL
RH REAR PULSE WHEEL


HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
1 GN/WT
6
C206
1 GN/WT
S309
.75 GN/WT
1
C500
.75 GN/WT
S500
.75 GN/WT
FUSE DETAILS
FUSE DETAILS
.75 GN/WT
4
1. MOTOR DIRECTION CONTROLLED BY POLARITY
2. WITH CLUTCH SOLENOID ENERGIZED MOTOR TURNS MIRROR LEFT OR RIGHT
3. ELECTRICALLY HEATED MIRROR TURNS ON BELOW 59 ± 9° F AND TURNS OFF ABOVE 122 ± 18° F
MIRROR CONTROL SWITCH
LEFT
OFF
RIGHT
UP
DOWN
L
OFF
R
U
D
SELECTOR
2
5
3
6
1
.75 WT/BK
S504
.75 WT/BK
.75 BU/WT
S503
.75 BK
.75 BU/WT
.75 BU/BK
.75 BU/WT
4
3
1
2
1
C501
WT
BU
BK
.75 BU/WT
DRIVER'S MIRROR
.75 BR
.75 WT/BK
CLUTCH SOLENOID
HEATER
M
.75 BK
2
1
C502
.75 BU/WT
.75 BK
BR
2
3
1
BU
BK
GROUND DISTRIBUTION
.75 BR
PASSENGER'S MIRROR
S502
3
.75 WT/BK
3
.75 WT/BK
4
WT
CLUTCH SOLENOID
HEATER
M
.75 BR
4
.75 BR
4
.75 BR/YL
2
BR
.75 BR
2
C500
C501
C502
.75 BR
G200



CAUTION

DISCONNECT BATTERY BEFORE MOVING OR REMOVING THE CENTRAL LOCKING CONTROL UNIT. RECONNECT BATTERY ONLY AFTER THE CENTRAL LOCKING CONTROL UNIT HAS BEEN PROPERLY INSTALLED. IF POWER IS APPLIED TO THE CENTRAL LOCKING CONTROL UNIT WHEN IT IS NOT PROPERLY POSITIONED, UNIT WILL BE DAMAGED.


HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
RUN
ACCY
CAUTION
DO NOT OPERATE THE SYSTEM MORE THAN 8 TIMES IN QUICK SUCCESSION TO PREVENT DAMAGE TO THE CONTROL UNIT.
FROM FACING PAGE
U
.75 BK/WT
6 C401
.75 BK/WT
1 BK/WT
2.5 GN
1
C200
2.5 GN
S213
2.5 GN
4
.75 GN
C206
.75 GN
24 .75 GN
ANTI LOCK BRAKE SYSTEM
23 .75 GN
C302
(ACCESSORY CONNECTOR)
5
INERTIA SWITCH
CLOSED WITH IMPACT GREATER THAN 5g
AUTOMATIC UNLOCK REQUEST
LOCK REQUEST INPUT
SOLID STATE
UNLOCK REQUEST INPUT
7
8
9
6
CENTRAL LOCKING CONTROL UNIT
.75 BK/WT
S416
.75 BK/WT
S417
.75 BK/WT
.75 BK/WT
5 C403
.75 BK/WT
5 C402
POWER DISTRIBUTION
SAFETY CATCH BUTTON
RH REAR DOOR LOCK MOTOR
SAFETY CATCH BUTTON
LH REAR DOOR LOCK MOTOR
.75 YL/BK
.75 BK/WT
1
S410
.75 GN/BK
.75 YL/BK
1 .75 BR/YL 5 (NOT USED)
(NOT USED) 2 .75 RD/BR 3
C405
C404
GAS FILLER LOCK MOTOR
LOCKING ROD
TRUNK LOCK MOTOR
LOCK
UNLOCK
LOCKING ROD
.75 BU
3 C403
.75 BU
.75 WT
1 C403
.75 BU
3 C402
.75 BU
.75 WT
.75 BU
.75 BU
.75 BU
.75 BR
1 BU
.75 BU
S403
S412
.75 WT
GROUND DISTRIBUTION
1 C402
.75 WT
.75 WT
.75 WT
S400
1 WT
1 WT
S404
S411
.75 WT
2.5 BR
G200

TROUBLESHOOTING HINT

Check Fuse 5 by operating the Digital Radio.

SYSTEM CHECK

- **Operate controls in sequence listed in the System Check Table.**
- **Refer to Repair Action for the Response received (Tests follow the System Check Table).**
- **After any repair, repeat System Check to verify proper system operation.**

NOTE: Before replacing any system component, check all connectors, splices, and wiring to that component.

COMPONENT LOCATION

		Page-Figure
Central Locking Control Unit	Behind RH kick panel, above speaker	7000-10-3
Door Lock Motors	Center rear of respective door	7000-10-4
Gas Filler Lock Motor	In trunk, right of power antenna	7000-12-4
Ignition Switch	Upper part of steering column	
Power Distribution Box	On LH front wheel well	7000- 3-2
Right Front Door Micro Switch	Inside RH front door, mounted on door lock.	7000-10-4
Trunk Lock Motor	In rear panel of trunk.	7000-12-3
Unlock Inhibit Switch	In LH front door, on door lock.	7000- 9-4
C200 (10 pin)	On LH side of steering column	7000- 7-6
C206 (29 pin)	On connector bracket, under LH side of dash	7000- 7-4
C302 (Accessory Connector)	Under LH side of dash	7000- 7-4
C400 (13 pin)	Behind LH front speaker	7000- 9-2
C401 (13 pin)	Behind RH front speaker	7000-10-3
C402 (7 pin)	In LH B pillar	
C403 (7 pin)	In RH B pillar	7000-5-6
C404 (5 pin)	In bottom rear of LH front door	
C405 (2 pin)	In trunk, near trunk lock	
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket.	7000- 7-6

SYSTEM CHECK TABLE

OPERATION	RESPONSE	REPAIR ACTION
1. Insert the key in the Driver's door and turn to LOCK	All doors lock	None, proceed to Operation 2
	Some doors lock	Repair/replace the suspect Door Lock Motor circuit
	No doors lock	Proceed to Operation 4
2. Turn the key to UNLOCK INHIBIT (clockwise until key is horizontal)	All doors double lock (Safety Catch Buttons cannot be pulled up by hand)	None, proceed to Operation 3
	Driver's door double locks and only some of the other doors double lock	Repair/replace the suspect Door Lock Motor
	Driver's door double locks but all the other doors do not double lock	Turn key to UNLOCK. If any door unlocks, check RD/BR wire and Unlock Inhibit Switch. If no doors unlock, proceed to Test B.
	Driver's door does not double lock	Mechanical problem, see BMW Troubleshooting Manual

SYSTEM CHECK TABLE (CONT'D)

OPERATION	RESPONSE	REPAIR ACTION
3. Turn the key to UNLOCK	All doors unlock	None, proceed to Operation 4
	Some doors unlock	Repair/replace the suspect Door Lock Motor circuit
	No doors unlock	Proceed to Operation 5
4. Insert the key in the Passenger's door and turn to LOCK	All doors lock	If the doors did not lock in Operation 1, repair/ replace the Driver's Door Lock Switch, otherwise proceed to Operation 5
	Some doors lock	Repair/replace the suspect Door Lock Motor circuit
	No doors lock	If all the doors locked in Operation 1, repair/ replace the Right Front Door Microswitch. If the doors did not lock in Operation 1, perform Test A
5. Insert the key in the Passenger's door and turn to UNLOCK	All doors unlock	If all the doors did not unlock in Operation 3, repair/replace the Driver's Door Lock Switch, otherwise proceed to Operation 6
	Some doors unlock	Repair/replace the suspect Door Lock Motor
	No doors unlock	If all the doors unlocked in Operation 3, repair/ replace the Passenger's Door Lock Switch. If the doors did not unlock in Operation 3, perform Test C
6. Get in the car and close and lock all doors Turn the Ignition Switch to RUN	Doors remain locked	None, proceed to Operation 7
	Doors unlock	Repair/replace the Central Locking Control Unit
7. Get out of the car Insert the key in the Driver's door and turn to LOCK Unlock each of the doors by pulling up the Safety Catch Buttons	All doors can be unlocked	None, proceed to Operation 8
	All doors remain secure	Disconnect the connector from the Central Locking Control Unit and check for a short to battery in the RD/BR, WT/BU, and BK/WT wires at terminal 10. • If short to battery is not present, replace the Unlock Inhibit Switch. • If short to battery is present, isolate wiring from Door Lock Motors one at a time to find short

SYSTEM CHECK TABLE (CONT'D)

OPERATION	RESPONSE	REPAIR ACTION
8. Insert the key in the Trunk Cylinder Switch. Turn the key to LOCK	Trunk locks	None, proceed to Operation 9
	Trunk does not lock	If the doors lock, repair/replace the Trunk Lock Motor Circuit or Trunk Lock Motor. If the doors do not lock, repair/replace the Trunk Switch. Repair/replace the Central Locking Control Unit if the Trunk Switch Circuit is OK
9. Turn the key to UNLOCK	Trunk unlocks	None, proceed to Operation 10
	Trunk does not unlock	If the doors unlock, repair/replace the Trunk Lock Motor circuit or Trunk Lock Motor. If the doors do not unlock, repair/replace the Trunk Switch. Repair/replace the Central Locking Control Unit if the Trunk Switch Circuit is OK
10. Turn the key back to LOCK	Gas Filler locks	None, proceed to Operation 11
	Gas Filler does not lock	Repair/replace the Gas Filler Lock Motor circuit
11. Turn the key to UNLOCK	Gas Filler unlocks	None
	Gas Filler does not unlock	Repair/replace the Gas Filler Lock Motor circuit

- **If all results are normal, the system is OK.**

SYSTEM DIAGNOSIS

- **Do the following tests when directed by the System Check Table.**

A: CONTROL UNIT LOCK TEST (TABLE 1)

Measure: VOLTAGE
At: CONTROL UNIT CONNECTOR (Connected)

Measure Between	Correct Voltage	For Diagnosis
3 (RD/WT) & Ground	Battery	See 1
3 (RD/WT) & 4 (BR)	Battery	See 2

- If the voltages are correct, proceed to Table 2.

1. Check the RD/WT wire for an open.
2. Check the BR wire for an open to ground (see schematic).

A: CONTROL UNIT LOCK TEST (TABLE 2)

Connect: A FUSED JUMPER
At: CONTROL UNIT CONNECTOR (Connected)

Jumper Between	Correct Result	For Diagnosis
7 (YL/BU) & Ground	Doors lock	See 1

- If the result is correct, repair/replace the switches and related wiring (see schematic).

1. Proceed to Table 3.

A: CONTROL UNIT LOCK TEST (TABLE 3)

Connect: FUSED JUMPER
At: CONTROL UNIT CONNECTOR (Disconnected)

Jumper Between	Correct Result	For Diagnosis
1 (BU) & 3 (RD/WT) 2 (WT) & 4 (BR)	Doors lock	See 1

- If the result is correct, replace the Central Locking Control Unit.

1. Check the BU wire to splice S405 and the WT wire to splice S406 for opens (see schematic).

B: UNLOCK INHIBIT TEST (TABLE 1)

Measure: RESISTANCE
At: CONTROL UNIT CONNECTOR (Disconnected)
Conditions
- **Driver's Door Lock: UNLOCK INHIBIT**

Measure Between	Correct Resistance	For Diagnosis
10 (RD/BR) & Ground	1 K ohm	See 1

- If the resistance is correct but the unlock inhibit only operates on the Driver's Lock, replace the Central Locking Central Unit.

1. Check for opens in the WT/BK, BK/WT and BR wires. If OK, proceed to Table 2.

B: UNLOCK INHIBIT TEST (TABLE 2)

Measure: RESISTANCE
At: LH FRONT DOOR LOCK MOTOR (Disconnected)

Measure Between	Correct Result	For Diagnosis
Terminal 6 and Terminal 5	1 K ohm	See 1

- If resistance is correct, replace the Unlock Inhibit Switch.

1. Replace RH Front Door Lock Motor.

C: CONTROL UNIT UNLOCK TEST

Connect: A FUSED JUMPER
At: CONTROL UNIT CONNECTOR (Connected)

Jumper Between	Correct Result	For Diagnosis
6 (GN/BU) & Ground	Doors unlock	See 1

- If the result is correct, repair/replace the switches and related wiring (see schematic).

1. Replace the Central Locking Control Unit.

CIRCUIT DESCRIPTION

The Central Locking System is controlled by the Central Locking Control Unit. This unit senses when a lock switch is moved by a key, and sends the appropriate signal to drive the Motors. The Central Lock Control Unit controls the Door Locks, Gas Filler Lock and Trunk Lock. The unit also has an Inertia Switch which closes on impact greater than 5g. If in RUN or START the locks are then unlocked.

Lock

When the Key is inserted into a lock and turned clockwise, the Lock switch moves to LOCK and grounds terminal 7 of the Central Locking Control Unit. The unit activates the Lock Relay and applies voltage from Fuse 5 to the Lock Motor, which is grounded through the WT wire, Central Locking Control Unit and BR wire. The Lock Motor then pulls the lock down. As the motor runs, a switch is gradually moved from terminal 2 to terminal 6 of all but the Driver's Lock Motor. At terminal 6, the switch position prevents voltage from being applied to the motor. The door locks also control the Trunk Lock and Gas Filler Lock.

Unlock

When the key is turned counterclockwise, terminal G of the Central Locking Control Unit is grounded through the Lock Switch. The Central Locking Control Unit then activates the Unlock Relay and applies voltage from Fuse 5, through the WT wire to the Lock Motor. The motor is grounded through the BU wire, Cental Locking Control Unit, and BR wire. The polarity is reversed and the motor pushes the lock up. As the motor runs, the switch is returned to terminal 2.

Unlock Inhibit

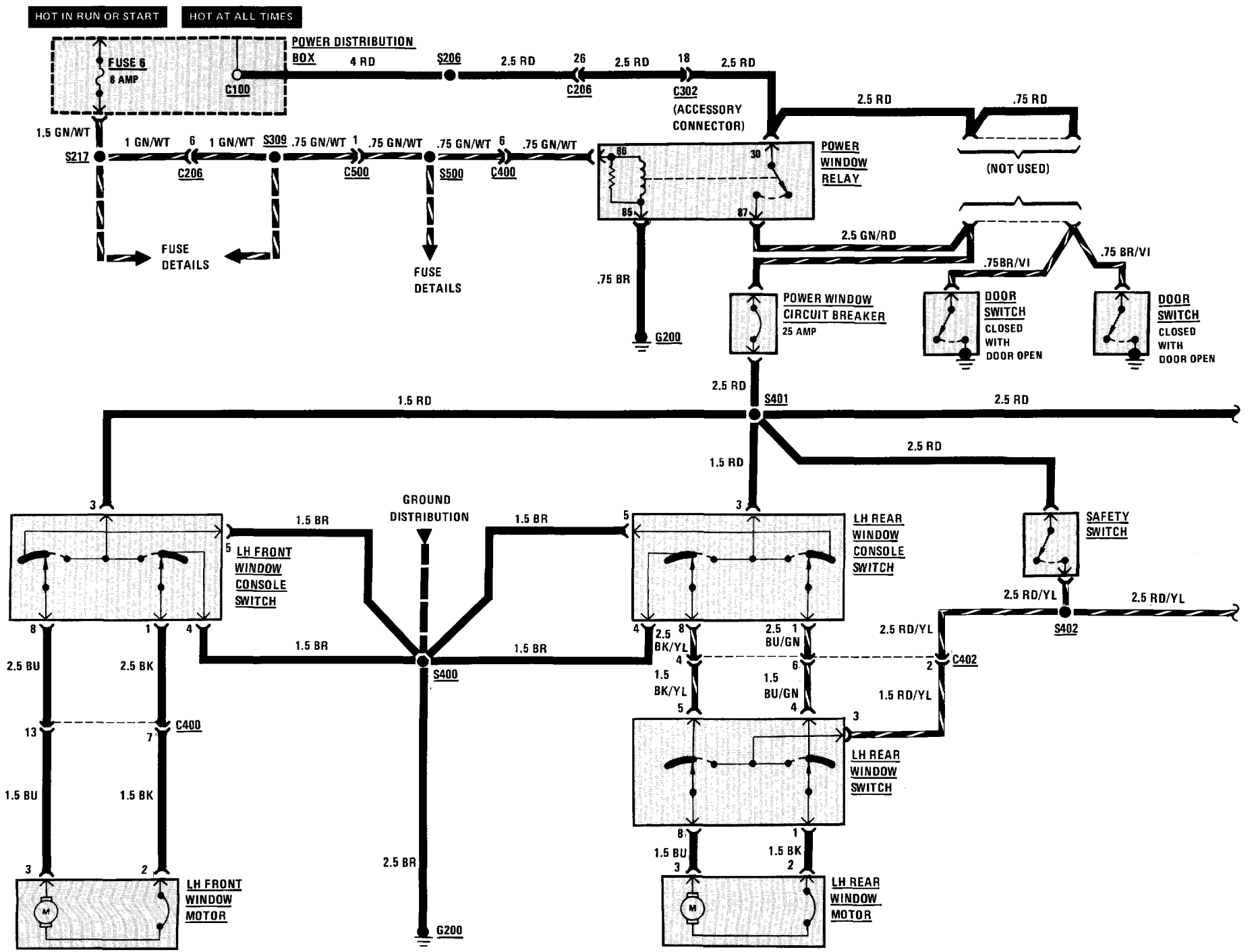
When the key is inserted into the Driver's Lock and turned clockwise past the LOCK position, the Unlock inhibit mechanism is engaged. This mechanically inserts a bar into the driver's lock and prevents unlocking through use of the Safety Catch Button. When in the Unlock Inhibit position, the Central Locking Unit is grounded at terminal 10. The unit then activates the Lock Relay, and voltage is applied to the motors through the Unlock Inhibit Switch and BK/WT wires. The motors are again acti-

vated and engage their Unlock Inhibit mechanisms.

Trunk Lock

The Trunk Lock operates in a manner similar to the Door Locks.

EARLY PRODUCTION



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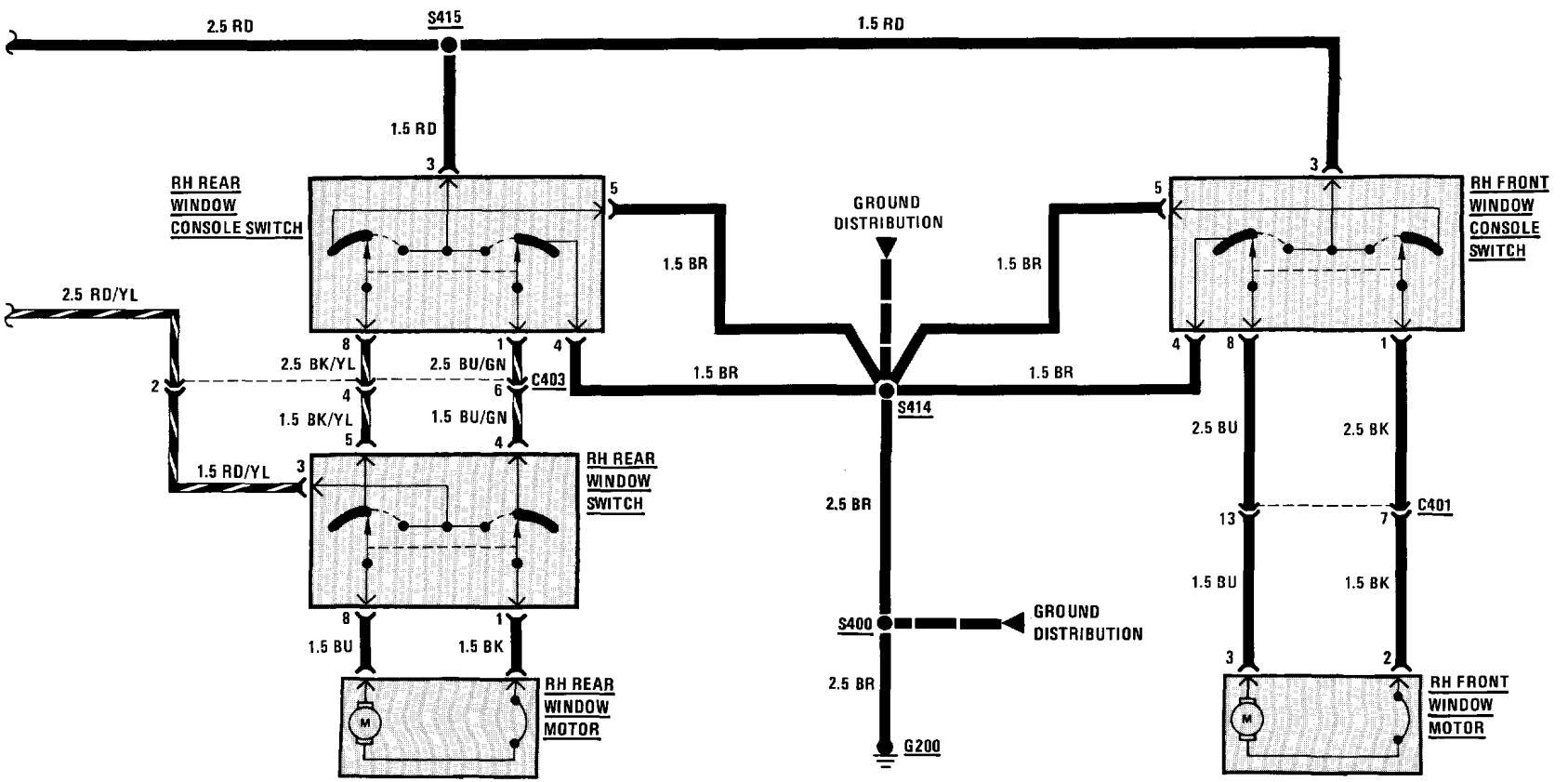

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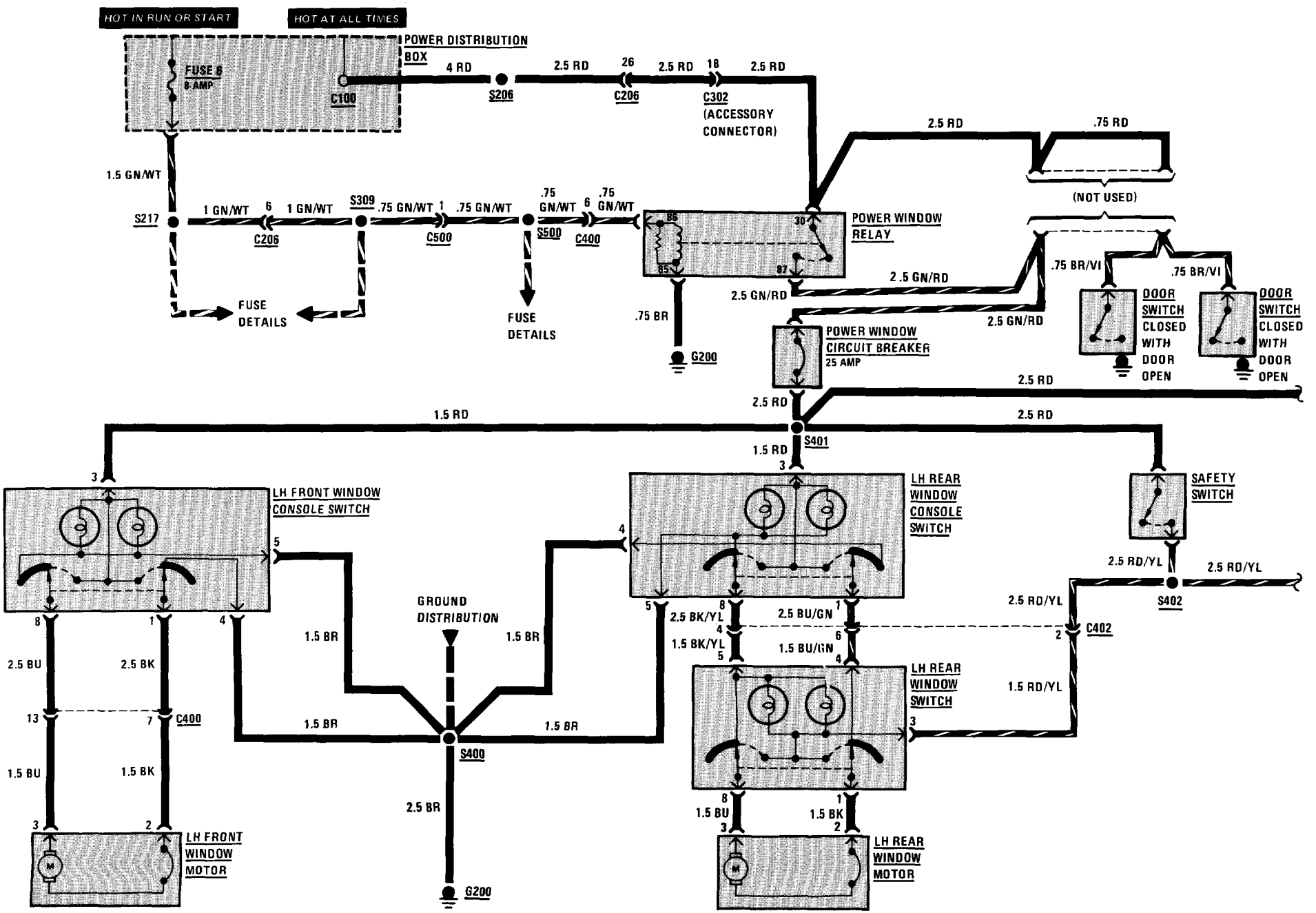

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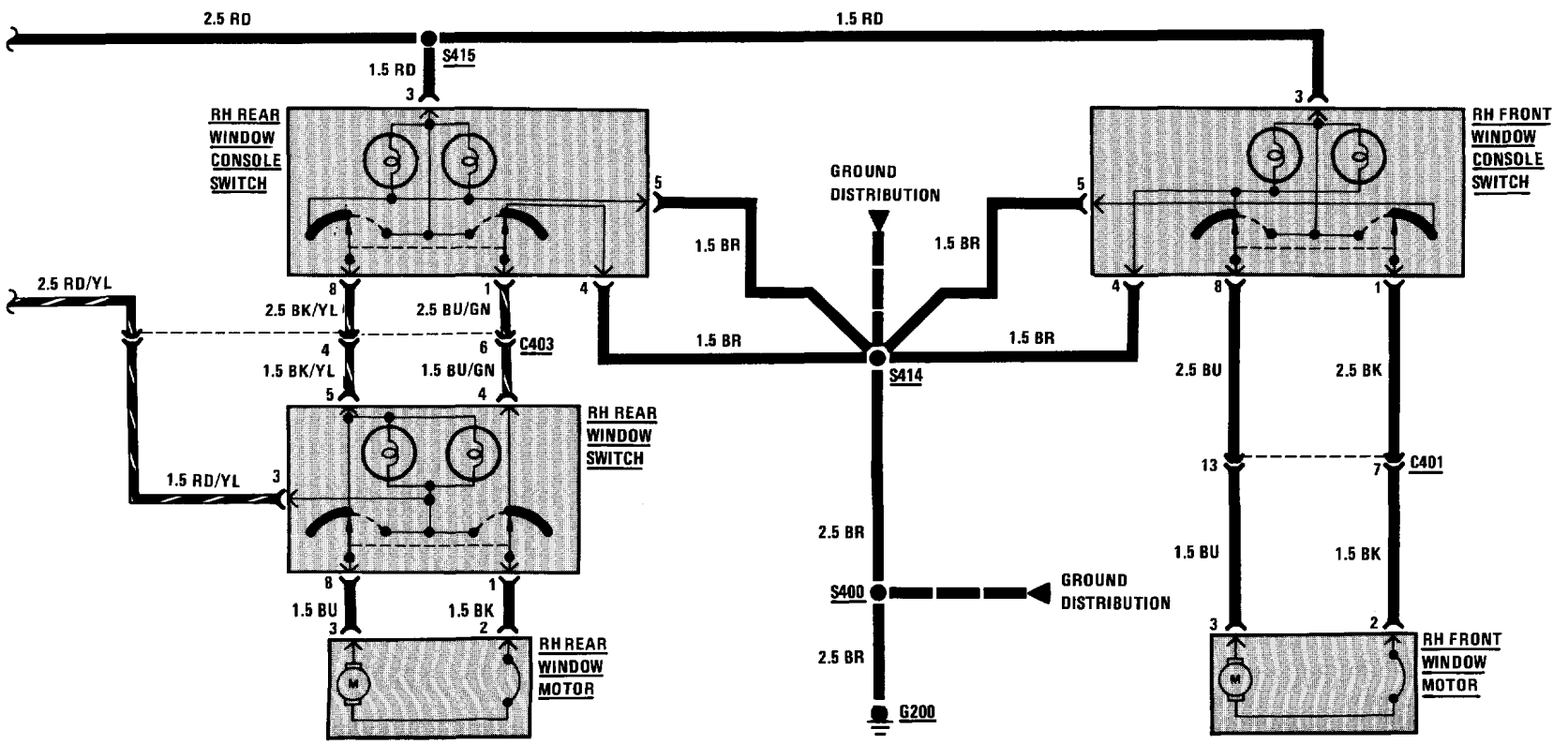
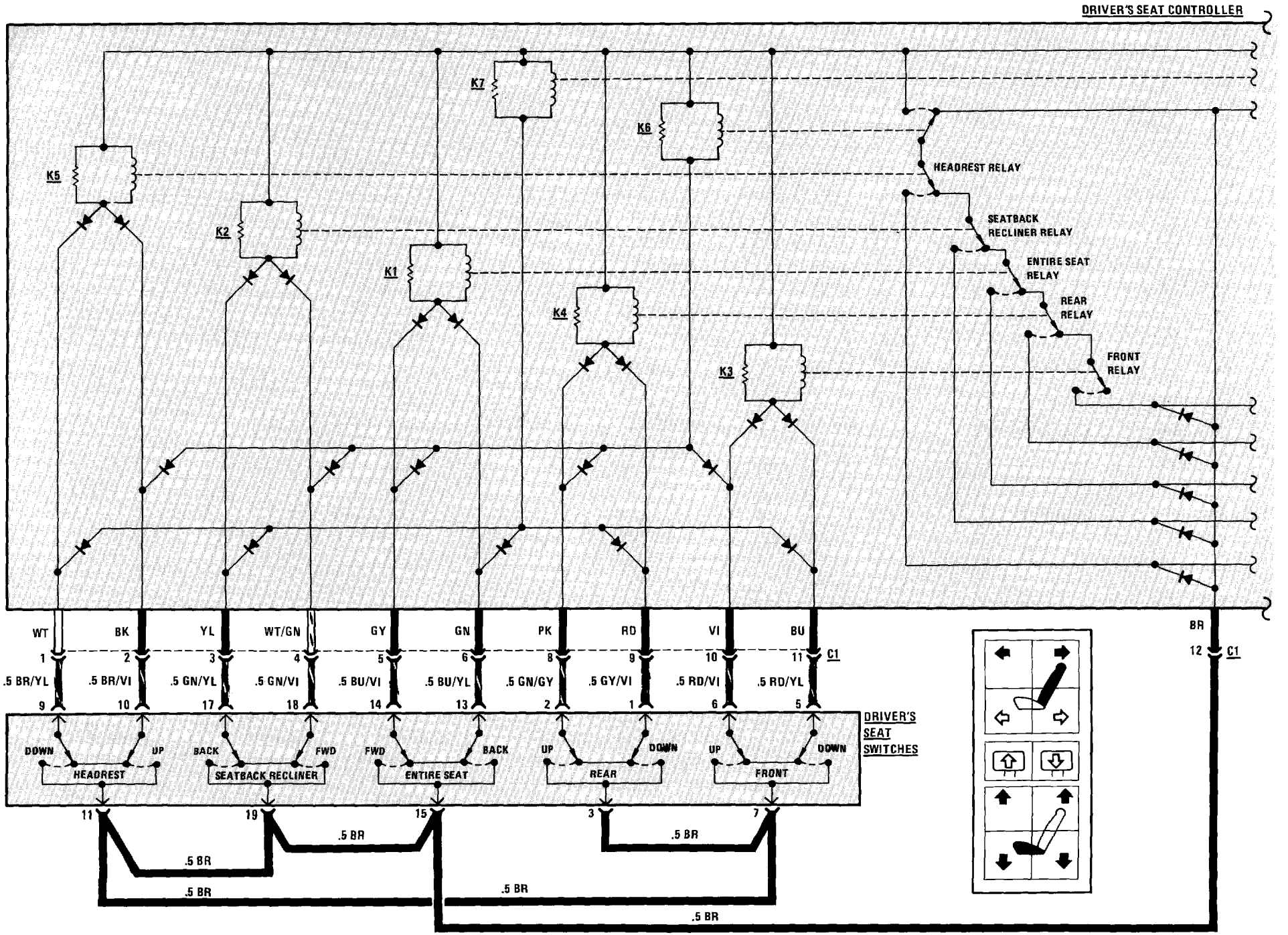
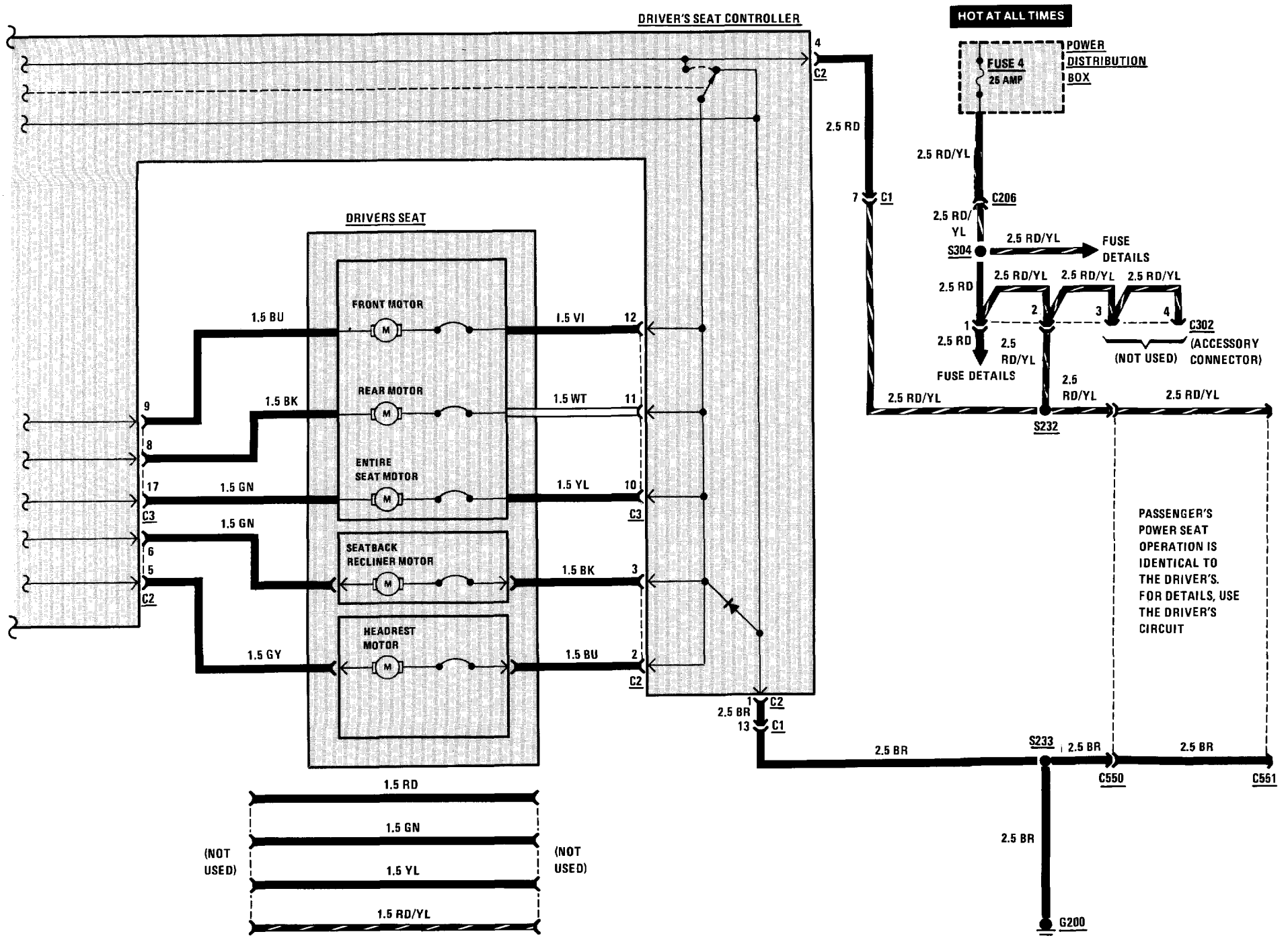
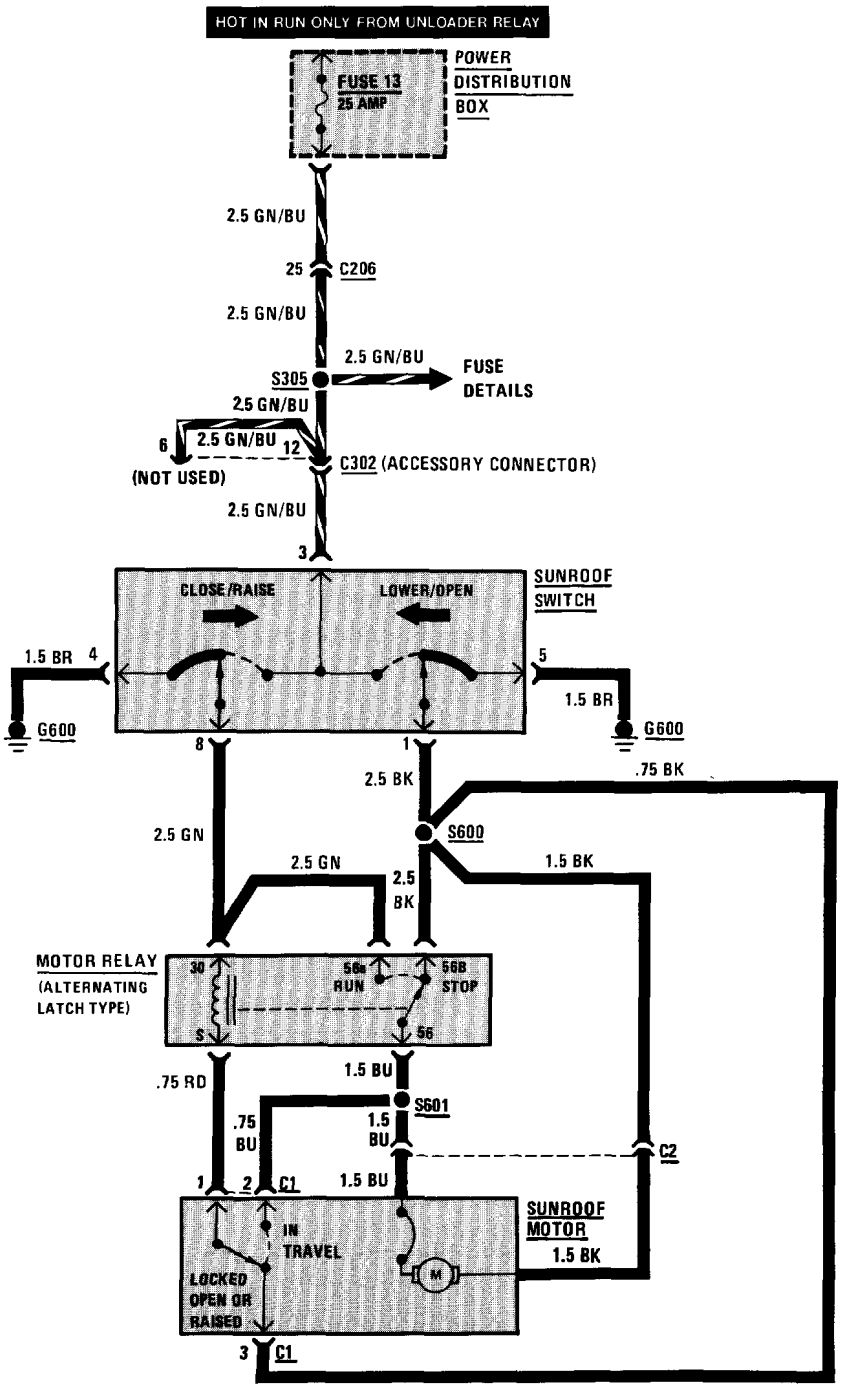



DRIVER'S SEAT CONTROLLER
K7
K6
K5
K2
K1
K4
K3
HEADREST RELAY
SEATBACK RECLINER RELAY
ENTIRE SEAT RELAY
REAR RELAY
FRONT RELAY
WT
BK
YL
WT/GN
GY
GN
PK
RD
VI
BU
BR
1
2
3
4
5
6
8
9
10
11
12
C1
.5 BR/YL
.5 BR/VI
.5 GN/YL
.5 GN/VI
.5 BU/VI
.5 BU/YL
.5 GN/GY
.5 GY/VI
.5 RD/VI
.5 RD/YL
9
10
17
18
14
13
2
1
6
5
DRIVER'S SEAT SWITCHES
DOWN
UP
HEADREST
BACK
FWD
SEATBACK RECLINER
FWD
BACK
ENTIRE SEAT
UP
DOWN
REAR
UP
DOWN
FRONT
11
19
15
3
7
.5 BR
.5 BR
.5 BR
.5 BR
.5 BR


DRIVER'S SEAT CONTROLLER
HOT AT ALL TIMES
FUSE 4
25 AMP
POWER DISTRIBUTION BOX
DRIVERS SEAT
FRONT MOTOR
REAR MOTOR
ENTIRE SEAT MOTOR
SEATBACK RECLINER MOTOR
HEADREST MOTOR
1.5 BU
1.5 BK
1.5 GN
1.5 GY
1.5 VI
1.5 WT
1.5 YL
1.5 BK
1.5 BU
1.5 RD
1.5 GN
1.5 YL
1.5 RD/YL
(NOT USED)
(NOT USED)
2.5 RD
2.5 RD/YL
2.5 RD/YL
2.5 BR
2.5 BR
2.5 BR
2.5 RD/YL
2.5 RD/YL
2.5 RD/YL
2.5 RD/YL
2.5 RD/YL
2.5 RD
2.5 RD/YL
2.5 RD/YL
2.5 RD/YL
2.5 RD
2.5 RD/YL
2.5 RD/YL
FUSE DETAILS
FUSE DETAILS
(NOT USED)
(ACCESSORY CONNECTOR)
PASSENGER'S POWER SEAT OPERATION IS IDENTICAL TO THE DRIVER'S. FOR DETAILS, USE THE DRIVER'S CIRCUIT
C1
C2
C3
C206
C302
C550
C551
G200
S232
S233
S304

EARLY PRODUCTION



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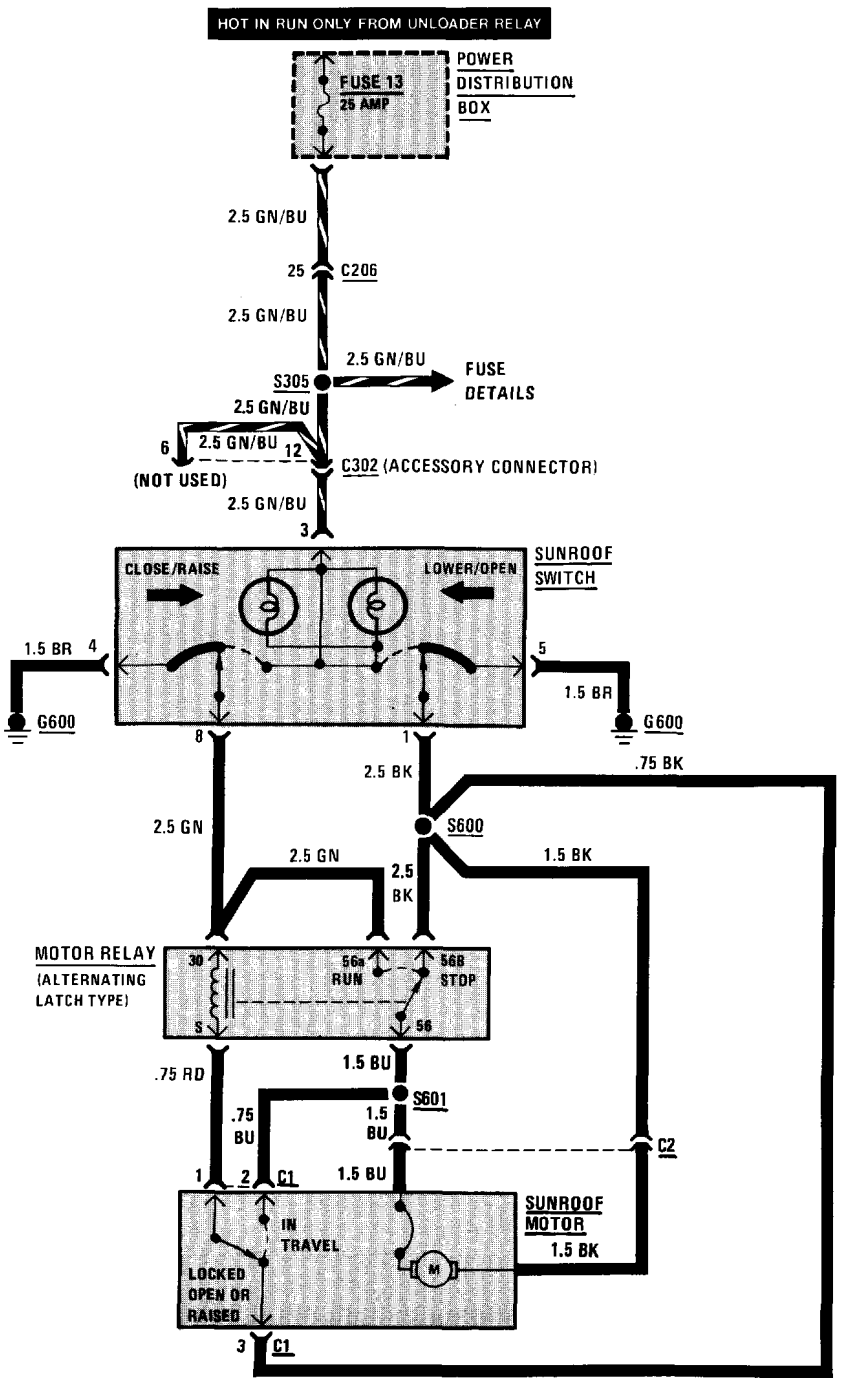
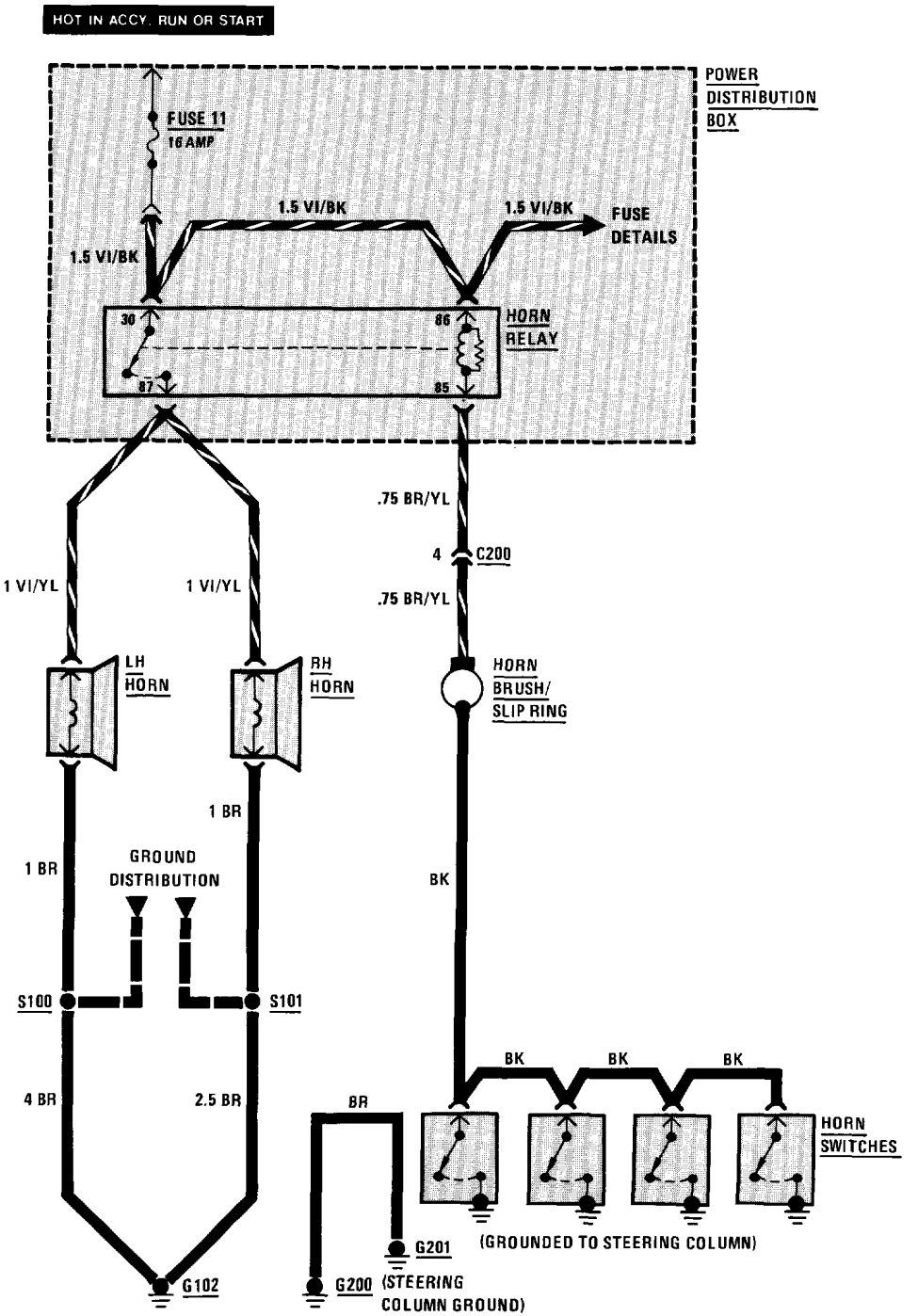
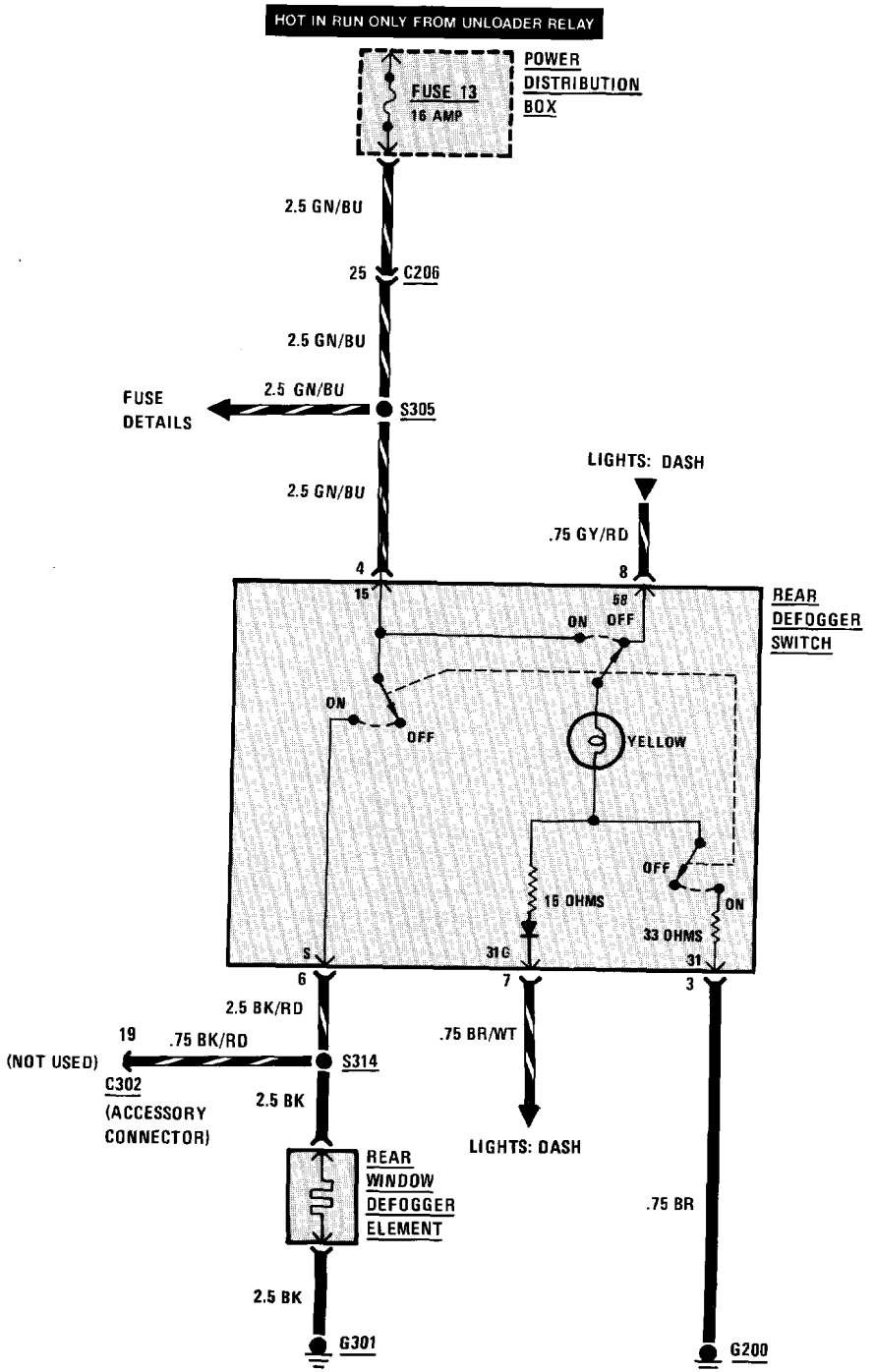


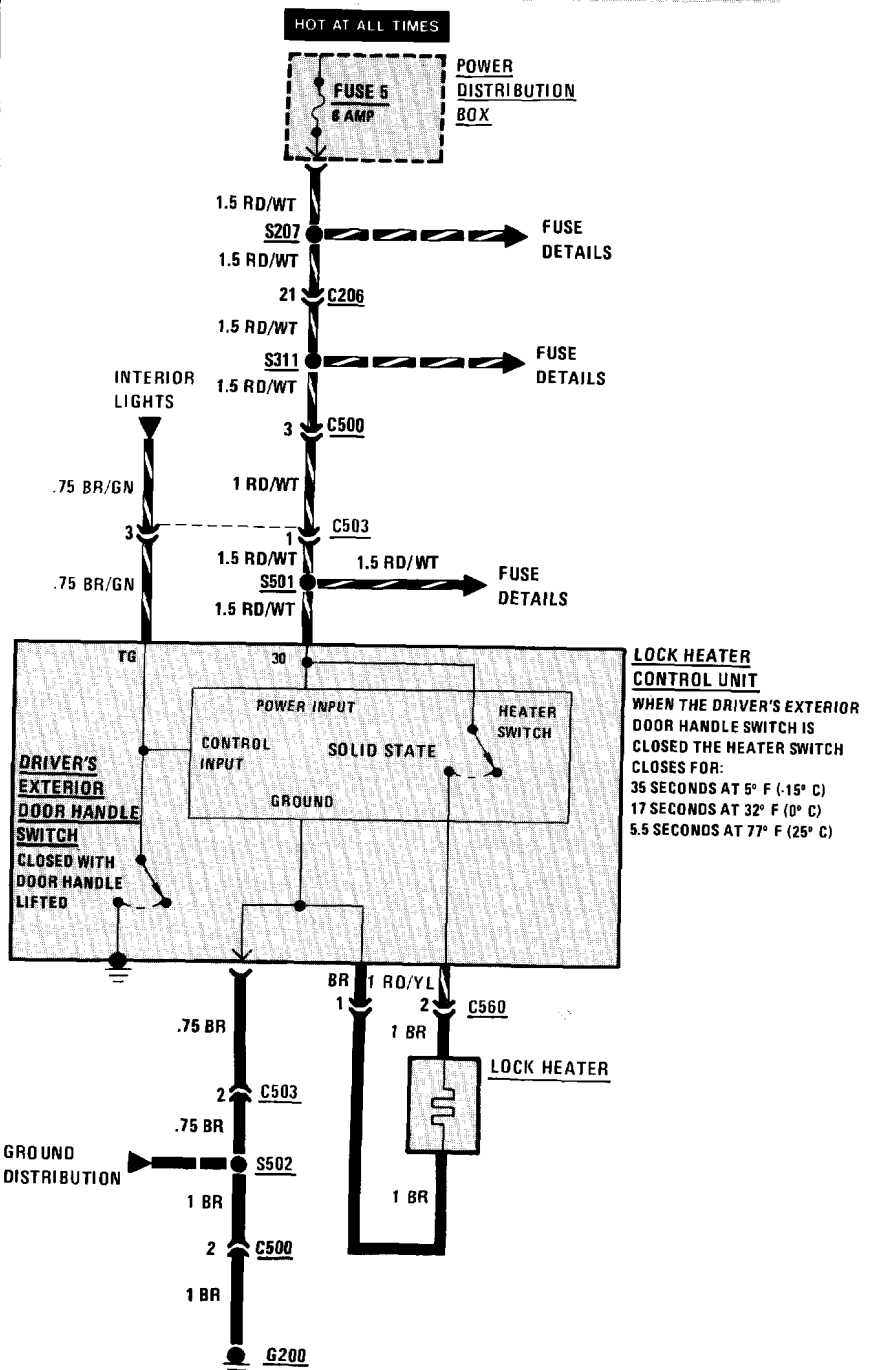
HORN


HOT IN ACCY. RUN OR START
POWER DISTRIBUTION BOX
FUSE 11
16 AMP
1.5 VI/BK
1.5 VI/BK
1.5 VI/BK
FUSE DETAILS
30
86
HORN RELAY
87
85
.75 BR/YL
4
C200
.75 BR/YL
1 VI/YL
1 VI/YL
LH HORN
RH HORN
HORN BRUSH/ SLIP RING
1 BR
1 BR
GROUND DISTRIBUTION
BK
S100
S101
BK
BK
BK
4 BR
2.5 BR
BR
HORN SWITCHES
G201
(GROUNDED TO STEERING COLUMN)
G102
G200
(STEERING COLUMN GROUND)

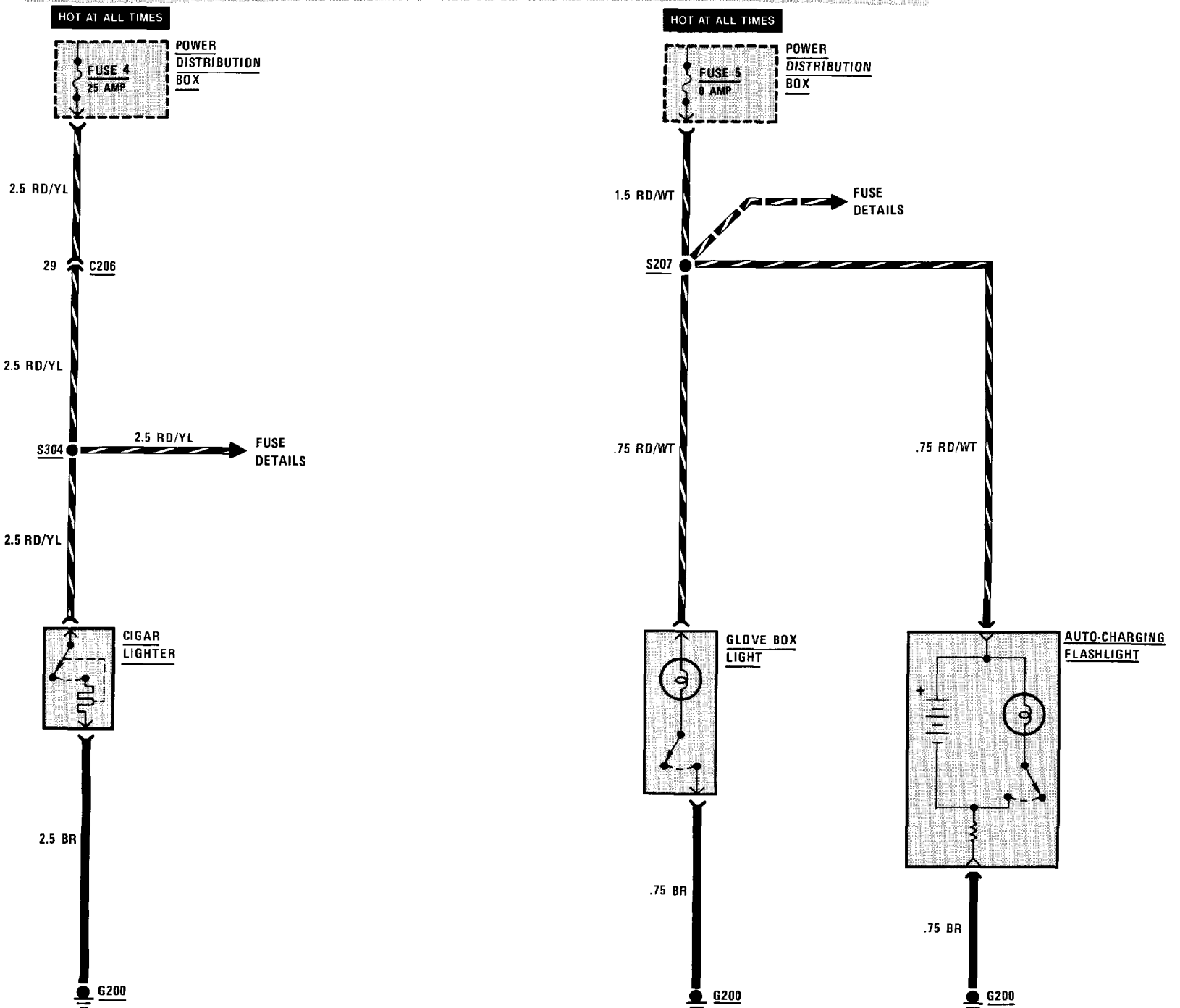
REAR DEFOGGER

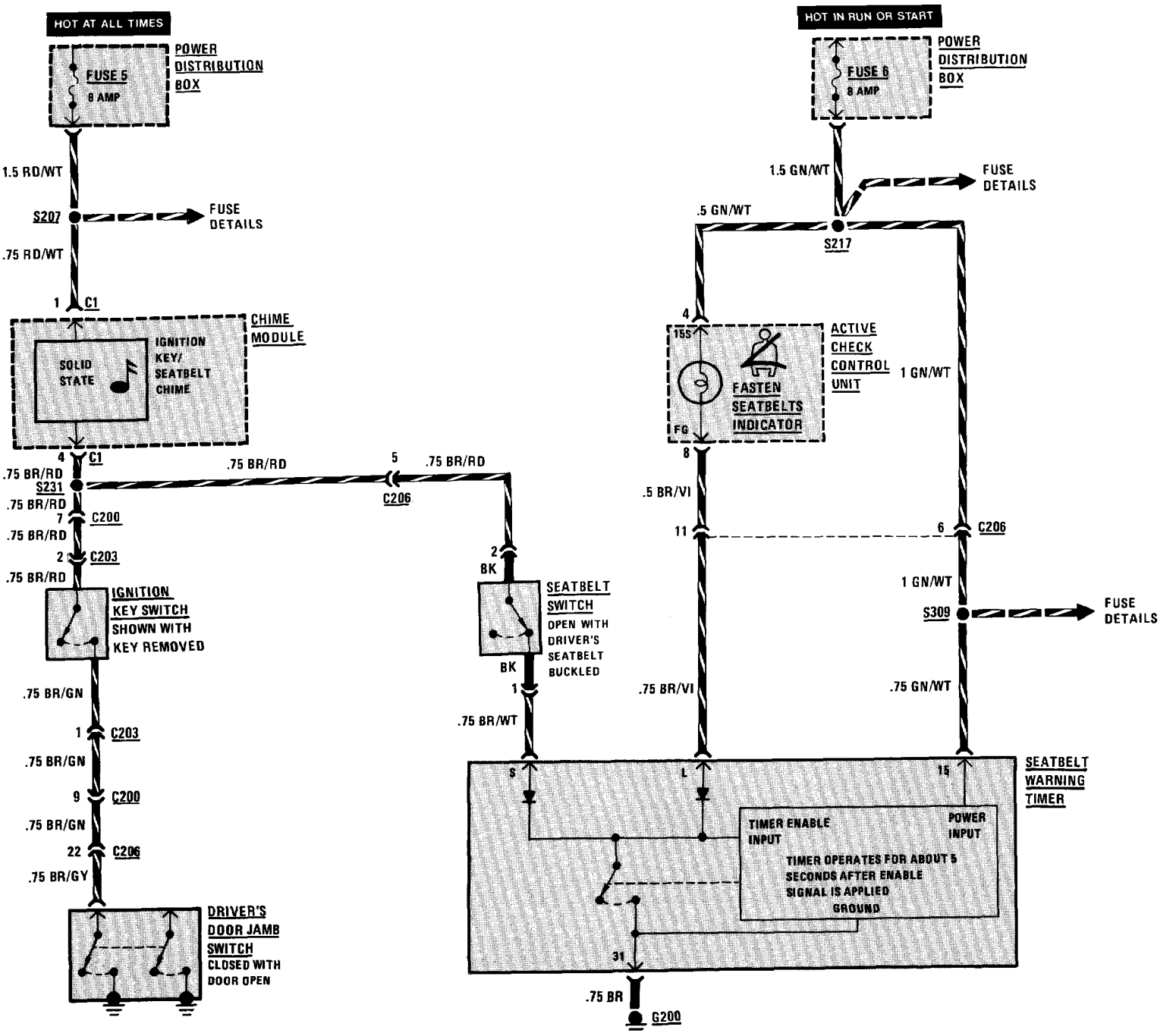


HEATED DOOR LOCKS

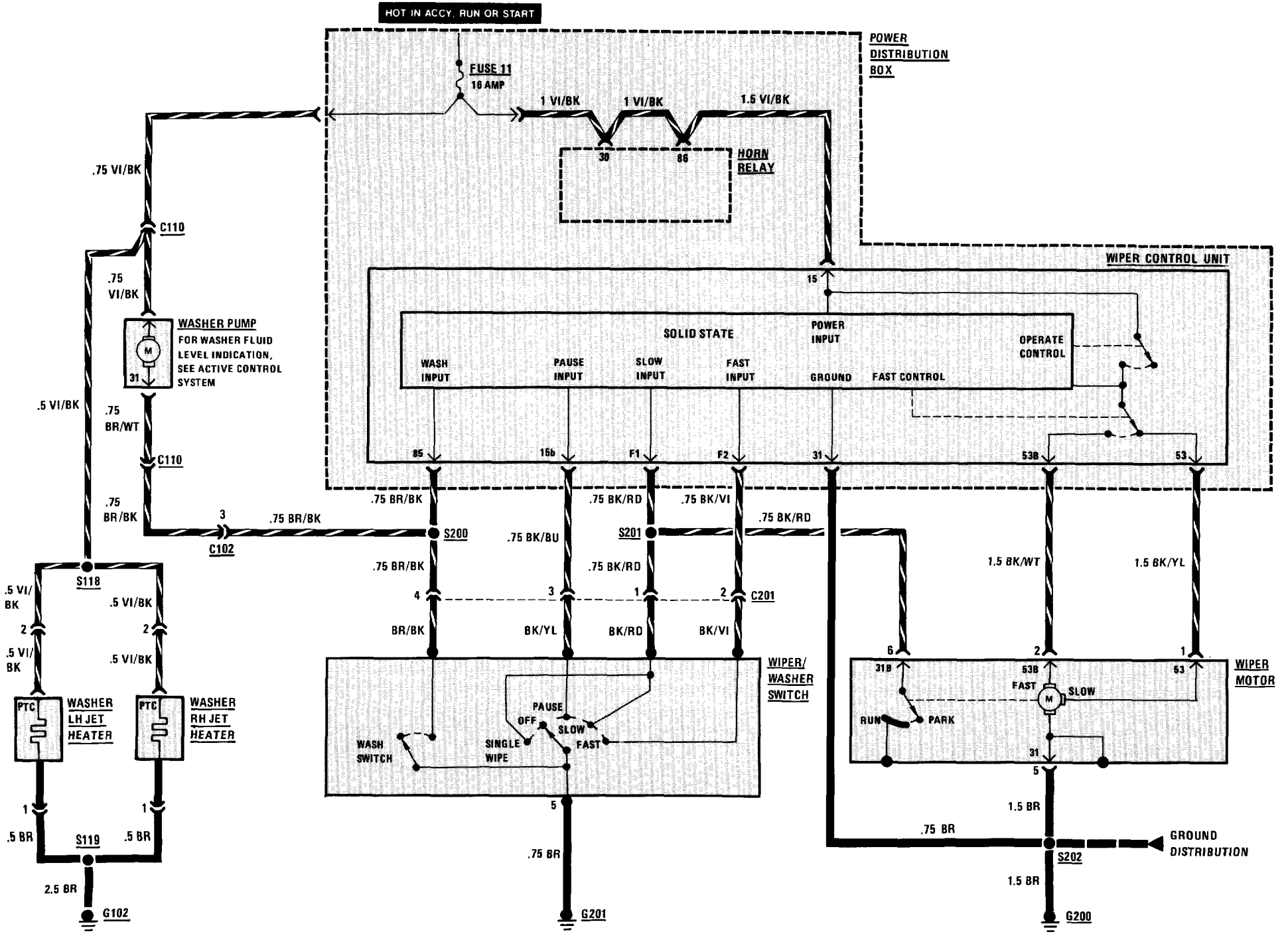


CIGAR LIGHTER/GLOVE BOX LIGHT/AUTO-CHARGING FLASHLIGHT

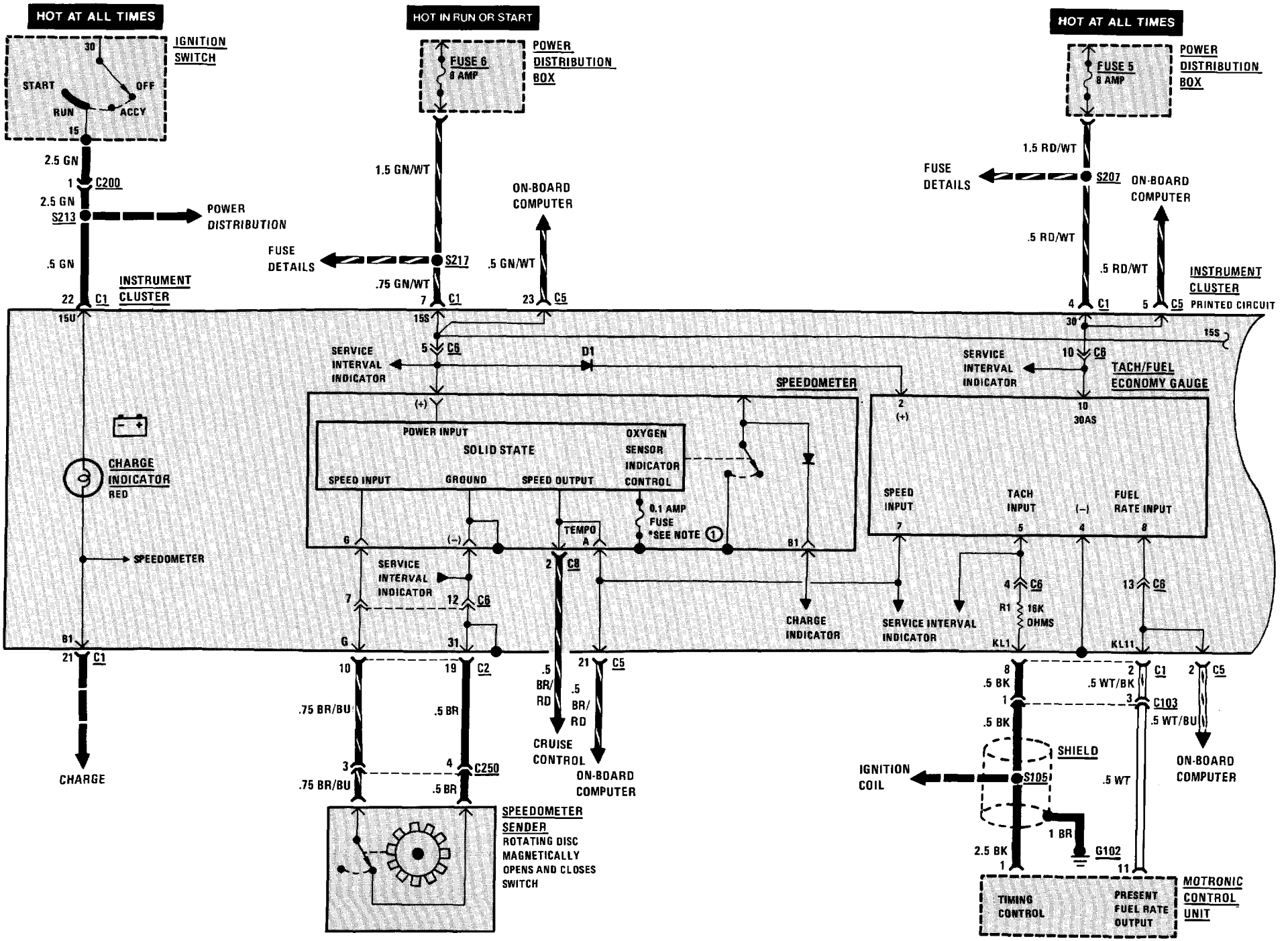



HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5
8 AMP
1.5 RD/WT
S207
FUSE DETAILS
.75 RD/WT
1
C1
CHIME MODULE
SOLID STATE
IGNITION KEY/ SEATBELT CHIME
4
C1
.75 BR/RD
S231
.75 BR/RD
7
C200
.75 BR/RD
2
C203
.75 BR/RD
IGNITION KEY SWITCH SHOWN WITH KEY REMOVED
.75 BR/GN
1
C203
.75 BR/GN
9
C200
.75 BR/GN
22
C206
.75 BR/GY
DRIVER'S DOOR JAMB SWITCH CLOSED WITH DOOR OPEN
.75 BR/RD
5
.75 BR/RD
C206
2
BK
SEATBELT SWITCH OPEN WITH DRIVER'S SEATBELT BUCKLED
BK
1
.75 BR/WT
HOT IN RUN OR START
POWER DISTRIBUTION BOX
FUSE 6
8 AMP
1.5 GN/WT
FUSE DETAILS
.5 GN/WT
S217
4
15S
ACTIVE CHECK CONTROL UNIT
1 GN/WT
FASTEN SEATBELTS INDICATOR
FG
8
.5 BR/VI
11
6
C206
1 GN/WT
S309
FUSE DETAILS
.75 BR/VI
.75 GN/WT
S
L
15
SEATBELT WARNING TIMER
TIMER ENABLE INPUT
POWER INPUT
TIMER OPERATES FOR ABOUT 5 SECONDS AFTER ENABLE SIGNAL IS APPLIED GROUND
31
.75 BR
G200

WIPER/WASHER AND HEATED WASHER JETS



SPEEDOMETER/GAUGES/WARNING INDICATORS EARLY PRODUCTION



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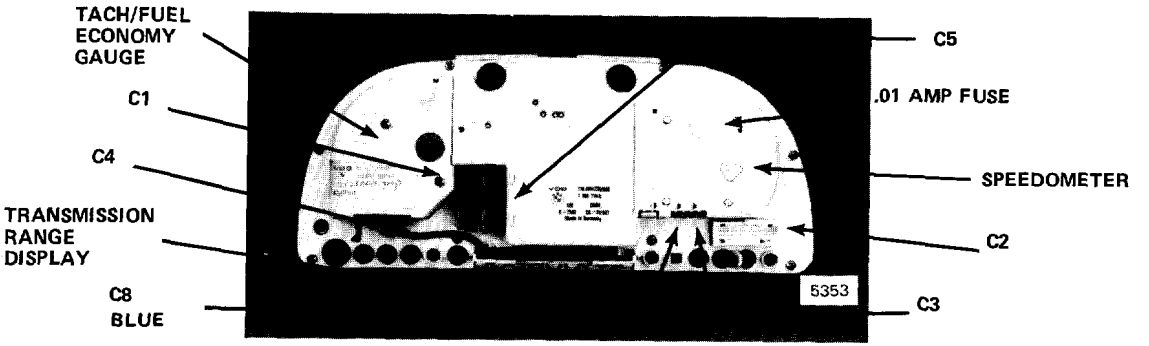
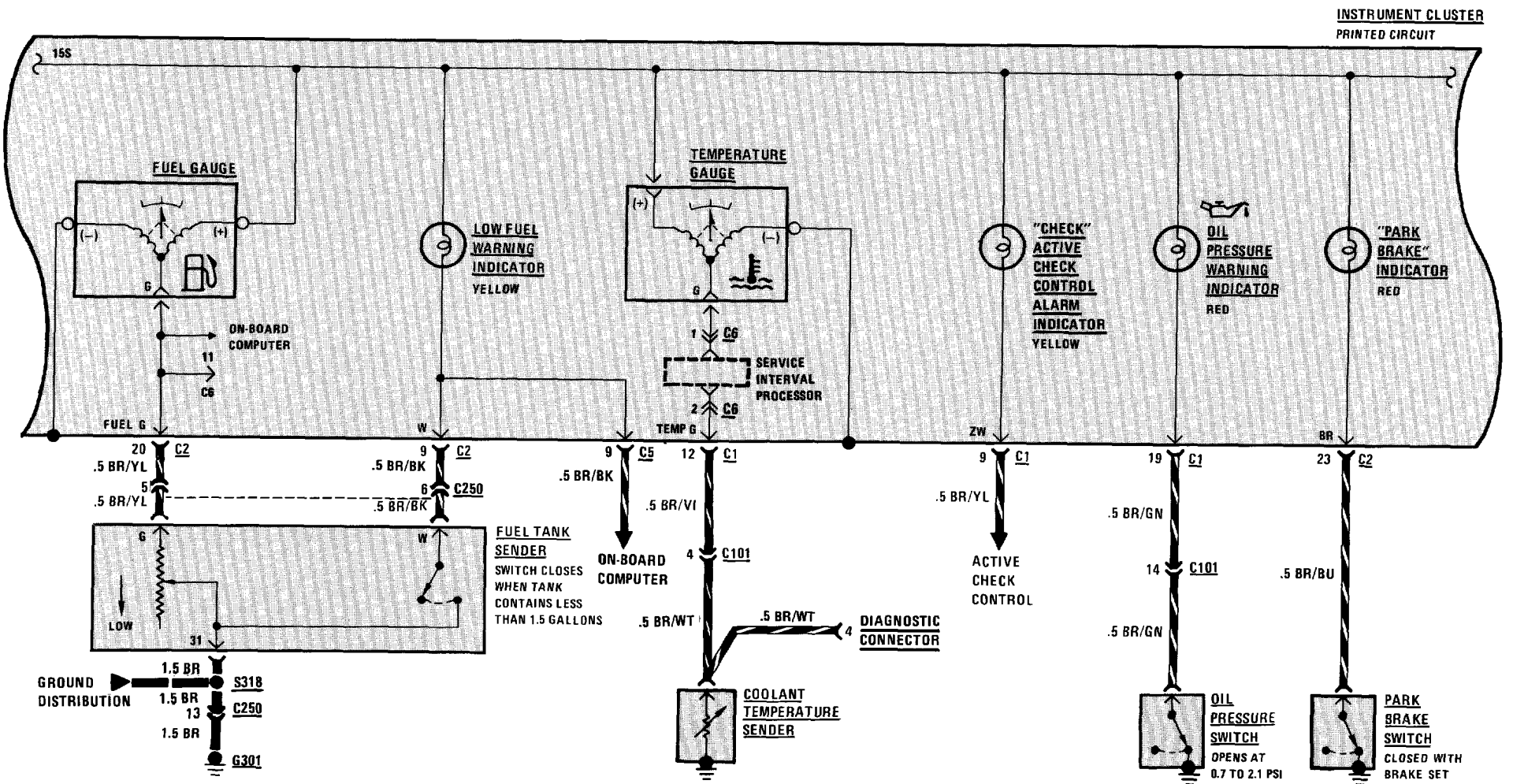
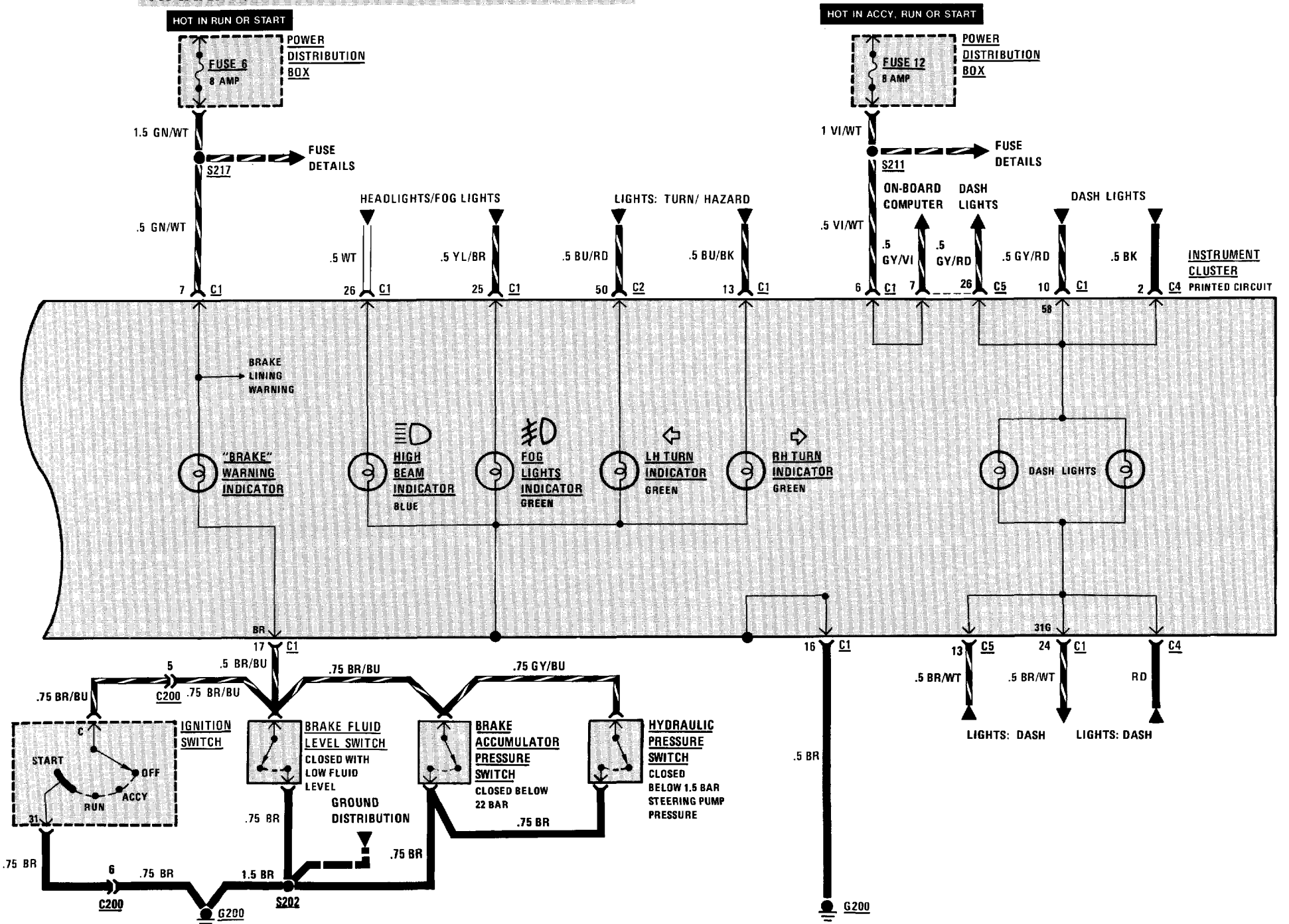


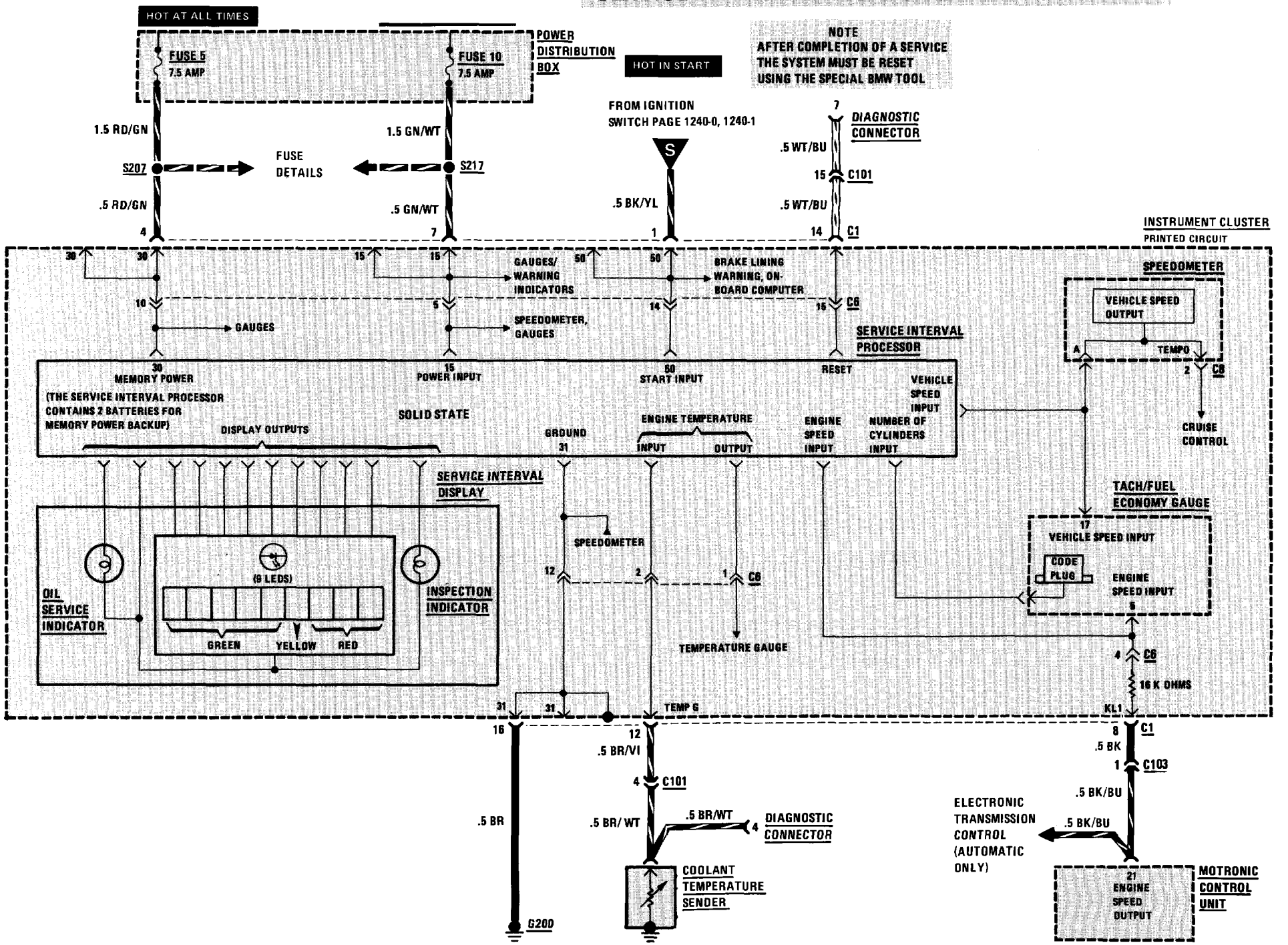
Rear Of Instrument Cluster



WARNING INDICATORS EARLY PRODUCTION



SERVICE INTERVAL INDICATOR EARLY PRODUCTION



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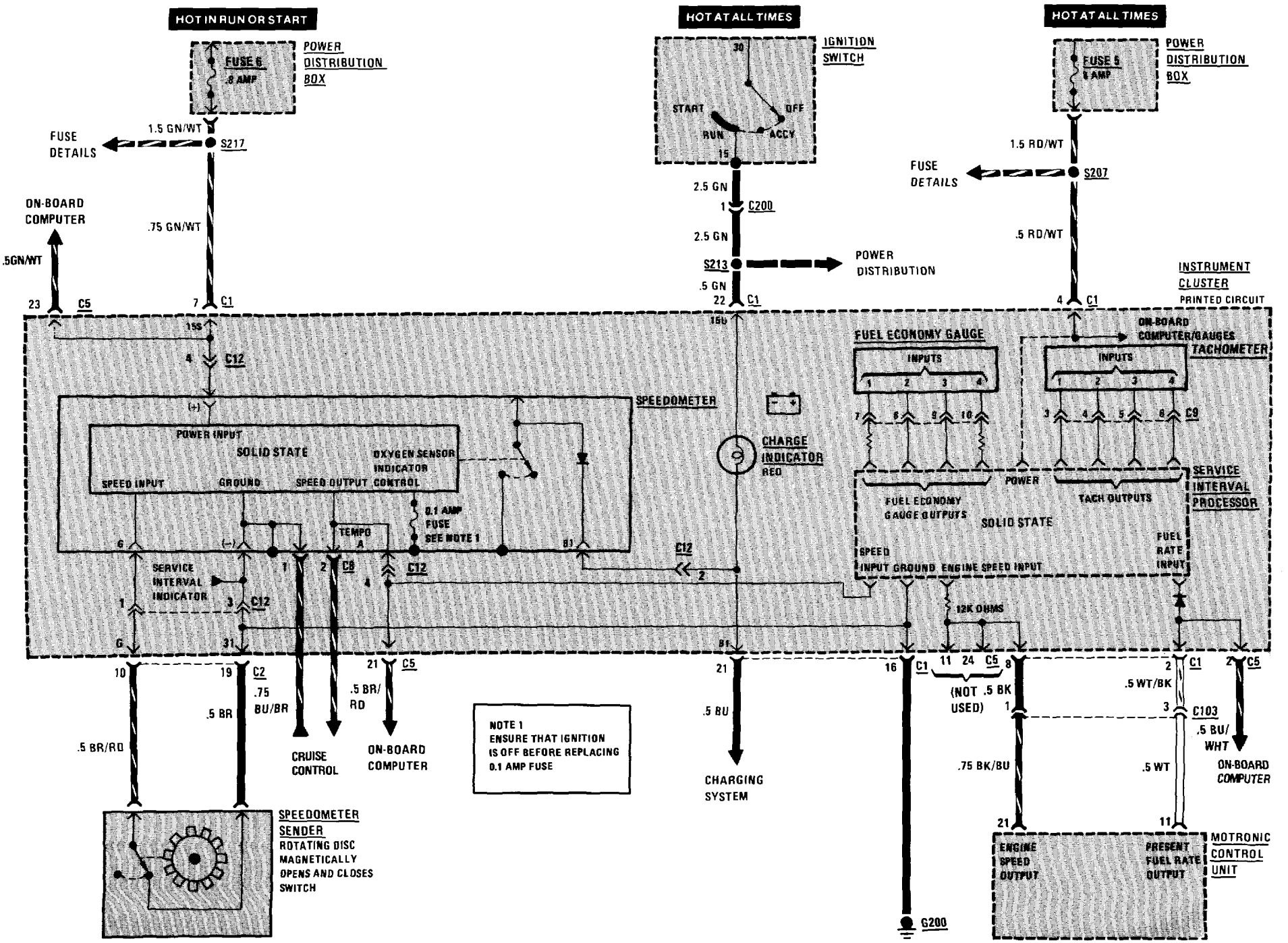
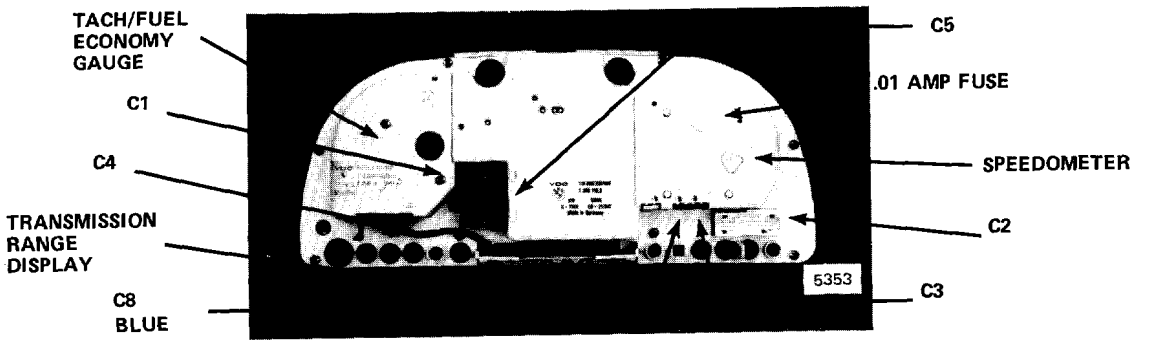
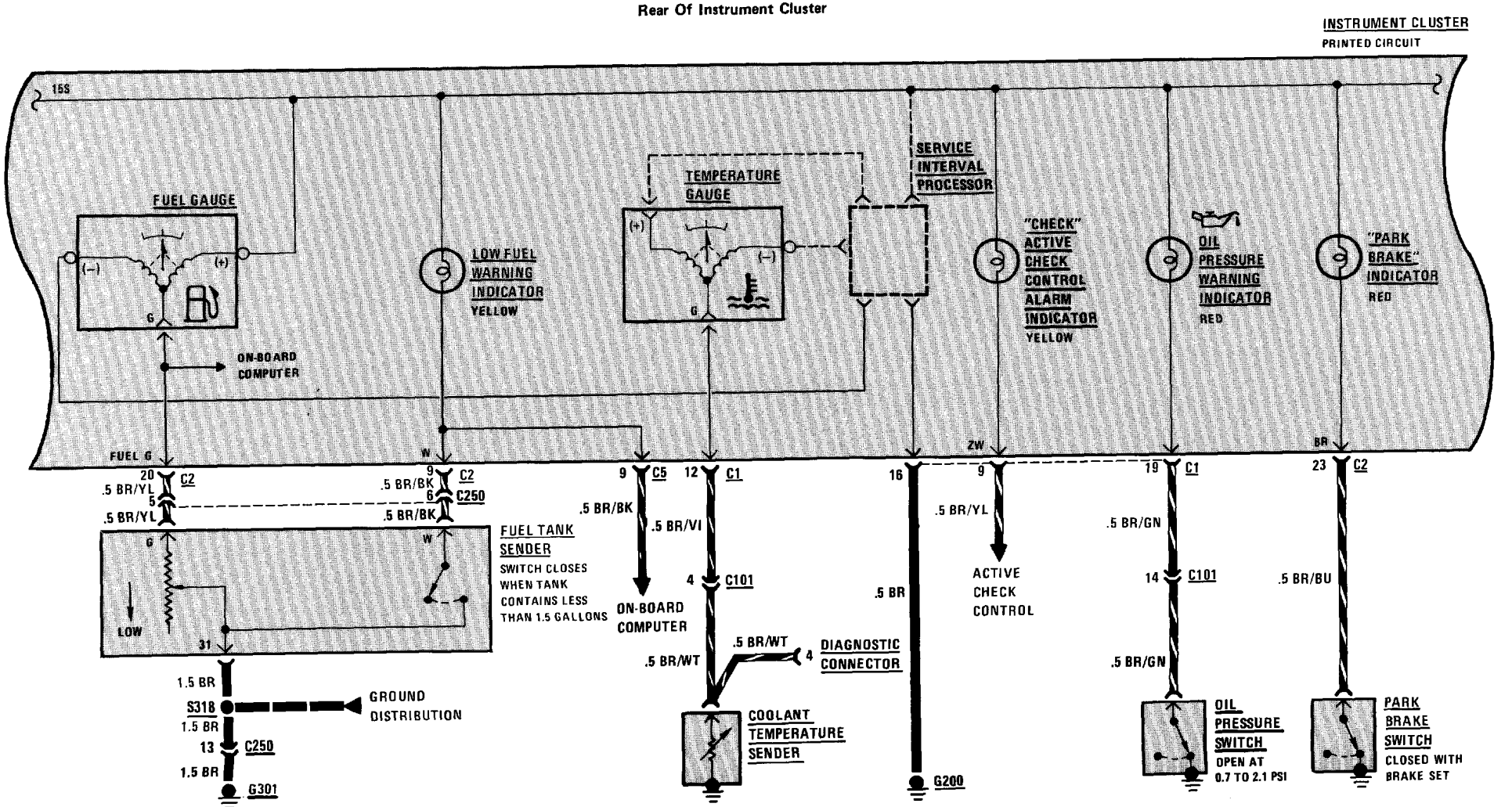


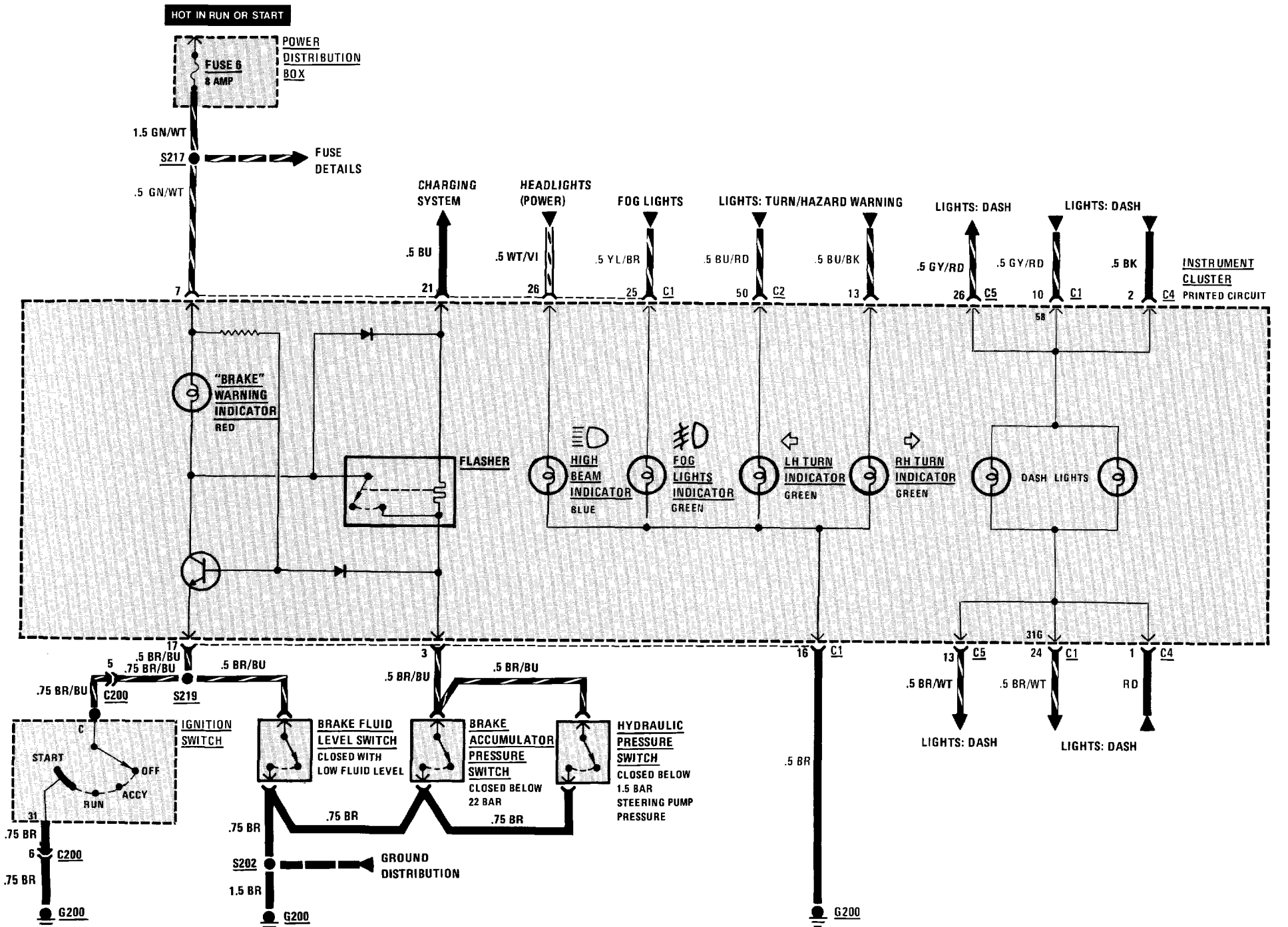
GAUGES/WARNING INDICATORS LATE PRODUCTION



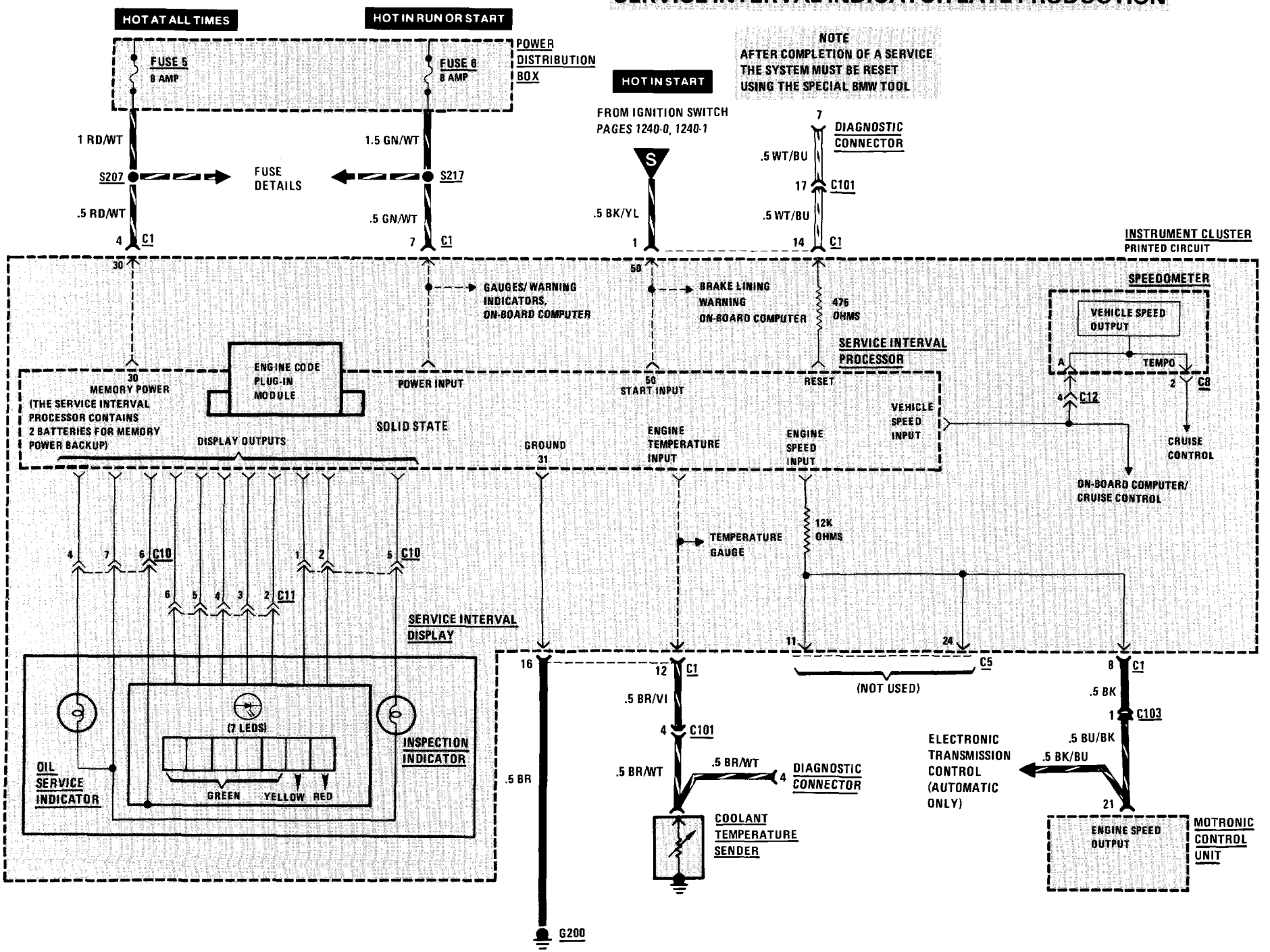
Rear Of Instrument Cluster



WARNING INDICATORS LATE PRODUCTION



SERVICE INTERVAL INDICATOR LATE PRODUCTION



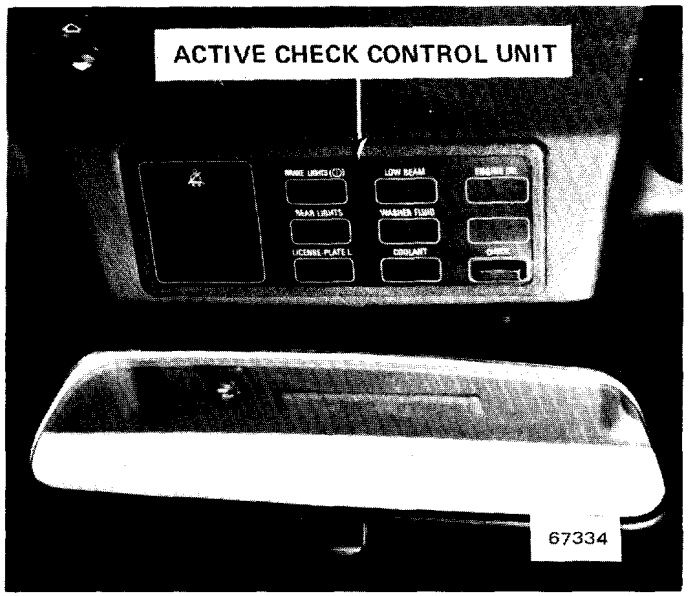


Figure 1 - Above Rear View Mirror

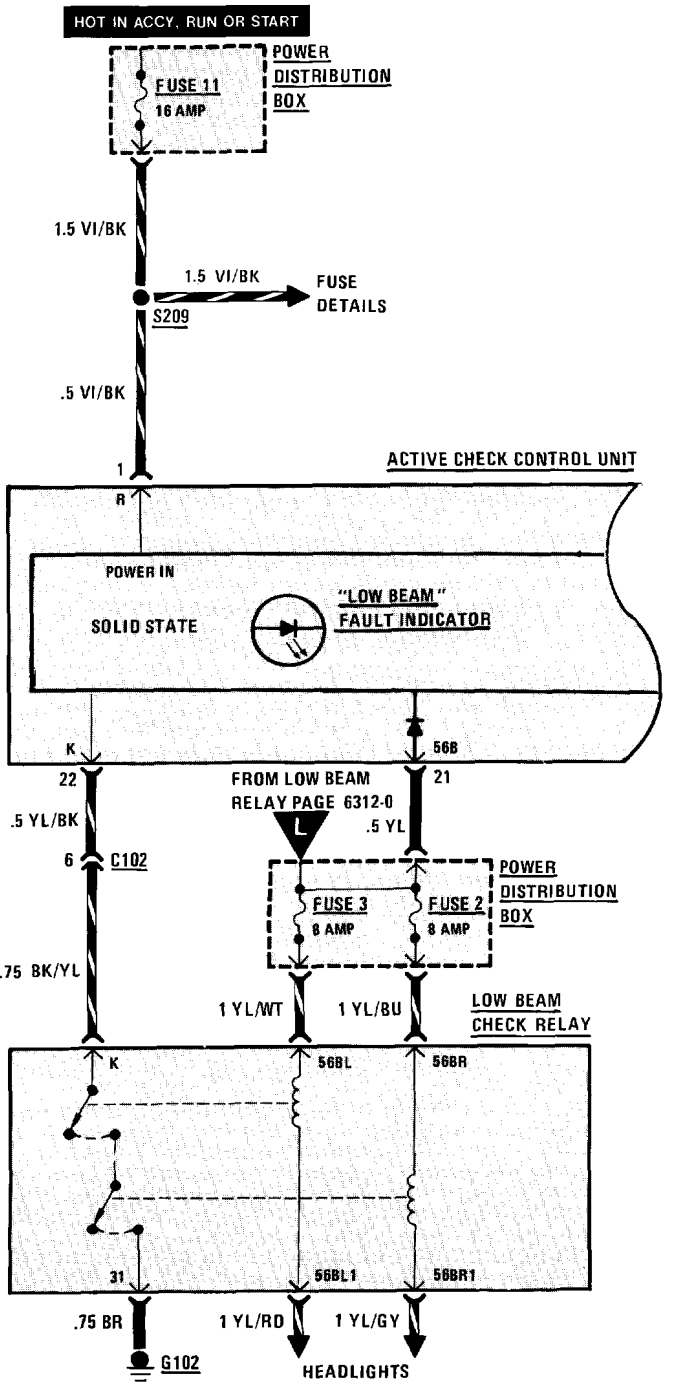
ACTIVE CHECK CONTROL

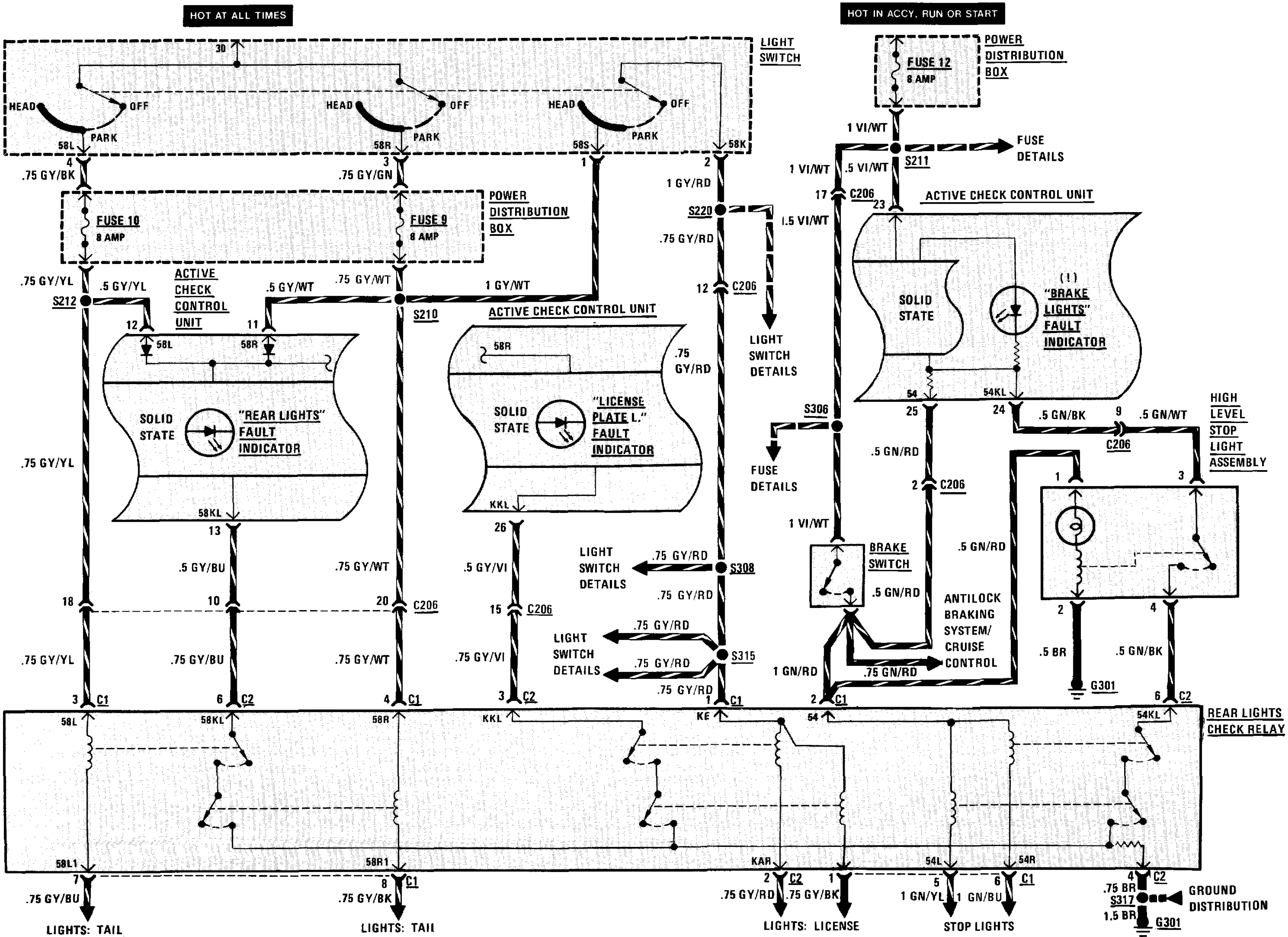
1. When the Ignition Switch is initially placed in "Run," the Active Check Control Alarm Indicator flashes, and the Active Check Control Unit Brake Light LED and panel light illuminate for test purposes. Depressing the brake pedal clears the display.

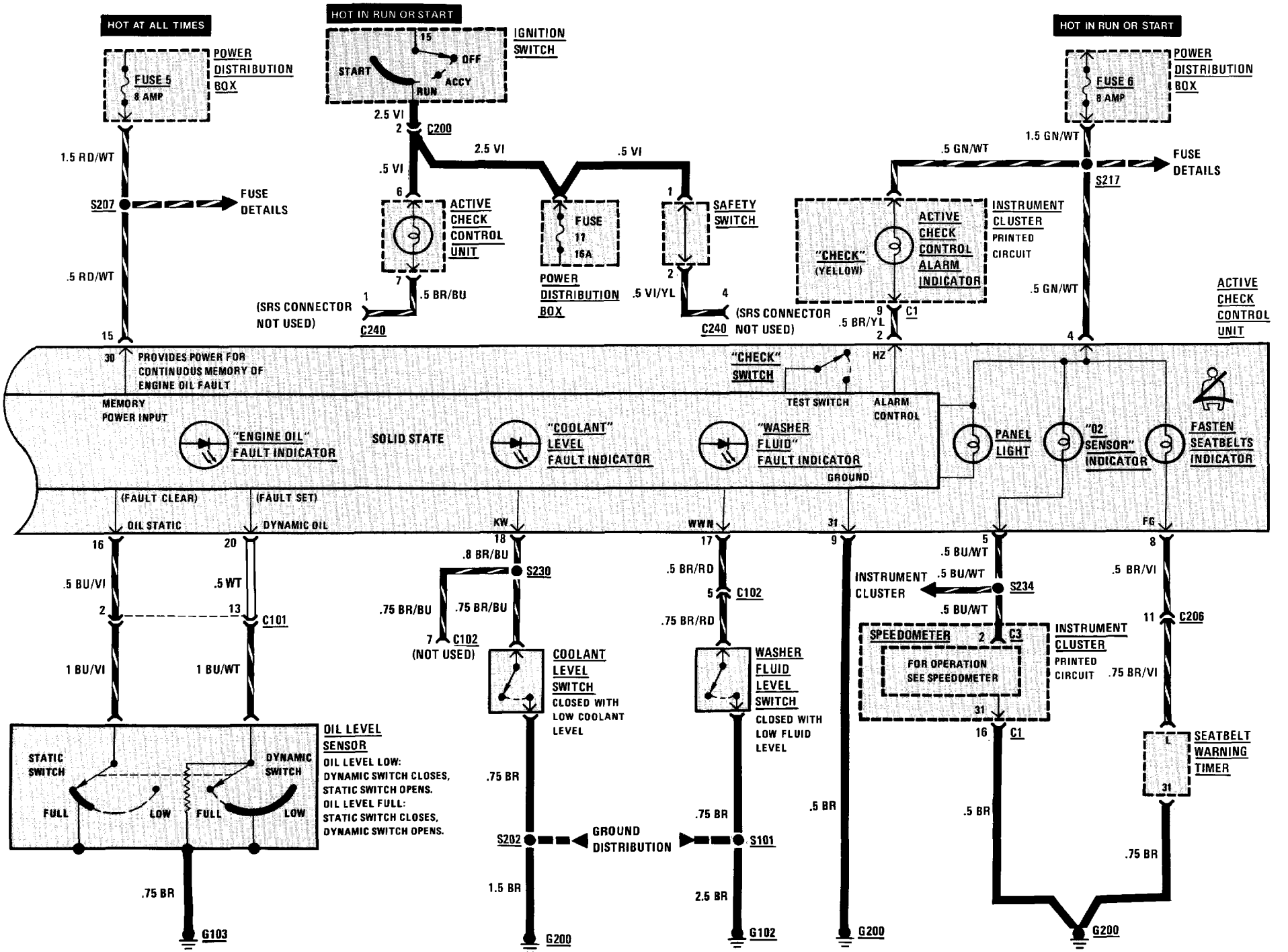
2. When the Ignition Switch is placed in "Run," fault monitoring begins. To monitor the low beams, rear lights, or license lights, those circuits must be on. The brake lights are monitored only while the brake pedal is depressed.

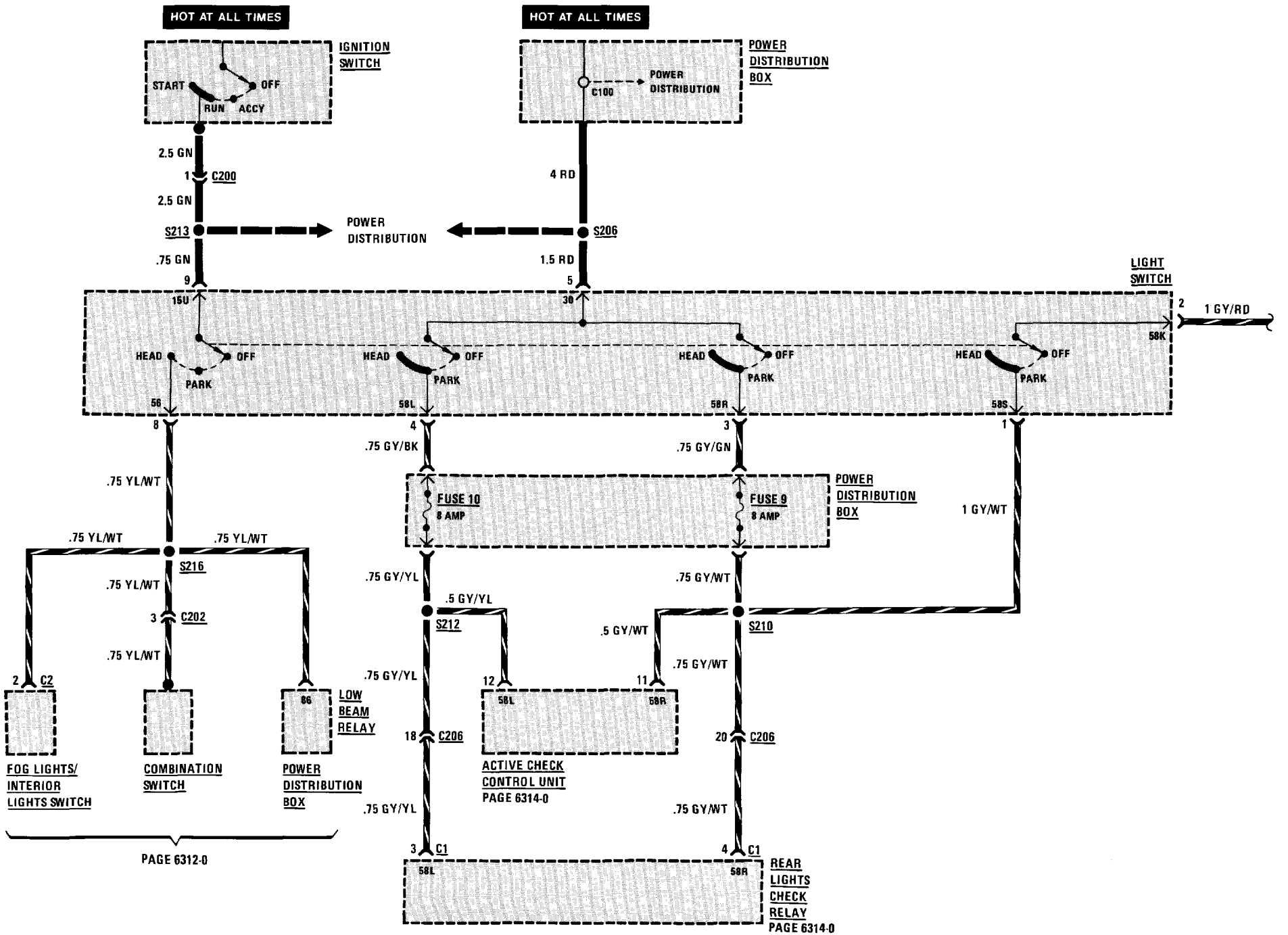
3. When a fault occurs, the alarm indicator flashes, the appropriate LED indicator lights, and the panel light goes on for five seconds. Depressing the test button will clear the alarm indicator, but the LED fault indicator remains on.

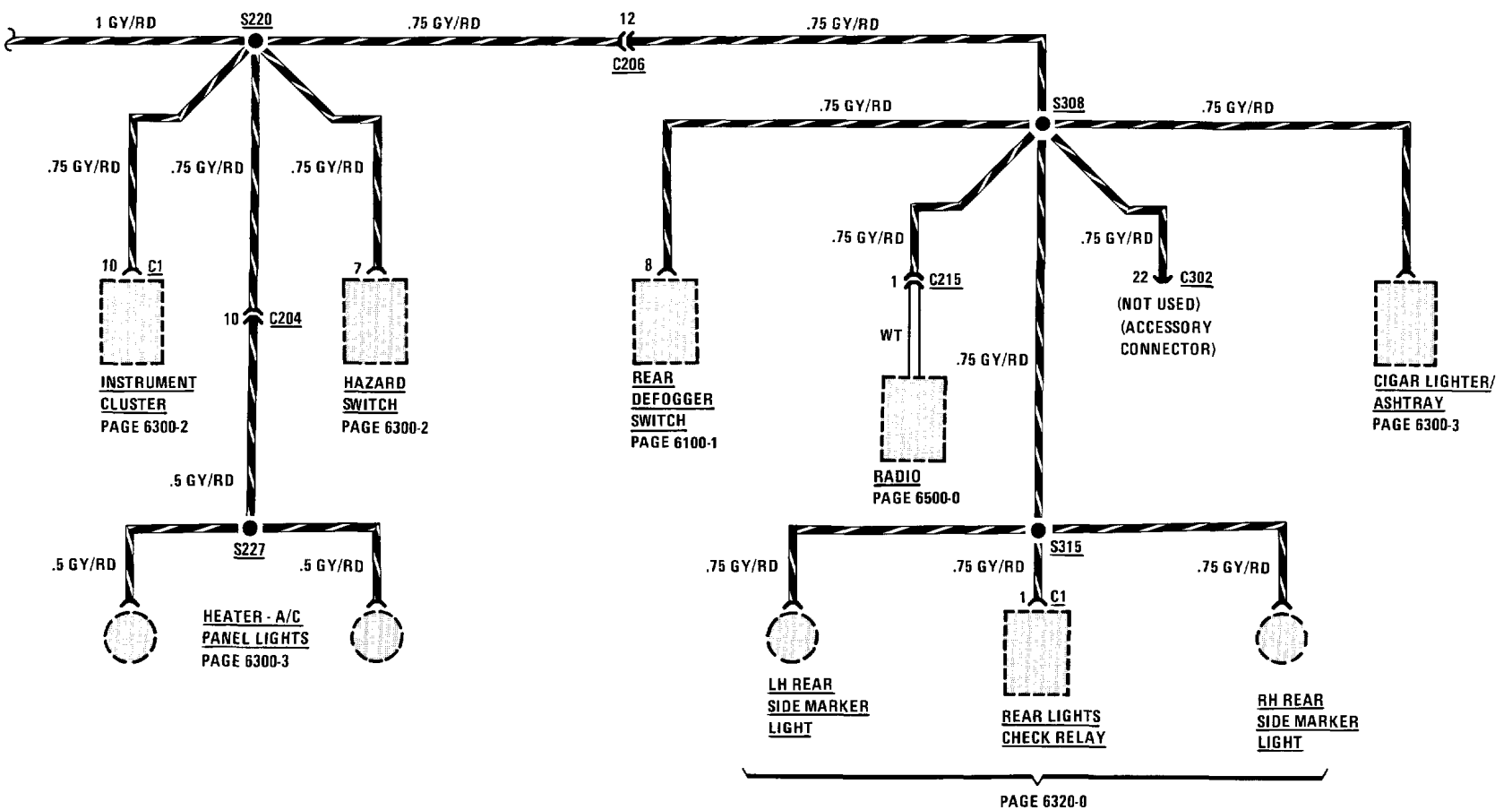
4. To test the unit, depress the test button. The LED fault indicators and panel lights should go on.



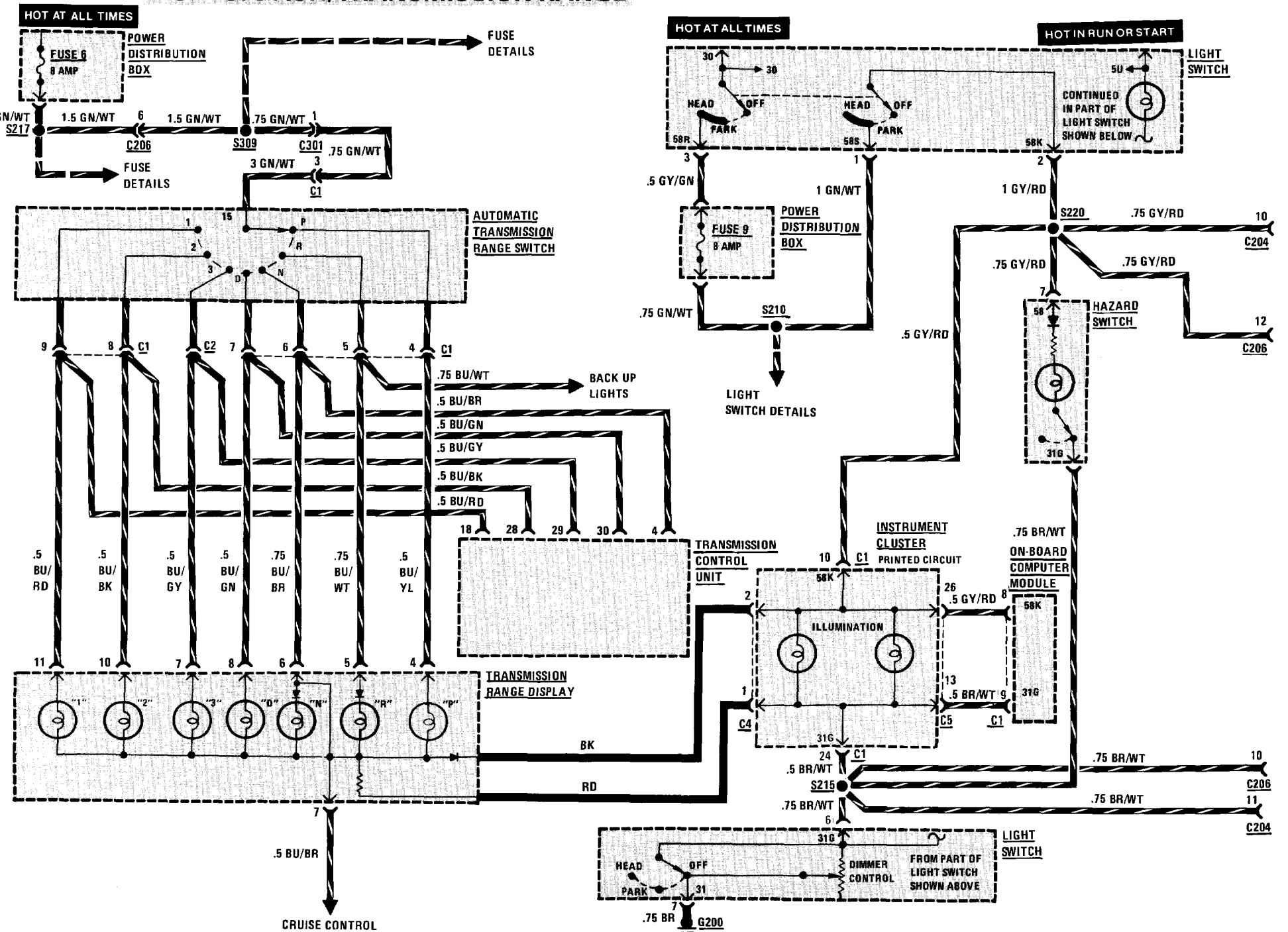

HOT AT ALL TIMES
HOT IN ACCY, RUN OR START
LIGHT SWITCH
HEAD
OFF
PARK
58L
58R
58S
58K
30
POWER DISTRIBUTION BOX
FUSE 10 8 AMP
FUSE 9 8 AMP
FUSE 12 8 AMP
.75 GY/BK
.75 GY/GN
.75 GY/YL
.5 GY/YL
.5 GY/WT
.75 GY/WT
1 GY/WT
1 GY/RD
.75 GY/RD
S212
S210
S220
S211
S306
S308
S315
ACTIVE CHECK CONTROL UNIT
SOLID STATE
"REAR LIGHTS" FAULT INDICATOR
"LICENSE PLATE L." FAULT INDICATOR
"BRAKE LIGHTS" FAULT INDICATOR
58KL
KKL
54
54KL
.5 GY/BU
.75 GY/BU
.5 GY/VI
.75 GY/VI
C206
C1
C2
LIGHT SWITCH DETAILS
FUSE DETAILS
1 VI/WT
.5 VI/WT
1.5 VI/WT
.5 GN/BK
.5 GN/WT
.5 GN/RD
1 GN/RD
.75 GN/RD
HIGH LEVEL STOP LIGHT ASSEMBLY
BRAKE SWITCH
ANTILOCK BRAKING SYSTEM/ CRUISE CONTROL
.5 BR
G301
REAR LIGHTS CHECK RELAY
KE
58L1
58R1
KAR
54L
54R
.75 GY/RD
.75 GY/BK
1 GN/YL
1 GN/BU
.75 BR
S317
1.5 BR
GROUND DISTRIBUTION
LIGHTS: TAIL
LIGHTS: LICENSE
STOP LIGHTS


HOT AT ALL TIMES
HOT IN RUN OR START
HOT IN RUN OR START
POWER DISTRIBUTION BOX
FUSE 5 8 AMP
IGNITION SWITCH
START
OFF
ACCY
RUN
FUSE 6 8 AMP
1.5 RD/WT
S207
FUSE DETAILS
2.5 VI
C200
.5 VI
2.5 VI
.5 VI
1.5 GN/WT
.5 GN/WT
S217
FUSE DETAILS
ACTIVE CHECK CONTROL UNIT
FUSE 11 16A
POWER DISTRIBUTION BOX
SAFETY SWITCH
"CHECK" (YELLOW)
ACTIVE CHECK CONTROL ALARM INDICATOR
INSTRUMENT CLUSTER PRINTED CIRCUIT
.5 RD/WT
.5 BR/BU
(SRS CONNECTOR NOT USED)
C240
.5 VI/YL
(SRS CONNECTOR NOT USED)
C240
.5 BR/YL
C1
.5 GN/WT
ACTIVE CHECK CONTROL UNIT
PROVIDES POWER FOR CONTINUOUS MEMORY OF ENGINE OIL FAULT
MEMORY POWER INPUT
"CHECK" SWITCH
TEST SWITCH
ALARM CONTROL
"ENGINE OIL" FAULT INDICATOR
SOLID STATE
"COOLANT" LEVEL FAULT INDICATOR
"WASHER FLUID" FAULT INDICATOR
GROUND
PANEL LIGHT
"02 SENSOR" INDICATOR
FASTEN SEATBELTS INDICATOR
(FAULT CLEAR)
(FAULT SET)
OIL STATIC
DYNAMIC OIL
.5 BU/VI
.5 WT
C101
1 BU/VI
1 BU/WT
.8 BR/BU
S230
.75 BR/BU
.75 BR/BU
C102
(NOT USED)
.5 BR/RD
C102
.75 BR/RD
.5 BU/WT
INSTRUMENT CLUSTER
S234
.5 BU/WT
.5 BR/VI
C206
SPEEDOMETER
C3
FOR OPERATION SEE SPEEDOMETER
INSTRUMENT CLUSTER PRINTED CIRCUIT
.75 BR/VI
C1
SEATBELT WARNING TIMER
OIL LEVEL SENSOR
STATIC SWITCH
DYNAMIC SWITCH
FULL
LOW
FULL
LOW
OIL LEVEL LOW: DYNAMIC SWITCH CLOSES, STATIC SWITCH OPENS.
OIL LEVEL FULL: STATIC SWITCH CLOSES, DYNAMIC SWITCH OPENS.
COOLANT LEVEL SWITCH
CLOSED WITH LOW COOLANT LEVEL
WASHER FLUID LEVEL SWITCH
CLOSED WITH LOW FLUID LEVEL
.75 BR
.5 BR
.75 BR
.5 BR
.75 BR
S202
GROUND DISTRIBUTION
S101
1.5 BR
2.5 BR
.75 BR
G103
G200
G102
G200
G200

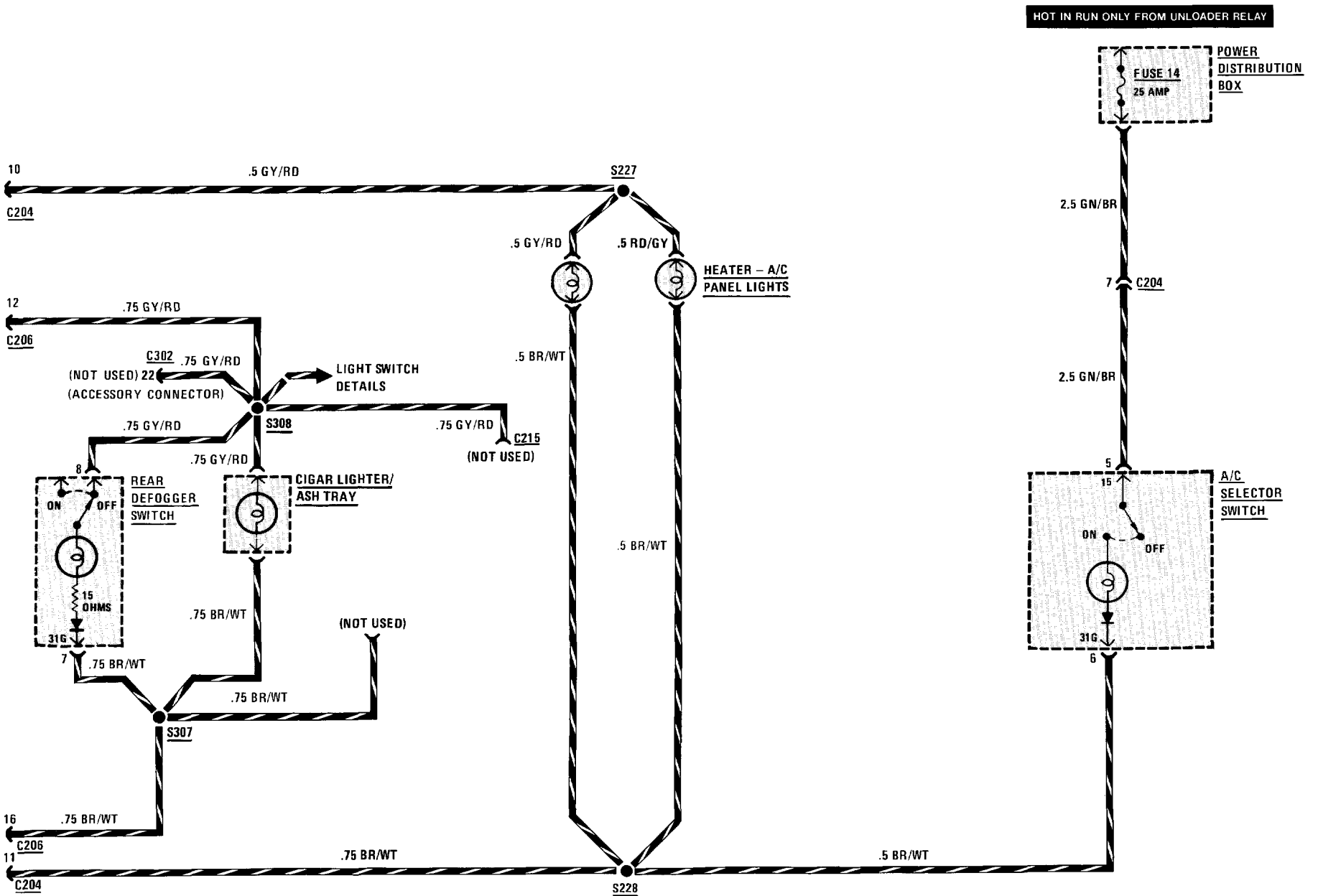

HOT AT ALL TIMES
HOT AT ALL TIMES
IGNITION SWITCH
START
OFF
RUN
ACCY
POWER DISTRIBUTION BOX
C100
POWER DISTRIBUTION
2.5 GN
1
C200
2.5 GN
4 RD
POWER DISTRIBUTION
S213
S206
.75 GN
9
1.5 RD
5
LIGHT SWITCH
15U
30
2
1 GY/RD
58K
HEAD
OFF
PARK
56
58L
58R
58S
8
4
3
1
.75 GY/BK
.75 GY/GN
.75 YL/WT
FUSE 10
8 AMP
FUSE 9
8 AMP
POWER DISTRIBUTION BOX
1 GY/WT
.75 YL/WT
.75 YL/WT
S216
.75 YL/WT
3
C202
.75 YL/WT
.75 GY/YL
.75 GY/WT
.5 GY/YL
S212
.5 GY/WT
S210
.75 GY/WT
2
C2
.75 GY/YL
12
11
86
LOW BEAM RELAY
18
C206
20
C206
FOG LIGHTS/ INTERIOR LIGHTS SWITCH
COMBINATION SWITCH
POWER DISTRIBUTION BOX
ACTIVE CHECK CONTROL UNIT
PAGE 6314-0
.75 GY/YL
.75 GY/WT
3
C1
4
C1
58L
58R
REAR LIGHTS CHECK RELAY
PAGE 6314-0
PAGE 6312-0


1 GY/RD
S220
.75 GY/RD
12
C206
.75 GY/RD
.75 GY/RD
S308
.75 GY/RD
.75 GY/RD
.75 GY/RD
.75 GY/RD
.75 GY/RD
10
C1
INSTRUMENT CLUSTER
PAGE 6300-2
10
C204
7
HAZARD SWITCH
PAGE 6300-2
8
REAR DEFOGGER SWITCH
PAGE 6100-1
1
C215
WT
.75 GY/RD
RADIO
PAGE 6500-0
22
C302
(NOT USED)
(ACCESSORY CONNECTOR)
CIGAR LIGHTER/ ASHTRAY
PAGE 6300-3
.5 GY/RD
S227
.5 GY/RD
.5 GY/RD
HEATER - A/C PANEL LIGHTS
PAGE 6300-3
S315
.75 GY/RD
.75 GY/RD
.75 GY/RD
1
C1
LH REAR SIDE MARKER LIGHT
REAR LIGHTS CHECK RELAY
RH REAR SIDE MARKER LIGHT
PAGE 6320-0

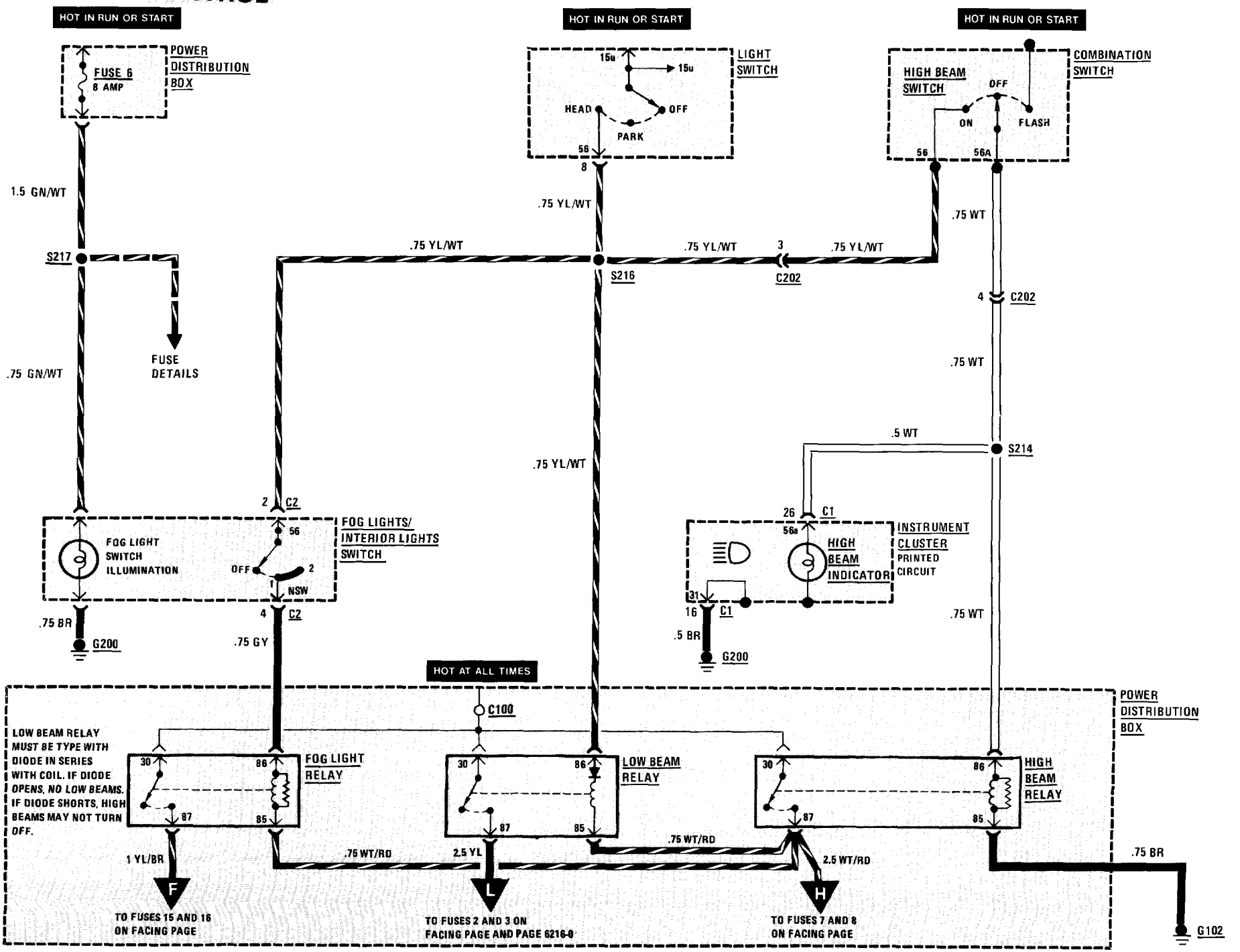
LIGHTS: DASH/TRANSMISSION RANGE



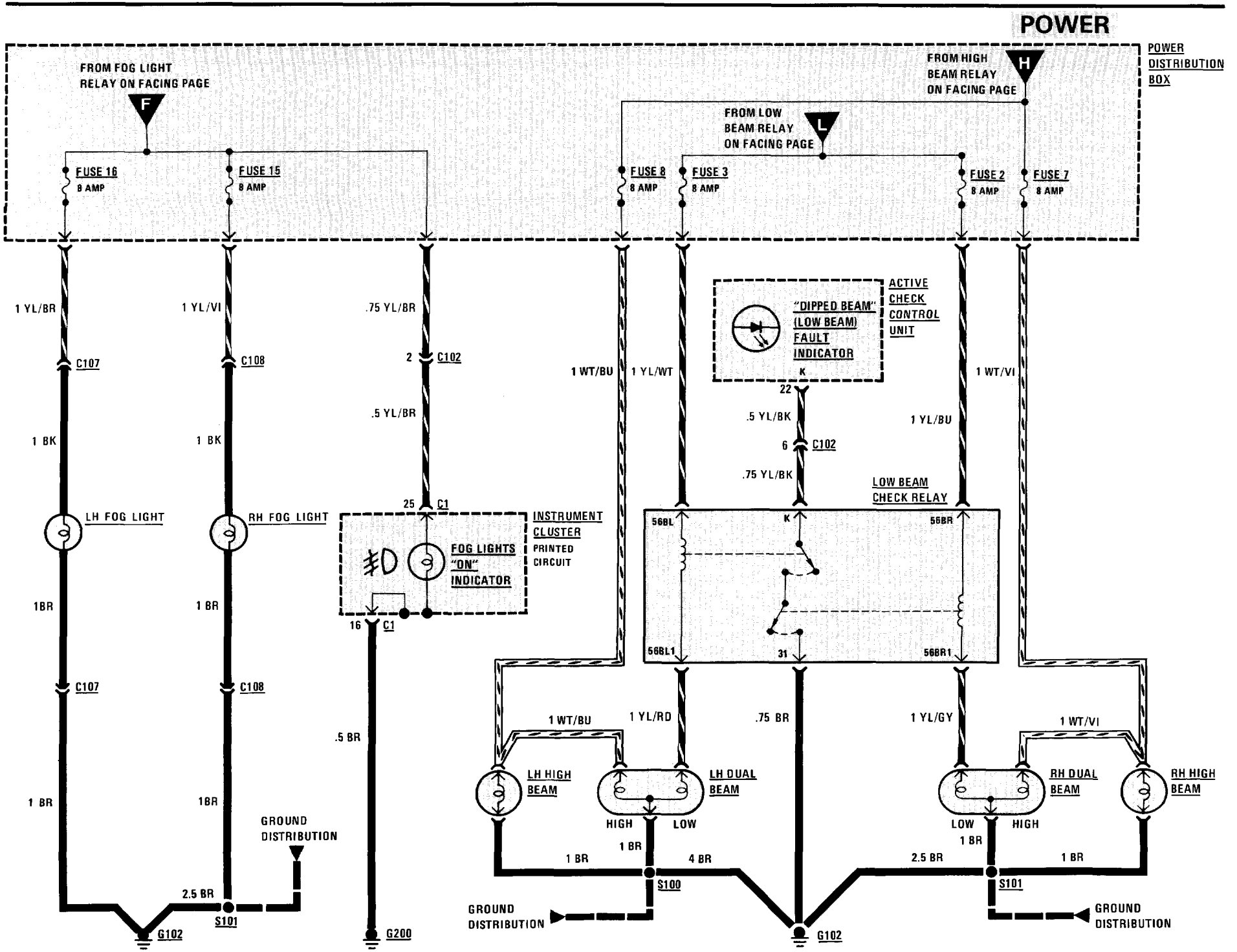
LIGHTS: DASH/TRANSMISSION RANGE

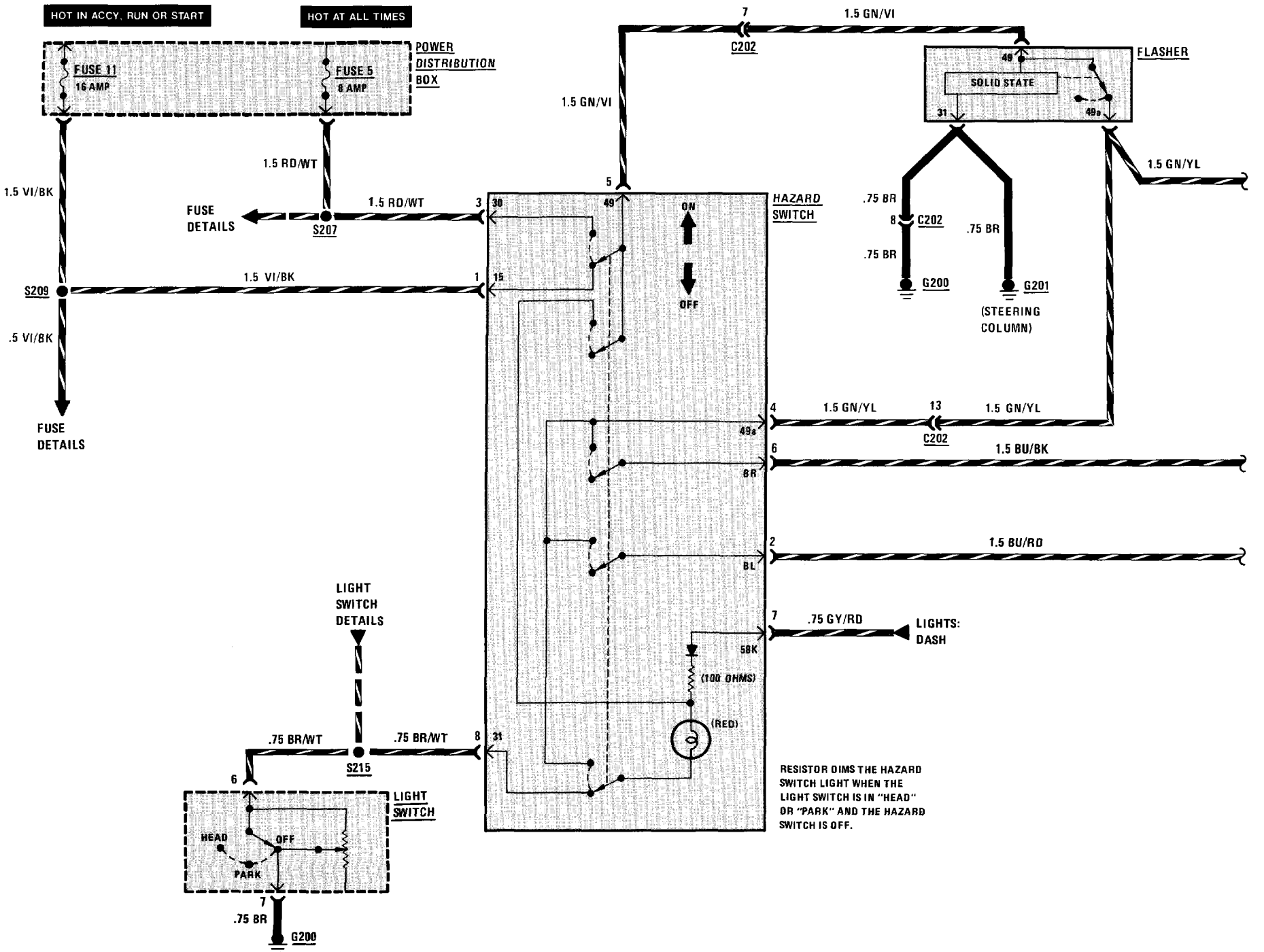


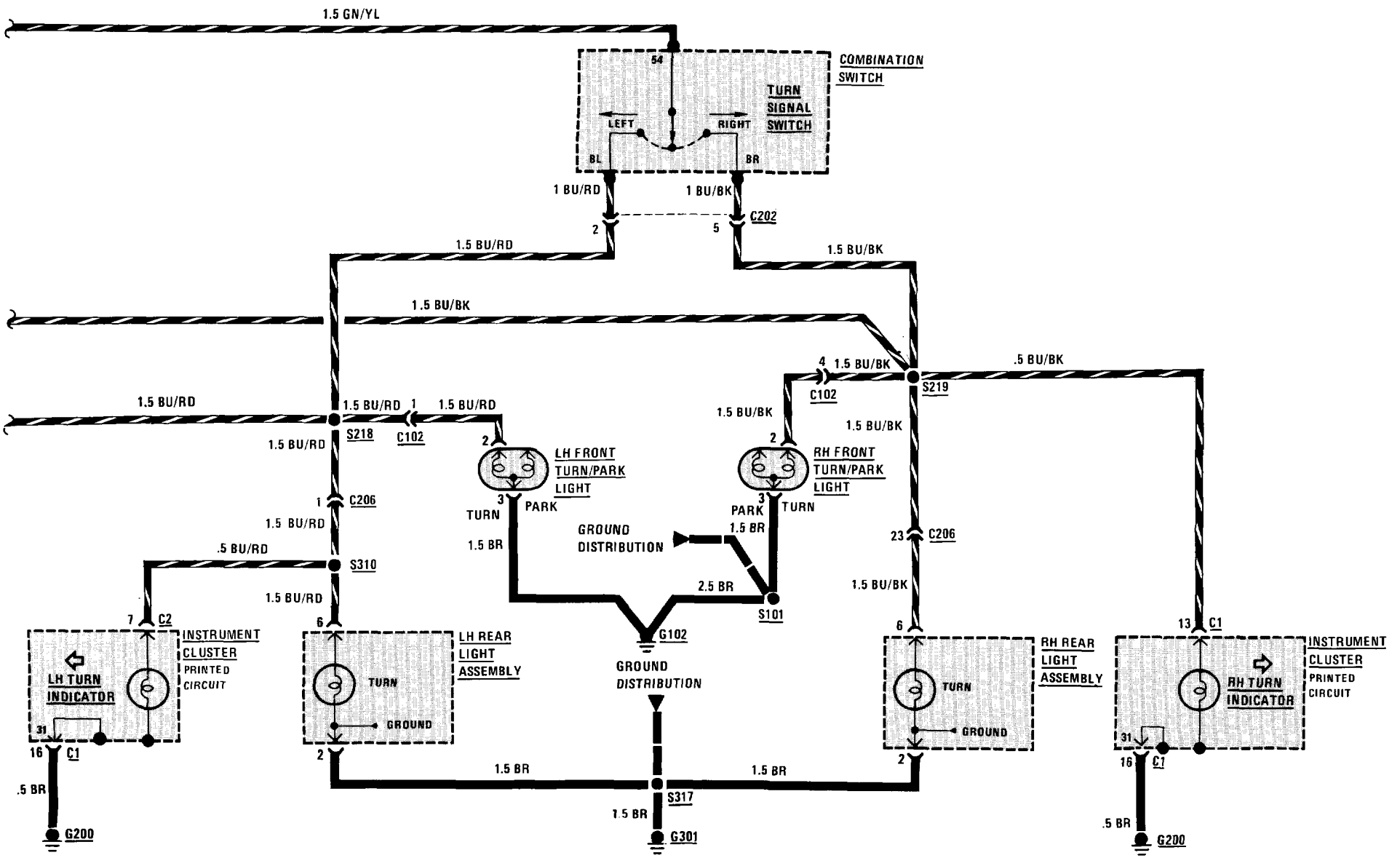
CONTROL

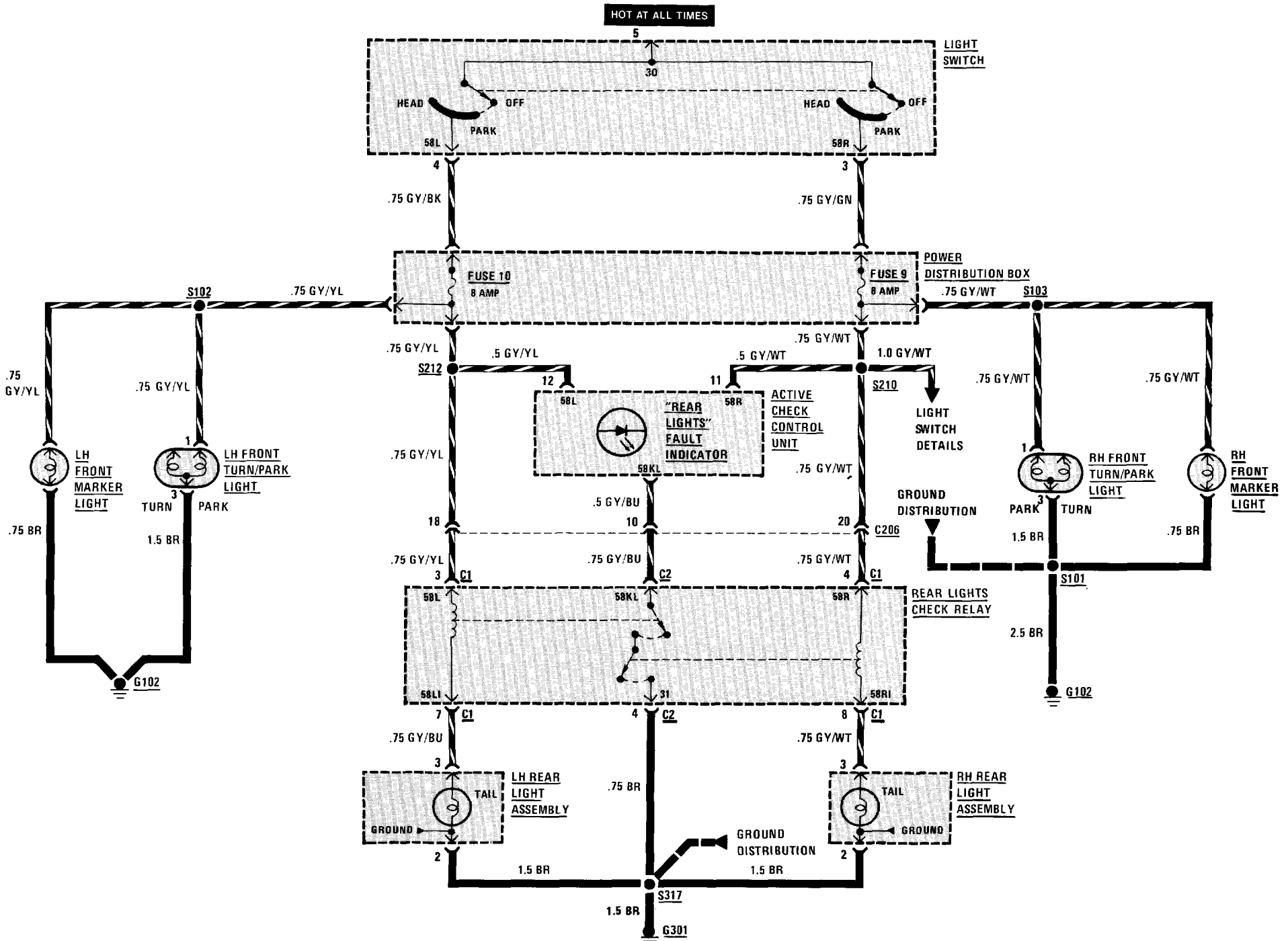


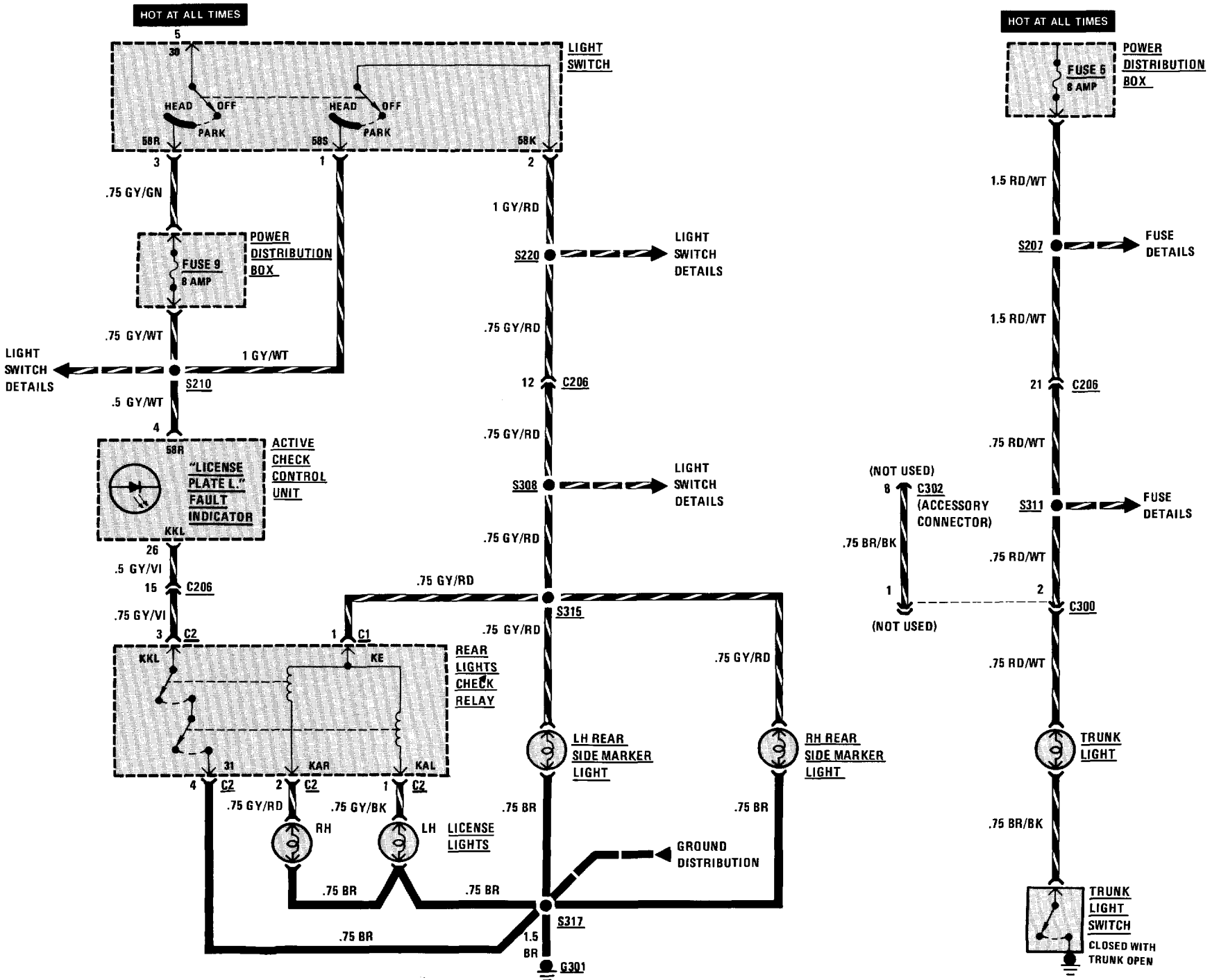
CONTINUED ON PAGE 6312-1

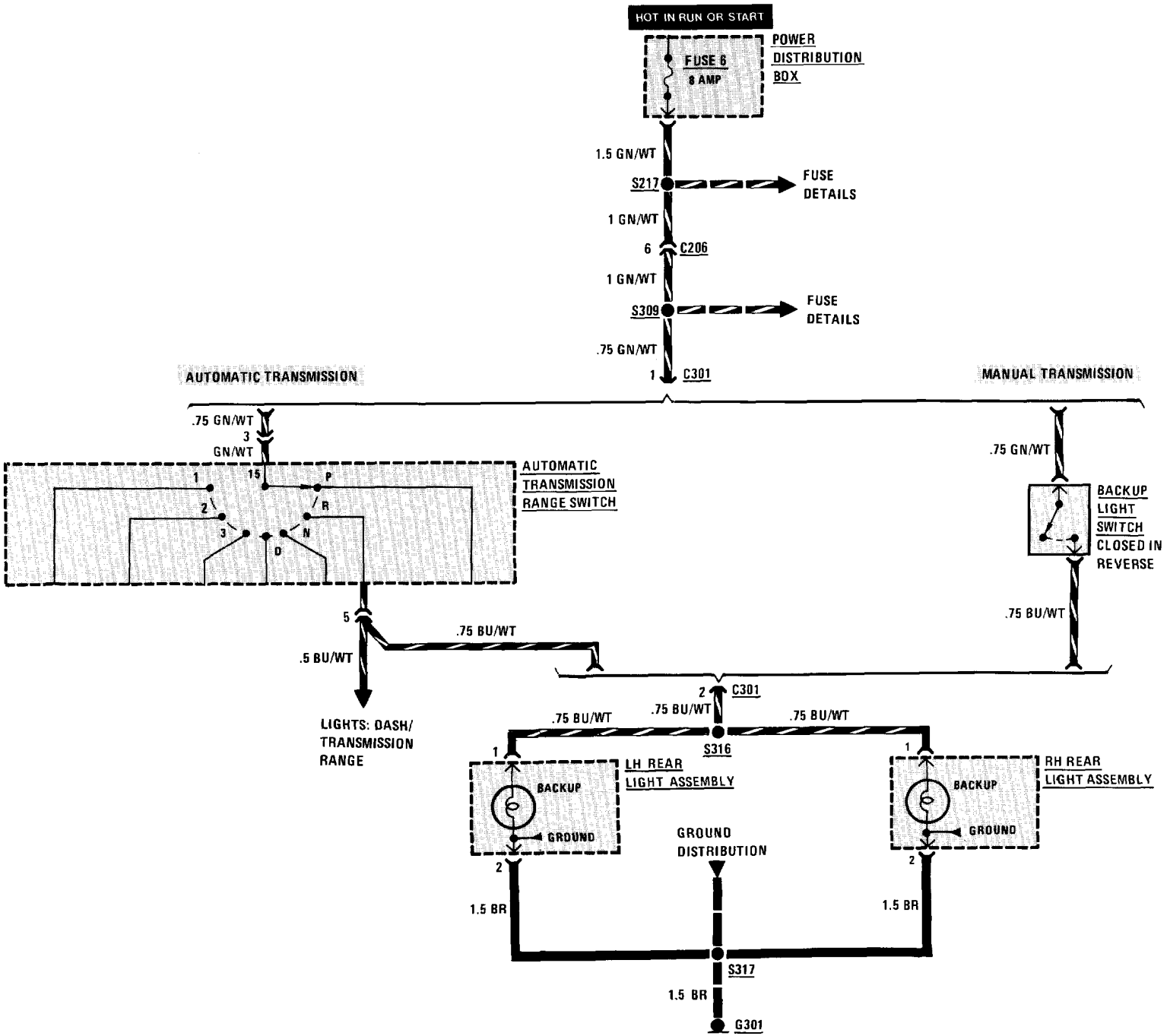

POWER
POWER DISTRIBUTION BOX
FROM FOG LIGHT RELAY ON FACING PAGE
F
FROM HIGH BEAM RELAY ON FACING PAGE
H
FROM LOW BEAM RELAY ON FACING PAGE
L
FUSE 16 8 AMP
FUSE 15 8 AMP
FUSE 8 8 AMP
FUSE 3 8 AMP
FUSE 2 8 AMP
FUSE 7 8 AMP
1 YL/BR
1 YL/VI
.75 YL/BR
1 WT/BU
1 YL/WT
1 WT/VI
C107
C108
2 C102
.5 YL/BR
"DIPPED BEAM" (LOW BEAM) FAULT INDICATOR
ACTIVE CHECK CONTROL UNIT
K
22
.5 YL/BK
6 C102
.75 YL/BK
1 YL/BU
1 BK
1 BK
LOW BEAM CHECK RELAY
LH FOG LIGHT
RH FOG LIGHT
25 C1
INSTRUMENT CLUSTER PRINTED CIRCUIT
FOG LIGHTS "ON" INDICATOR
56BL
K
56BR
56BL1
31
56BR1
1BR
1 BR
16 C1
.5 BR
1 WT/BU
1 YL/RD
.75 BR
1 YL/GY
1 WT/VI
LH HIGH BEAM
LH DUAL BEAM
RH DUAL BEAM
RH HIGH BEAM
HIGH
LOW
LOW
HIGH
1 BR
1 BR
4 BR
2.5 BR
1 BR
2.5 BR
S100
S101
GROUND DISTRIBUTION
GROUND DISTRIBUTION
GROUND DISTRIBUTION
G102
G200
G102

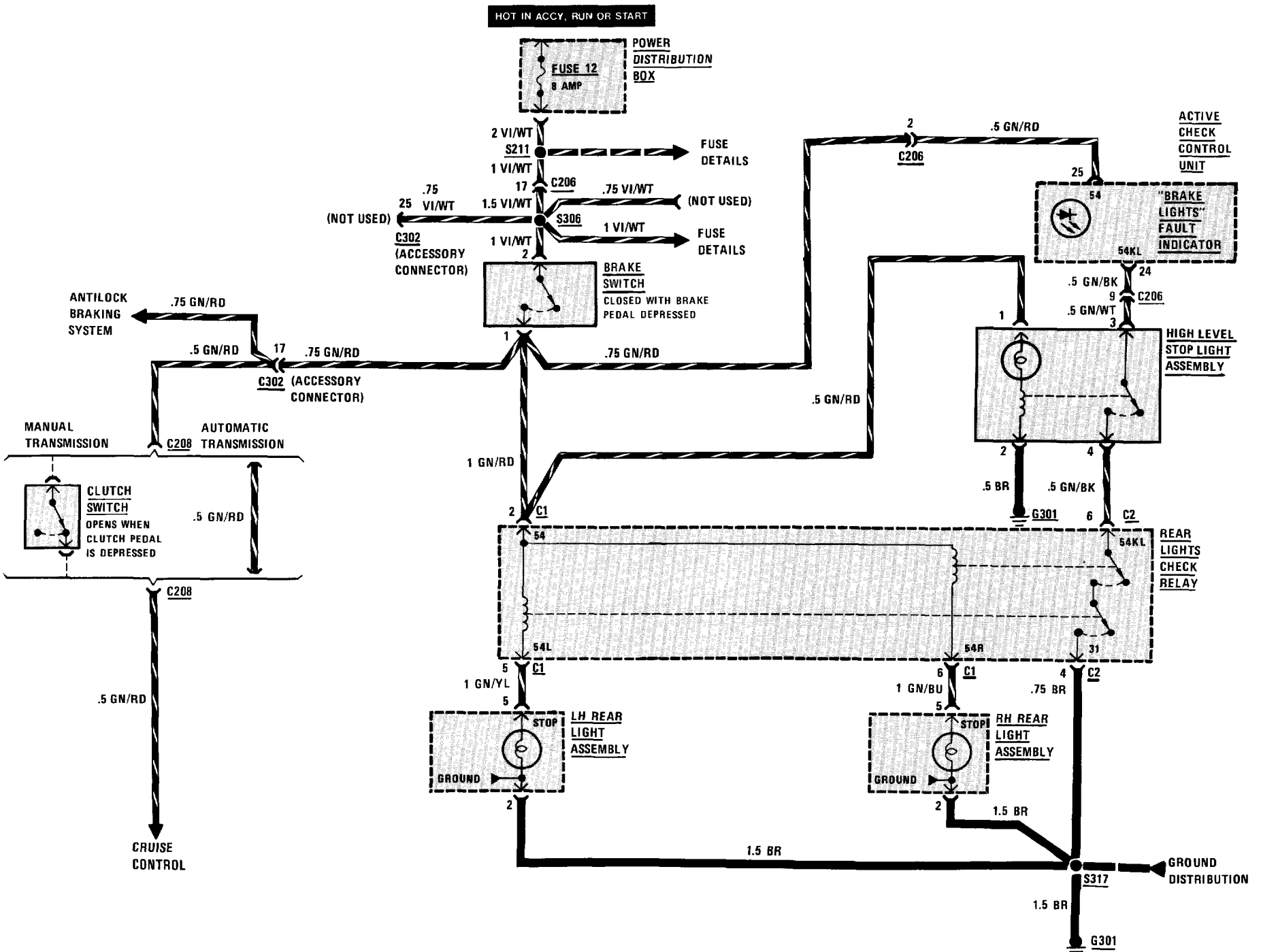

HOT IN ACCY, RUN OR START
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 11
16 AMP
FUSE 5
8 AMP
1.5 RD/WT
1.5 VI/BK
FUSE DETAILS
S207
1.5 RD/WT
3
S209
1.5 VI/BK
1
.5 VI/BK
FUSE DETAILS
7
1.5 GN/VI
C202
1.5 GN/VI
5
FLASHER
SOLID STATE
49
49a
31
1.5 GN/YL
.75 BR
8
C202
.75 BR
.75 BR
G200
G201
(STEERING COLUMN)
HAZARD SWITCH
30
49
15
ON
OFF
4
1.5 GN/YL
13
1.5 GN/YL
C202
49a
6
1.5 BU/BK
BR
2
1.5 BU/RD
BL
7
.75 GY/RD
LIGHTS: DASH
58K
(100 OHMS)
(RED)
LIGHT SWITCH DETAILS
.75 BR/WT
.75 BR/WT
8
31
S215
6
LIGHT SWITCH
HEAD
OFF
PARK
7
.75 BR
G200
RESISTOR DIMS THE HAZARD SWITCH LIGHT WHEN THE LIGHT SWITCH IS IN "HEAD" OR "PARK" AND THE HAZARD SWITCH IS OFF.

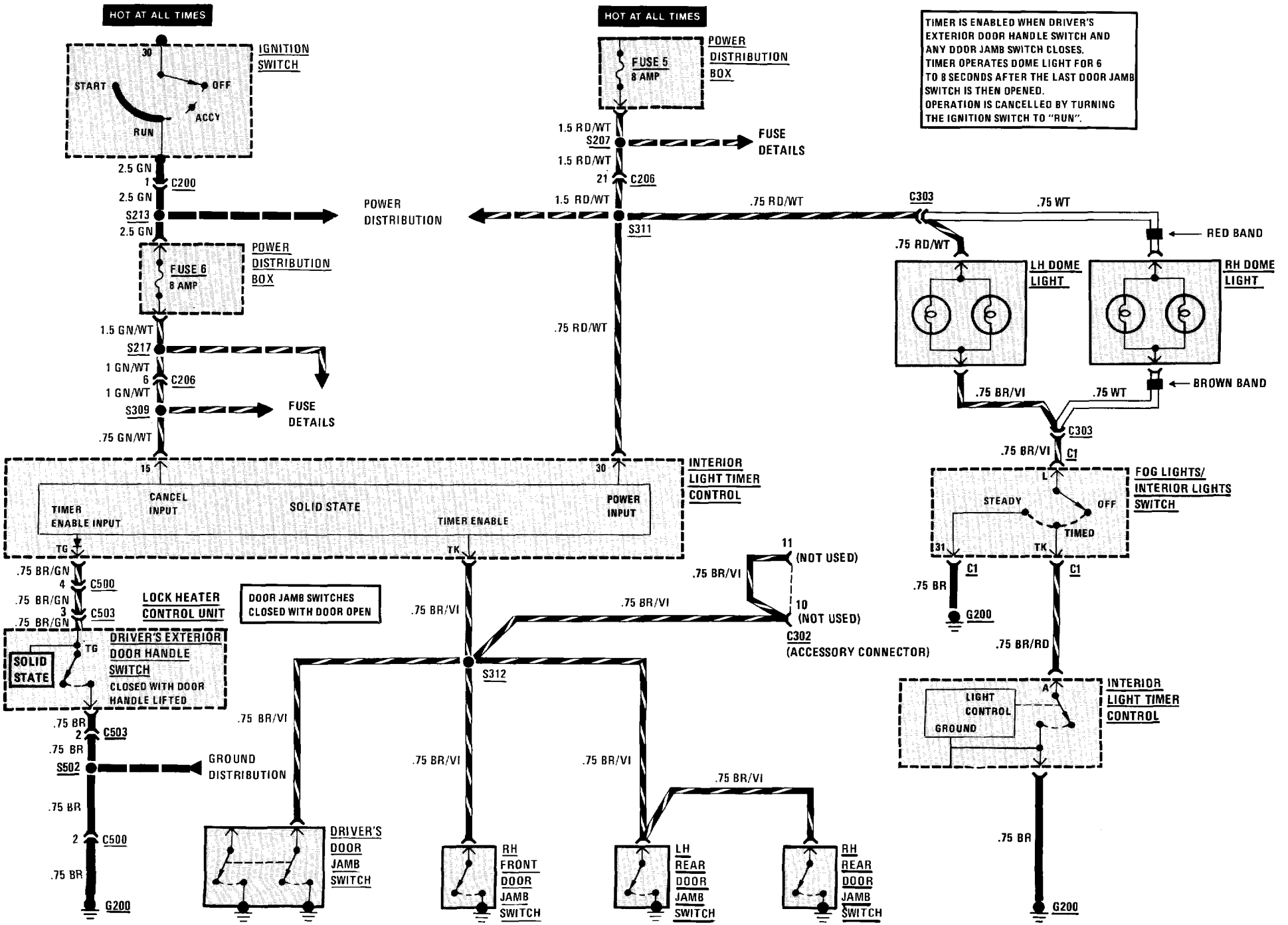

1.5 GN/YL
54
COMBINATION SWITCH
TURN SIGNAL SWITCH
LEFT
RIGHT
BL
BR
1 BU/RD
1 BU/BK
2
C202
5
1.5 BU/RD
1.5 BU/BK
1.5 BU/BK
4
1.5 BU/BK
.5 BU/BK
C102
S219
1.5 BU/RD
1.5 BU/RD
1
1.5 BU/RD
1.5 BU/BK
1.5 BU/BK
S218
C102
2
LH FRONT TURN/PARK LIGHT
RH FRONT TURN/PARK LIGHT
1.5 BU/RD
1
C206
3
TURN
PARK
PARK
TURN
1.5 BR
GROUND DISTRIBUTION
1.5 BR
23
C206
.5 BU/RD
S310
2.5 BR
1.5 BU/BK
1.5 BU/RD
S101
7
C2
6
6
13
C1
INSTRUMENT CLUSTER PRINTED CIRCUIT
LH TURN INDICATOR
LH REAR LIGHT ASSEMBLY
TURN
GROUND
G102
GROUND DISTRIBUTION
RH REAR LIGHT ASSEMBLY
TURN
GROUND
INSTRUMENT CLUSTER PRINTED CIRCUIT
RH TURN INDICATOR
31
16
C1
2
1.5 BR
1.5 BR
2
31
16
C1
.5 BR
S317
1.5 BR
.5 BR
G200
G301
G200


HOT AT ALL TIMES
5
LIGHT SWITCH
30
HEAD
OFF
PARK
58L
58R
4
3
.75 GY/BK
.75 GY/GN
FUSE 10
8 AMP
FUSE 9
8 AMP
POWER DISTRIBUTION BOX
S102
.75 GY/YL
.75 GY/WT
S103
.75 GY/YL
.5 GY/YL
.5 GY/WT
1.0 GY/WT
S212
S210
12
11
58L
58R
"REAR LIGHTS" FAULT INDICATOR
ACTIVE CHECK CONTROL UNIT
58KL
LIGHT SWITCH DETAILS
.75 GY/YL
.75 GY/WT
.5 GY/BU
GROUND DISTRIBUTION
18
10
20
C206
LH FRONT MARKER LIGHT
LH FRONT TURN/PARK LIGHT
TURN
PARK
RH FRONT TURN/PARK LIGHT
RH FRONT MARKER LIGHT
.75 BR
1.5 BR
.75 GY/BU
.75 GY/WT
3
C1
C2
4
C1
REAR LIGHTS CHECK RELAY
58L
58KL
58R
58LI
31
58RI
S101
2.5 BR
G102
G102
7
C1
4
C2
8
C1
.75 GY/BU
.75 GY/WT
LH REAR LIGHT ASSEMBLY
TAIL
GROUND
.75 BR
GROUND DISTRIBUTION
RH REAR LIGHT ASSEMBLY
TAIL
GROUND
2
1.5 BR
1.5 BR
S317
1.5 BR
G301

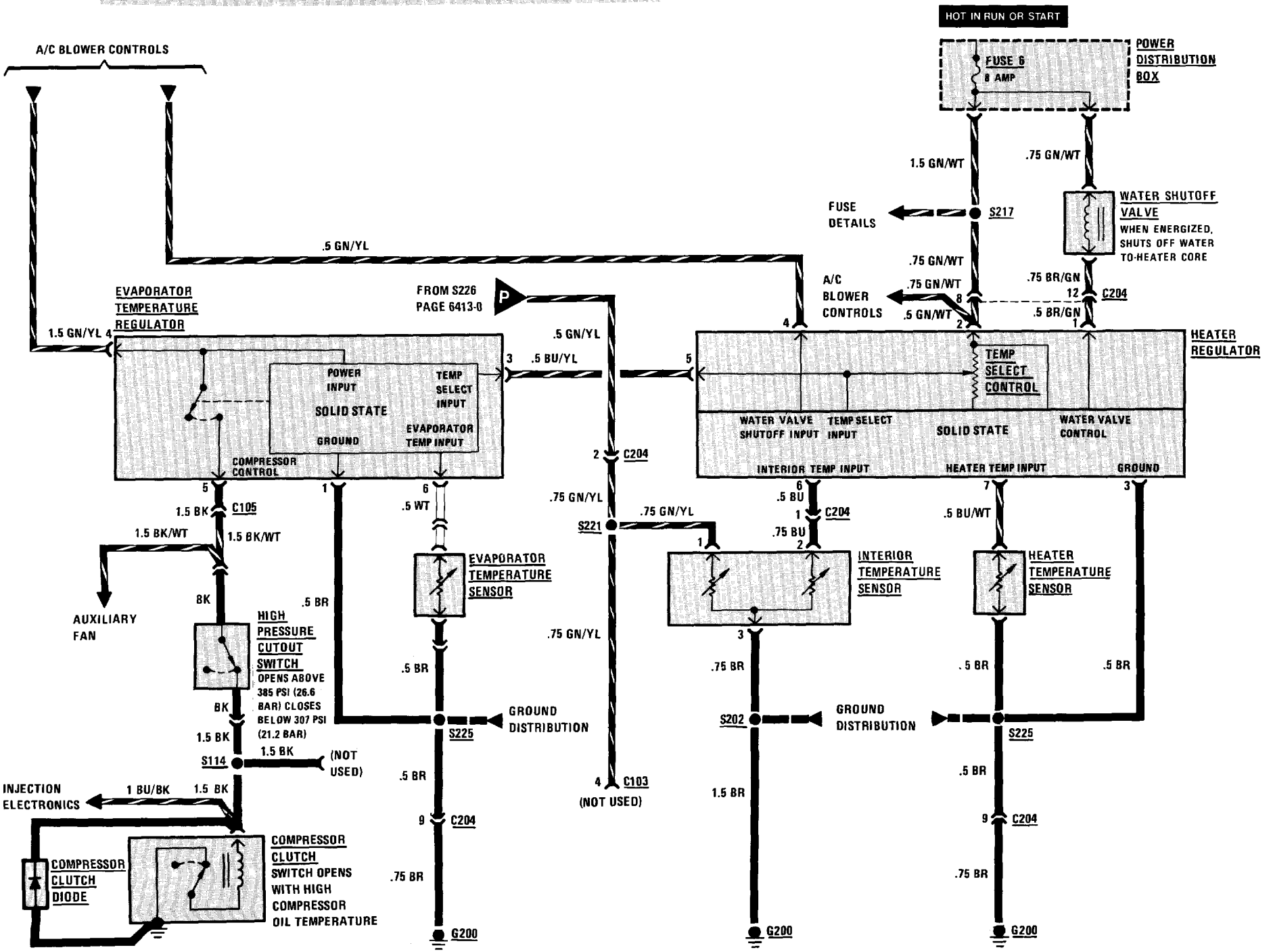

HOT AT ALL TIMES
5
30
HEAD
OFF
PARK
58R
58S
58K
LIGHT SWITCH
3
1
2
.75 GY/GN
1 GY/RD
POWER DISTRIBUTION BOX
FUSE 9
8 AMP
S220
LIGHT SWITCH DETAILS
.75 GY/WT
.75 GY/RD
LIGHT SWITCH DETAILS
1 GY/WT
12
C206
S210
.5 GY/WT
4
.75 GY/RD
58R
ACTIVE CHECK CONTROL UNIT
"LICENSE PLATE L." FAULT INDICATOR
S308
LIGHT SWITCH DETAILS
KKL
.75 GY/RD
26
.5 GY/VI
15
C206
.75 GY/RD
S315
.75 GY/VI
3
C2
1
C1
KKL
KE
.75 GY/RD
REAR LIGHTS CHECK RELAY
LH REAR SIDE MARKER LIGHT
RH REAR SIDE MARKER LIGHT
31
KAR
KAL
4
C2
2
C2
1
C2
.75 GY/RD
.75 GY/BK
.75 BR
.75 BR
RH
LH
LICENSE LIGHTS
GROUND DISTRIBUTION
.75 BR
.75 BR
S317
.75 BR
1.5 BR
G301
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5
8 AMP
1.5 RD/WT
S207
FUSE DETAILS
1.5 RD/WT
21
C206
.75 RD/WT
(NOT USED)
8
C302
(ACCESSORY CONNECTOR)
S311
FUSE DETAILS
.75 BR/BK
.75 RD/WT
1
2
C300
(NOT USED)
.75 RD/WT
TRUNK LIGHT
.75 BR/BK
TRUNK LIGHT SWITCH
CLOSED WITH TRUNK OPEN


HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
1.5 GN/WT
S217
FUSE DETAILS
1 GN/WT
6
C206
1 GN/WT
S309
FUSE DETAILS
.75 GN/WT
1
C301
AUTOMATIC TRANSMISSION
MANUAL TRANSMISSION
.75 GN/WT
3
GN/WT
AUTOMATIC TRANSMISSION RANGE SWITCH
.75 GN/WT
BACKUP LIGHT SWITCH CLOSED IN REVERSE
.75 BU/WT
5
.75 BU/WT
.5 BU/WT
LIGHTS: DASH/ TRANSMISSION RANGE
2
C301
.75 BU/WT
.75 BU/WT
.75 BU/WT
S316
LH REAR LIGHT ASSEMBLY
RH REAR LIGHT ASSEMBLY
BACKUP
GROUND
GROUND DISTRIBUTION
1.5 BR
1.5 BR
S317
1.5 BR
G301

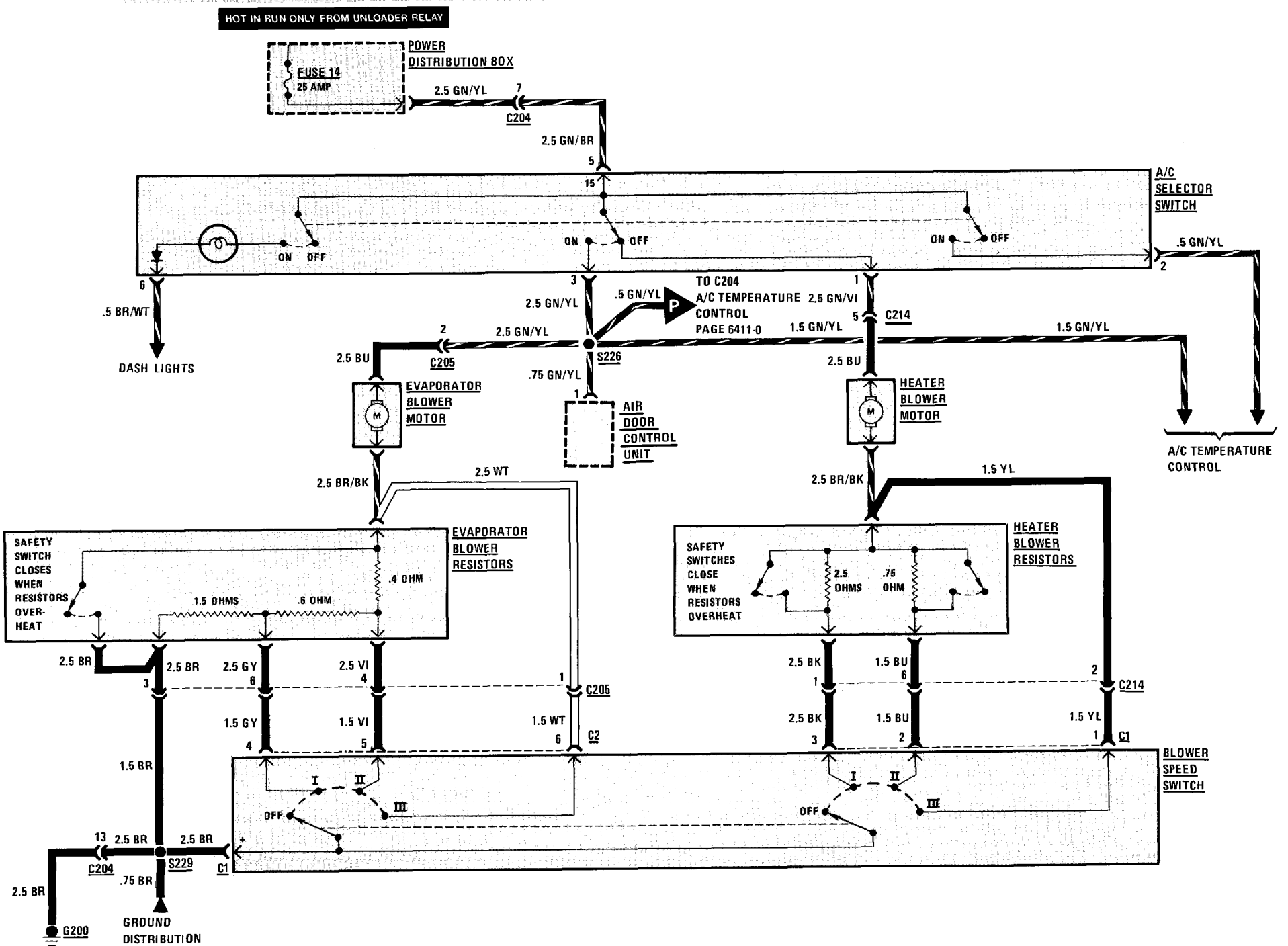

HOT IN ACCY, RUN OR START
FUSE 12
8 AMP
POWER DISTRIBUTION BOX
2 VI/WT
S211
FUSE DETAILS
1 VI/WT
17
C206
.75 VI/WT
(NOT USED)
.75
25 VI/WT
(NOT USED)
1.5 VI/WT
S306
1 VI/WT
FUSE DETAILS
C302 (ACCESSORY CONNECTOR)
1 VI/WT
2
BRAKE SWITCH
CLOSED WITH BRAKE PEDAL DEPRESSED
ANTILOCK BRAKING SYSTEM
.75 GN/RD
.5 GN/RD
17
.75 GN/RD
C302 (ACCESSORY CONNECTOR)
1
.75 GN/RD
2
C206
.5 GN/RD
ACTIVE CHECK CONTROL UNIT
25
54
"BRAKE LIGHTS" FAULT INDICATOR
54KL
24
.5 GN/BK
9
C206
.5 GN/WT
3
1
HIGH LEVEL STOP LIGHT ASSEMBLY
2
4
.5 BR
.5 GN/BK
G301
6
C2
.5 GN/RD
MANUAL TRANSMISSION
C208
AUTOMATIC TRANSMISSION
CLUTCH SWITCH
OPENS WHEN CLUTCH PEDAL IS DEPRESSED
.5 GN/RD
1 GN/RD
2
C1
54
54KL
REAR LIGHTS CHECK RELAY
54L
54R
31
5
C1
1 GN/YL
6
C1
1 GN/BU
4
C2
.75 BR
5
5
C208
.5 GN/RD
STOP
GROUND
LH REAR LIGHT ASSEMBLY
STOP
GROUND
RH REAR LIGHT ASSEMBLY
2
2
1.5 BR
1.5 BR
GROUND DISTRIBUTION
S317
1.5 BR
G301
CRUISE CONTROL


HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
ACCY
RUN
2.5 GN
1
C200
2.5 GN
S213
2.5 GN
POWER DISTRIBUTION
POWER DISTRIBUTION BOX
FUSE 6
8 AMP
1.5 GN/WT
S217
1 GN/WT
6
C206
1 GN/WT
S309
FUSE DETAILS
.75 GN/WT
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5
8 AMP
1.5 RD/WT
S207
FUSE DETAILS
1.5 RD/WT
21
C206
1.5 RD/WT
.75 RD/WT
C303
.75 WT
S311
.75 RD/WT
RED BAND
LH DOME LIGHT
RH DOME LIGHT
BROWN BAND
.75 BR/VI
.75 WT
C303
.75 BR/VI
C1
.75 RD/WT
TIMER IS ENABLED WHEN DRIVER'S EXTERIOR DOOR HANDLE SWITCH AND ANY DOOR JAMB SWITCH CLOSES. TIMER OPERATES DOME LIGHT FOR 6 TO 8 SECONDS AFTER THE LAST DOOR JAMB SWITCH IS THEN OPENED. OPERATION IS CANCELLED BY TURNING THE IGNITION SWITCH TO "RUN".
INTERIOR LIGHT TIMER CONTROL
15
30
TIMER ENABLE INPUT
CANCEL INPUT
SOLID STATE
TIMER ENABLE
POWER INPUT
TG
TK
FOG LIGHTS/ INTERIOR LIGHTS SWITCH
L
STEADY
OFF
TIMED
31
TK
C1
C1
.75 BR
G200
.75 BR/GN
4
C500
.75 BR/GN
3
C503
.75 BR/GN
LOCK HEATER CONTROL UNIT
DOOR JAMB SWITCHES CLOSED WITH DOOR OPEN
11
(NOT USED)
.75 BR/VI
.75 BR/VI
10
(NOT USED)
C302
(ACCESSORY CONNECTOR)
DRIVER'S EXTERIOR DOOR HANDLE SWITCH
SOLID STATE
TG
CLOSED WITH DOOR HANDLE LIFTED
S312
.75 BR/RD
INTERIOR LIGHT TIMER CONTROL
LIGHT CONTROL
GROUND
A
.75 BR
2
C503
.75 BR
S502
GROUND DISTRIBUTION
.75 BR/VI
.75 BR/VI
.75 BR/VI
.75 BR/VI
.75 BR
2
C500
.75 BR
G200
DRIVER'S DOOR JAMB SWITCH
RH FRONT DOOR JAMB SWITCH
LH REAR DOOR JAMB SWITCH
RH REAR DOOR JAMB SWITCH
.75 BR
G200

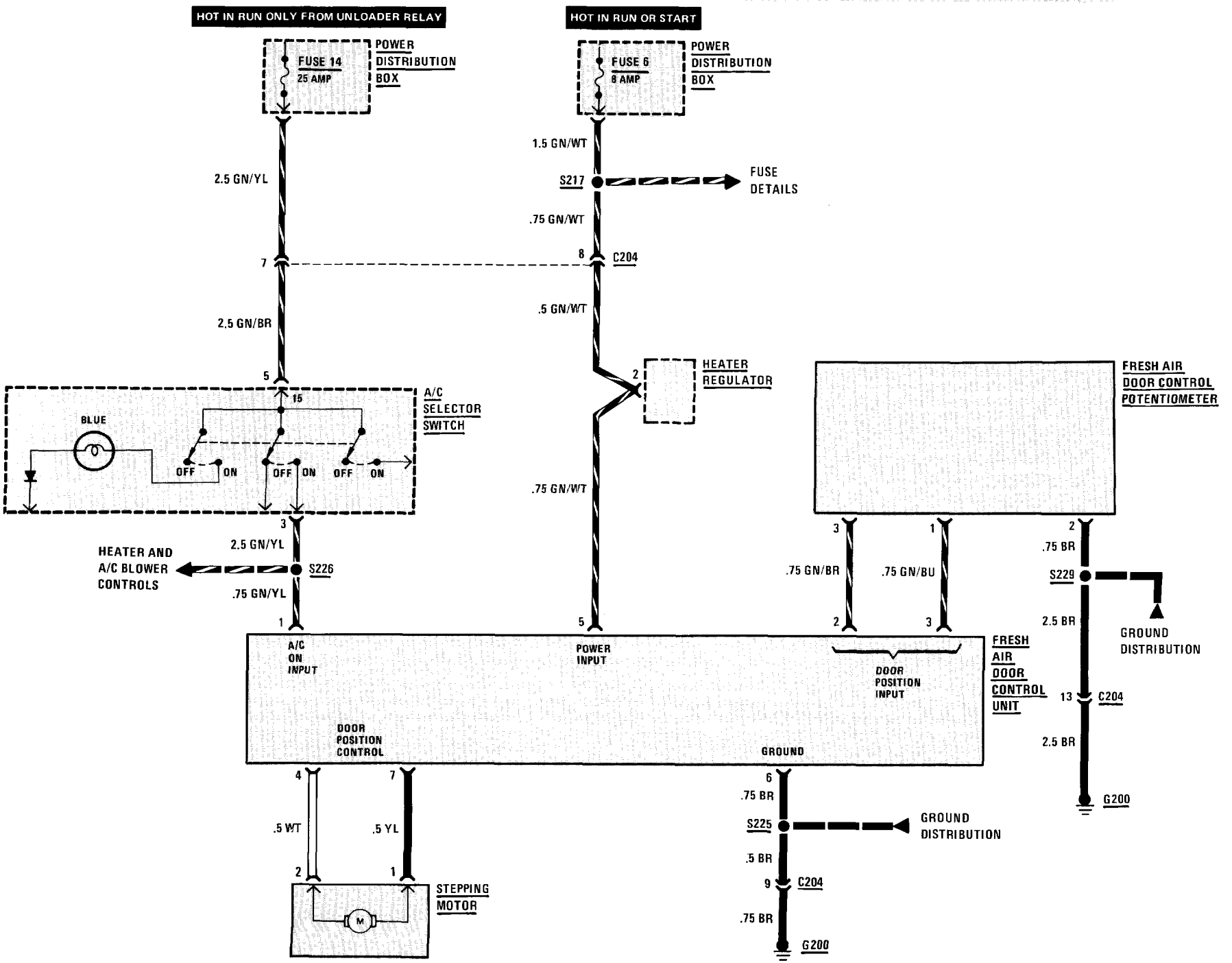
HEATER AND A/C TEMPERATURE CONTROL

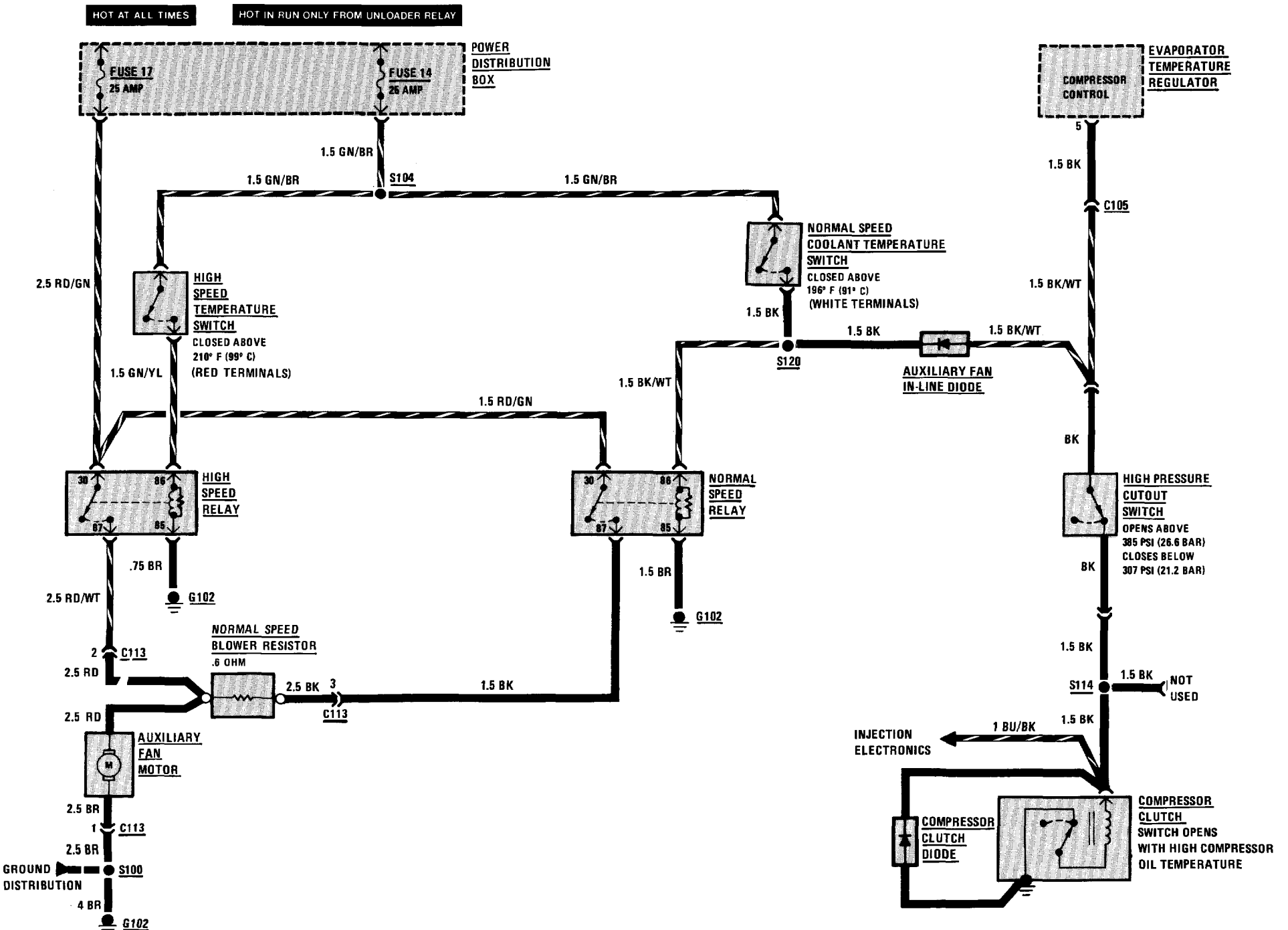


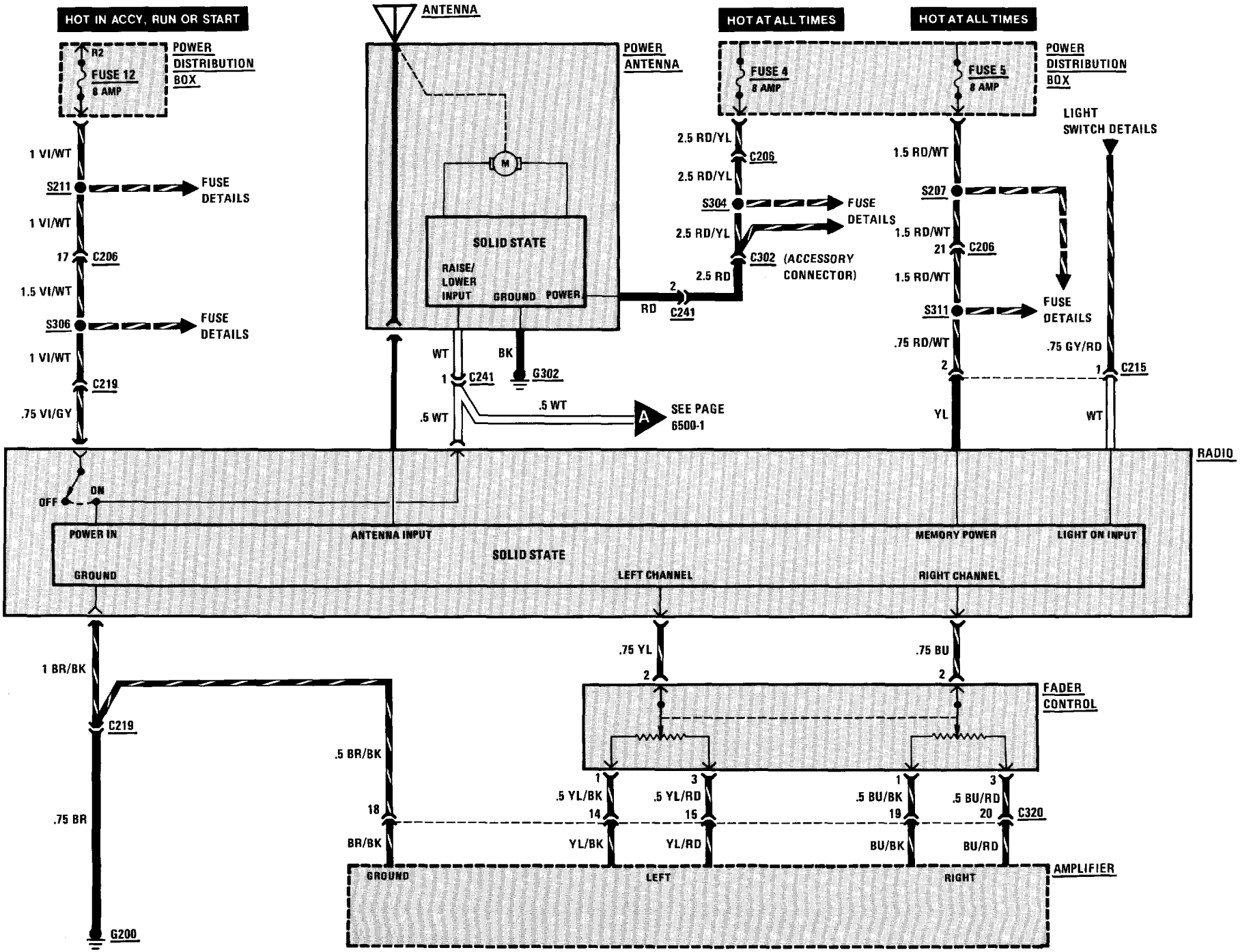
HEATER AND A/C BLOWER CONTROLS

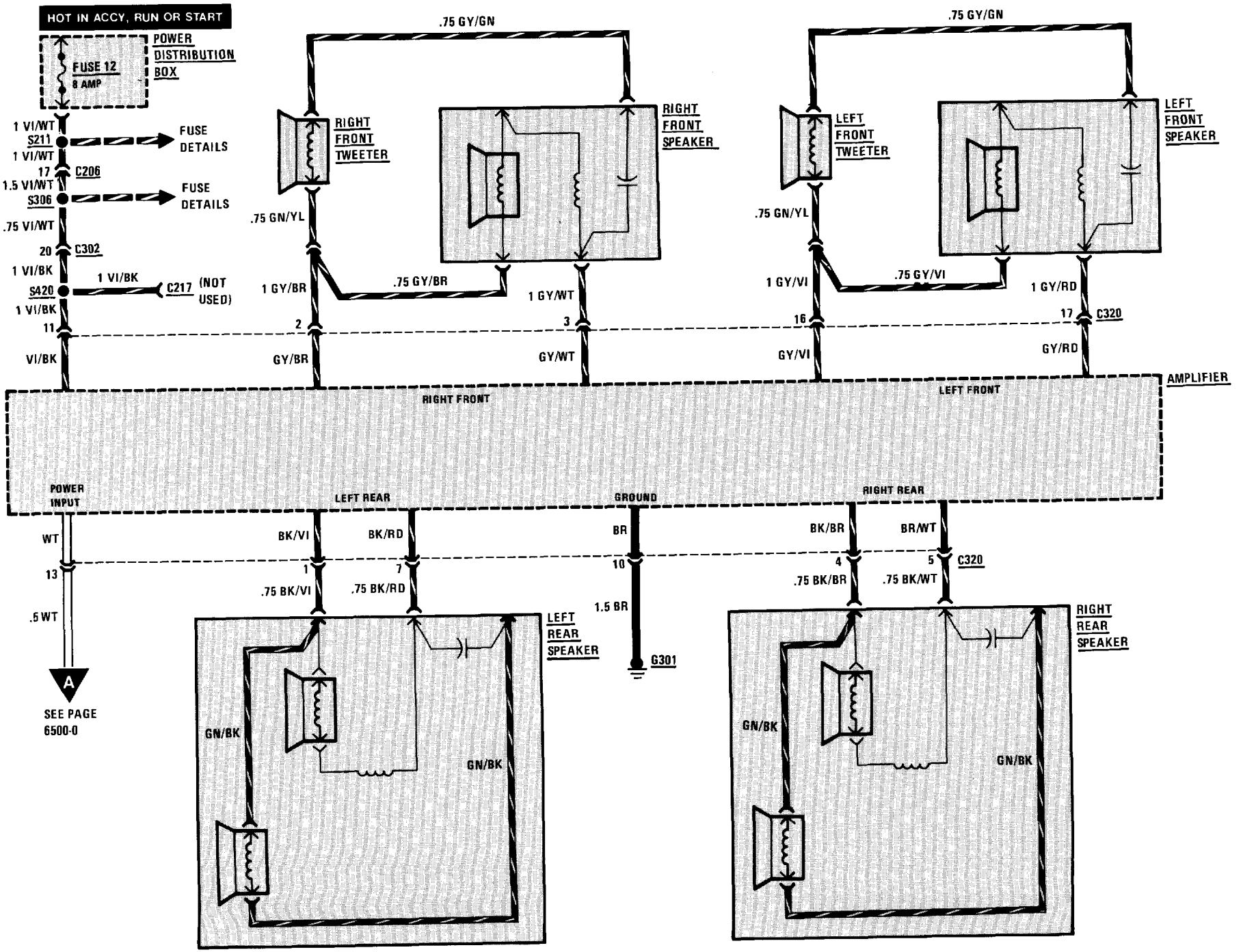


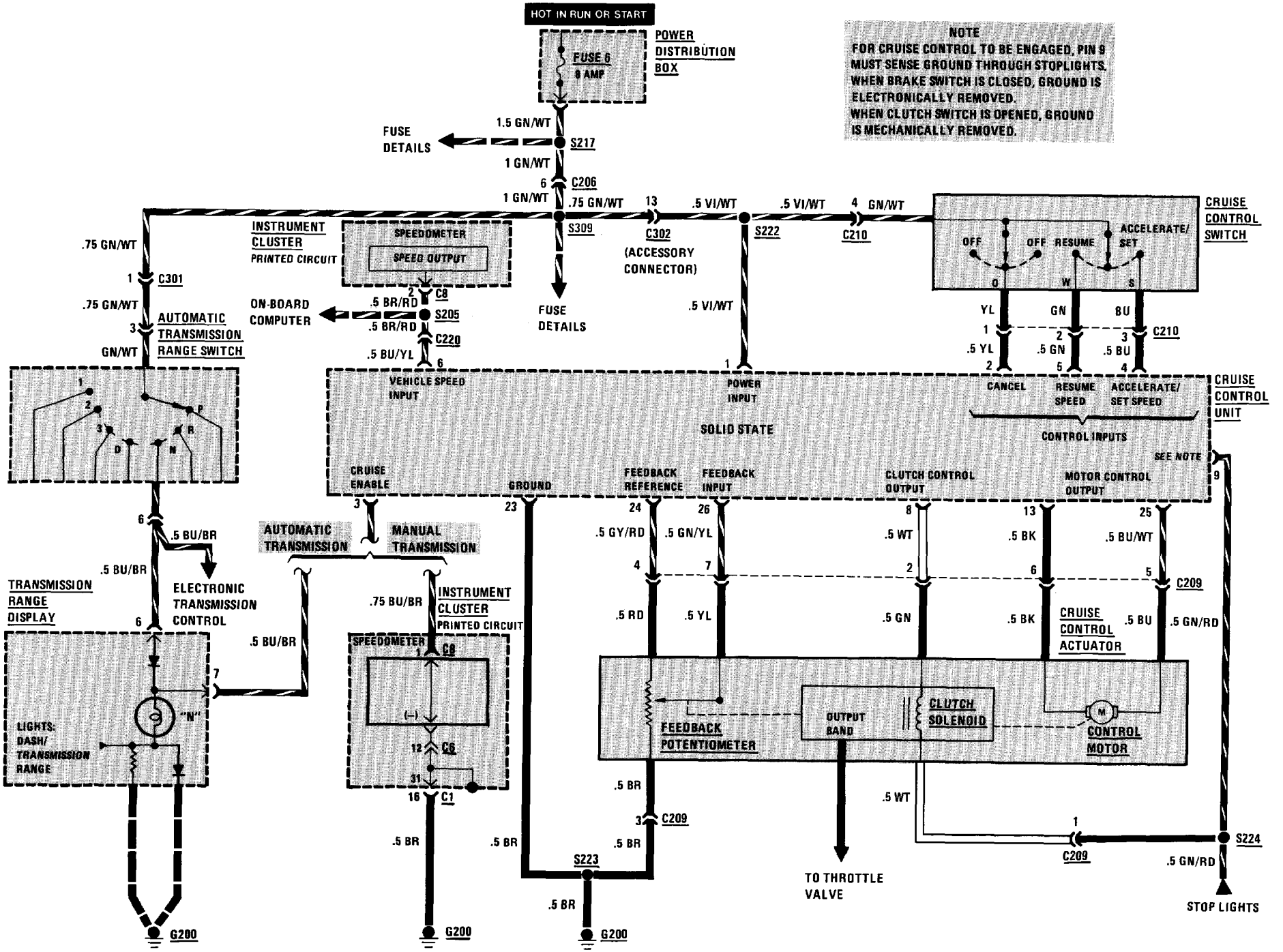
A/C FRESH AIR DOOR CONTROL

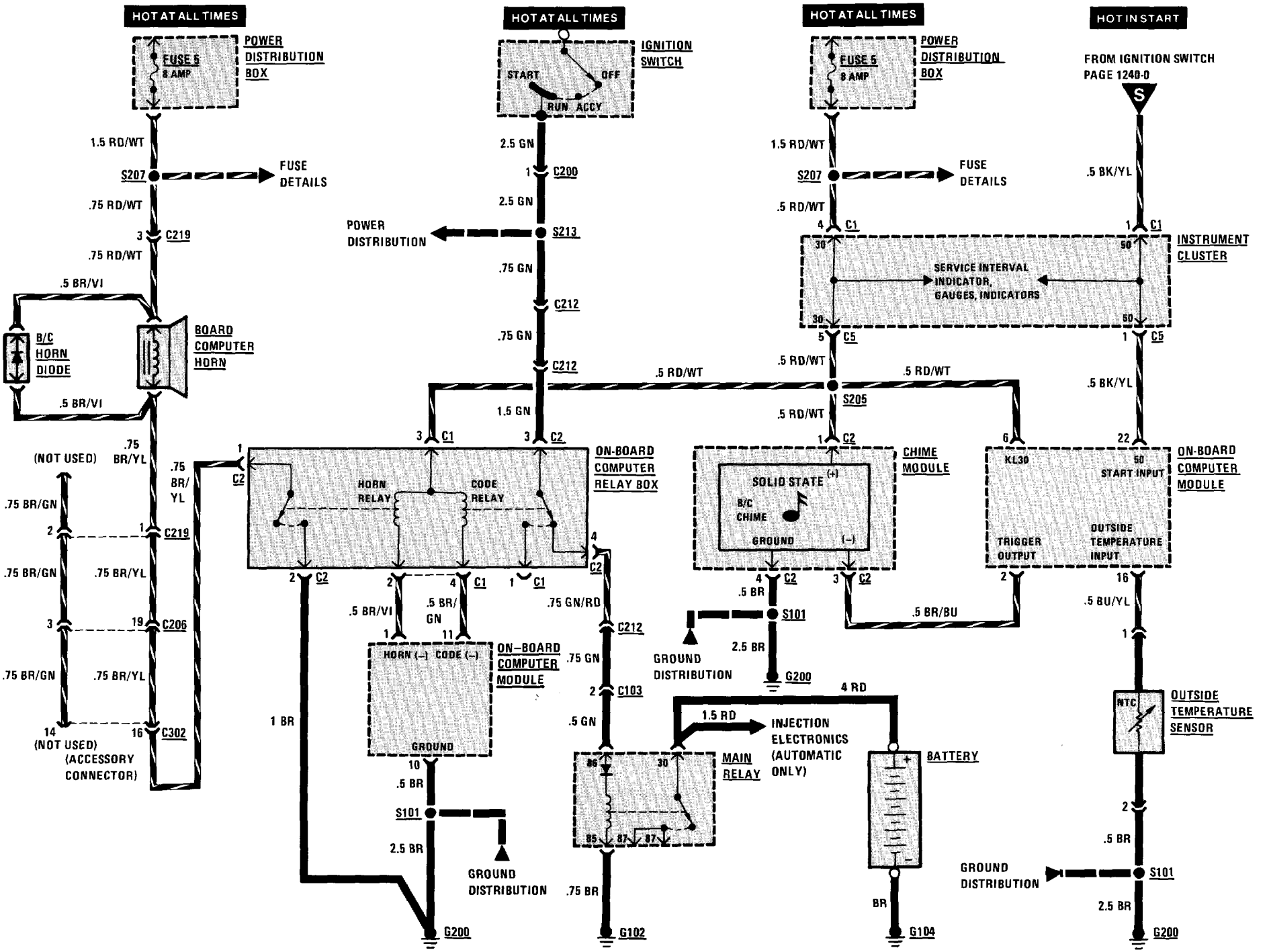



HOT AT ALL TIMES
HOT IN RUN ONLY FROM UNLOADER RELAY
FUSE 17
25 AMP
FUSE 14
25 AMP
POWER DISTRIBUTION BOX
1.5 GN/BR
S104
1.5 GN/BR
1.5 GN/BR
2.5 RD/GN
HIGH SPEED TEMPERATURE SWITCH
CLOSED ABOVE
210° F (99° C)
(RED TERMINALS)
1.5 GN/YL
NORMAL SPEED COOLANT TEMPERATURE SWITCH
CLOSED ABOVE
196° F (91° C)
(WHITE TERMINALS)
1.5 BK
S120
1.5 BK
1.5 BK/WT
AUXILIARY FAN IN-LINE DIODE
1.5 BK/WT
1.5 RD/GN
COMPRESSOR CONTROL
5
1.5 BK
C105
1.5 BK/WT
EVAPORATOR TEMPERATURE REGULATOR
BK
HIGH SPEED RELAY
NORMAL SPEED RELAY
HIGH PRESSURE CUTOUT SWITCH
OPENS ABOVE
385 PSI (26.6 BAR)
CLOSES BELOW
307 PSI (21.2 BAR)
.75 BR
G102
1.5 BR
G102
BK
2.5 RD/WT
NORMAL SPEED BLOWER RESISTOR
.6 OHM
2
C113
2.5 RD
2.5 BK
3
C113
1.5 BK
1.5 BK
S114
1.5 BK
NOT USED
2.5 RD
1.5 BK
1 BU/BK
INJECTION ELECTRONICS
AUXILIARY FAN MOTOR
2.5 BR
1
C113
2.5 BR
GROUND DISTRIBUTION
S100
4 BR
G102
COMPRESSOR CLUTCH DIODE
COMPRESSOR CLUTCH SWITCH OPENS WITH HIGH COMPRESSOR OIL TEMPERATURE

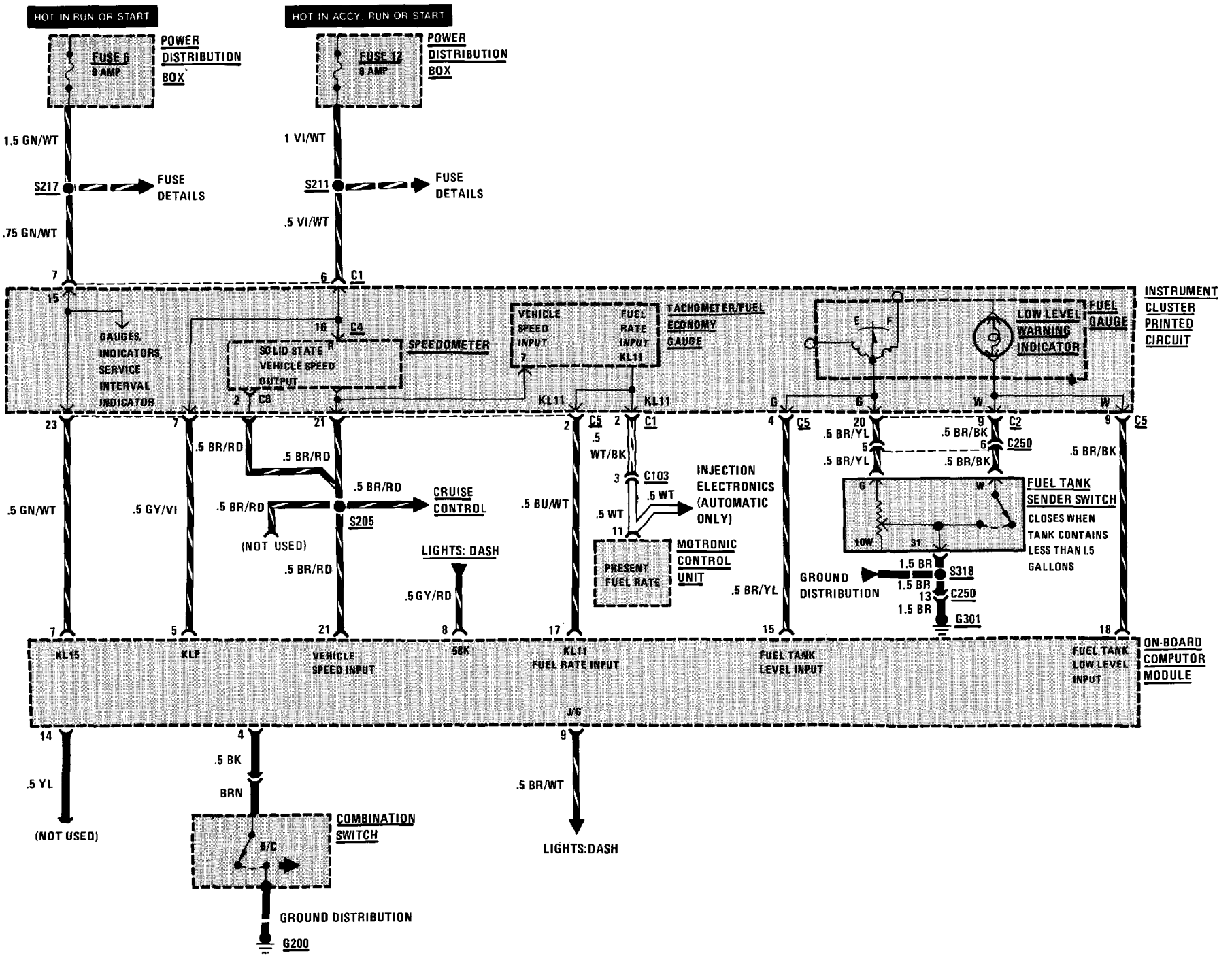

HOT IN ACCY, RUN OR START
R2
FUSE 12
8 AMP
POWER DISTRIBUTION BOX
1 VI/WT
S211
FUSE DETAILS
1 VI/WT
17
C206
1.5 VI/WT
S306
FUSE DETAILS
1 VI/WT
C219
.75 VI/GY
ANTENNA
POWER ANTENNA
M
SOLID STATE
RAISE/ LOWER INPUT
GROUND
POWER
RD
2
C241
WT
BK
1
C241
G302
.5 WT
.5 WT
A
SEE PAGE 6500-1
HOT AT ALL TIMES
FUSE 4
8 AMP
2.5 RD/YL
C206
2.5 RD/YL
S304
FUSE DETAILS
2.5 RD/YL
C302 (ACCESSORY CONNECTOR)
2.5 RD
HOT AT ALL TIMES
FUSE 5
8 AMP
POWER DISTRIBUTION BOX
LIGHT SWITCH DETAILS
1.5 RD/WT
S207
1.5 RD/WT
21
C206
1.5 RD/WT
S311
FUSE DETAILS
.75 RD/WT
2
YL
.75 GY/RD
1
C215
WT
RADIO
OFF
ON
POWER IN
ANTENNA INPUT
SOLID STATE
MEMORY POWER
LIGHT ON INPUT
GROUND
LEFT CHANNEL
RIGHT CHANNEL
1 BR/BK
C219
.75 BR
G200
.5 BR/BK
18
BR/BK
.75 YL
2
.75 BU
2
FADER CONTROL
1
.5 YL/BK
14
3
.5 YL/RD
15
1
.5 BU/BK
19
3
.5 BU/RD
20
C320
YL/BK
YL/RD
BU/BK
BU/RD
GROUND
LEFT
RIGHT
AMPLIFIER


HOT IN ACCY, RUN OR START
POWER DISTRIBUTION BOX
FUSE 12
8 AMP
1 VI/WT
S211
FUSE DETAILS
1 VI/WT
17
C206
1.5 VI/WT
S306
FUSE DETAILS
.75 VI/WT
20
C302
1 VI/BK
1 VI/BK
S420
C217 (NOT USED)
1 VI/BK
11
VI/BK
.75 GY/GN
RIGHT FRONT TWEETER
RIGHT FRONT SPEAKER
.75 GN/YL
1 GY/BR
.75 GY/BR
1 GY/WT
2
3
GY/BR
GY/WT
.75 GY/GN
LEFT FRONT TWEETER
LEFT FRONT SPEAKER
.75 GN/YL
1 GY/VI
.75 GY/VI
1 GY/RD
16
17
C320
GY/VI
GY/RD
AMPLIFIER
RIGHT FRONT
LEFT FRONT
POWER INPUT
WT
13
.5 WT
A
SEE PAGE 6500-0
LEFT REAR
BK/VI
BK/RD
1
7
.75 BK/VI
.75 BK/RD
GROUND
BR
10
1.5 BR
G301
RIGHT REAR
BK/BR
BR/WT
4
5
C320
.75 BK/BR
.75 BK/WT
LEFT REAR SPEAKER
GN/BK
GN/BK
RIGHT REAR SPEAKER
GN/BK
GN/BK

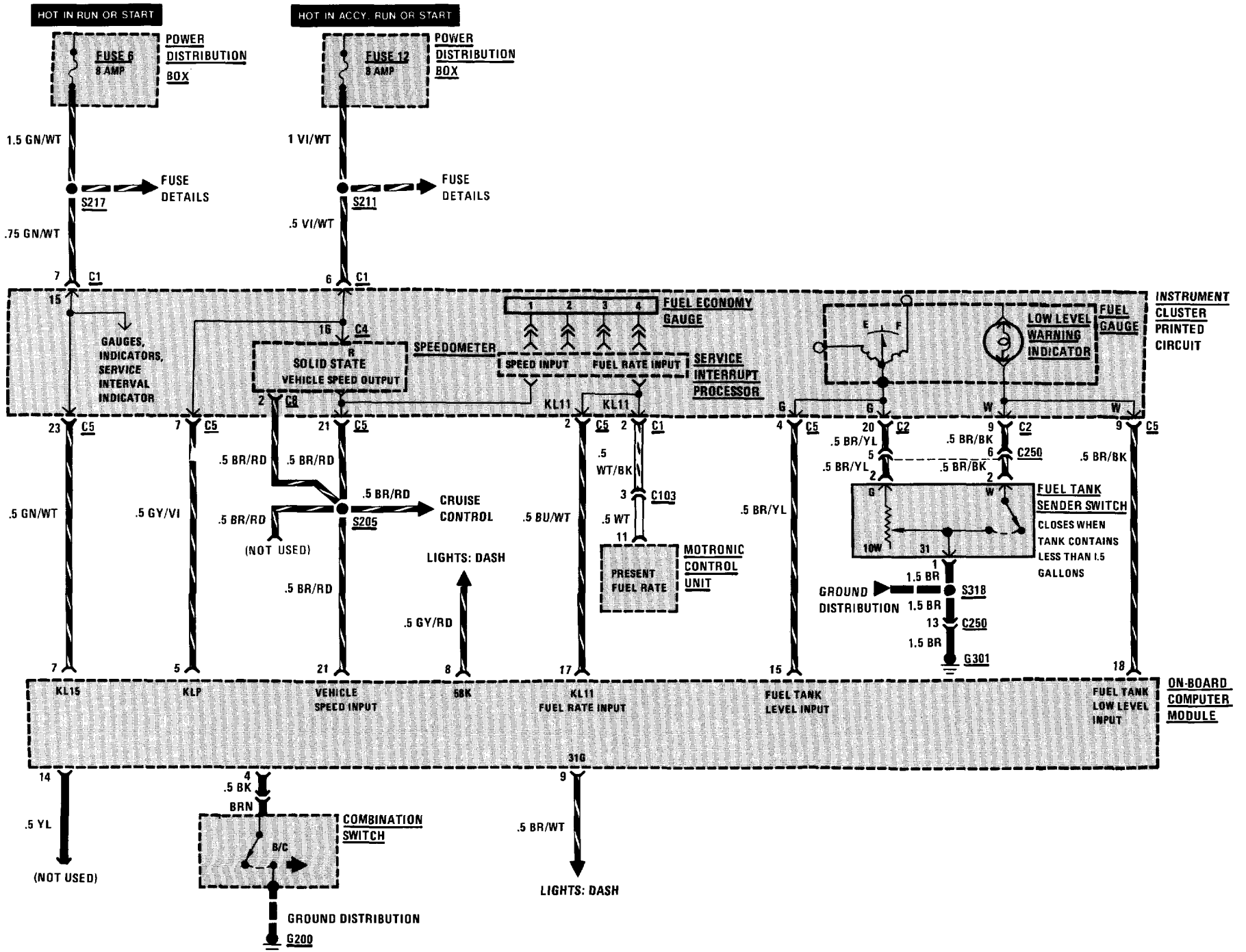

HOT IN RUN OR START
FUSE 6
8 AMP
POWER DISTRIBUTION BOX
NOTE
FOR CRUISE CONTROL TO BE ENGAGED, PIN 9 MUST SENSE GROUND THROUGH STOPLIGHTS.
WHEN BRAKE SWITCH IS CLOSED, GROUND IS ELECTRONICALLY REMOVED.
WHEN CLUTCH SWITCH IS OPENED, GROUND IS MECHANICALLY REMOVED.
FUSE DETAILS
1.5 GN/WT
S217
1 GN/WT
6 C206
1 GN/WT
.75 GN/WT
13
.5 VI/WT
.5 VI/WT
4 GN/WT
S309
C302
(ACCESSORY CONNECTOR)
S222
C210
CRUISE CONTROL SWITCH
OFF
OFF
RESUME
ACCELERATE/ SET
O
W
S
YL
GN
BU
1
2
3
C210
.5 YL
.5 GN
.5 BU
2
5
4
INSTRUMENT CLUSTER
PRINTED CIRCUIT
SPEEDOMETER
SPEED OUTPUT
2 C8
.5 BR/RD
ON-BOARD COMPUTER
S205
.5 BR/RD
C220
.5 BU/YL
6
.75 GN/WT
1 C301
.75 GN/WT
3
AUTOMATIC TRANSMISSION RANGE SWITCH
GN/WT
FUSE DETAILS
.5 VI/WT
1
VEHICLE SPEED INPUT
POWER INPUT
SOLID STATE
CANCEL
RESUME SPEED
ACCELERATE/ SET SPEED
CONTROL INPUTS
SEE NOTE
CRUISE CONTROL UNIT
CRUISE ENABLE
GROUND
FEEDBACK REFERENCE
FEEDBACK INPUT
CLUTCH CONTROL OUTPUT
MOTOR CONTROL OUTPUT
3
23
24
26
8
13
25
9
.5 GY/RD
.5 GN/YL
.5 WT
.5 BK
.5 BU/WT
4
7
2
6
5
C209
.5 RD
.5 YL
.5 GN
.5 BK
CRUISE CONTROL ACTUATOR
.5 BU
.5 GN/RD
6
.5 BU/BR
.5 BU/BR
TRANSMISSION RANGE DISPLAY
ELECTRONIC TRANSMISSION CONTROL
AUTOMATIC TRANSMISSION
MANUAL TRANSMISSION
.75 BU/BR
INSTRUMENT CLUSTER
PRINTED CIRCUIT
SPEEDOMETER
1 C8
7
.5 BU/BR
"N"
LIGHTS: DASH/ TRANSMISSION RANGE
(–)
12 C6
31
16 C1
FEEDBACK POTENTIOMETER
OUTPUT BAND
CLUTCH SOLENOID
CONTROL MOTOR
M
.5 BR
3 C209
.5 BR
.5 BR
.5 BR
.5 WT
1
C209
S224
.5 GN/RD
S223
TO THROTTLE VALVE
STOP LIGHTS
G200
G200
G200


HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5 8 AMP
1.5 RD/WT
S207
FUSE DETAILS
.75 RD/WT
3 C219
.75 RD/WT
.5 BR/VI
B/C HORN DIODE
BOARD COMPUTER HORN
.5 BR/VI
(NOT USED)
.75 BR/YL
.75 BR/GN
2 1 C219
.75 BR/GN .75 BR/YL
3 19 C206
.75 BR/GN .75 BR/YL
14 (NOT USED) (ACCESSORY CONNECTOR) 16 C302
.75 BR/YL
1 C2
HOT AT ALL TIMES
IGNITION SWITCH
START OFF RUN ACCY
2.5 GN
1 C200
2.5 GN
POWER DISTRIBUTION
S213
.75 GN
C212
.75 GN
C212
3 C1 3 C2
ON-BOARD COMPUTER RELAY BOX
HORN RELAY
CODE RELAY
2 C2 2 4 C1 1 C1
4 C2
.5 BR/VI
.5 BR/GN
1 11
ON-BOARD COMPUTER MODULE
HORN (–) CODE (–)
GROUND
10
.5 BR
S101
2.5 BR
GROUND DISTRIBUTION
G200
1 BR
.75 GN/RD
C212
.75 GN
2 C103
.5 GN
86 30
MAIN RELAY
85 87 87
.75 BR
G102
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 5 8 AMP
1.5 RD/WT
S207
FUSE DETAILS
.5 RD/WT
4 C1
30 SERVICE INTERVAL INDICATOR, GAUGES, INDICATORS 50
30 50
5 C5
.5 RD/WT
.5 RD/WT
.5 RD/WT
S205
.5 RD/WT
1 C2
CHIME MODULE
SOLID STATE (+)
B/C CHIME
GROUND (–)
4 C2 3 C2
.5 BR
S101
2.5 BR
GROUND DISTRIBUTION
G200
.5 BR/BU
4 RD
1.5 RD
INJECTION ELECTRONICS (AUTOMATIC ONLY)
BATTERY
BR
G104
HOT IN START
FROM IGNITION SWITCH PAGE 1240-0
S
.5 BK/YL
1 C1
INSTRUMENT CLUSTER
.5 BK/YL
1 C5
.5 BK/YL
6 22
ON-BOARD COMPUTER MODULE
KL30 50 START INPUT
TRIGGER OUTPUT
OUTSIDE TEMPERATURE INPUT
2 16
.5 BU/YL
1
NTC
OUTSIDE TEMPERATURE SENSOR
2
.5 BR
GROUND DISTRIBUTION
S101
2.5 BR
G200

EARLY PRODUCTION



LATE PRODUCTION



INDEX

This index contains all the splices in the car, what harness each one is in, and the page that the splices appear on. The drawings after the index show how the harness is routed through the car and where the splices are located on the harness.

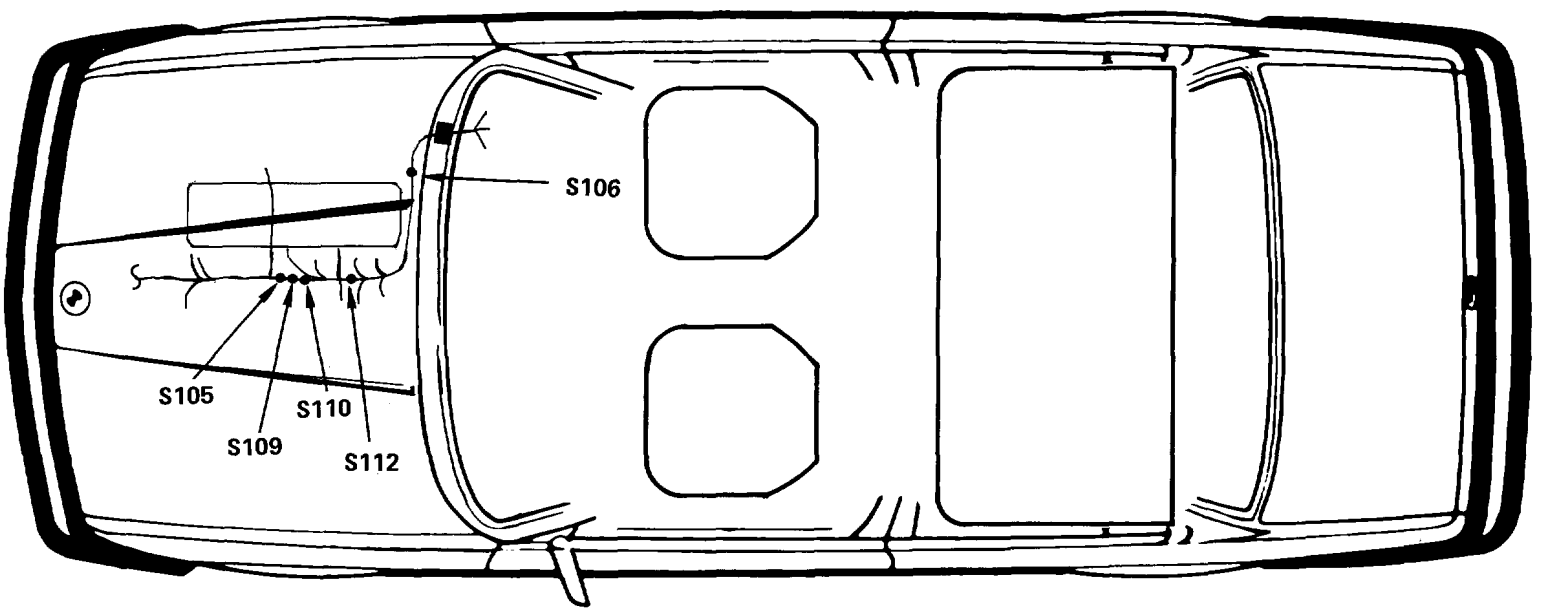
SPLICE	HARNESS	PAGE NUMBER
S100	FRONT	8000-5
S101	FRONT	8000-5
S102	FRONT	8000-5
S103	FRONT	8000-5
S104	FRONT	8000-5
S105	ENGINE	8000-1
S106	ENGINE	8000-1
S109	ENGINE	8000-1
S110	ENGINE	8000-1
S112	ENGINE	8000-1
S114	HEATER	NOT SHOWN
S119	HEATED WASHER JETS	NOT SHOWN
S120	FRONT	8000-5
S121	ELECT TRANS	NOT SHOWN
S200	MIDDLE	8000-6
S201	MIDDLE	8000-6
S202	MIDDLE	8000-6
S203	MIDDLE	8000-6
S204	MIDDLE	8000-6
S205	MIDDLE	8000-6
S206	MIDDLE	8000-6
S207	MIDDLE	8000-6
S208	MIDDLE	8000-6
S209	MIDDLE	8000-6
S210	MIDDLE	8000-6
S211	MIDDLE	8000-6
S212	MIDDLE	8000-6
S213	MIDDLE	8000-6
S214	MIDDLE	8000-6
S215	MIDDLE	8000-6
S216	MIDDLE	8000-6
S217	MIDDLE	8000-6
S218	MIDDLE	8000-6
S219	MIDDLE	8000-6
S220	MIDDLE	8000-6
S221	MIDDLE	8000-6
S222	CRUISE CONTROL	8000-2
S223	CRUISE CONTROL	8000-2
S224	CRUISE CONTROL	8000-2
S225	A/C	NOT SHOWN
S226	A/C	NOT SHOWN
S227	A/C	NOT SHOWN
S228	A/C	8000-2
S229	A/C	8000-2
S231	MIDDLE	8000-6
S232	POWER SEATS	NOT SHOWN
S233	POWER SEATS	NOT SHOWN
S234	MIDDLE	NOT SHOWN
S235	REAR	8000-4
S300	REAR	8000-4
S303	REAR	8000-4
S304	REAR	8000-4
S305	REAR	8000-4
S306	REAR	8000-4
S308	REAR	8000-4
S309	REAR	8000-4
S310	REAR	8000-4
S311	REAR	8000-4
S312	REAR	8000-4

INDEX

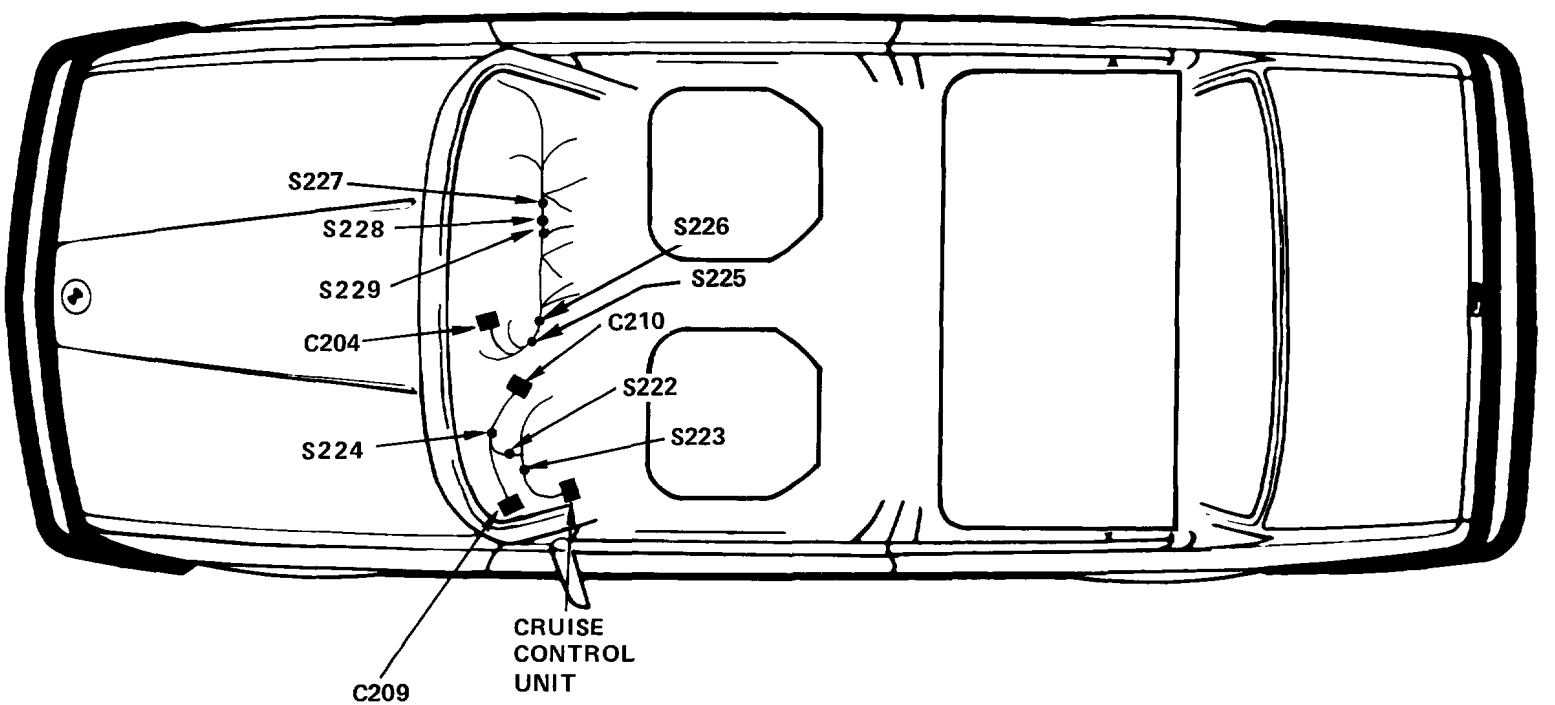
This index contains all the splices in the car, what harness each one is in, and the page that the splices appear on. The drawings after the index show how the harness is routed through the car and where the splices are located on the harness.

SPLICE	HARNESS	PAGE NUMBER
S313	REAR	8000-4
S314	REAR	8000-4
S315	REAR	8000-4
S316	REAR	8000-4
S317	REAR	8000-4
S318	REAR	8000-4
S319	REAR	8000-4
S320	REAR	8000-4
S400	CENTRAL LOCKING	8000-7
S401	CENTRAL LOCKING	8000-7
S402	CENTRAL LOCKING	8000-7
S403	CENTRAL LOCKING	8000-7
S404	CENTRAL LOCKING	8000-7
S405	CENTRAL LOCKING	8000-7
S406	CENTRAL LOCKING	8000-7
S407	CENTRAL LOCKING	8000-7
S408	CENTRAL LOCKING	8000-7
S409	CENTRAL LOCKING	NOT SHOWN
S410	CENTRAL LOCKING	8000-7
S411	CENTRAL LOCKING	8000-7
S412	CENTRAL LOCKING	8000-7
S414	CENTRAL LOCKING	8000-7
	CENTRAL LOCKING	8000-7
S416	CENTRAL LOCKING	8000-7
S417	CENTRAL LOCKING	8000-7
S418	PASSENGER DOOR	8000-3
S420	RADIO	NOT SHOWN
S500	DRIVER'S DOOR	8000-3
S501	DRIVER'S DOOR	8000-3
S502	DRIVER'S DOOR	8000-3
S503	DRIVER'S DOOR	8000-3
S504	DRIVER'S DOOR	8000-3
S600	SUNROOF	NOT SHOWN
S601	SUNROOF	NOT SHOWN
S700	ABS	NOT SHOWN
S701	ABS	NOT SHOWN

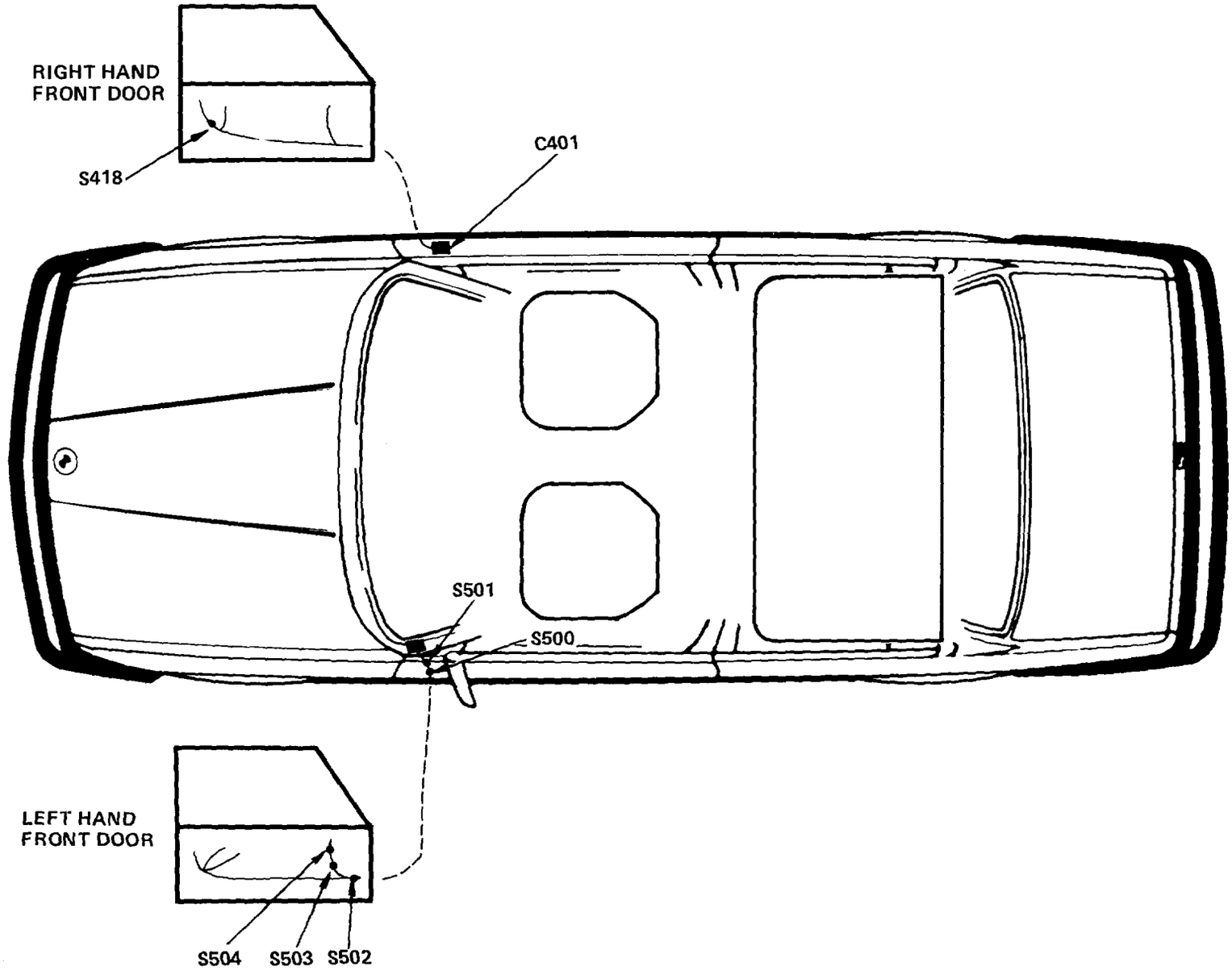
ENGINE HARNESS SPLICE LOCATIONS



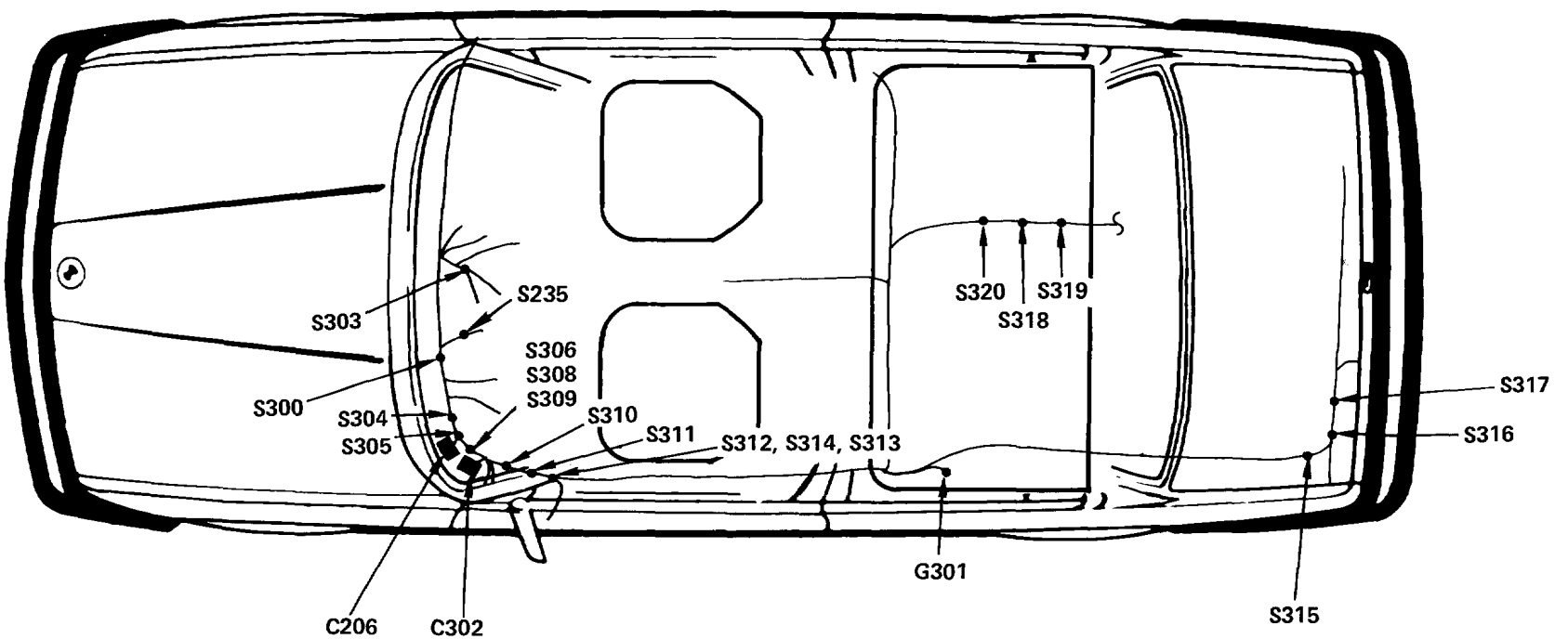
A/C AND CRUISE HARNESS SPLICE LOCATIONS



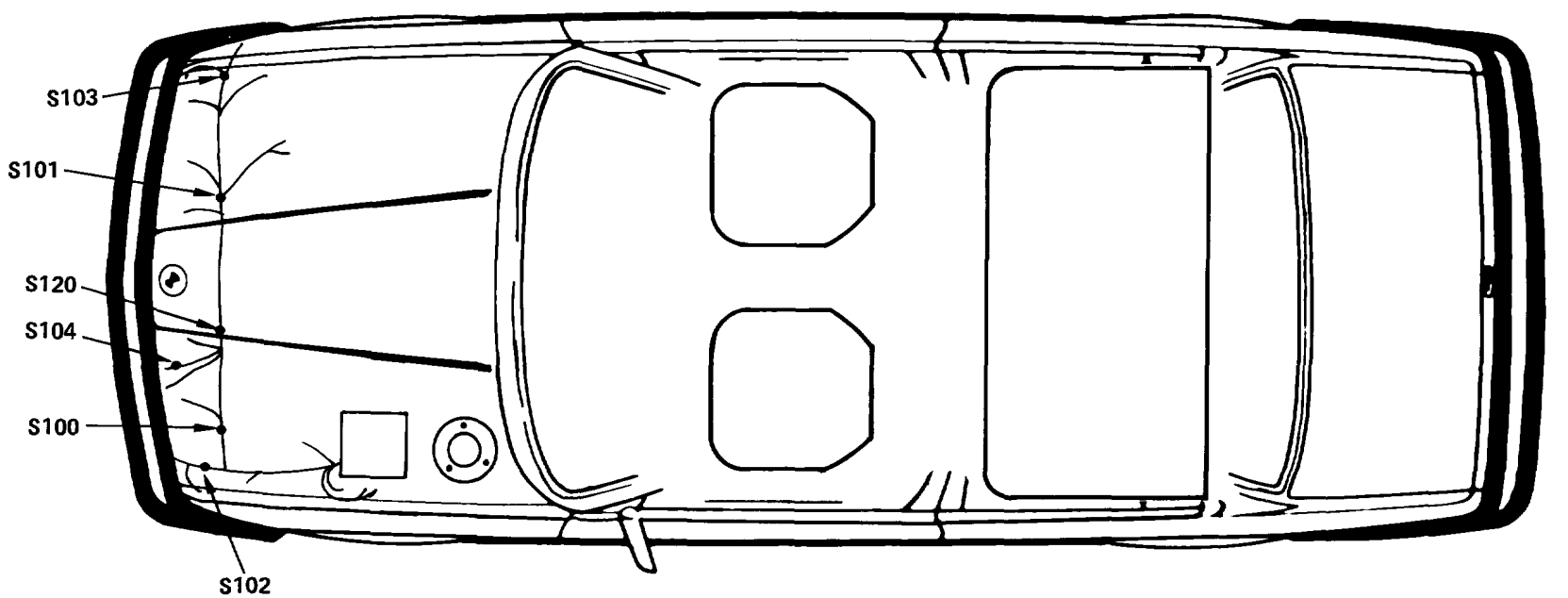
DOOR HARNESS SPLICE LOCATIONS

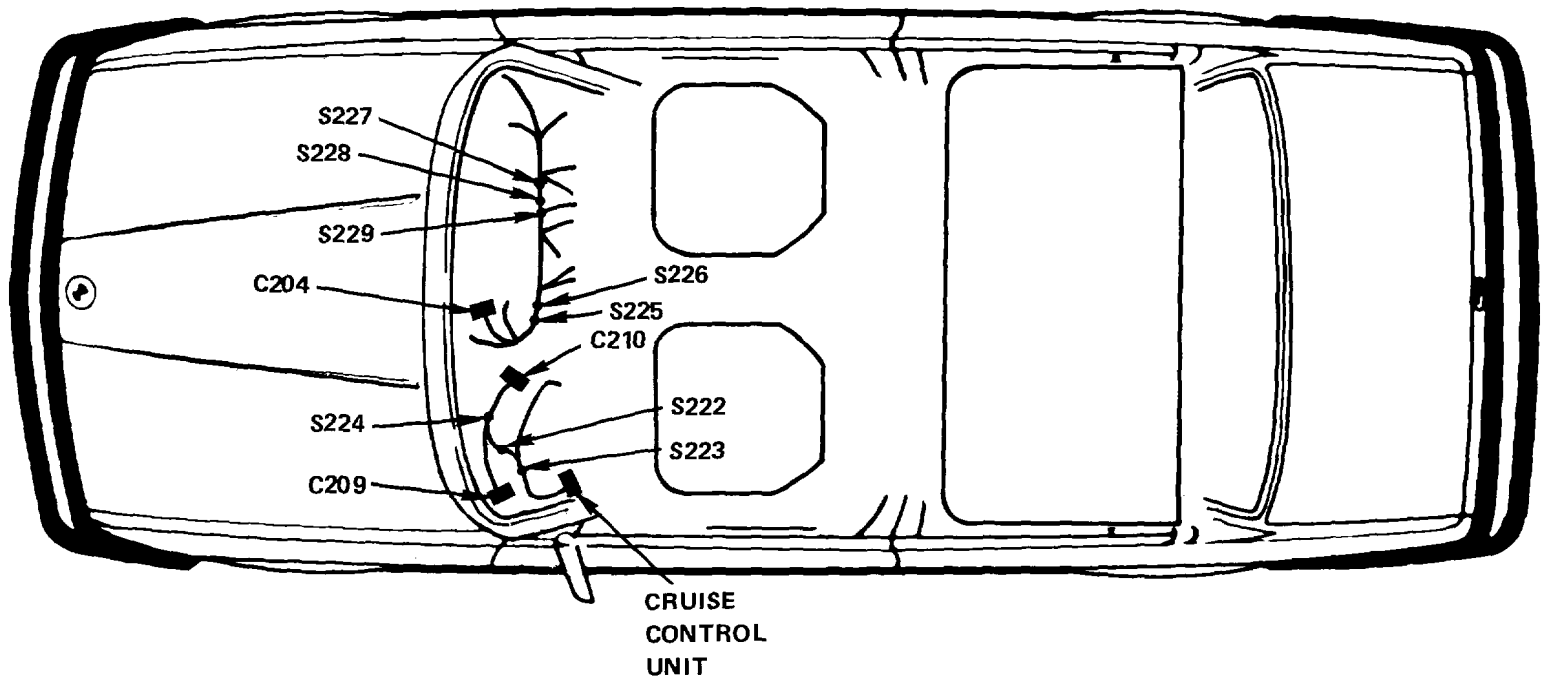


REAR HARNESS SPLICE LOCATIONS

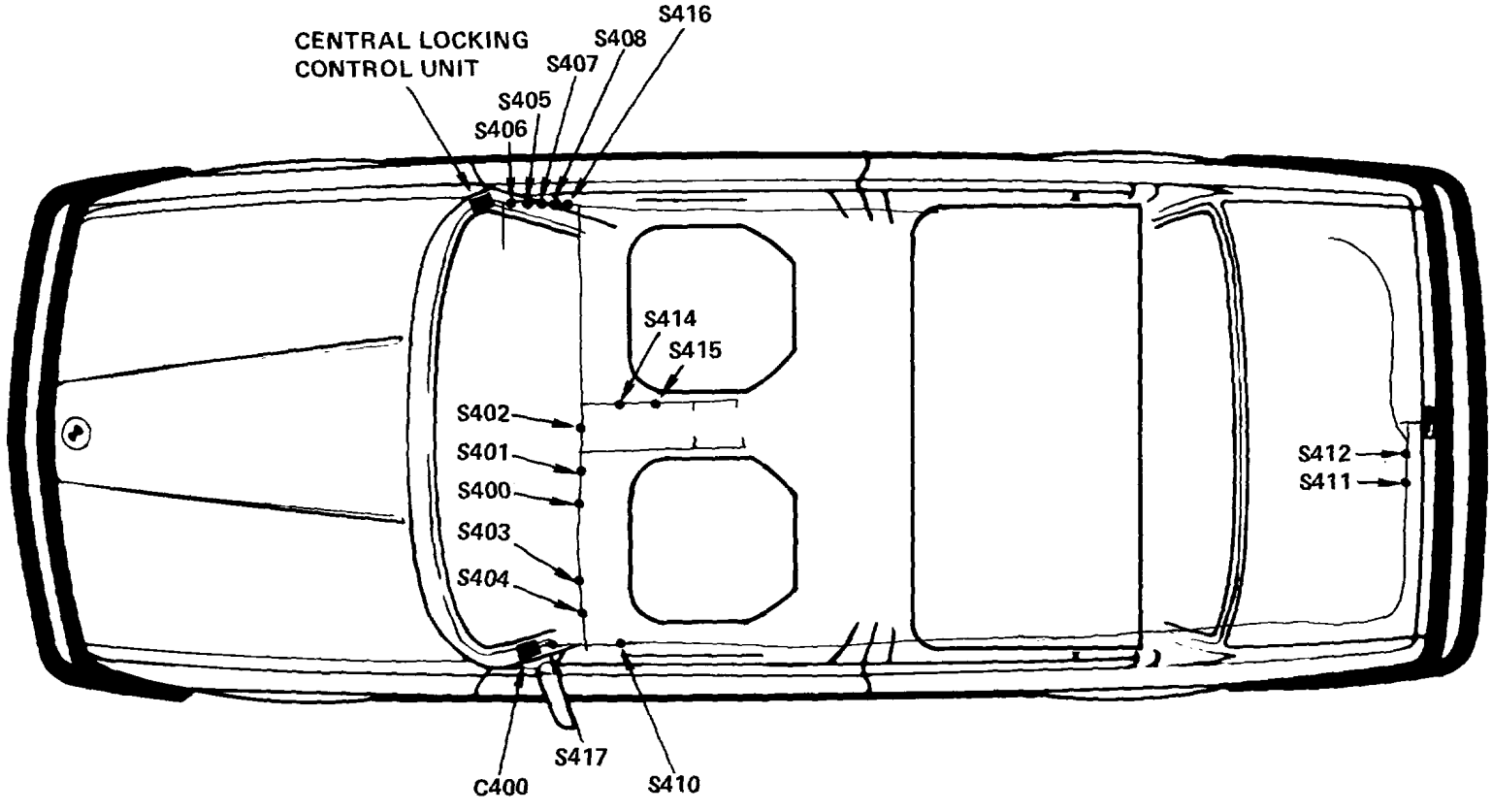


FRONT HARNESS SPLICE LOCATIONS




S227
S228
S229
C204
S226
S225
C210
S222
S223
S224
C209
CRUISE
CONTROL
UNIT

CENTRAL LOCKING HARNESS SPLICE LOCATIONS



FOR COMPONENT LOCATION VIEWS, CONNECTOR VIEWS AND COMPONENT LOCATION CHART, SEE SECTION A. (528e)