1986 BMW 635CSi Electrical Troubleshooting Manual

BMW of North America, Inc.
Montvale, New Jersey

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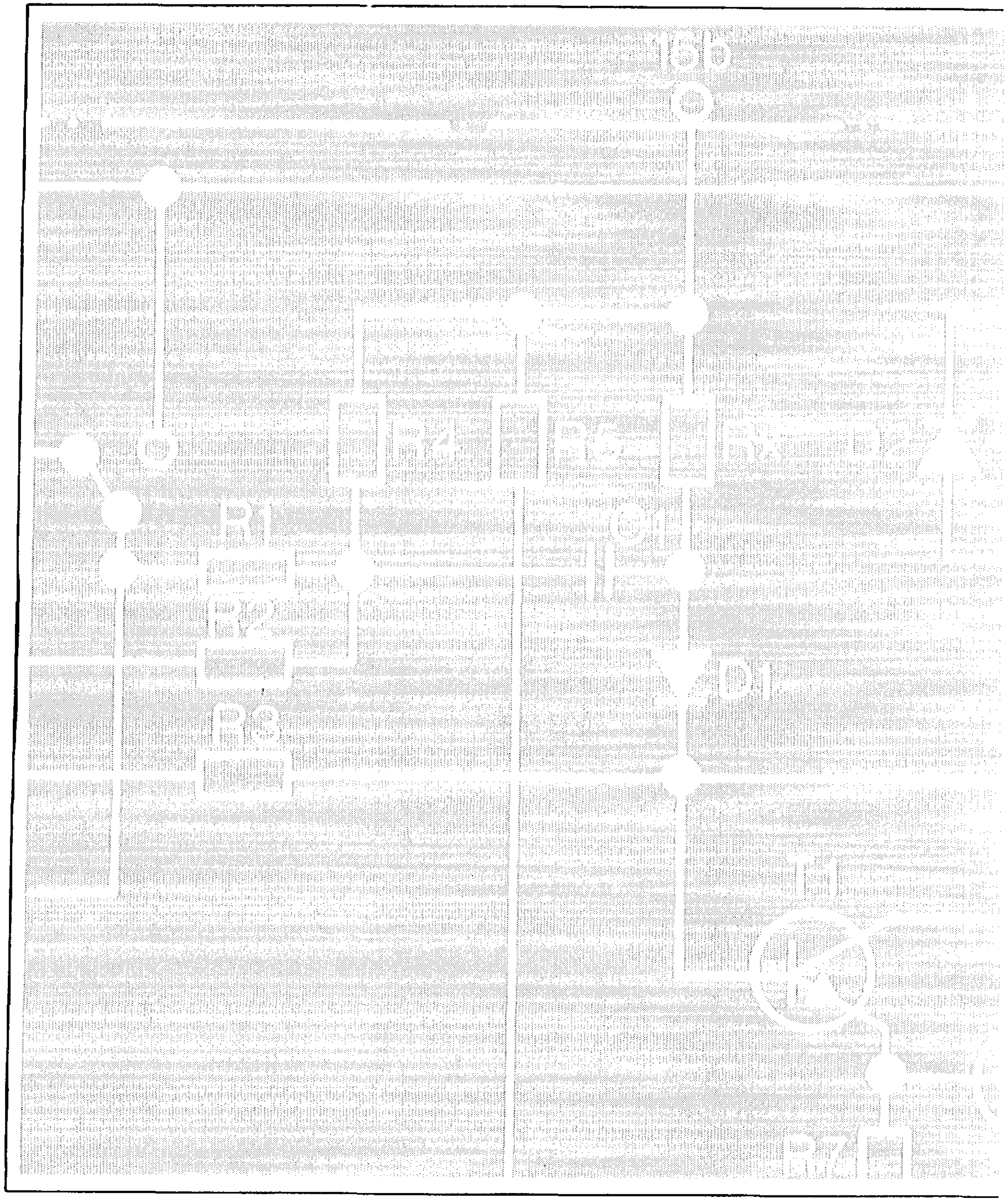
FOREWORD

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



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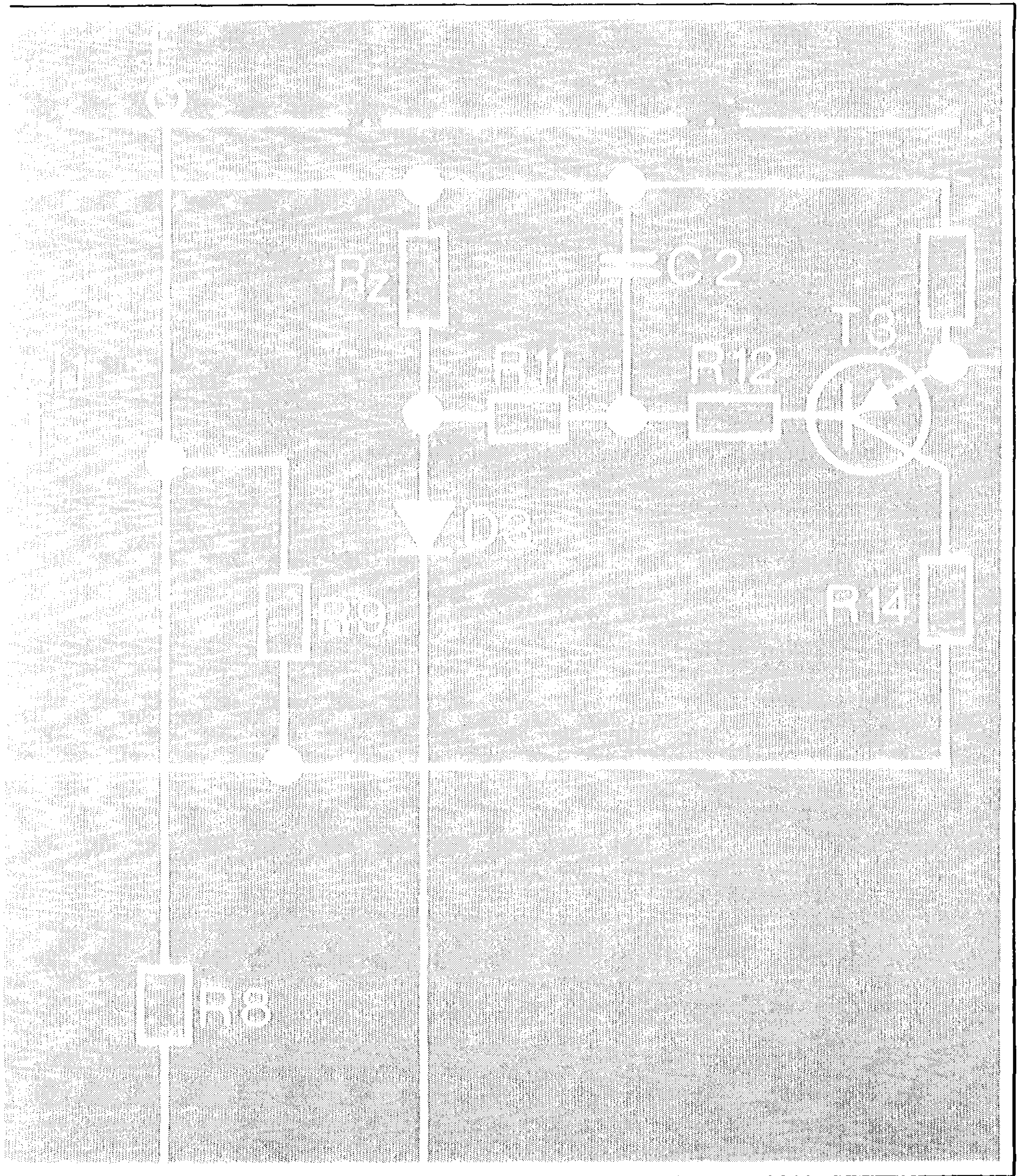

1986 BMW 635CSi Electrical Troubleshooting Manual

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Index — Alphabetical Listing of Electrical Circuits

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.

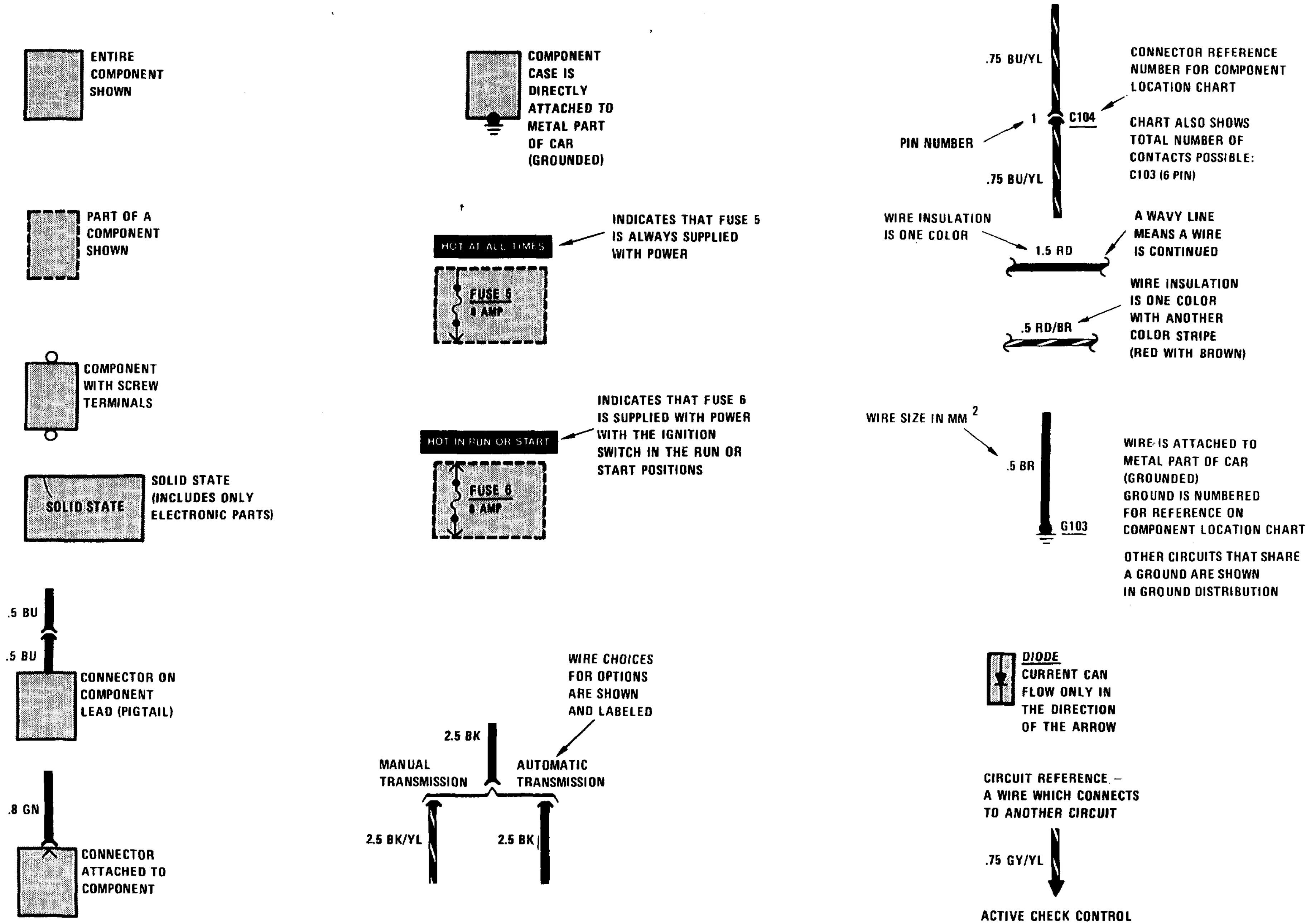
The power distribution schematic shows *the current feed through all the* connections from the Battery and Alternator to each fuse and the Ignition and Light Switches. If the Power Distribution schematic is combined with any other circuit schematic, a complete picture is made of how that circuit works.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

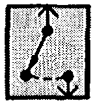
All wiring between components is shown exactly as it exists in the vehicle; however, the wiring is not drawn to scale. To aid in understanding electrical operation, wiring inside complicated components has been simplified. The "Solid State" label designates electronic components.

WIRE SIZE CONVERSION CHART	
METRIC (CROSSECTIONAL AREA IN MM^2)	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

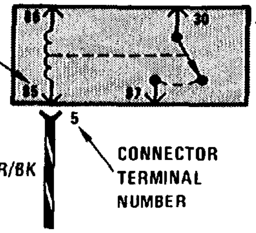
SYMBOLS


ENTIRE COMPONENT SHOWN
COMPONENT CASE IS DIRECTLY ATTACHED TO METAL PART OF CAR (GROUNDED)
.75 BU/YL
1
C104
PIN NUMBER
.75 BU/YL
CONNECTOR REFERENCE NUMBER FOR COMPONENT LOCATION CHART
CHART ALSO SHOWS TOTAL NUMBER OF CONTACTS POSSIBLE: C103 (6 PIN)
PART OF A COMPONENT SHOWN
INDICATES THAT FUSE 5 IS ALWAYS SUPPLIED WITH POWER
HOT AT ALL TIMES
WIRE INSULATION IS ONE COLOR
1.5 RD
A WAVY LINE MEANS A WIRE IS CONTINUED
.5 RD/BR
WIRE INSULATION IS ONE COLOR WITH ANOTHER COLOR STRIPE (RED WITH BROWN)
COMPONENT WITH SCREW TERMINALS
INDICATES THAT FUSE 6 IS SUPPLIED WITH POWER WITH THE IGNITION SWITCH IN THE RUN OR START POSITIONS
HOT IN RUN OR START
FUSE 6
WIRE SIZE IN MM 2
.5 BR
G103
WIRE IS ATTACHED TO METAL PART OF CAR (GROUNDED)
GROUND IS NUMBERED FOR REFERENCE ON COMPONENT LOCATION CHART
OTHER CIRCUITS THAT SHARE A GROUND ARE SHOWN IN GROUND DISTRIBUTION
SOLID STATE
SOLID STATE (INCLUDES ONLY ELECTRONIC PARTS)
.5 BU
.5 BU
CONNECTOR ON COMPONENT LEAD (PIGTAIL)
WIRE CHOICES FOR OPTIONS ARE SHOWN AND LABELED
2.5 BK
MANUAL TRANSMISSION
AUTOMATIC TRANSMISSION
2.5 BK/YL
2.5 BK
DIODE
CURRENT CAN FLOW ONLY IN THE DIRECTION OF THE ARROW
CIRCUIT REFERENCE – A WIRE WHICH CONNECTS TO ANOTHER CIRCUIT
.75 GY/YL
ACTIVE CHECK CONTROL
.8 GN
CONNECTOR ATTACHED TO COMPONENT



ONE POLE,
TWO POSITION
SWITCH

COMPONENT
TERMINAL
NUMBER

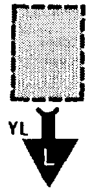


NAME OF COMPONENT

START RELAY
ENERGIZED
IN START

DETAILS ABOUT
COMPONENT OR
OPERATION

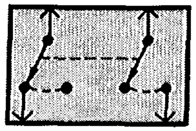
CONNECTOR
TERMINAL
NUMBER



LOW
BEAM
RELAY

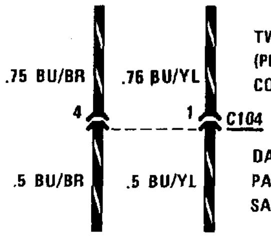
TO POWER
DISTRIBUTION
BOX, PAGE 1

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



SWITCHES THAT
MOVE TOGETHER

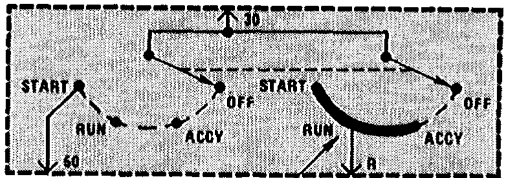
DASHED LINE SHOWS
A MECHANICAL
CONNECTION
BETWEEN SWITCHES



TWO CONNECTIONS
(PINS) IN THE SAME
CONNECTOR

DASHED LINE SHOWS
PARTS OF THE
SAME CONNECTOR

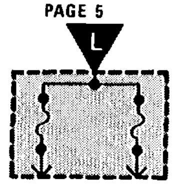
TWO POLE, FOUR
POSITION SWITCH



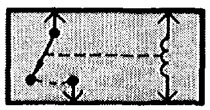
IGNITION
SWITCH

"R" IS ENERGIZED
IN ACCY, RUN OR START

FROM LOW
BEAM RELAY,
PAGE 5

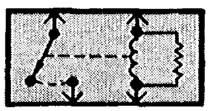


POWER
DISTRIBUTION
BOX



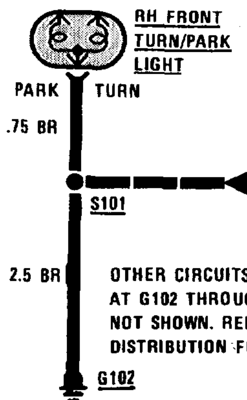
RELAY SHOWN
WITH NO
CURRENT
FLOWING
THROUGH
COIL

WHEN COIL IS
ENERGIZED, SWITCH
IS PULLED CLOSED



RELAY SHOWN
WITH RESISTOR
ACROSS COIL

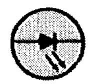
RESISTOR ACROSS COIL
IS FOR NOISE
SUPPRESSION



RH FRONT
TURN/PARK
LIGHT

GROUND
DISTRIBUTION

OTHER CIRCUITS ALSO GROUNDED
AT G102 THROUGH S101, BUT ARE
NOT SHOWN. REFER TO GROUND
DISTRIBUTION FOR DETAILS.



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

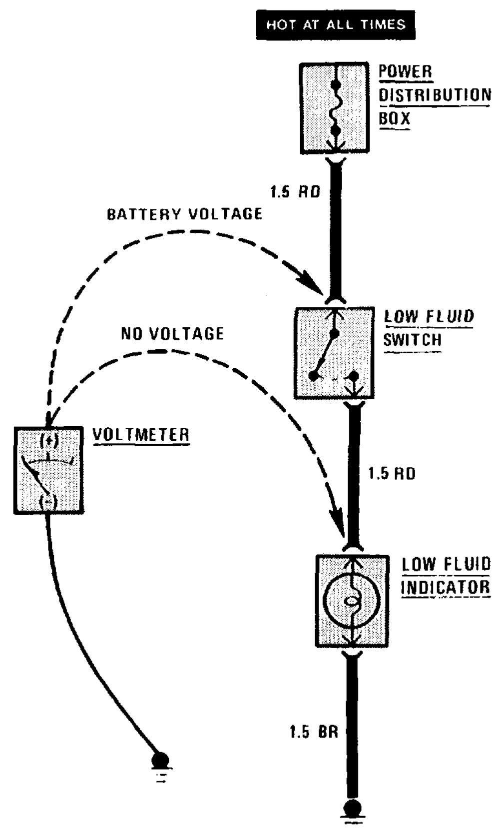
Isolating the problem (Step 3 of TROUBLESHOOTING PROCEDURES) requires the use of a **voltmeter** and/or **ohmmeter.** A voltmeter measures voltage at selected points in a circuit. An ohmmeter measures a circuit's resistance to current flow. It has an internal battery that provides current to the circuit 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.

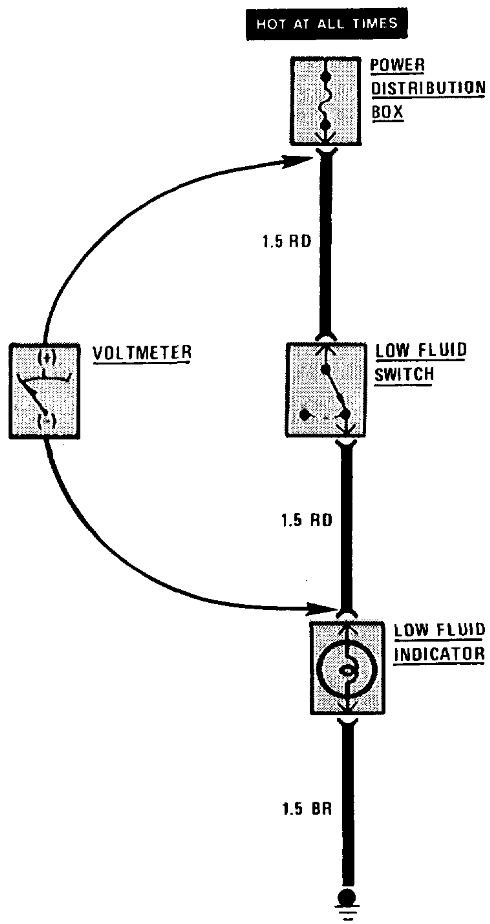
Continuity Test

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.

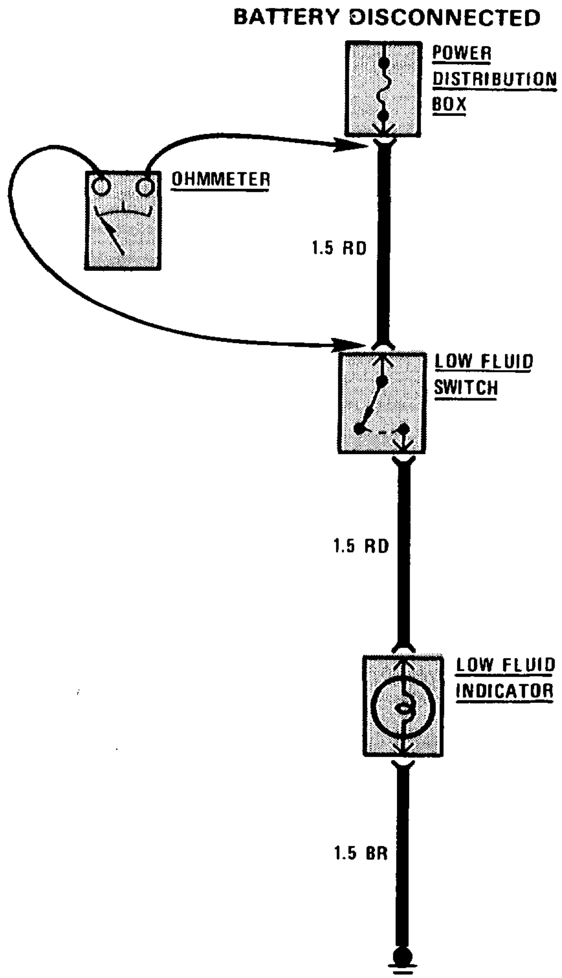
Short Test Using Voltmeter

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.

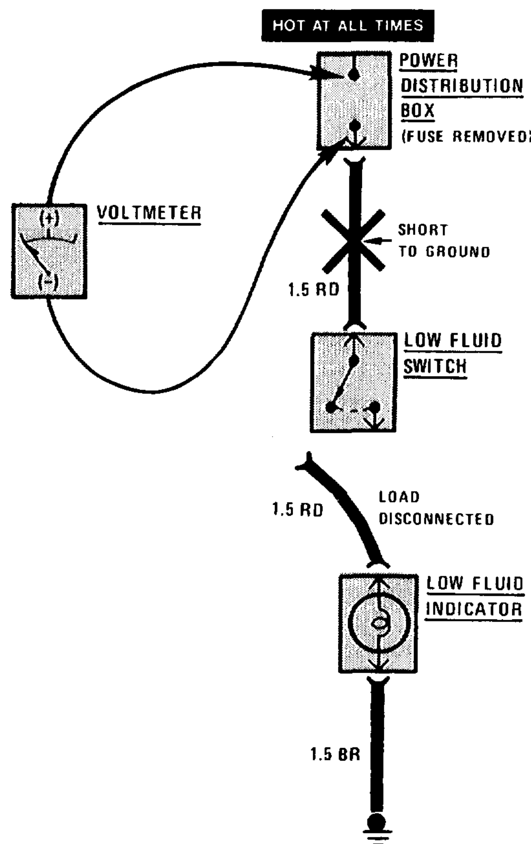
Starting near the POWER DISTRIBUTION BOX, move the wire harness back and forth and watch the voltmeter reading. If the voltmeter registers a reading, there is a short to ground in the wiring. Somewhere in the area of the harness being moved, the wire insulation is worn away and the circuit is grounding.



Voltage Drop Test



Continuity Test

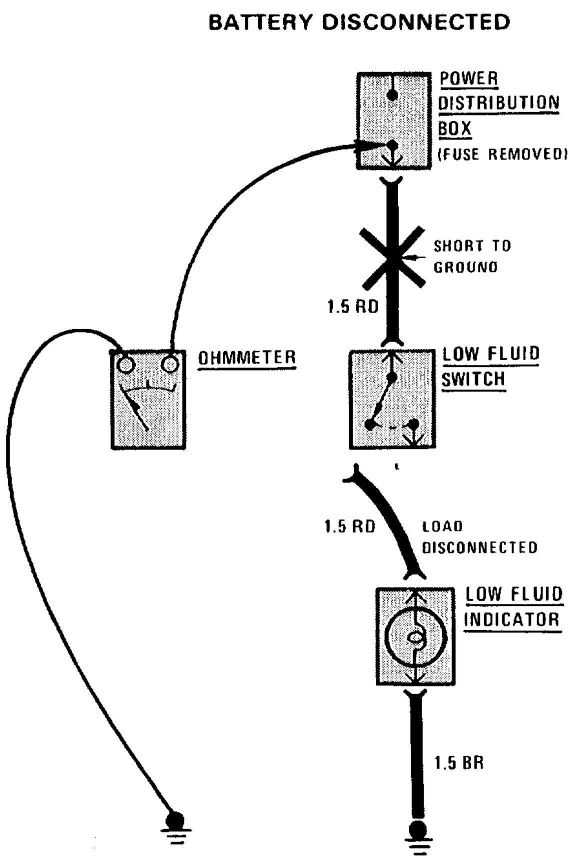


Short Test Using Voltmeter

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

POWER DISTRIBUTION BOX

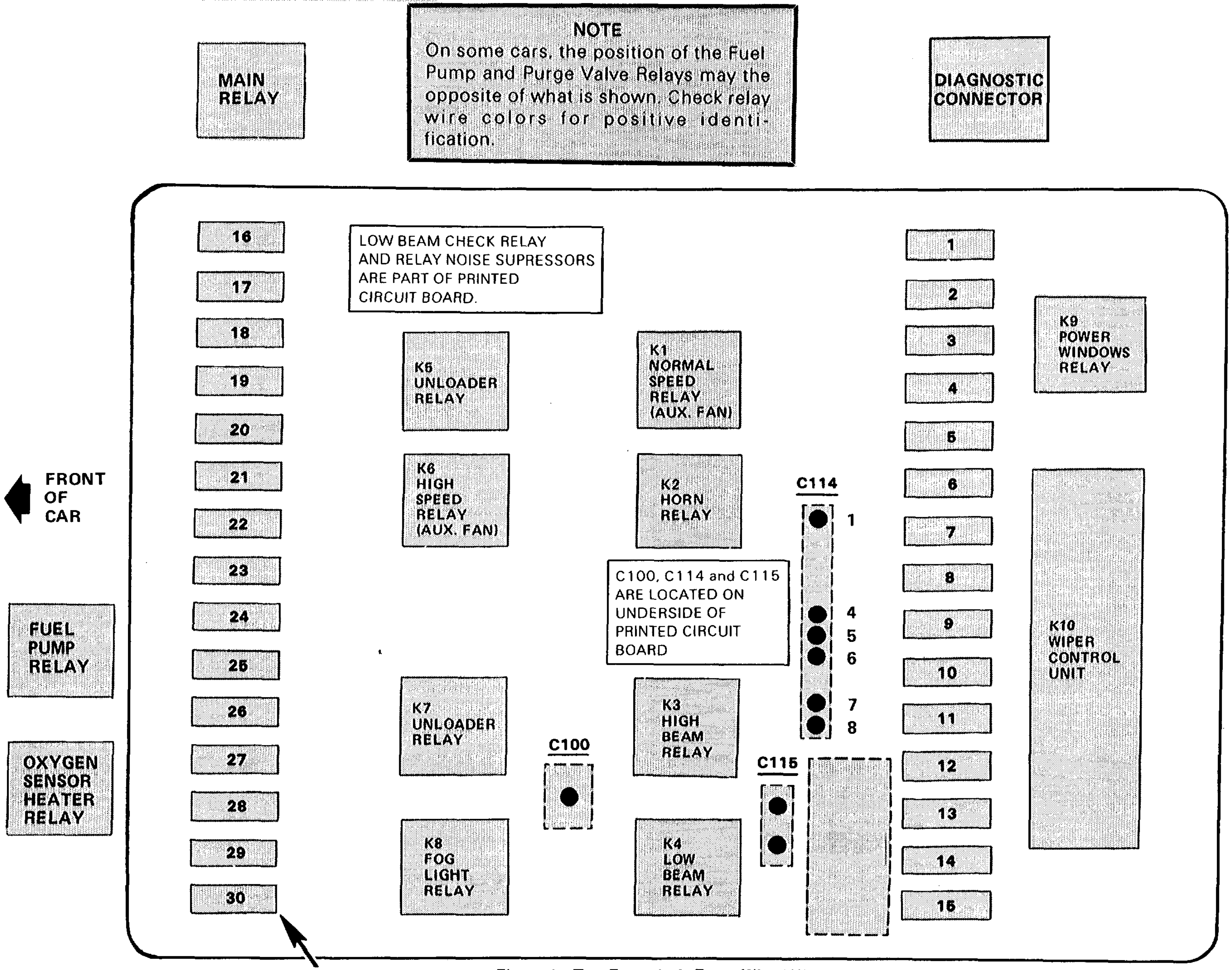
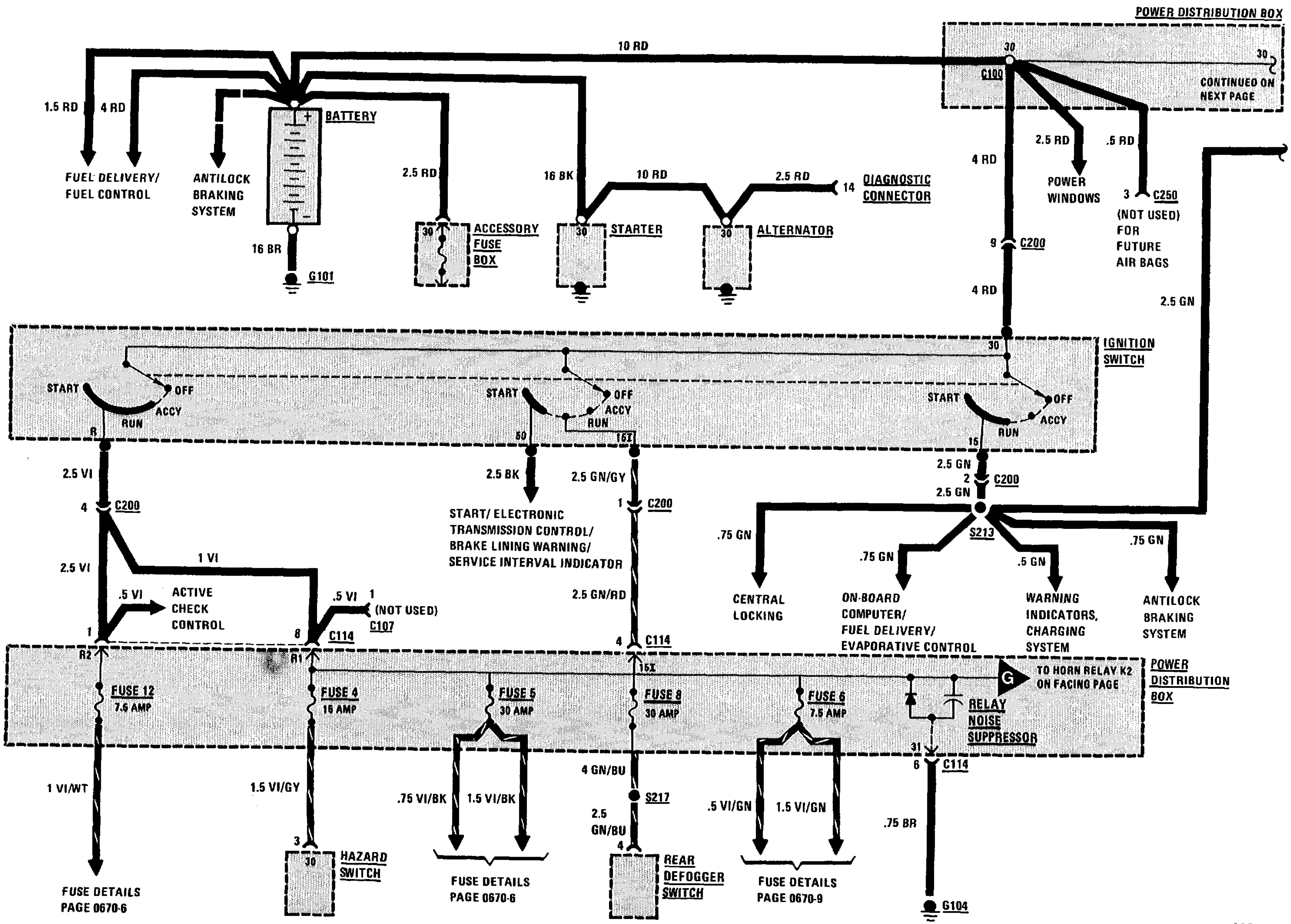


Figure 1 - Top Front Left Front Wheel Well

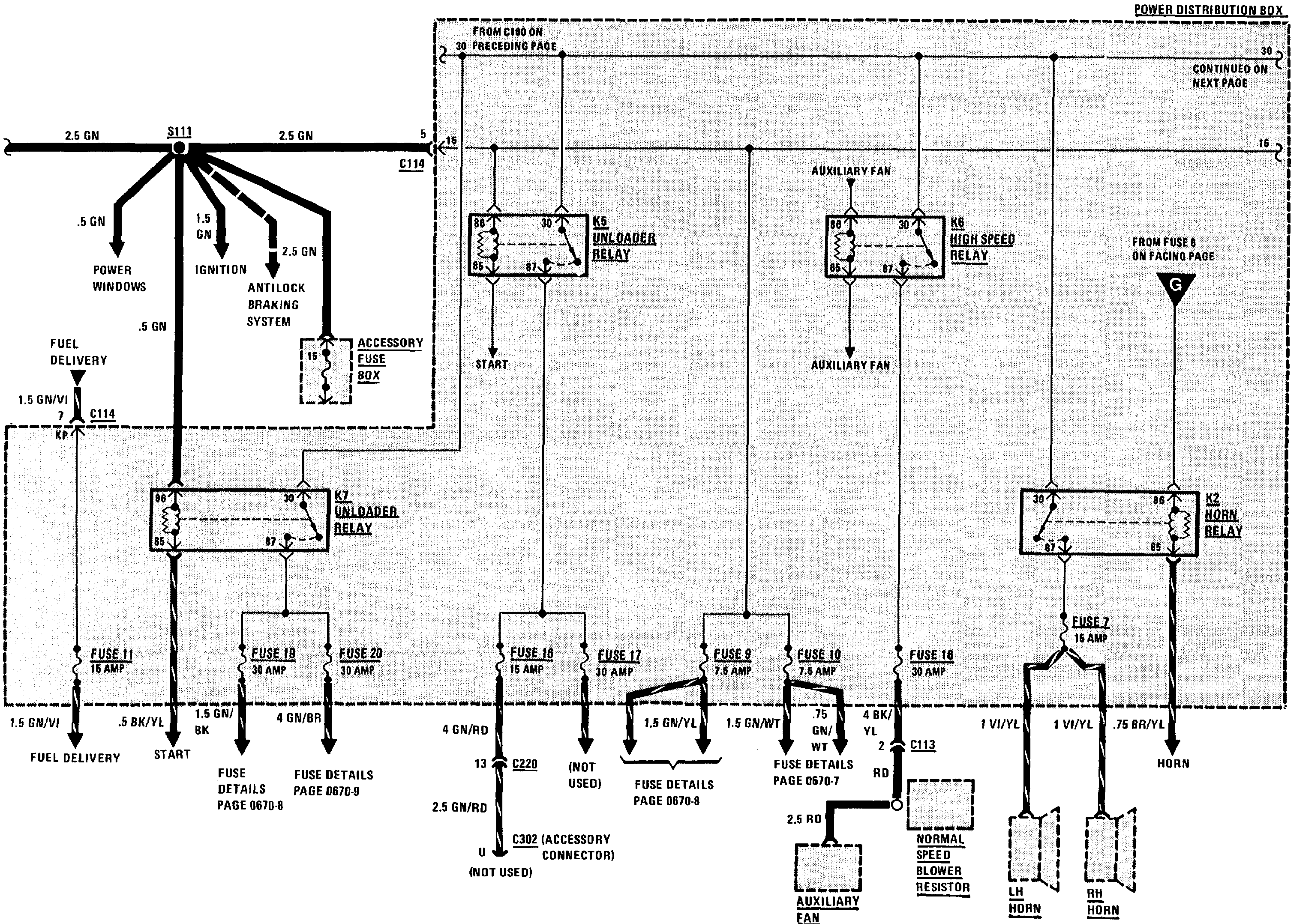
FUSE DATA CHART

FUSE NO.	SIZE/ COLOR	CIRCUIT PROTECTED
1	7.5A (BR)	Headlights (also fuses 2, 13, 14).
2	7.5A (BR)	Headlights (also fuses 1, 13, 14).
3	30A (LT GN)	Auxiliary Fan.
4	15A (LT BU)	Lights: Turn/Hazard Warning (also fuse 24).
5	30A (LT GN)	Wiper/Washer, Windshield Washer Jet Heater.
6	7.5A (BR)	Active Check Control (also fuse 10, 12, 21, 22, 23); Cruise Control (also fuse 17); Stoplights.
7	15A (LT BU)	Horn.
8		Not Used.
9	7.5A (BR)	Idle Speed Control (also fuse 17); Back Up Lights.
10	7.5A (BR)	Active Check Control (also fuses 6, 12, 21, 22, 23); On-Board Computer (also fuses 12, 21, 27); Speedometer/Gauges/Warning Indicators (also fuse 21); Brake Lining Warning; Service Interval Indicator (also fuse 21); Seatbelt Warning; Auxiliary Fan.
11	15A (LT BU)	Fuel Delivery.
12	7.5A (BR)	Active Check Control (also fuse 6, 10, 21, 22, 23); On-Board Computer (also fuses 10, 21, 27); Radio (also fuses 21, 28. Radio In-Line Fuse); Warning Indicators.
13	7.5A (BR)	Headlights (also fuses 1, 2, 14)
14	7.5A (BR)	Headlights (also fuses 1, 2, 13).
15		Not Used.
16	30A (LT GN)	Heating/Air Conditioning.
17	30A (LT GN)	Auxiliary Fan; Back Up Lights; Cruise Control (also fuse 6); Lights: Dash/ Transmission Range (also fuse 23); Heater/Air Conditioning; Interior Lights (also fuse 21); Power Mirrors; Seatbelt Warning.
18	30A (LT GN)	Auxiliary Fan.
19	30A (LT GN)	Sunroof.

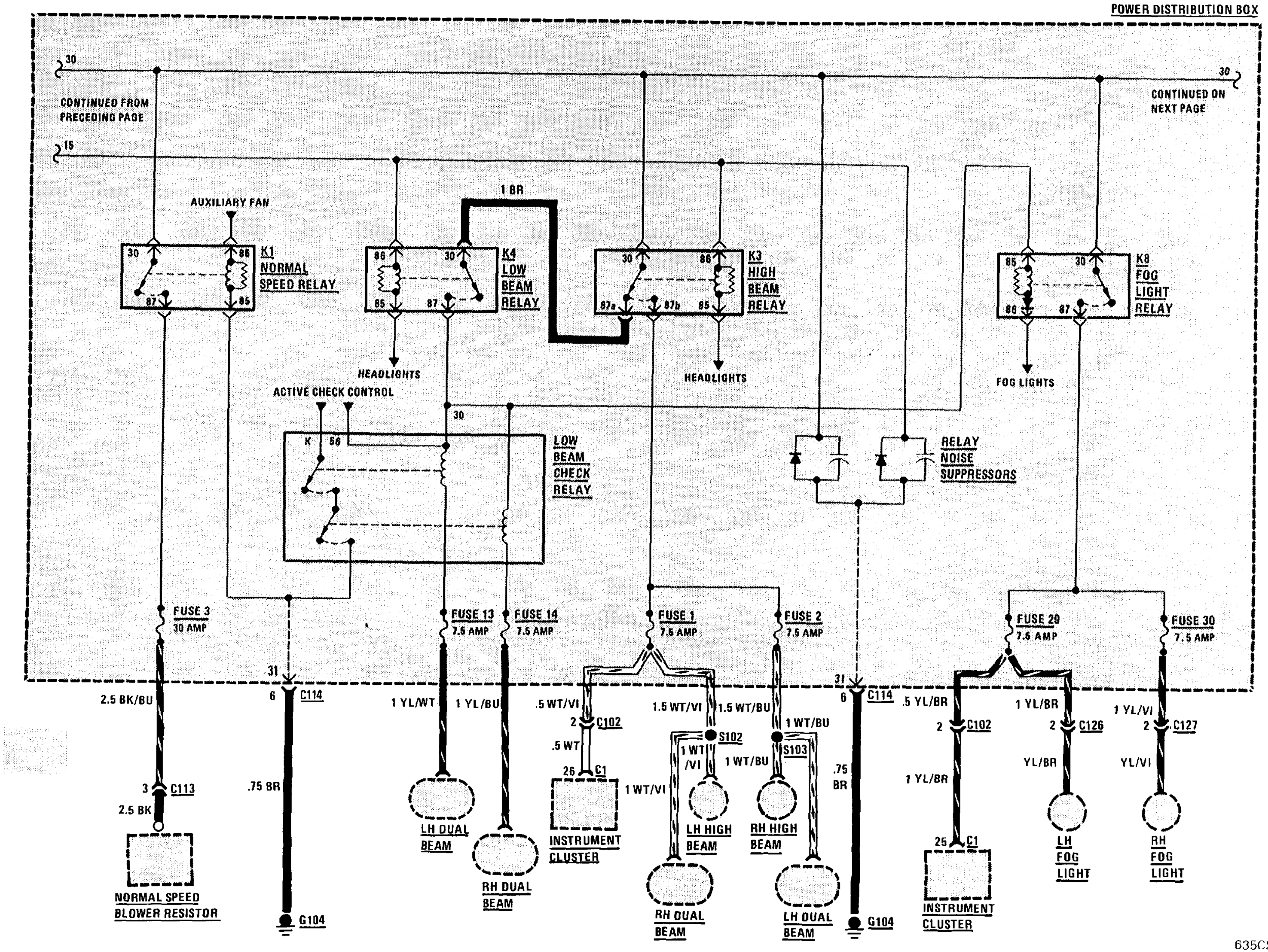
FUSE NO.	SIZE/ COLOR	CIRCUIT PROTECTED
20	30 (LT GN)	Rear Defogger (also fuse 23).
21	7.5A (BR)	Active Check Control (also fuses 6, 10, 12, 22, 23); Auto-Charging Flashlight; Gauges (also fuse 12); Glove Box Light; Interior Lights (also fuse 17); On-Board Computer (also fuses 12, 27); Radio (also fuses 12, 28. Radio In-Line Fuse); Service Interval Indicator (also fuse 10); Trunk Light.
22	7.5A (BR)	Active Check Control (also fuses 6, 10, 12, 21, 23); Lights: Front Park/Rail (also fuse 20).
23	7.5A (BR)	Active Check Control (also fuses 6, 10, 12, 21, 22); Rear Defogger (also fuse 20); Lights: Front Park/Tail/Underhood (also fuse 22); Heater/Air Conditioning; Lights: Dash/Transmission Range/RH Visor (also fuse 17) Lights: Rear Marker/License.
24	15A (LT BU)	Lights: Turn/Hazard Warning (also fuse 4).
25	25 A (WT)	Not Used
26	30A (LT GN)	Power Seats
27	30A (LT GN)	Central Locking; Heated Door Lock; On-Board Computer (also fuses 10, 21, 22).
28	30A (LT GN)	Cigar Lighter; Power Antenna (also fuses 12, 21. Radio In-Line Fuse).
29	7.5A (BR)	Fog Lights (also fuse 30).
30	7.5A (BR)	Fog Lights (also fuse 29).
Power Window Circuit Breaker	25	Power Windows.

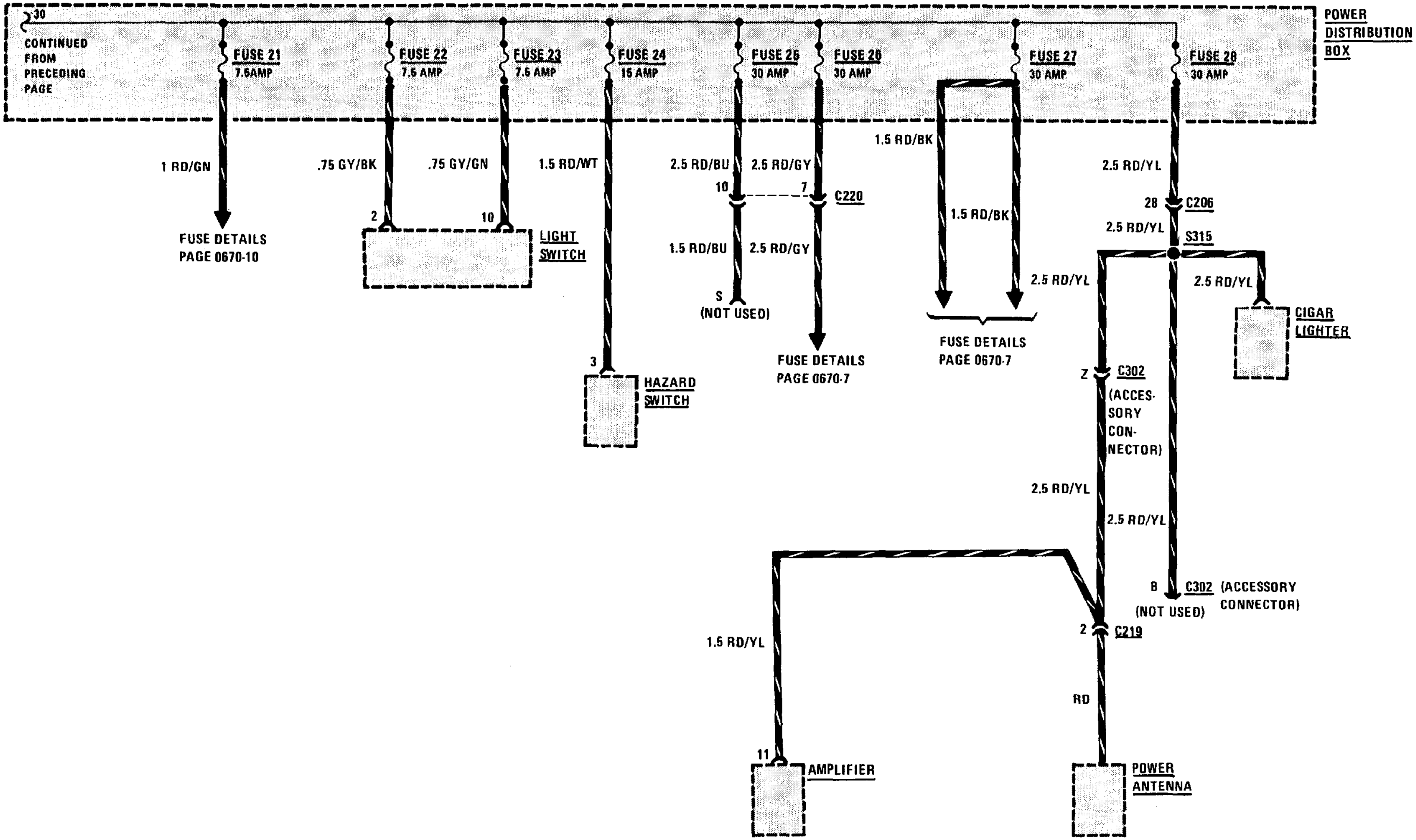


POWER DISTRIBUTION BOX
10 RD
30
C100
CONTINUED ON NEXT PAGE
1.5 RD
4 RD
FUEL DELIVERY/ FUEL CONTROL
ANTILOCK BRAKING SYSTEM
BATTERY
16 BR
G101
2.5 RD
ACCESSORY FUSE BOX
16 BK
10 RD
2.5 RD
14
DIAGNOSTIC CONNECTOR
STARTER
ALTERNATOR
4 RD
2.5 RD
.5 RD
POWER WINDOWS
3
C250
(NOT USED) FOR FUTURE AIR BAGS
9
C200
2.5 GN
IGNITION SWITCH
START
OFF
ACCY
RUN
R
50
15I
15
2.5 VI
4
C200
2.5 BK
START/ ELECTRONIC TRANSMISSION CONTROL/ BRAKE LINING WARNING/ SERVICE INTERVAL INDICATOR
2.5 GN/GY
1
2.5 GN
2
S213
.75 GN
CENTRAL LOCKING
ON-BOARD COMPUTER/ FUEL DELIVERY/ EVAPORATIVE CONTROL
.5 GN
WARNING INDICATORS, CHARGING SYSTEM
ANTILOCK BRAKING SYSTEM
1 VI
.5 VI
ACTIVE CHECK CONTROL
(NOT USED)
C107
8
C114
2.5 GN/RD
R2
R1
FUSE 12 7.5 AMP
FUSE 4 15 AMP
FUSE 5 30 AMP
FUSE 8 30 AMP
FUSE 6 7.5 AMP
G
TO HORN RELAY K2 ON FACING PAGE
RELAY NOISE SUPPRESSOR
POWER DISTRIBUTION BOX
31
6
1 VI/WT
1.5 VI/GY
.75 VI/BK
1.5 VI/BK
4 GN/BU
S217
2.5 GN/BU
.5 VI/GN
1.5 VI/GN
.75 BR
FUSE DETAILS PAGE 0670-6
HAZARD SWITCH
FUSE DETAILS PAGE 0670-6
REAR DEFOGGER SWITCH
FUSE DETAILS PAGE 0670-9
G104

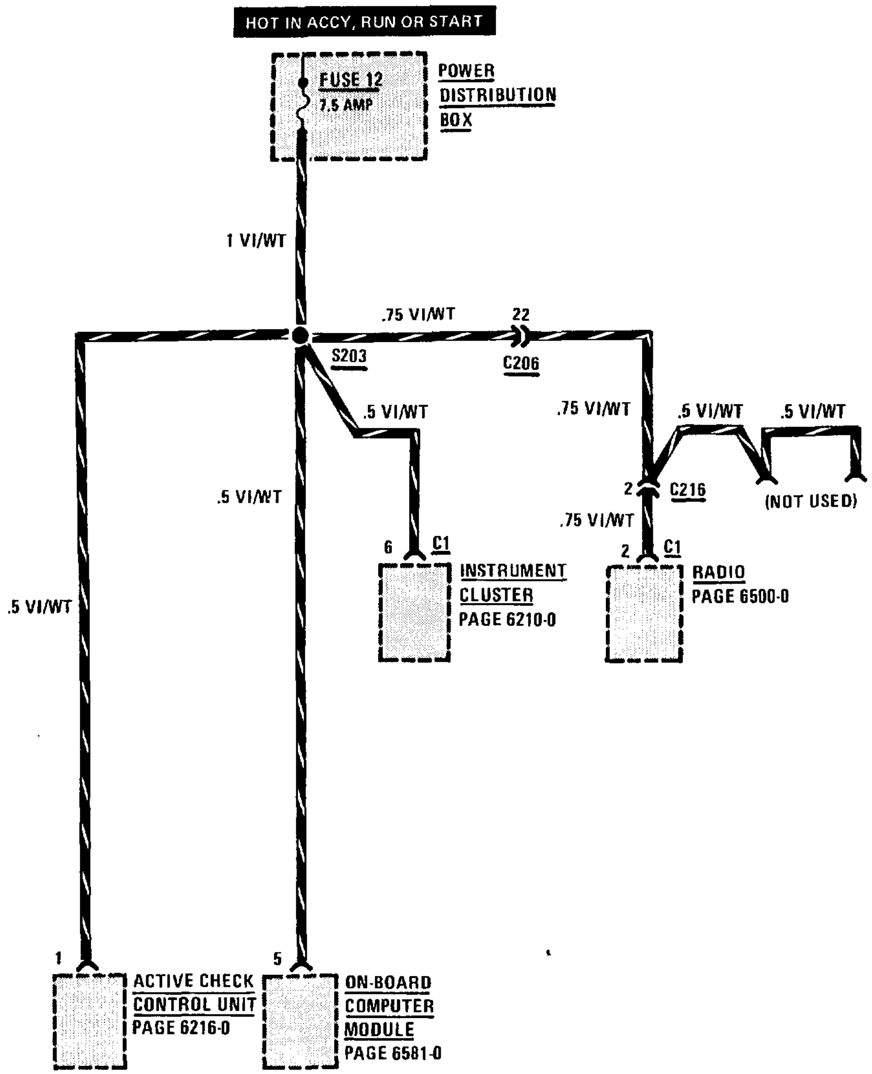


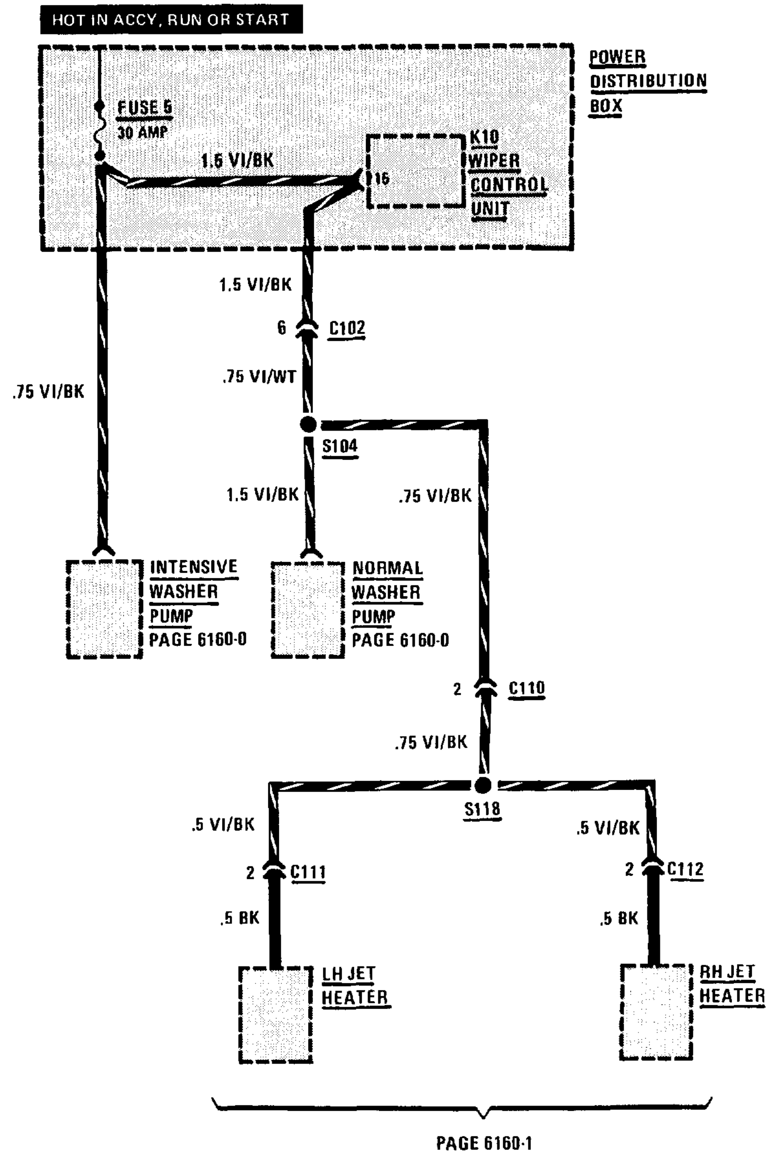
POWER DISTRIBUTION BOX
FROM C100 ON PRECEDING PAGE
30
CONTINUED ON NEXT PAGE
2.5 GN
S111
2.5 GN
5
15
C114
.5 GN
POWER WINDOWS
1.5 GN
IGNITION
2.5 GN
ANTILOCK BRAKING SYSTEM
.5 GN
ACCESSORY FUSE BOX
FUEL DELIVERY
1.5 GN/VI
7
KP
C114
K5 UNLOADER RELAY
86 30 85 87
START
AUXILIARY FAN
K6 HIGH SPEED RELAY
AUXILIARY FAN
FROM FUSE 8 ON FACING PAGE
G
K7 UNLOADER RELAY
K2 HORN RELAY
FUSE 11 15 AMP
FUSE 19 30 AMP
FUSE 20 30 AMP
FUSE 16 15 AMP
FUSE 17 30 AMP
FUSE 9 7.5 AMP
FUSE 10 7.5 AMP
FUSE 18 30 AMP
FUSE 7 15 AMP
1.5 GN/VI
FUEL DELIVERY
.5 BK/YL
START
1.5 GN/BK
FUSE DETAILS PAGE 0670-8
4 GN/BR
FUSE DETAILS PAGE 0670-9
4 GN/RD
13
C220
2.5 GN/RD
C302 (ACCESSORY CONNECTOR)
U
(NOT USED)
(NOT USED)
1.5 GN/YL
FUSE DETAILS PAGE 0670-8
1.5 GN/WT
.75 GN/WT
FUSE DETAILS PAGE 0670-7
4 BK/YL
2
C113
RD
2.5 RD
AUXILIARY FAN
NORMAL SPEED BLOWER RESISTOR
1 VI/YL
1 VI/YL
.75 BR/YL
HORN
LH HORN
RH HORN


POWER DISTRIBUTION BOX
30
CONTINUED FROM PRECEDING PAGE
15
30
CONTINUED ON NEXT PAGE
AUXILIARY FAN
1 BR
K1 NORMAL SPEED RELAY
K4 LOW BEAM RELAY
K3 HIGH BEAM RELAY
K8 FOG LIGHT RELAY
HEADLIGHTS
HEADLIGHTS
FOG LIGHTS
ACTIVE CHECK CONTROL
LOW BEAM CHECK RELAY
RELAY NOISE SUPPRESSORS
FUSE 3 30 AMP
FUSE 13 7.5 AMP
FUSE 14 7.5 AMP
FUSE 1 7.5 AMP
FUSE 2 7.5 AMP
FUSE 29 7.5 AMP
FUSE 30 7.5 AMP
2.5 BK/BU
C113
2.5 BK
NORMAL SPEED BLOWER RESISTOR
C114
.75 BR
G104
1 YL/WT
1 YL/BU
LH DUAL BEAM
RH DUAL BEAM
.5 WT/VI
C102
.5 WT
C1
INSTRUMENT CLUSTER
1.5 WT/VI
1.5 WT/BU
S102
S103
1 WT/VI
1 WT/BU
LH HIGH BEAM
RH HIGH BEAM
RH DUAL BEAM
LH DUAL BEAM
.75 BR
G104
.5 YL/BR
1 YL/BR
C126
YL/BR
1 YL/VI
C127
YL/VI
INSTRUMENT CLUSTER
LH FOG LIGHT
RH FOG LIGHT

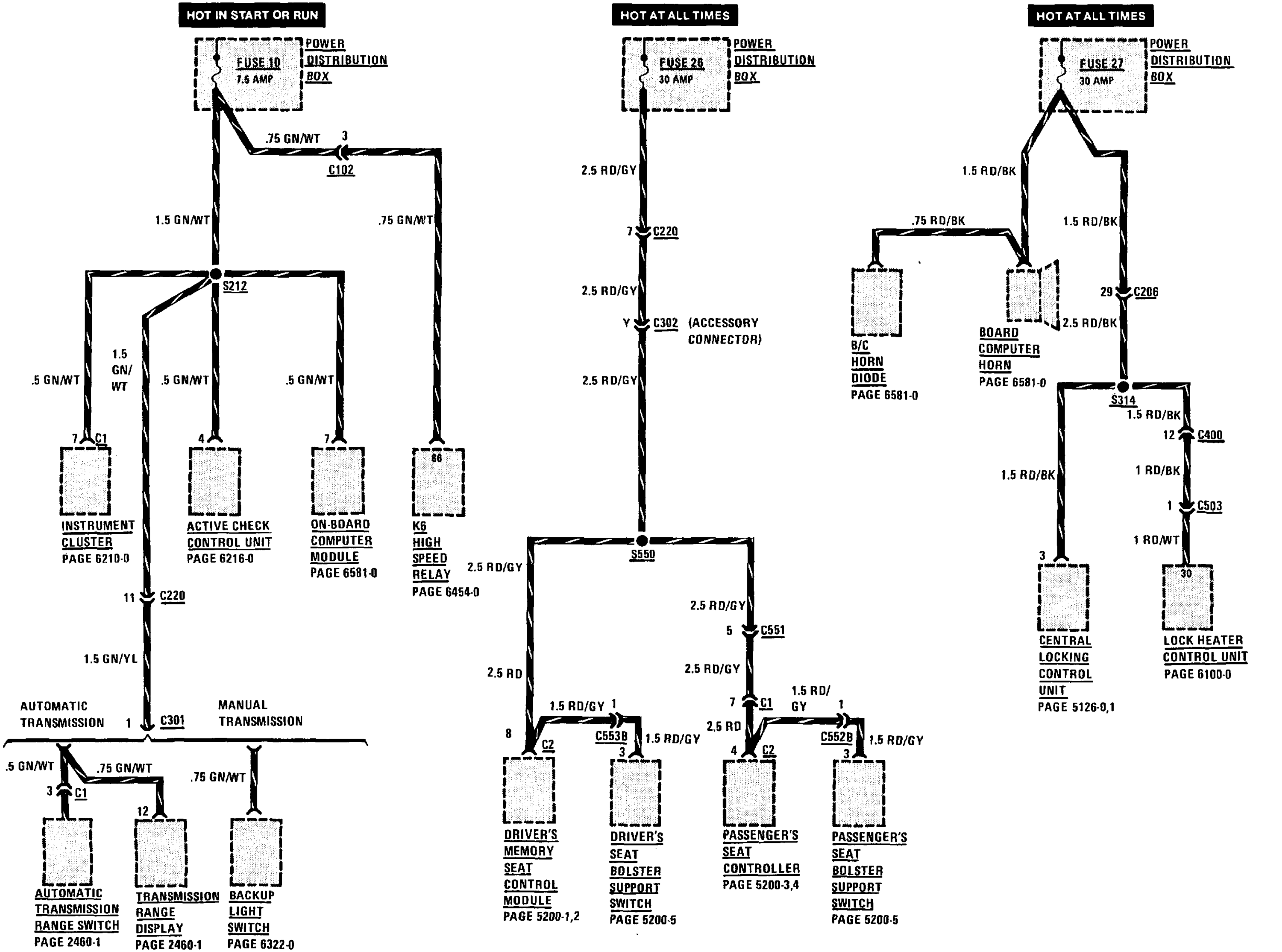

30
CONTINUED FROM PRECEDING PAGE
POWER DISTRIBUTION BOX
FUSE 21 7.5AMP
FUSE 22 7.5 AMP
FUSE 23 7.5 AMP
FUSE 24 15 AMP
FUSE 25 30 AMP
FUSE 26 30 AMP
FUSE 27 30 AMP
FUSE 28 30 AMP
1 RD/GN
FUSE DETAILS PAGE 0670-10
.75 GY/BK
.75 GY/GN
2
10
LIGHT SWITCH
1.5 RD/WT
3
HAZARD SWITCH
2.5 RD/BU
2.5 RD/GY
10
7
C220
1.5 RD/BU
2.5 RD/GY
S
(NOT USED)
FUSE DETAILS PAGE 0670-7
1.5 RD/BK
1.5 RD/BK
FUSE DETAILS PAGE 0670-7
2.5 RD/YL
28
C206
2.5 RD/YL
S315
2.5 RD/YL
2.5 RD/YL
CIGAR LIGHTER
Z
C302
(ACCESSORY CONNECTOR)
2.5 RD/YL
2.5 RD/YL
B
C302 (ACCESSORY CONNECTOR)
(NOT USED)
1.5 RD/YL
2
C219
RD
11
AMPLIFIER
POWER ANTENNA

FUSE DETAILS: FUSES 12 AND 5

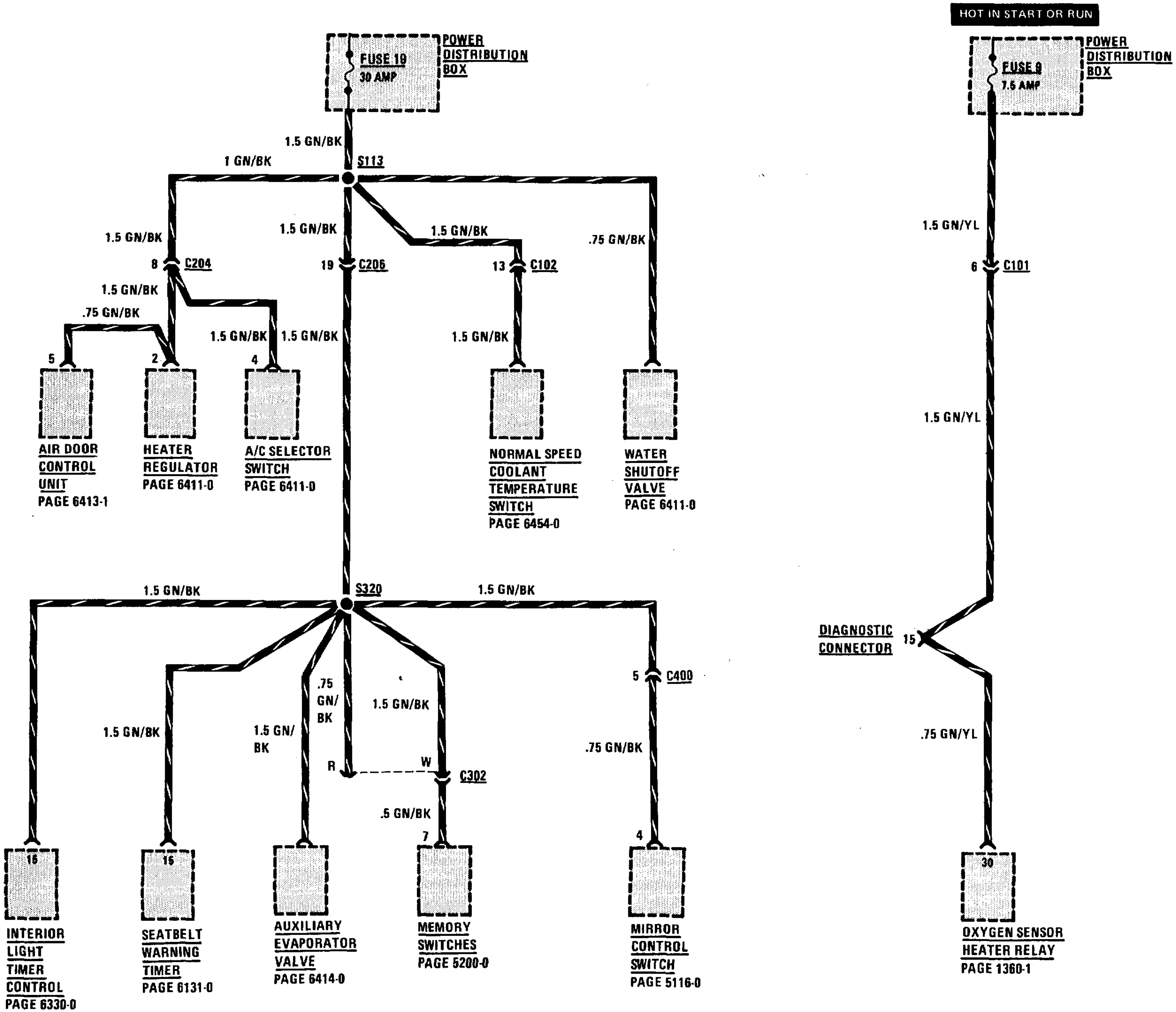




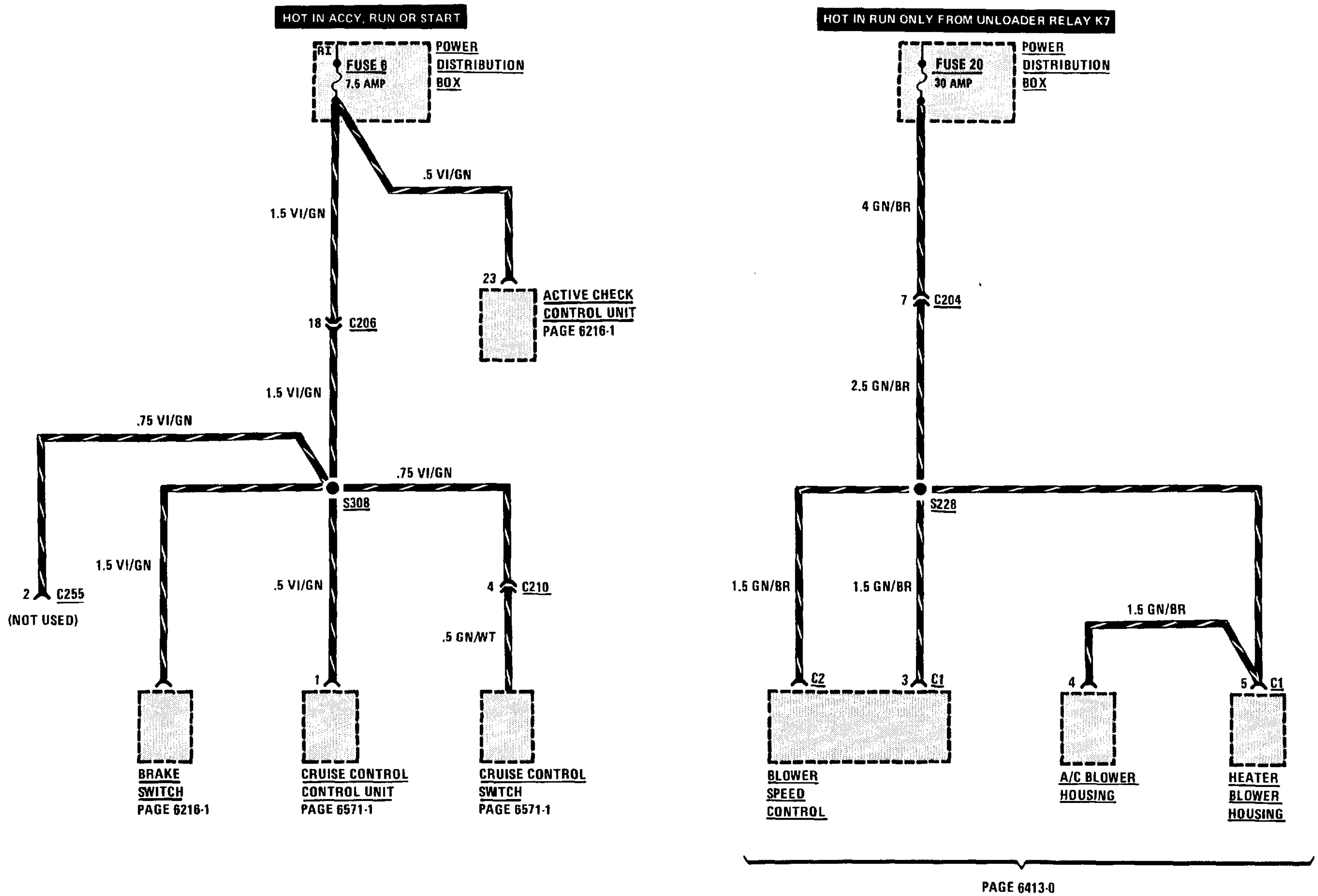
FUSE DETAILS: FUSES 10, 26 AND 27



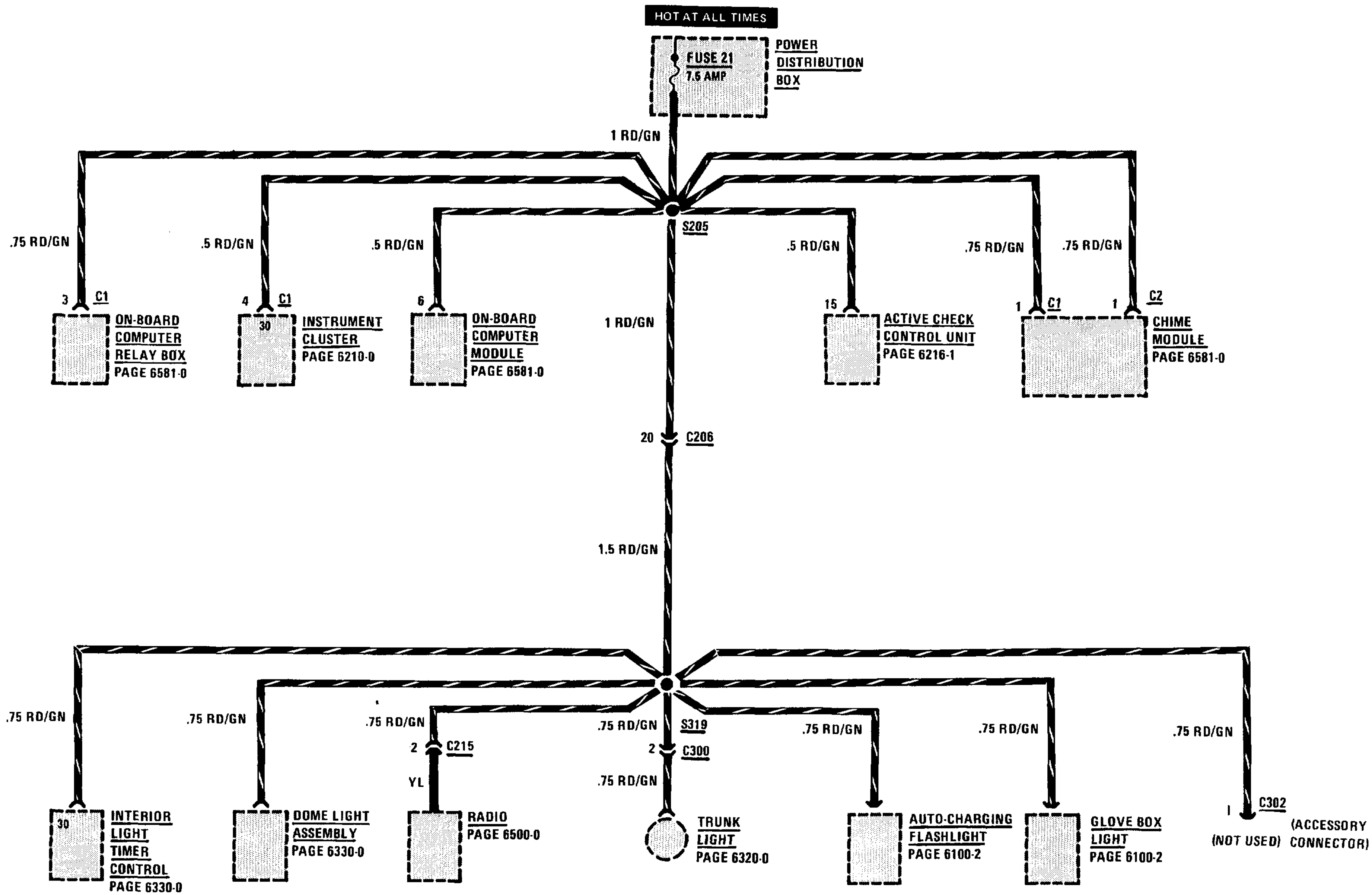
FUSE DETAILS: FUSES 9 AND 19



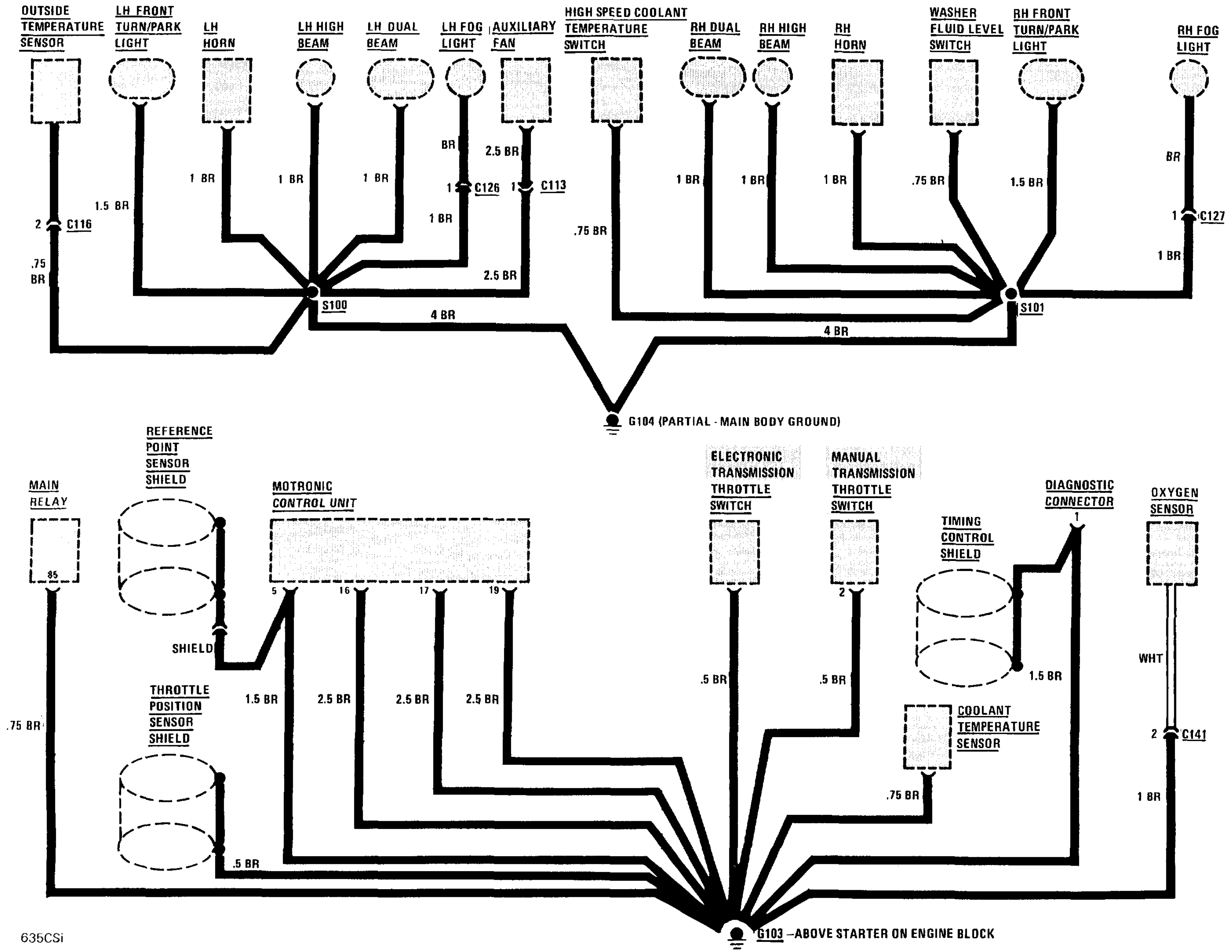
FUSE DETAILS: FUSES 6 AND 20



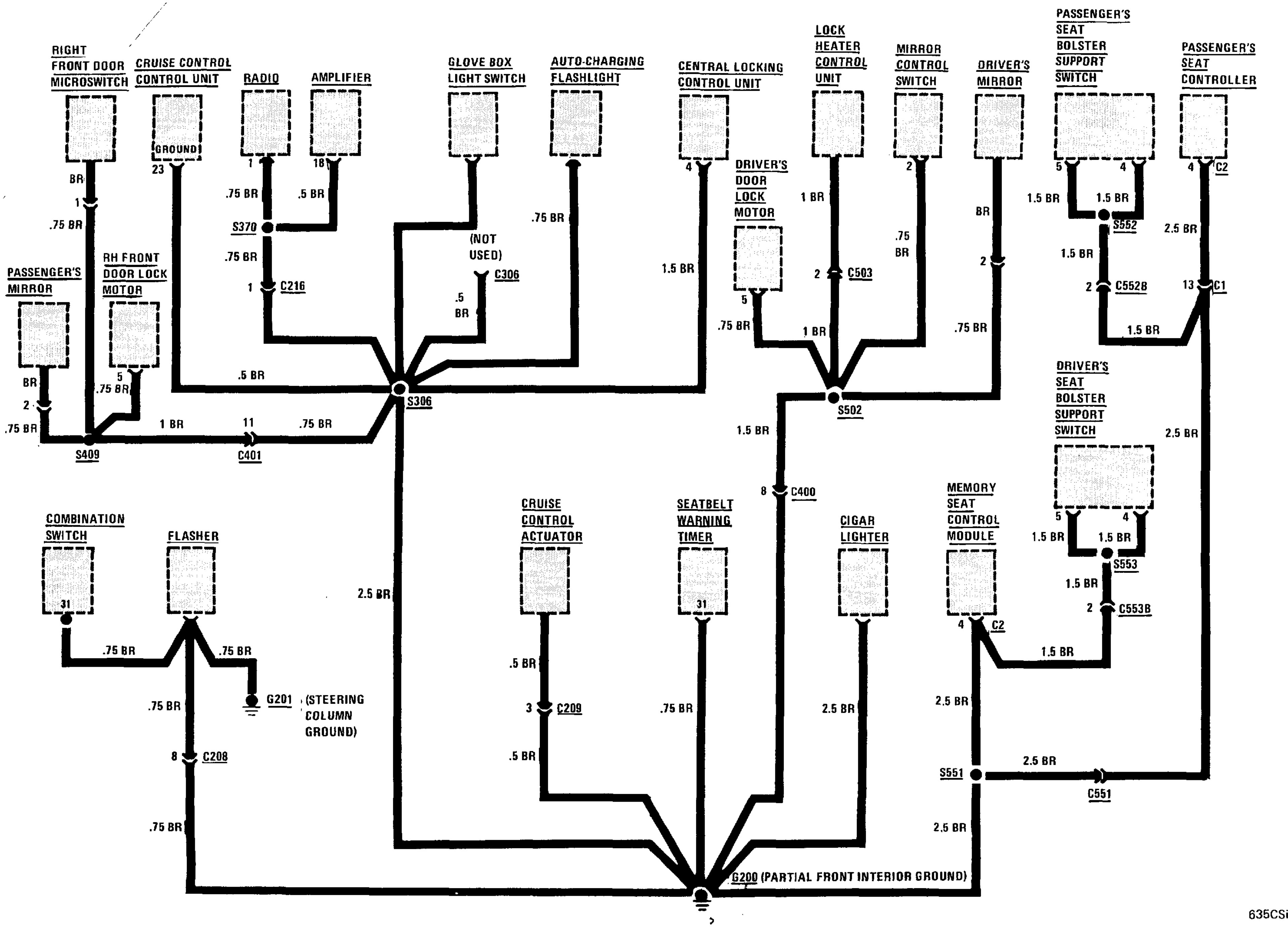
FUSE DETAILS: FUSE 21



GROUND DISTRIBUTION (G103 AND G104)



GROUND DISTRIBUTION (G200 AND G201)



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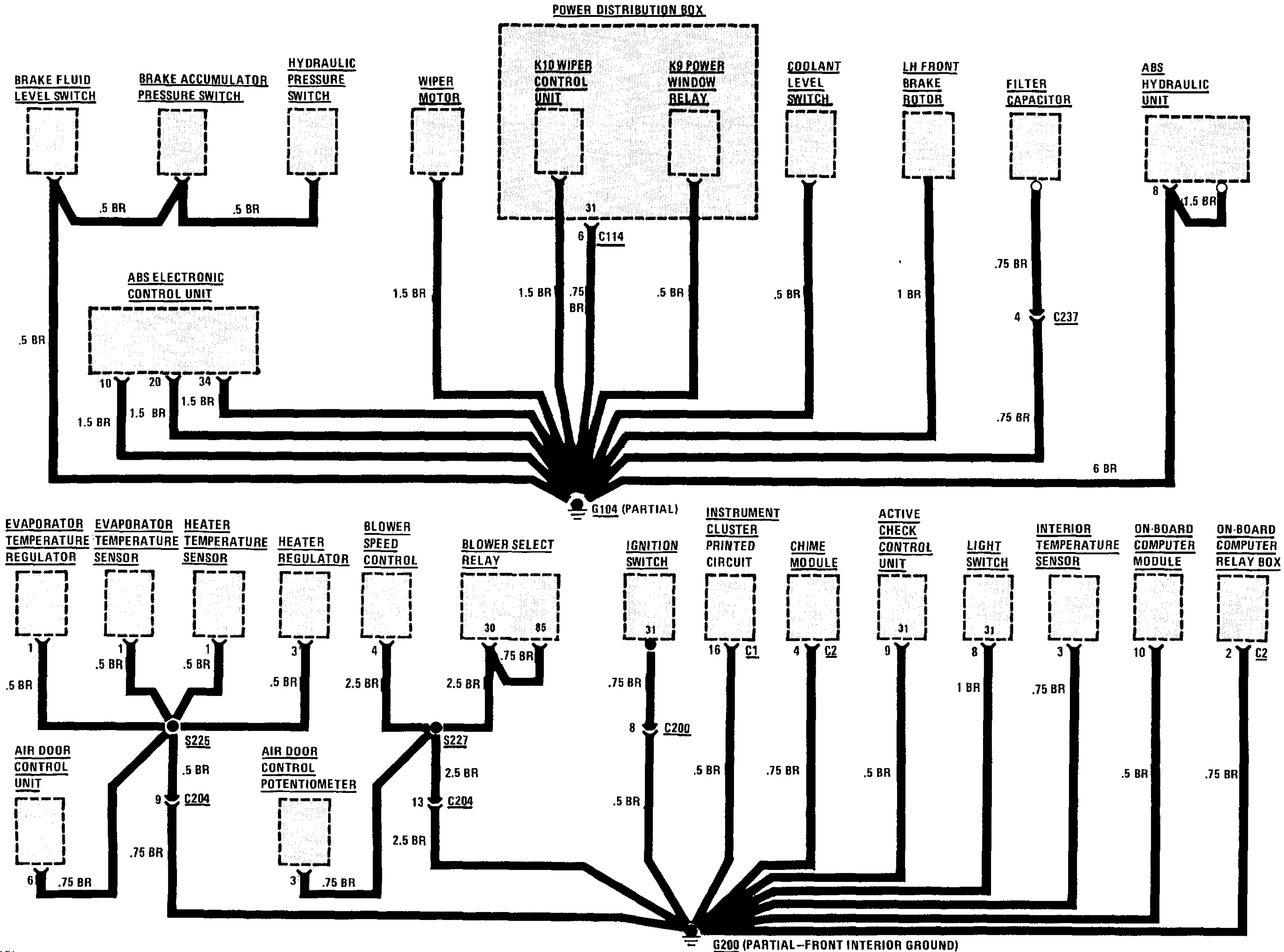
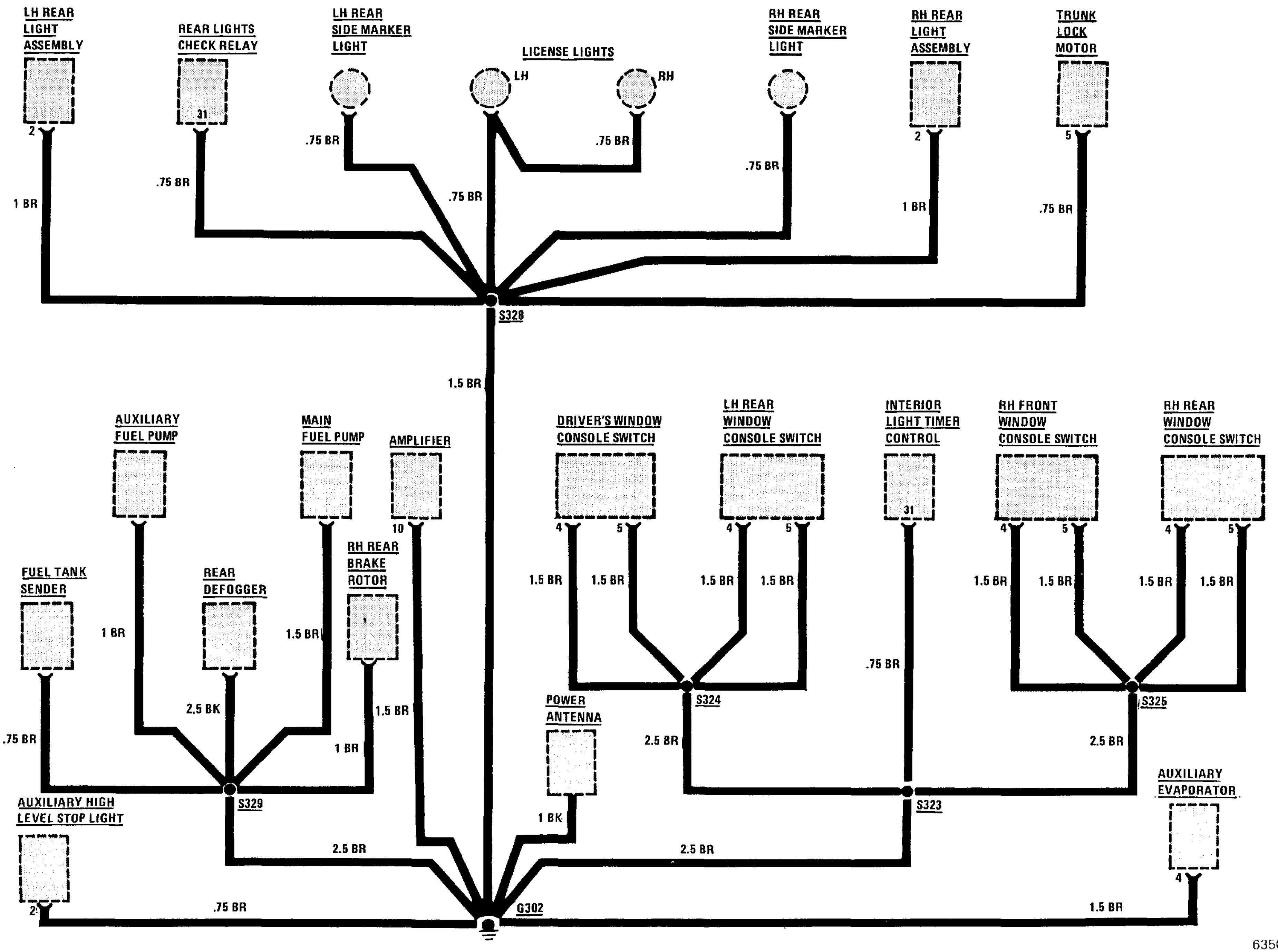
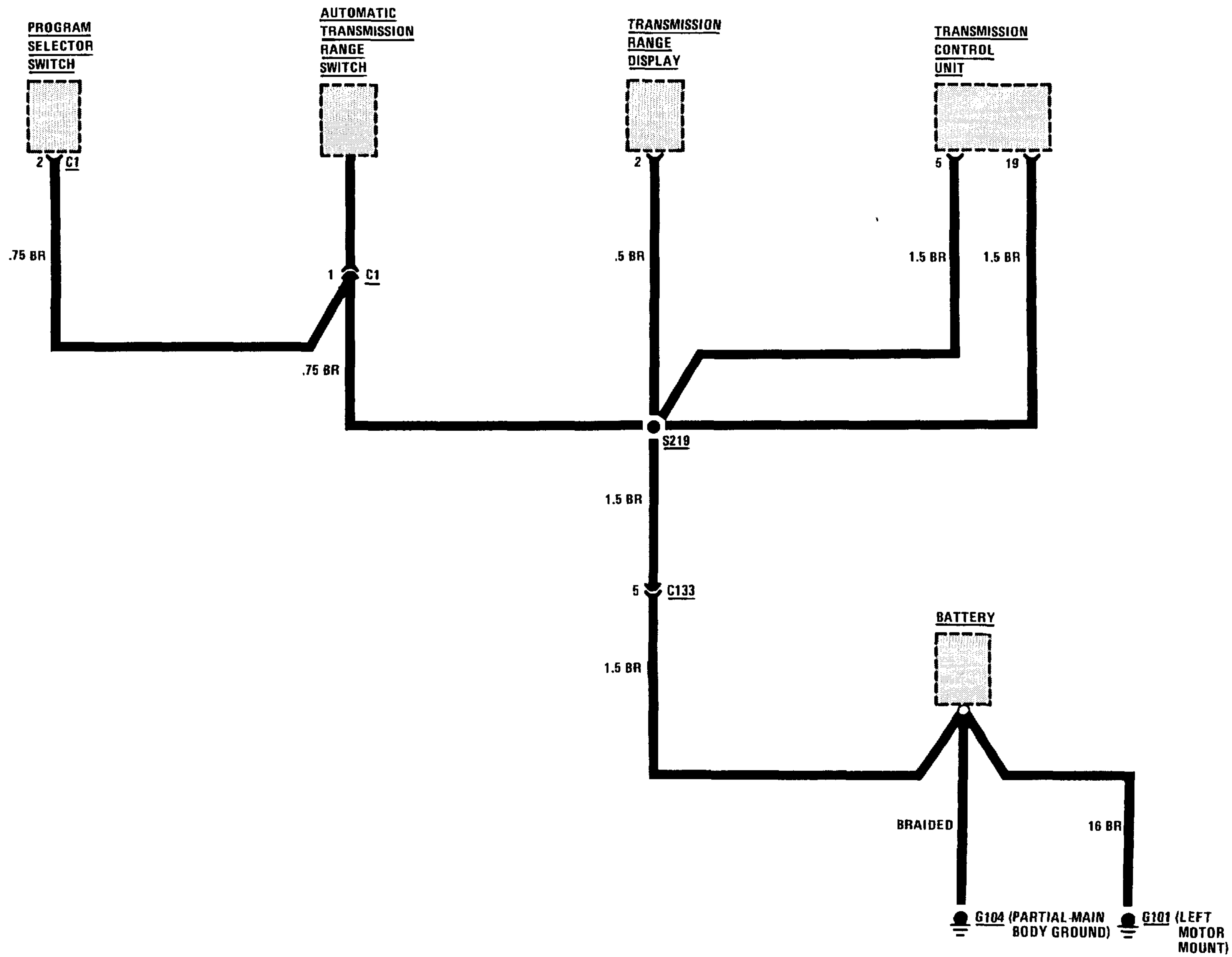
GROUND DISTRIBUTION (G200 AND G104)

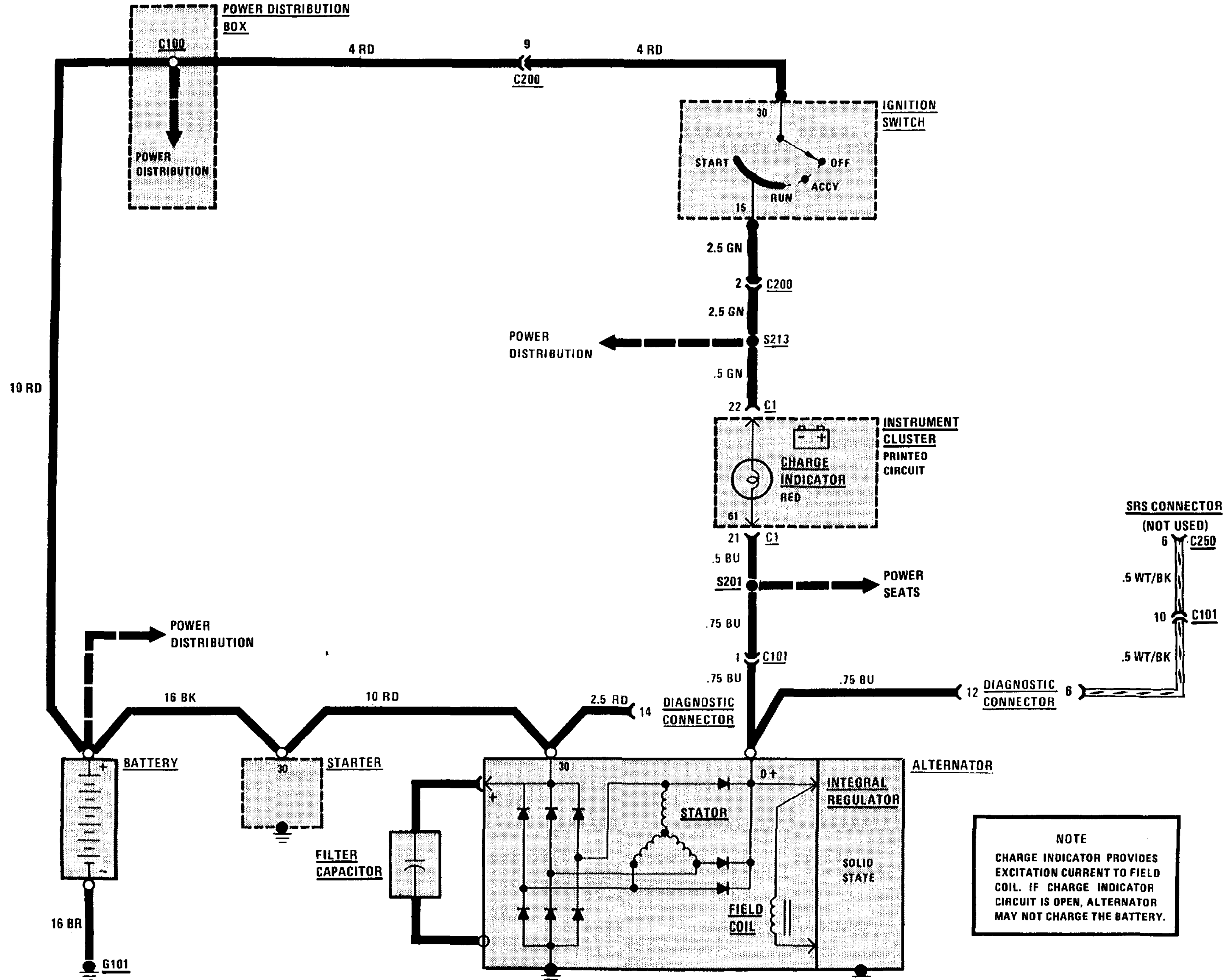


GROUND DISTRIBUTION (G302)



GROUND DISTRIBUTION (G101 AND G104)

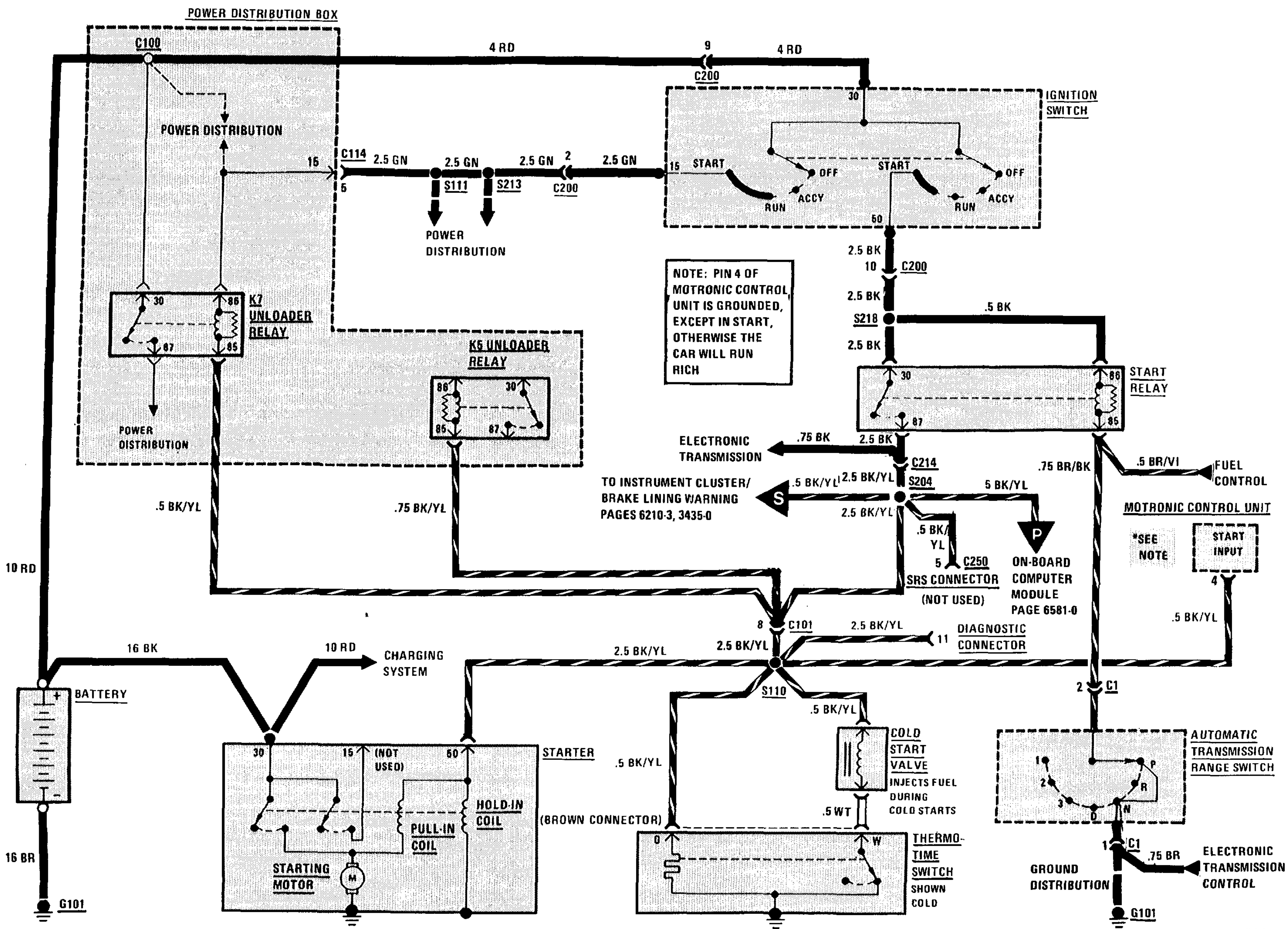




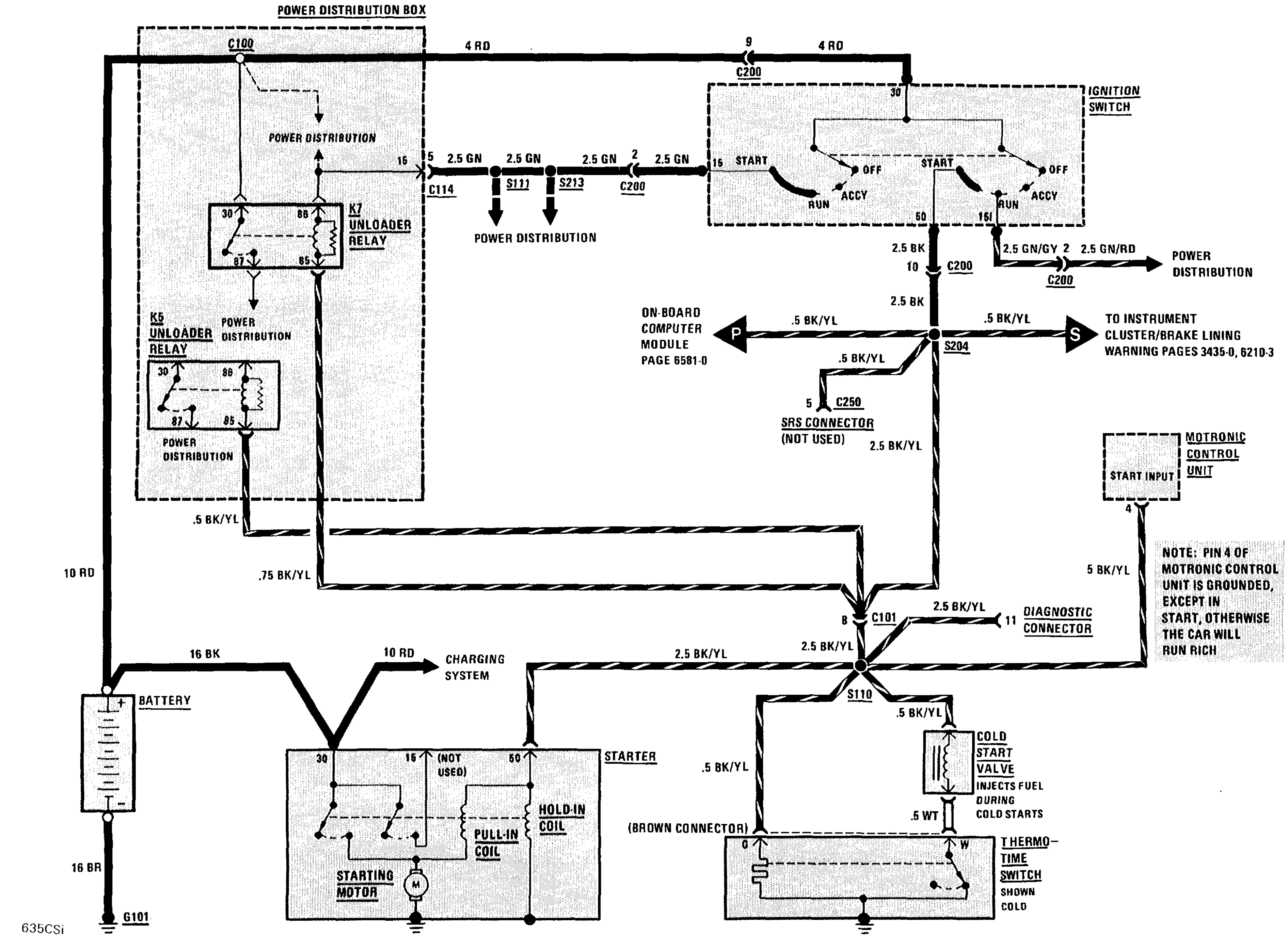
NOTE

CHARGE INDICATOR PROVIDES EXCITATION CURRENT TO FIELD COIL. IF CHARGE INDICATOR CIRCUIT IS OPEN, ALTERNATOR MAY NOT CHARGE THE BATTERY.

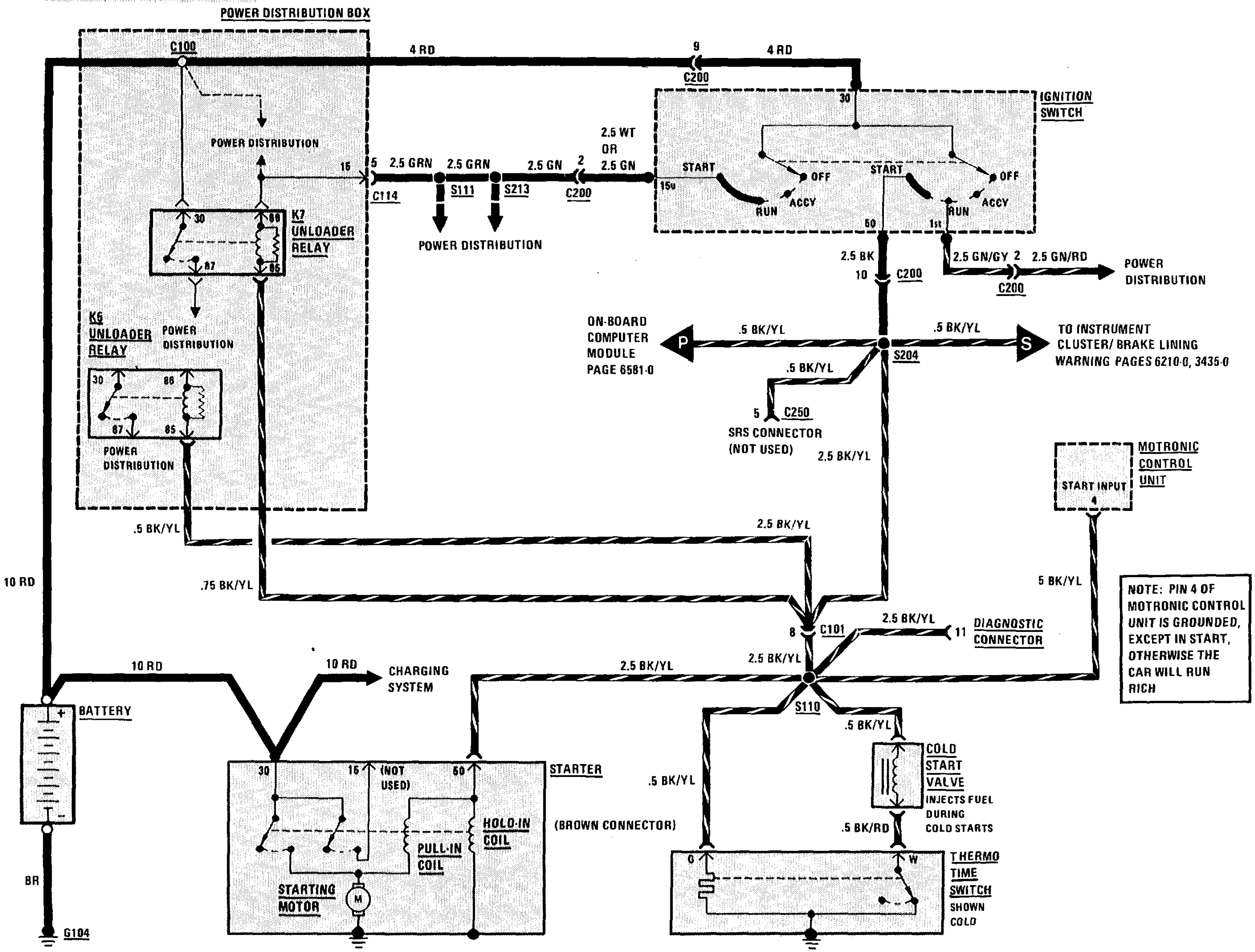
ELECTRONIC TRANSMISSION

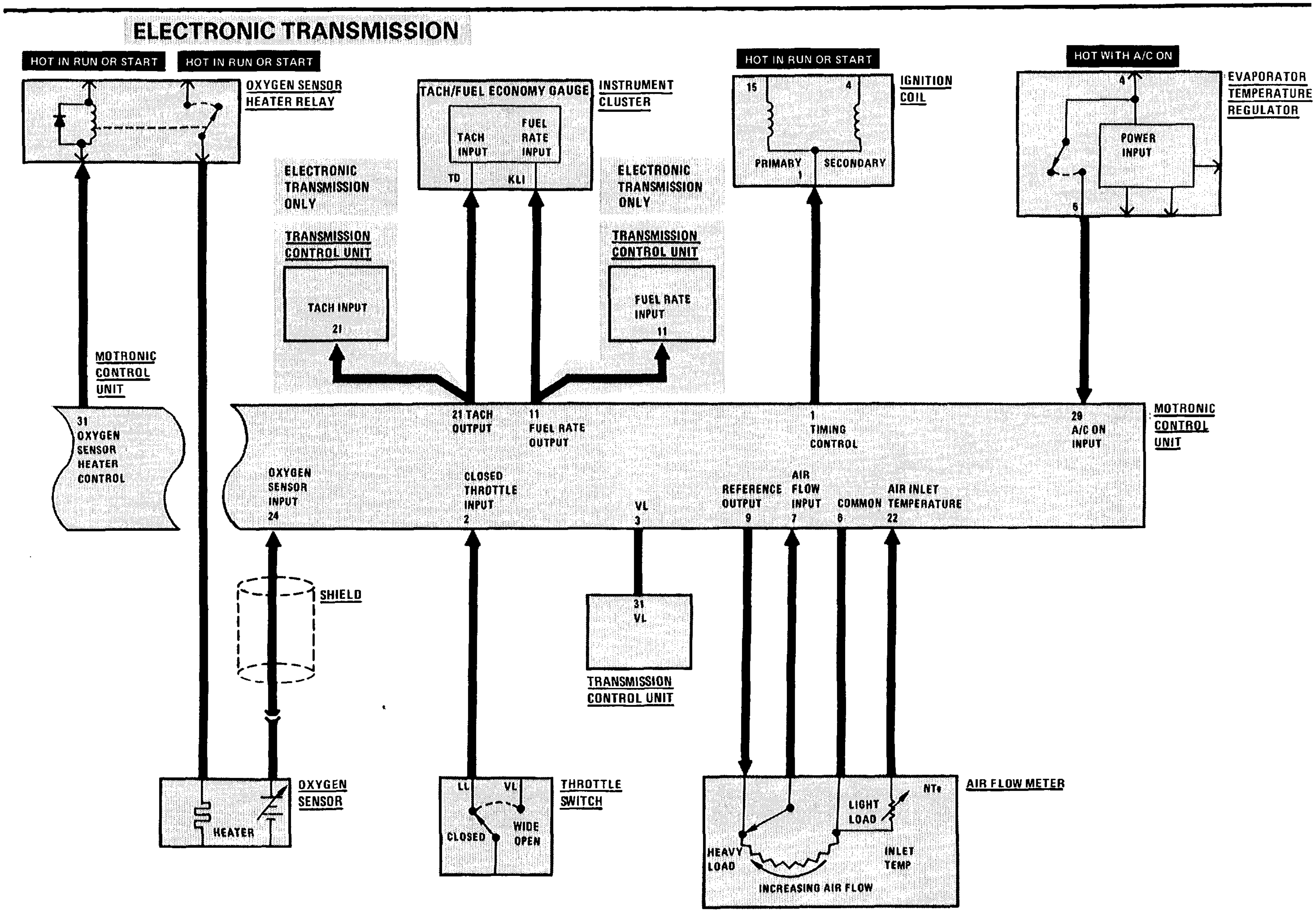


MANUAL TRANSMISSION



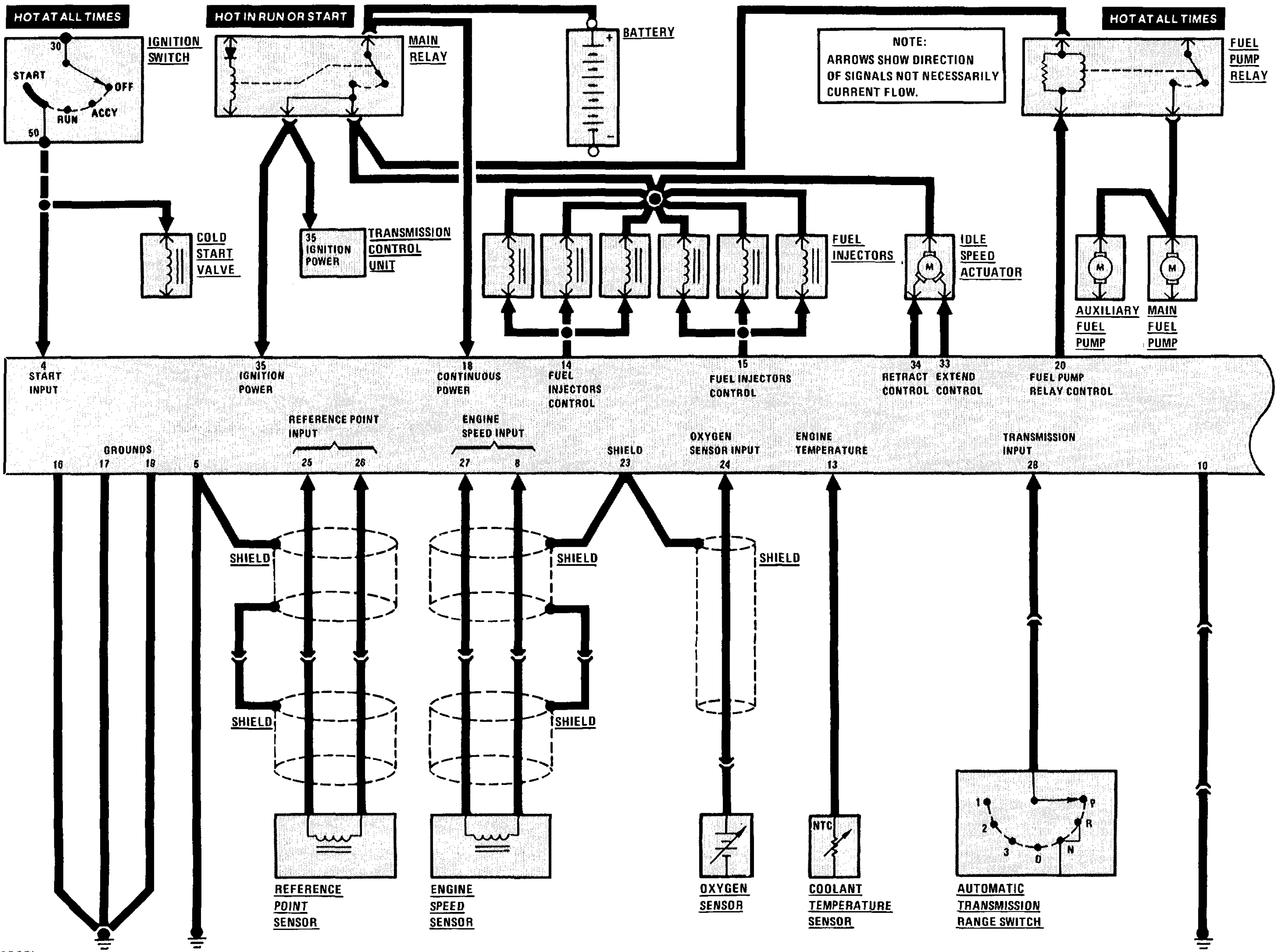
MANUAL ONLY


POWER DISTRIBUTION BOX
C100
POWER DISTRIBUTION
4 RD
9
C200
4 RD
IGNITION SWITCH
30
2.5 WT OR 2.5 GN
15
5
2.5 GRN
2.5 GRN
2.5 GN
2
C114
S111
S213
C200
POWER DISTRIBUTION
15u
START
OFF
ACCY
RUN
START
OFF
ACCY
RUN
50
1st
30
K7 UNLOADER RELAY
86
87
85
2.5 BK
10
C200
2.5 GN/GY
2
2.5 GN/RD
C200
POWER DISTRIBUTION
K6 UNLOADER RELAY
POWER DISTRIBUTION
ON-BOARD COMPUTER MODULE PAGE 6581-0
.5 BK/YL
P
.5 BK/YL
S
TO INSTRUMENT CLUSTER/ BRAKE LINING WARNING PAGES 6210-0, 3435-0
S204
.5 BK/YL
30
86
87
85
5
C250
SRS CONNECTOR (NOT USED)
2.5 BK/YL
POWER DISTRIBUTION
MOTRONIC CONTROL UNIT
START INPUT
4
.5 BK/YL
2.5 BK/YL
10 RD
.75 BK/YL
5 BK/YL
NOTE: PIN 4 OF MOTRONIC CONTROL UNIT IS GROUNDED, EXCEPT IN START, OTHERWISE THE CAR WILL RUN RICH
8
C101
2.5 BK/YL
11
DIAGNOSTIC CONNECTOR
10 RD
10 RD
CHARGING SYSTEM
2.5 BK/YL
2.5 BK/YL
S110
BATTERY
.5 BK/YL
30
15
(NOT USED)
50
STARTER
COLD START VALVE
INJECTS FUEL DURING COLD STARTS
.5 BK/YL
(BROWN CONNECTOR)
HOLD-IN COIL
PULL-IN COIL
.5 BK/RD
0
W
THERMO TIME SWITCH
SHOWN COLD
STARTING MOTOR
M
BR
G104

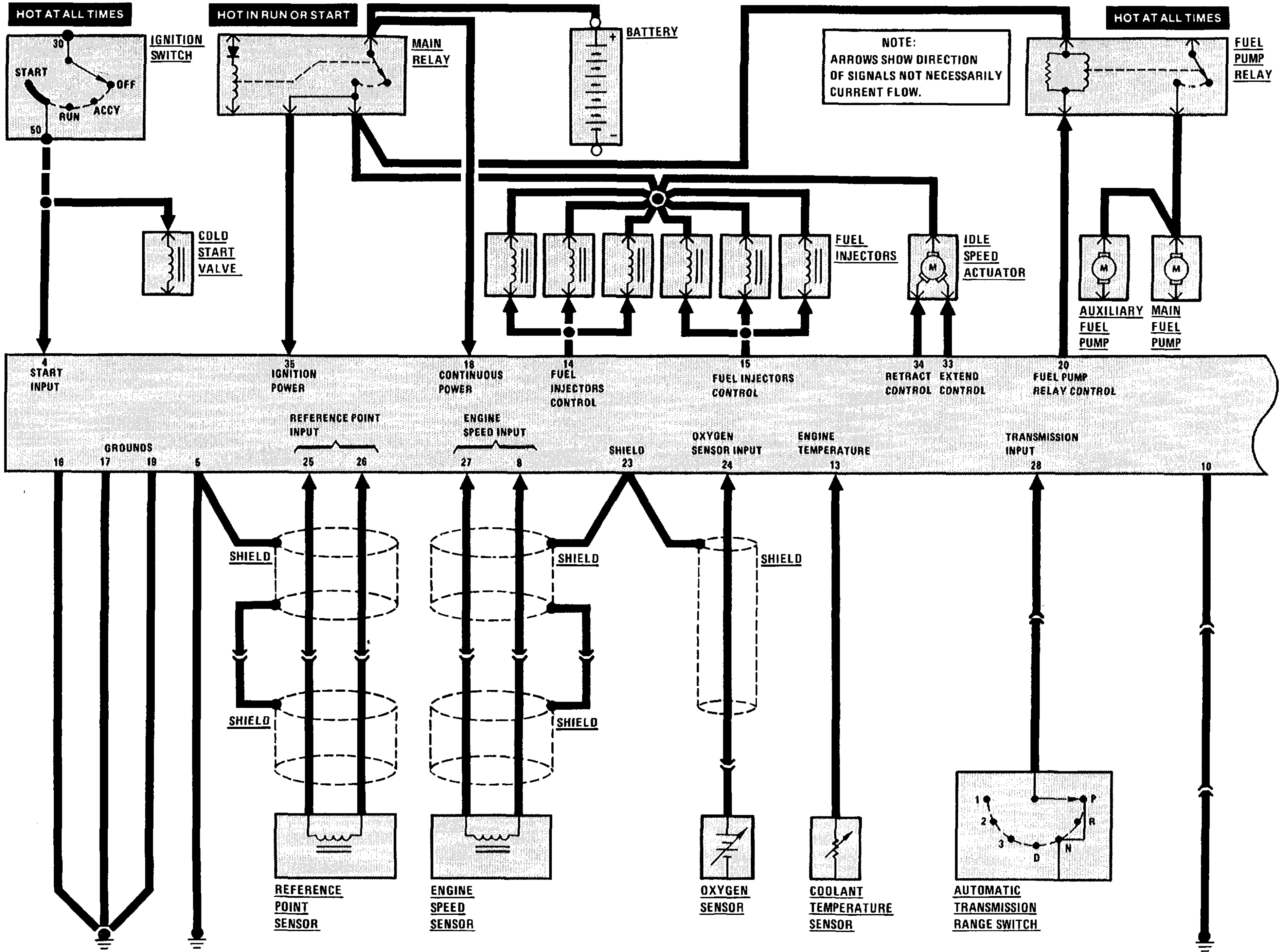


ELECTRONIC TRANSMISSION
HOT IN RUN OR START
HOT IN RUN OR START
OXYGEN SENSOR HEATER RELAY
TACH/FUEL ECONOMY GAUGE
TACH INPUT
FUEL RATE INPUT
TD
KLI
INSTRUMENT CLUSTER
HOT IN RUN OR START
15
4
PRIMARY 1
SECONDARY
IGNITION COIL
HOT WITH A/C ON
4
POWER INPUT
5
EVAPORATOR TEMPERATURE REGULATOR
ELECTRONIC TRANSMISSION ONLY
TRANSMISSION CONTROL UNIT
TACH INPUT 21
ELECTRONIC TRANSMISSION ONLY
TRANSMISSION CONTROL UNIT
FUEL RATE INPUT 11
MOTRONIC CONTROL UNIT
31 OXYGEN SENSOR HEATER CONTROL
21 TACH OUTPUT
11 FUEL RATE OUTPUT
1 TIMING CONTROL
29 A/C ON INPUT
MOTRONIC CONTROL UNIT
OXYGEN SENSOR INPUT 24
CLOSED THROTTLE INPUT 2
VL 3
REFERENCE OUTPUT 9
AIR FLOW INPUT 7
COMMON 6
AIR INLET TEMPERATURE 22
SHIELD
31 VL
TRANSMISSION CONTROL UNIT
HEATER
OXYGEN SENSOR
LL
VL
CLOSED
WIDE OPEN
THROTTLE SWITCH
NTc
LIGHT LOAD
HEAVY LOAD
INLET TEMP
INCREASING AIR FLOW
AIR FLOW METER

ELECTRONIC TRANSMISSION



MANUAL TRANSMISSION



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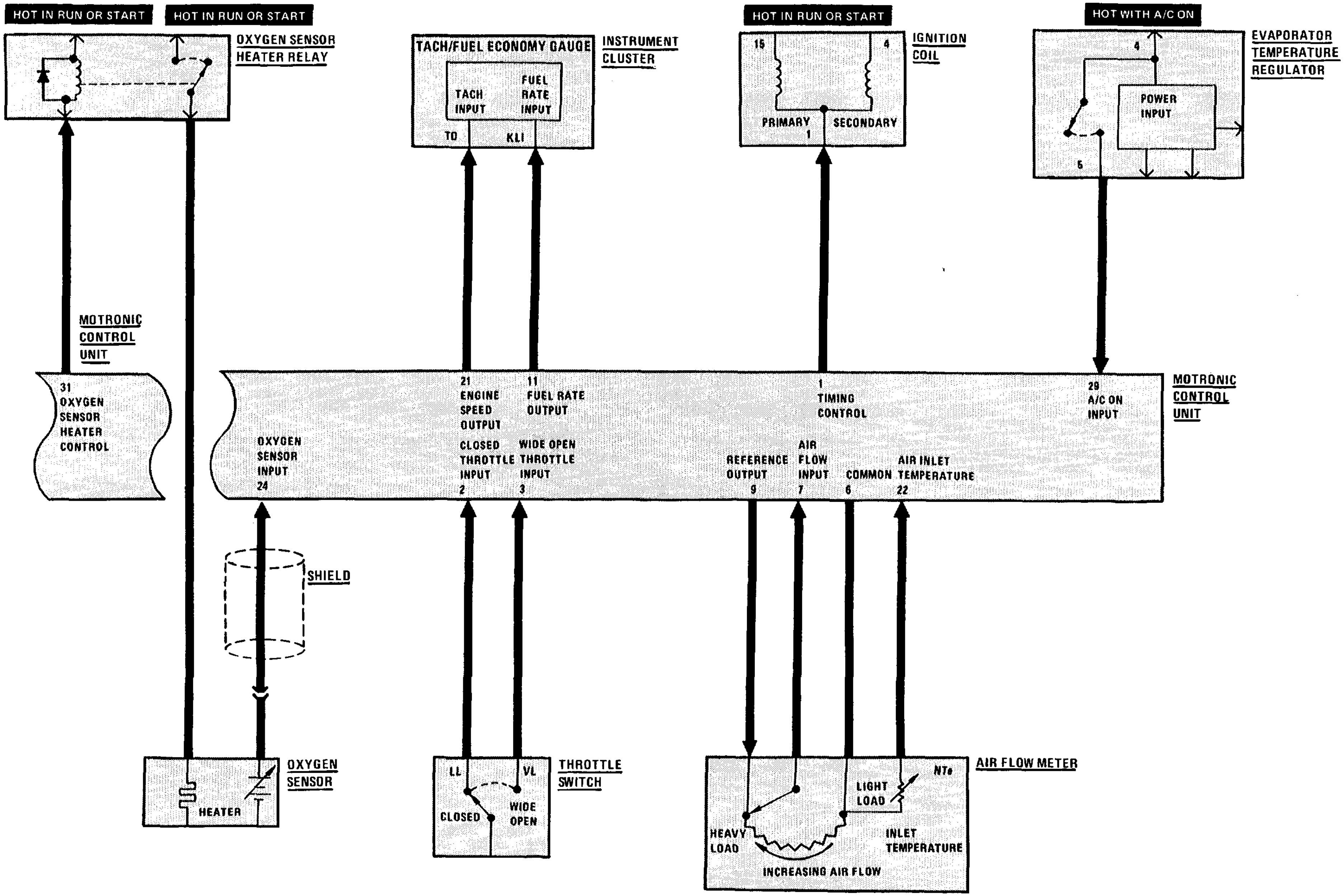
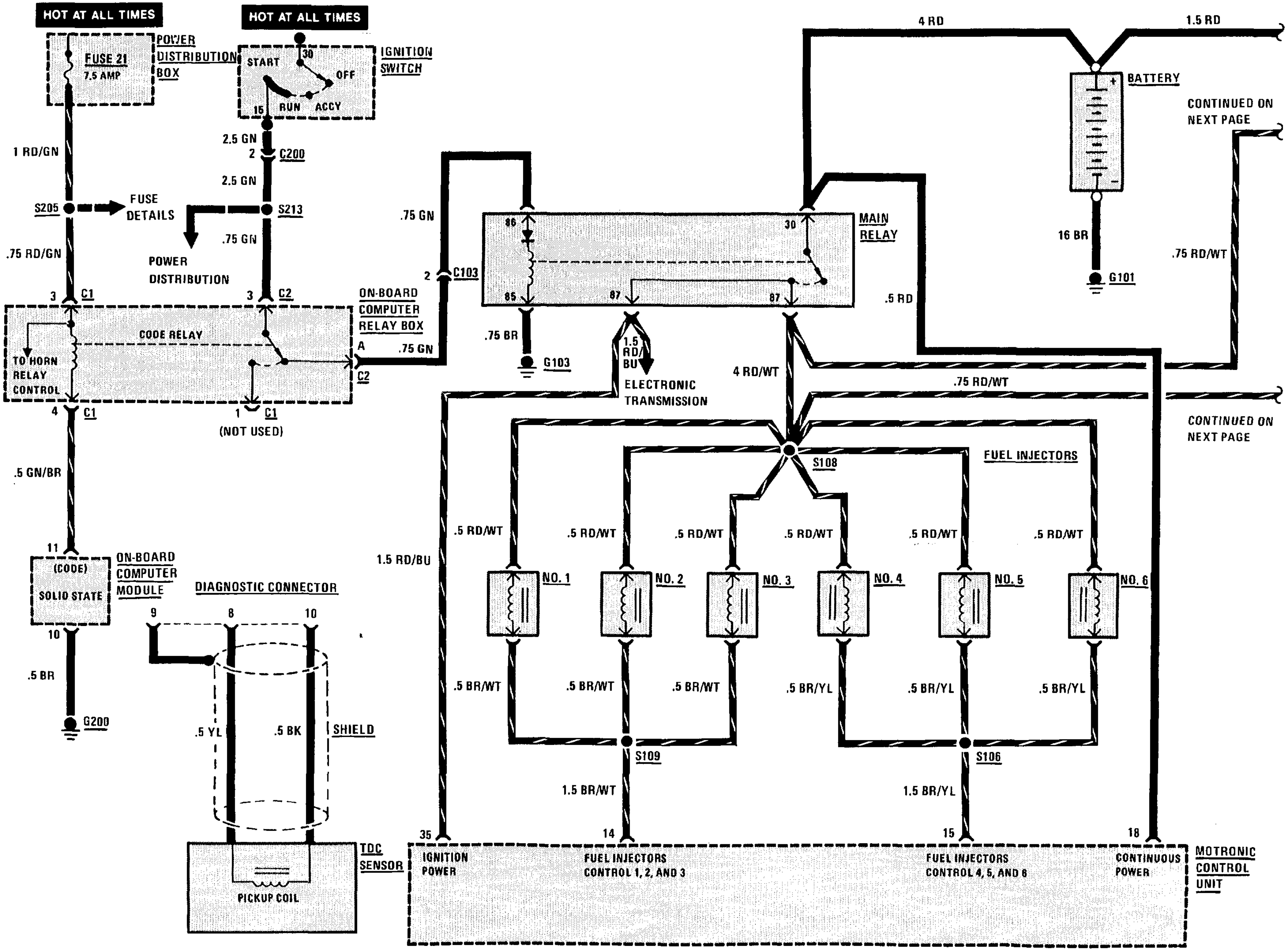
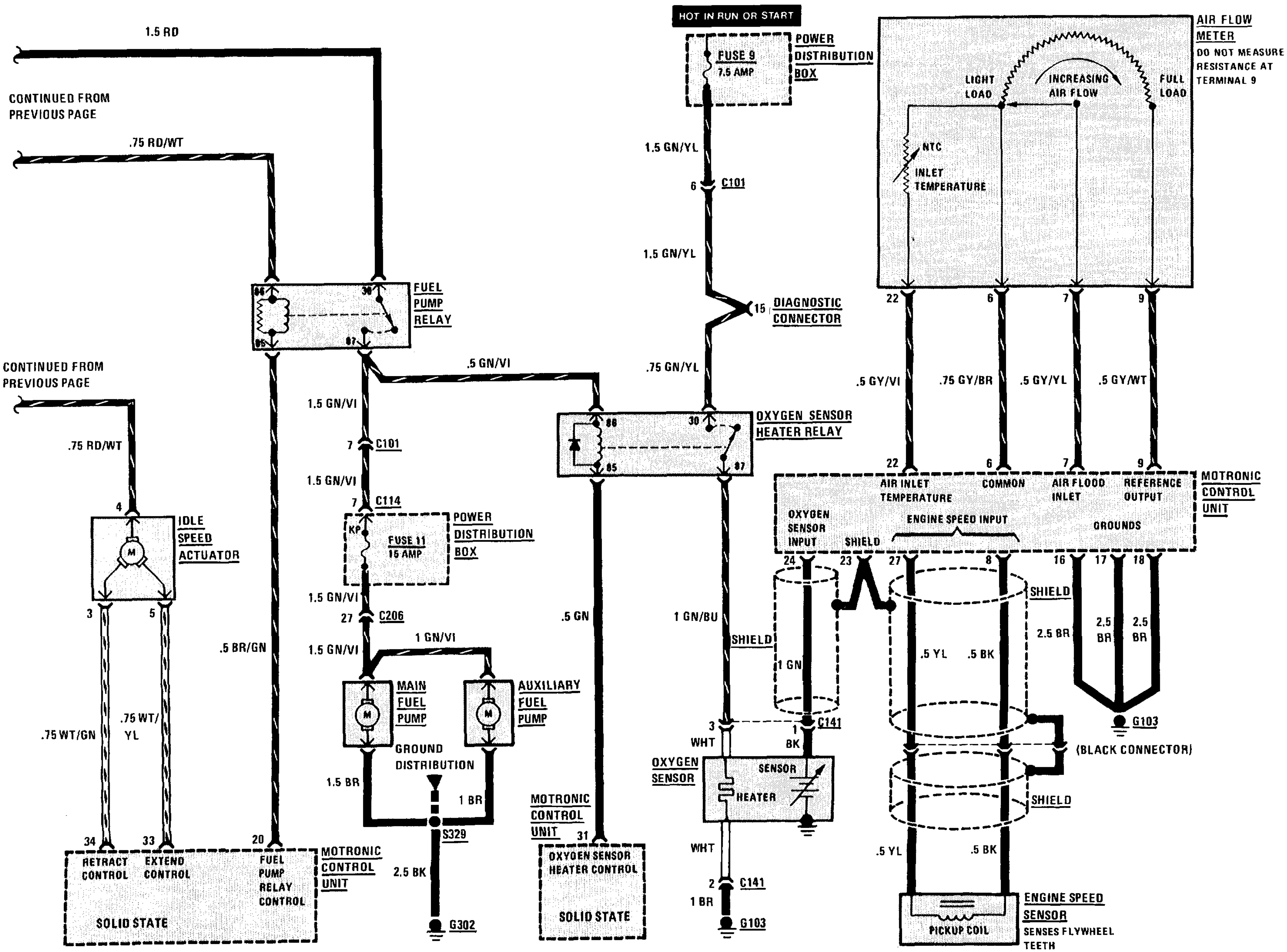
MANUAL TRANSMISSION



FUEL DELIVERY/FUEL CONTROL (ELECTRONIC TRANSMISSION)



FUEL DELIVERY/FUEL CONTROL/IDLE SPEED CONTROL (ELECTRONIC TRANSMISSION)



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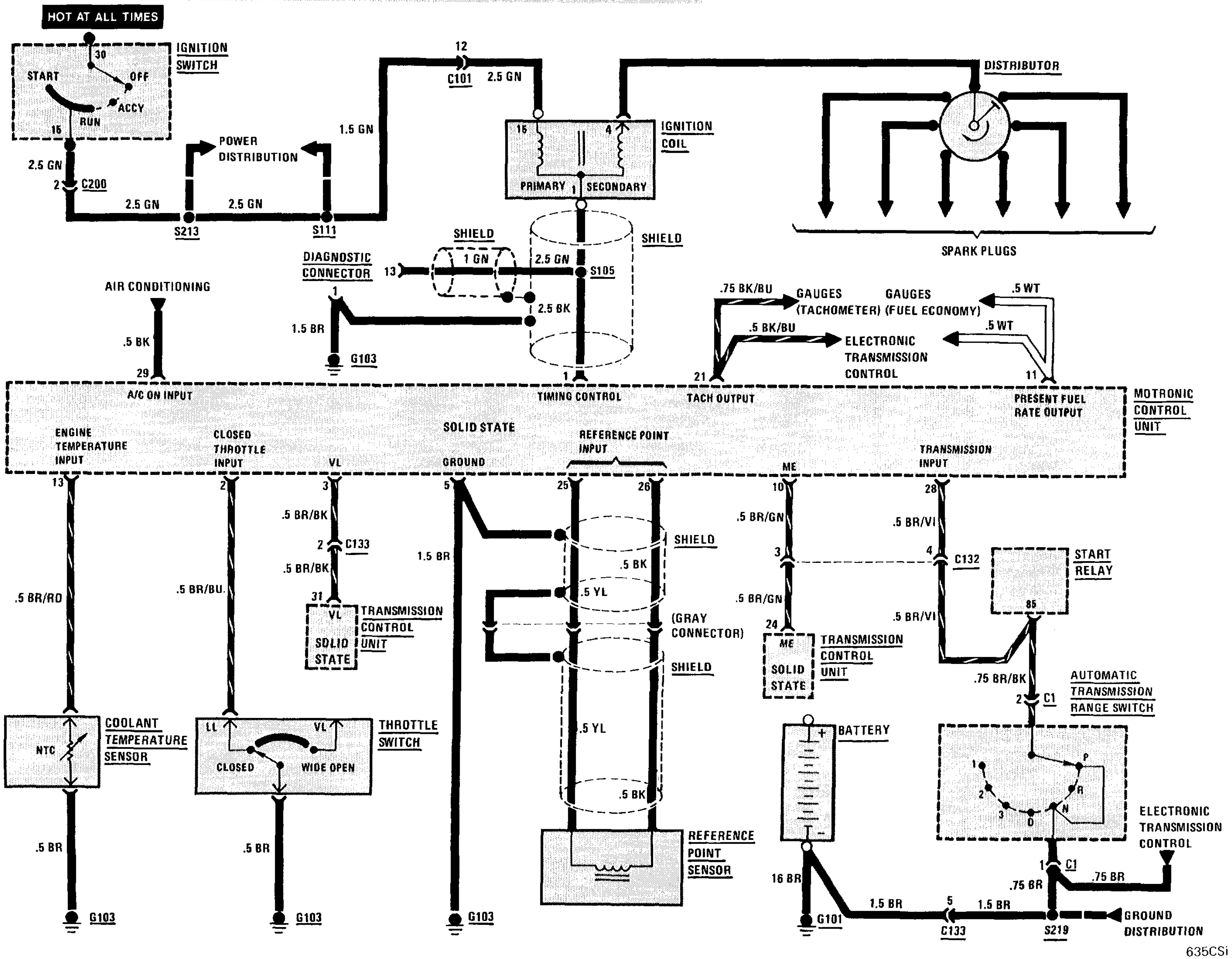
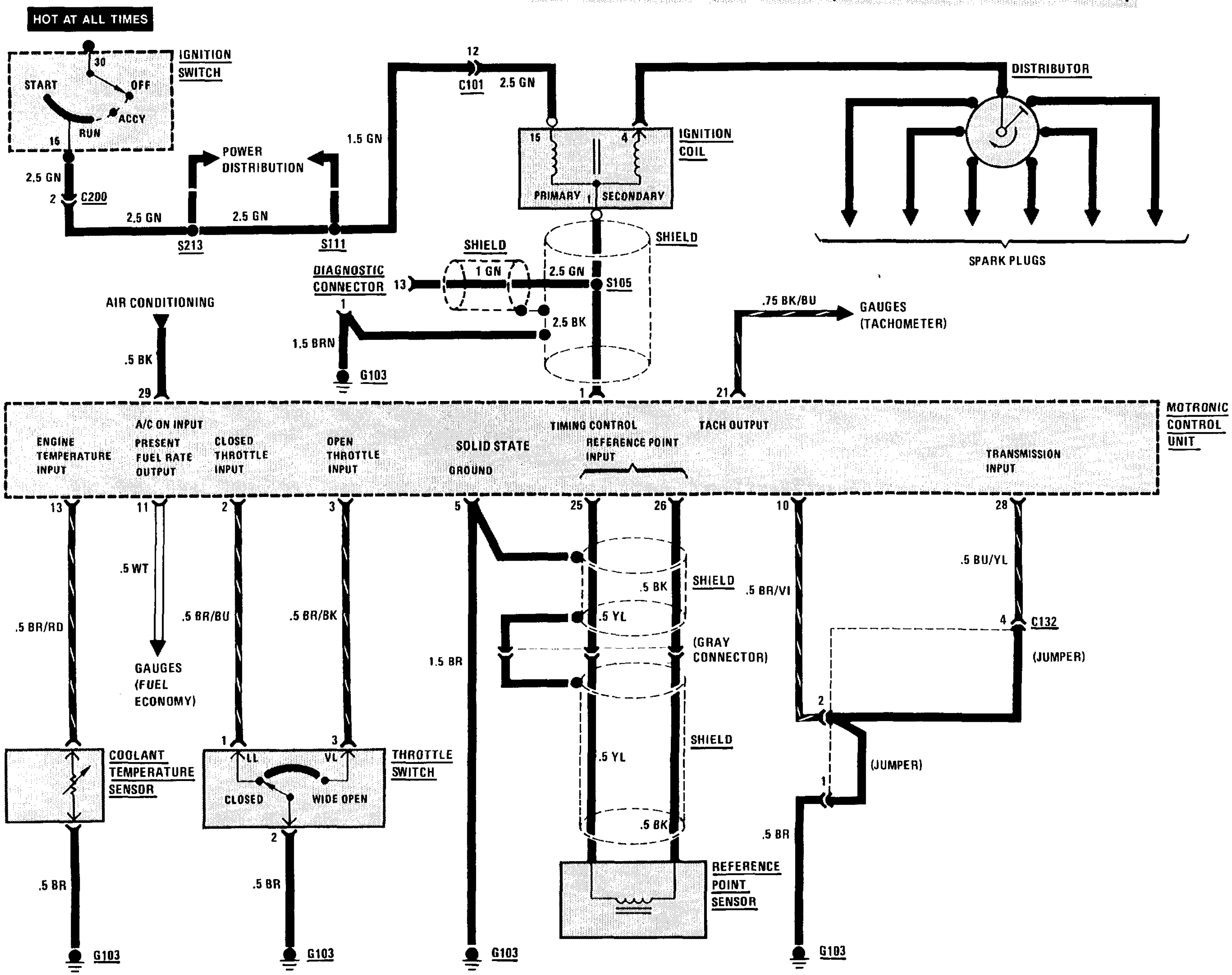
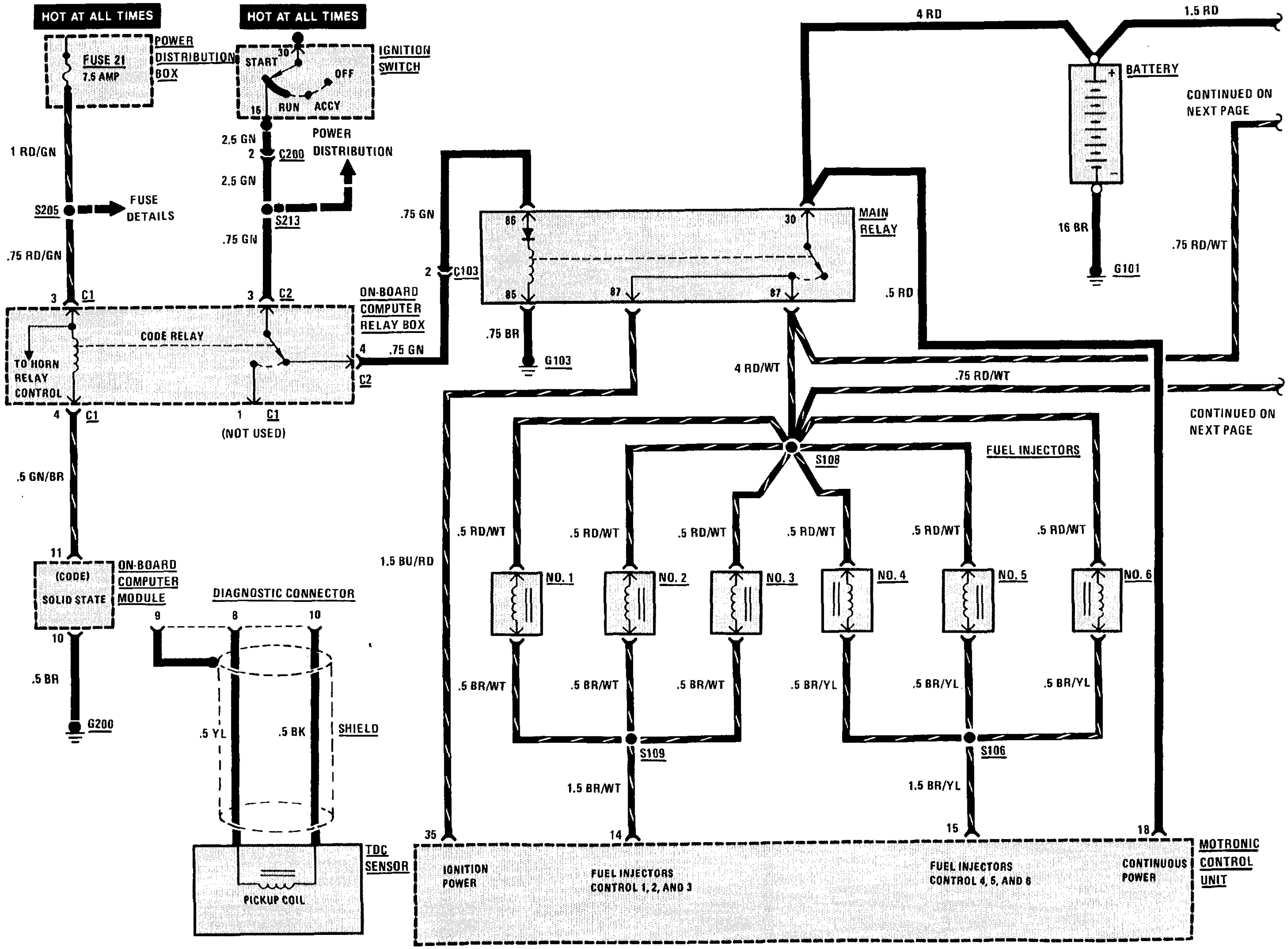
IGNITION/FUEL CONTROL (ELECTRONIC TRANSMISSION)



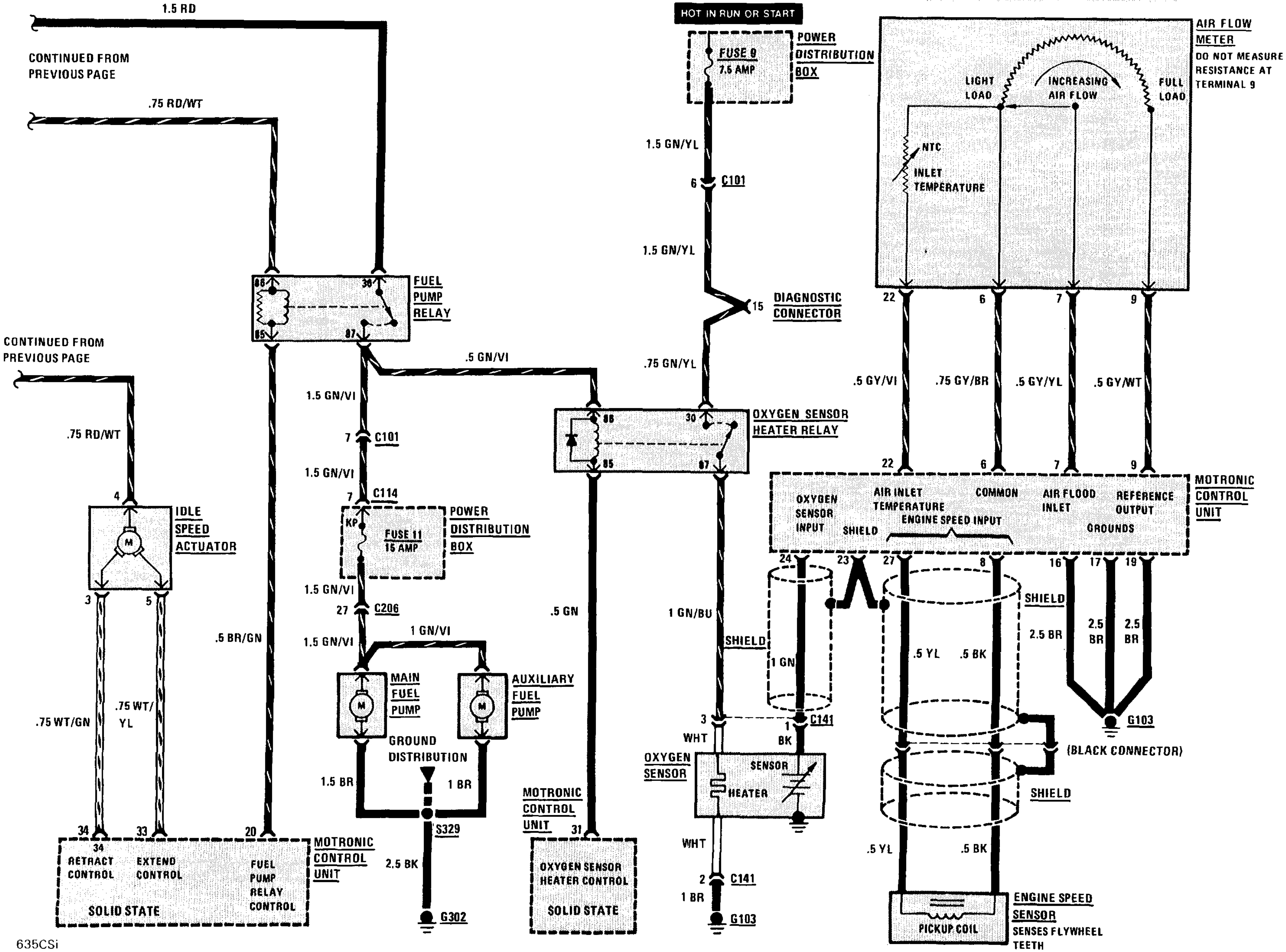
FUEL CONTROL/IGNITION (MANUAL TRANSMISSION)

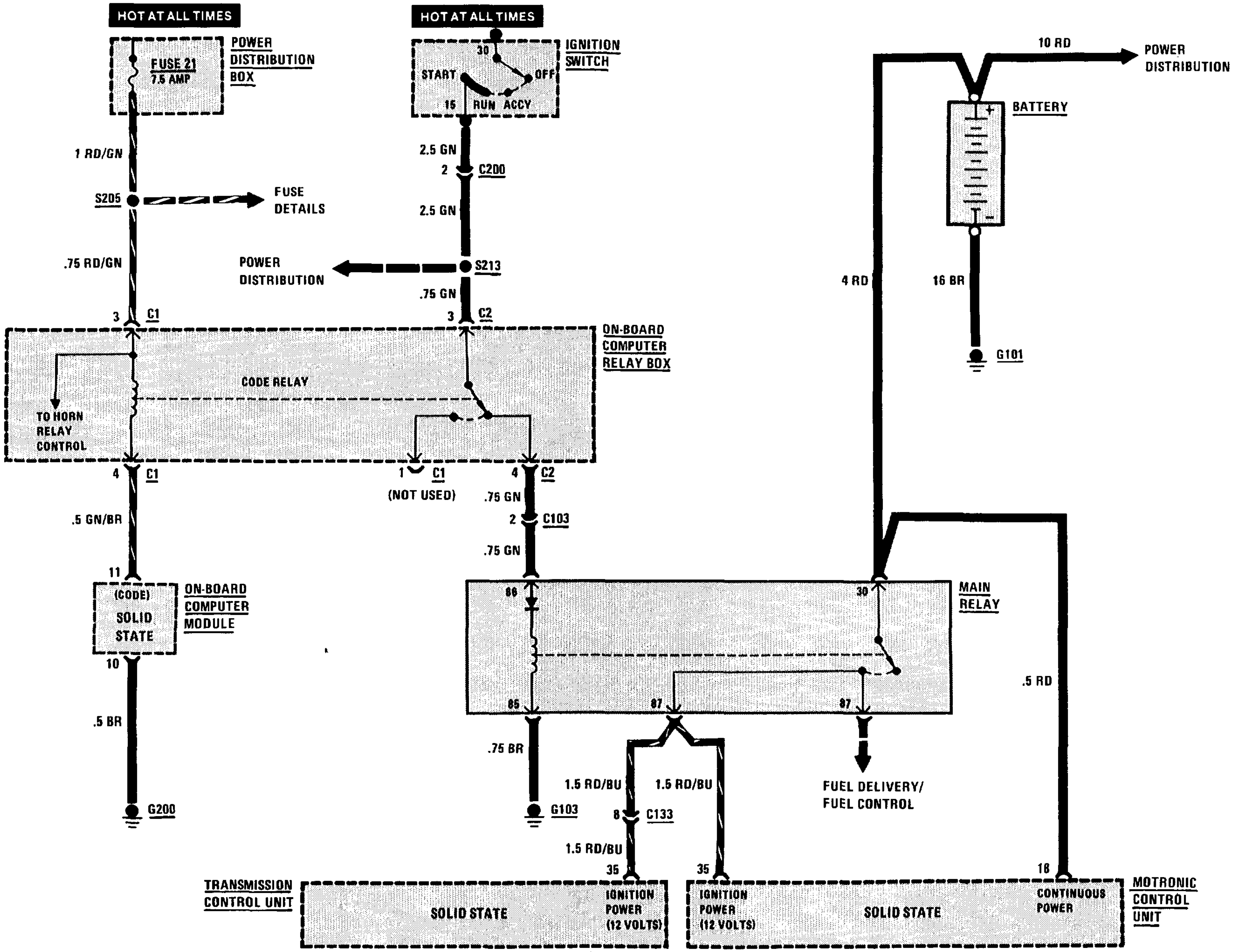


FUEL DELIVERY/FUEL CONTROL (MANUAL TRANSMISSION)

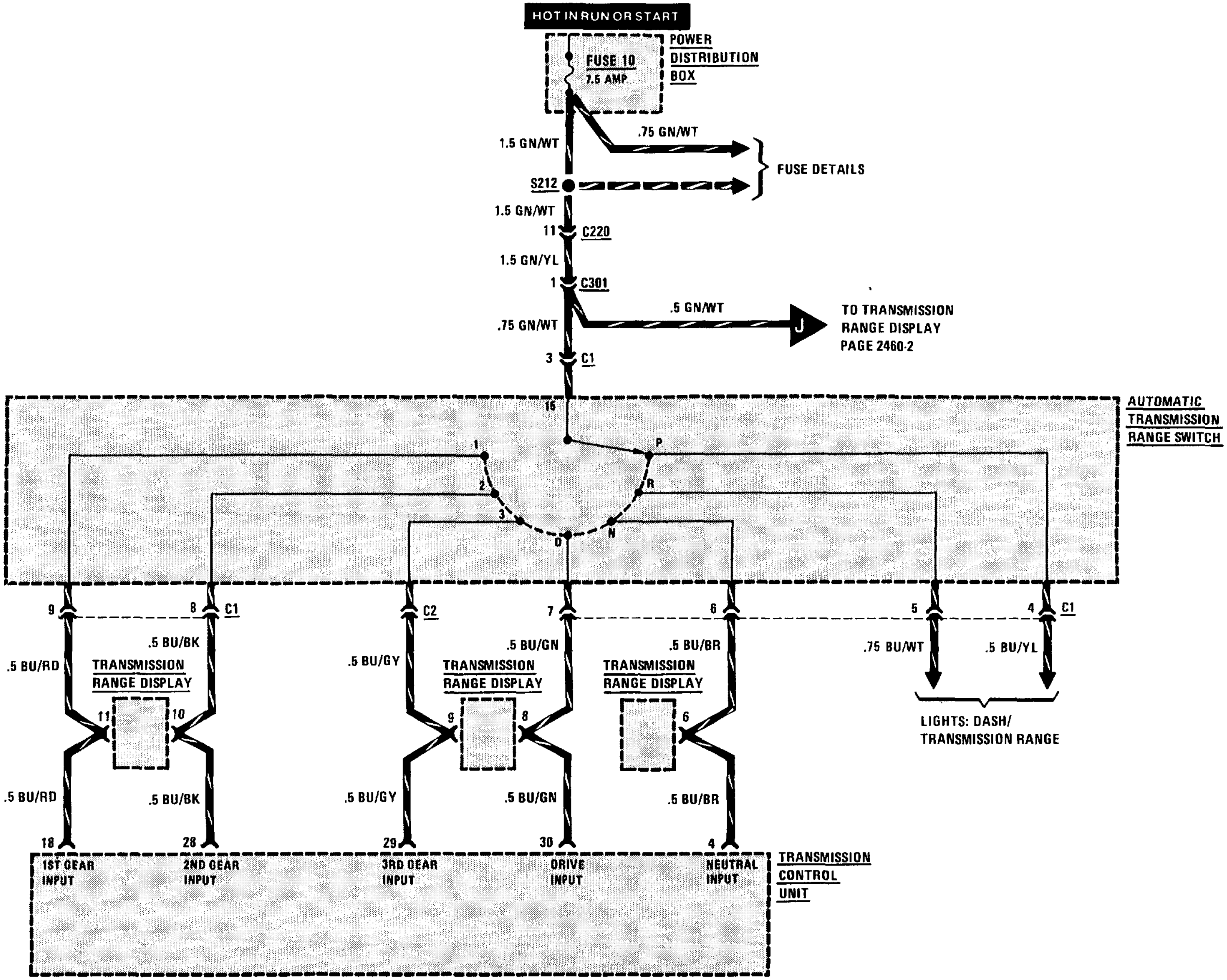


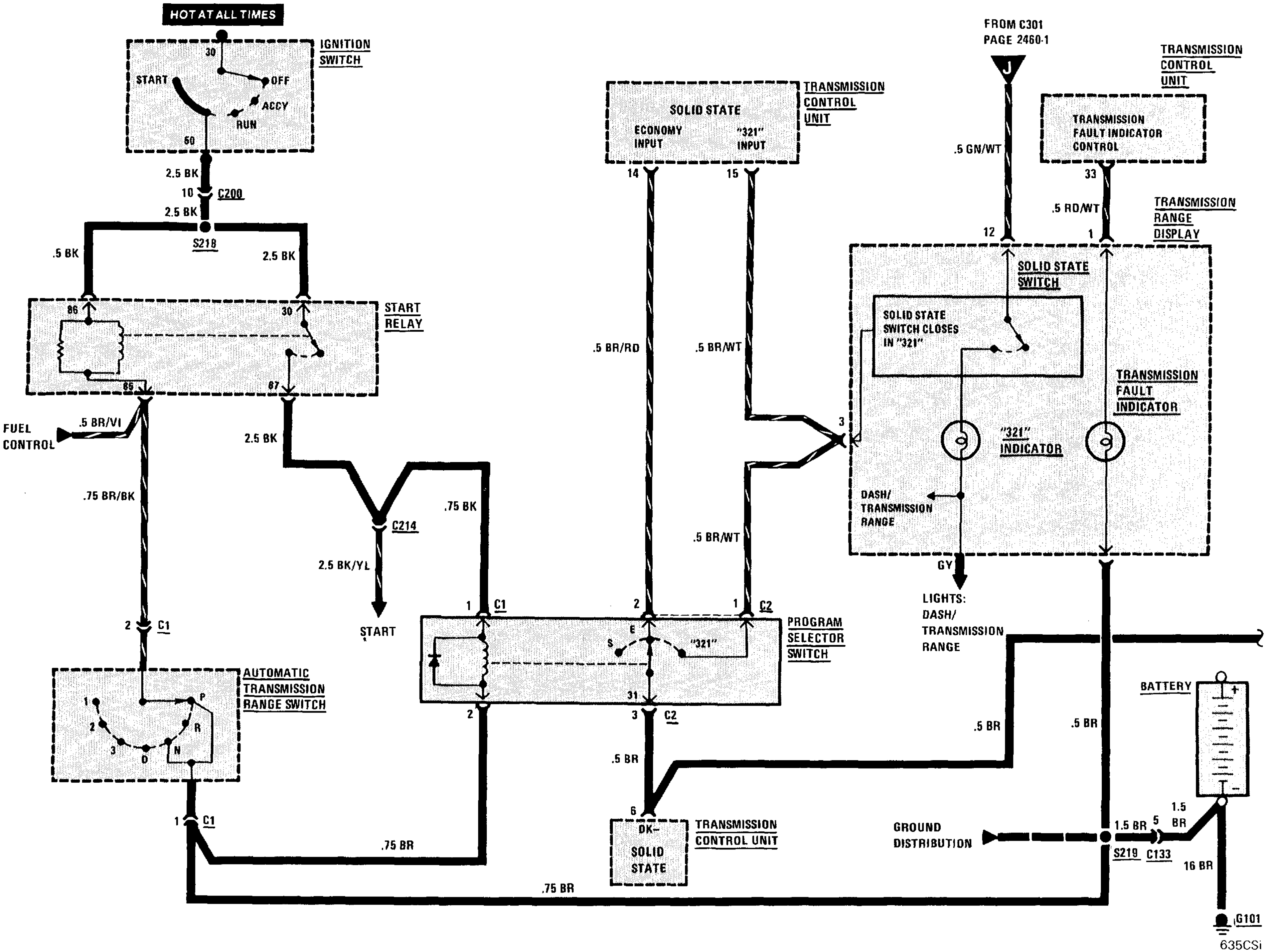
FUEL DELIVERY/FUEL CONTROL/IDLE SPEED CONTROL (MANUAL TRANSMISSION)

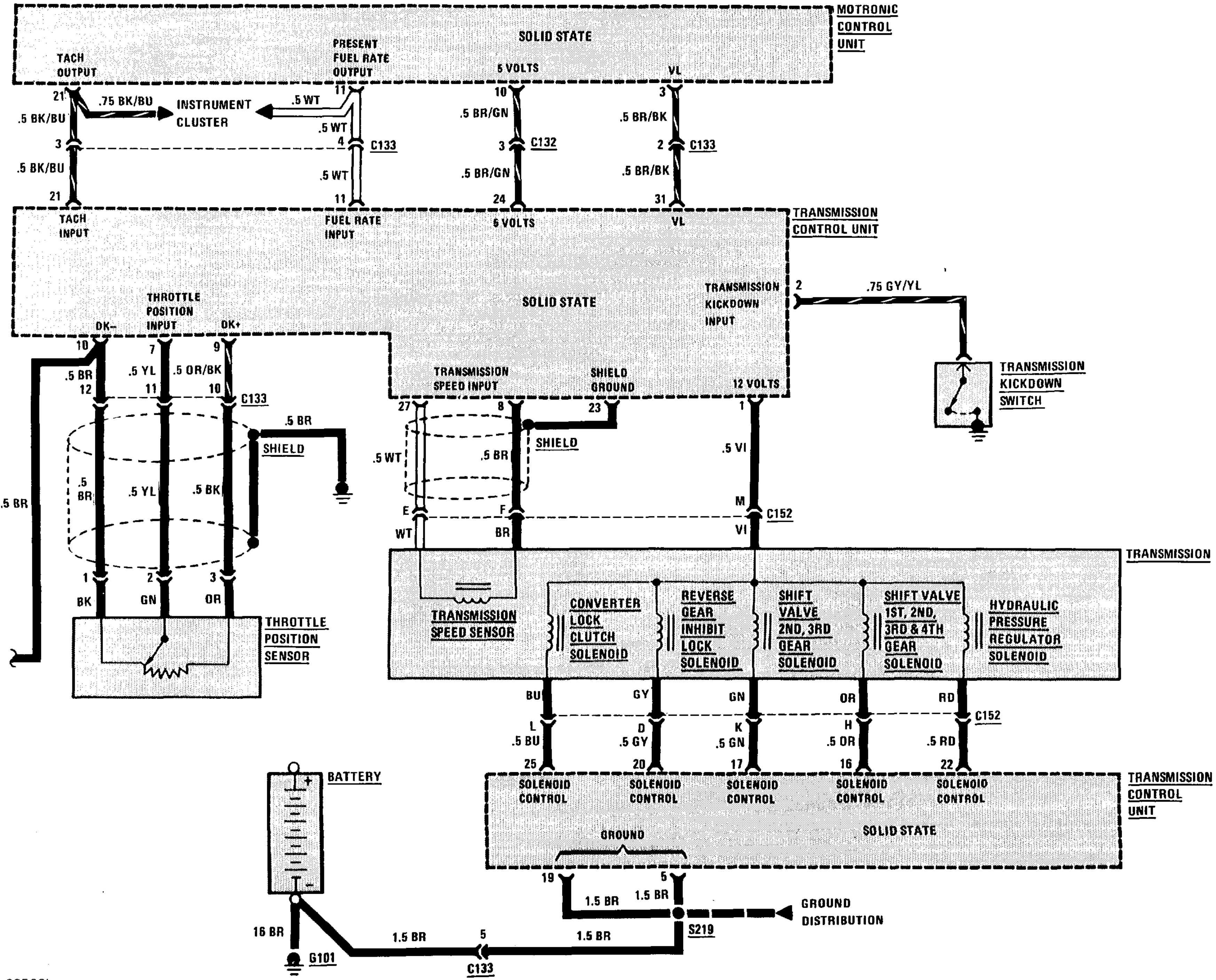




HOT AT ALL TIMES
FUSE 21
7.5 AMP
POWER
DISTRIBUTION
BOX
HOT AT ALL TIMES
30
START
OFF
15
RUN
ACCY
IGNITION
SWITCH
10 RD
POWER
DISTRIBUTION
BATTERY
1 RD/GN
S205
FUSE
DETAILS
2.5 GN
2
C200
2.5 GN
.75 RD/GN
POWER
DISTRIBUTION
S213
.75 GN
4 RD
16 BR
3
C1
3
C2
G101
ON-BOARD
COMPUTER
RELAY BOX
CODE RELAY
TO HORN
RELAY
CONTROL
4
C1
1
C1
(NOT USED)
4
C2
.75 GN
.5 GN/BR
2
C103
.75 GN
11
(CODE)
SOLID
STATE
ON-BOARD
COMPUTER
MODULE
10
86
30
MAIN
RELAY
.5 RD
.5 BR
85
87
87
.75 BR
1.5 RD/BU
1.5 RD/BU
FUEL DELIVERY/
FUEL CONTROL
G200
G103
8
C133
1.5 RD/BU
35
35
18
TRANSMISSION
CONTROL UNIT
SOLID STATE
IGNITION
POWER
(12 VOLTS)
IGNITION
POWER
(12 VOLTS)
SOLID STATE
CONTINUOUS
POWER
MOTRONIC
CONTROL
UNIT


HOT IN RUN OR START
POWER DISTRIBUTION BOX
FUSE 10
7.5 AMP
1.5 GN/WT
.75 GN/WT
FUSE DETAILS
S212
1.5 GN/WT
11 C220
1.5 GN/YL
1 C301
.75 GN/WT
.5 GN/WT
TO TRANSMISSION RANGE DISPLAY PAGE 2460-2
J
3 C1
16
AUTOMATIC TRANSMISSION RANGE SWITCH
1
2
3
D
N
R
P
9
8 C1
C2
7
6
5
4 C1
.5 BU/RD
.5 BU/BK
TRANSMISSION RANGE DISPLAY
11
10
.5 BU/GY
.5 BU/GN
9
8
.5 BU/BR
6
.75 BU/WT
.5 BU/YL
LIGHTS: DASH/ TRANSMISSION RANGE
18
28
29
30
4
1ST GEAR INPUT
2ND GEAR INPUT
3RD GEAR INPUT
DRIVE INPUT
NEUTRAL INPUT
TRANSMISSION CONTROL UNIT


HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
ACCY
RUN
50
2.5 BK
10
C200
2.5 BK
S218
.5 BK
2.5 BK
START RELAY
86
30
85
87
FUEL CONTROL
.5 BR/VI
.75 BR/BK
2.5 BK
C214
2.5 BK/YL
START
.75 BK
2
C1
AUTOMATIC TRANSMISSION RANGE SWITCH
1
2
3
D
N
R
P
1
C1
.75 BR
.75 BR
TRANSMISSION CONTROL UNIT
SOLID STATE
ECONOMY INPUT
"321" INPUT
14
15
.5 BR/RD
.5 BR/WT
.5 BR/WT
1
C1
2
1
C2
PROGRAM SELECTOR SWITCH
E
S
"321"
31
2
3
C2
.5 BR
6
DK-
SOLID STATE
TRANSMISSION CONTROL UNIT
FROM C301
PAGE 2460-1
J
.5 GN/WT
12
TRANSMISSION CONTROL UNIT
TRANSMISSION FAULT INDICATOR CONTROL
33
.5 RD/WT
1
TRANSMISSION RANGE DISPLAY
SOLID STATE SWITCH
SOLID STATE SWITCH CLOSES IN "321"
3
"321" INDICATOR
TRANSMISSION FAULT INDICATOR
DASH/ TRANSMISSION RANGE
GY
LIGHTS: DASH/ TRANSMISSION RANGE
.5 BR
.5 BR
BATTERY
GROUND DISTRIBUTION
1.5 BR
5
1.5 BR
S219
C133
16 BR
G101
635CSi


MOTRONIC CONTROL UNIT
SOLID STATE
TACH OUTPUT
PRESENT FUEL RATE OUTPUT
5 VOLTS
VL
.75 BK/BU
INSTRUMENT CLUSTER
.5 WT
.5 BK/BU
.5 BR/GN
.5 BR/BK
C133
C132
TRANSMISSION CONTROL UNIT
TACH INPUT
FUEL RATE INPUT
THROTTLE POSITION INPUT
DK-
DK+
TRANSMISSION KICKDOWN INPUT
.75 GY/YL
TRANSMISSION KICKDOWN SWITCH
TRANSMISSION SPEED INPUT
SHIELD GROUND
12 VOLTS
.5 BR
.5 YL
.5 OR/BK
SHIELD
.5 BK
.5 VI
C152
BK
GN
OR
THROTTLE POSITION SENSOR
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
BU
GY
RD
.5 BU
.5 GY
.5 GN
.5 OR
.5 RD
BATTERY
SOLENOID CONTROL
GROUND
SOLID STATE
1.5 BR
GROUND DISTRIBUTION
S219
16 BR
G101
C133

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

(Continued in next column)

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COMPONENT LOCATION

Component	Location	Page-Figure
Auto. Trans. Range Switch	On left side of shift lever	
Ignition Switch	In upper part of steering column	7000-4-4
Main Relay	On power distribution box	7000-0-1
Motronic Control Unit	Under RH side of dash, above glove box	7000-4-5
On-Board Computer Module	In center console, right of radio face	7000-5-3
Power Distribution Box	Top front of left front wheel well	7000-1-1
Program Selector Switch	On center console, to right of shift lever	7000-5-4
Start Relay	Under LH side of dash, on body electrical bracket	7000-4-1
Throttle Position Sensor	Top center of engine, behind rubber boot	7000-2-3
Throttle Switch	Top LH side of engine, below throttle body	7000-2-3
Transmission Control Unit	Under LH side of dash, above speaker	7000-4-3
Tansmission Kickdown Switch	Passenger compartment, under accelerator pedal	
C103 (4 pin)	Under RH side of dash, above glove box	7000-4-5
C132 (4 pin)	Under RH side of dash, above glove box	7000-4-5
C133 (13 pin)	Under right side of dash, above glove box	
C152 (8 pin)	Under center of car, near transmission	
C200 (10 pin)	Under LH side of dash, on LH side of steering column	7000-3-2
C209 (7 pin)	Under LH side of dash, near body electrical bracket	7000-4-2
C214 (2 pin)	Under LH side of dash, near steering column	
C301 (2 pin)	In center console, ahead of lever	
G103 (Engine Ground)	To rear of engine	7000-1-6
G104 (Main Body Ground)	Inner side of LH fender, near battery	7000-1-2
G200 (Front Interior Ground)	On dash frame, left of steering column	

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

SYSTEM DIAGNOSIS

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

(Continued on next page)

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- **Perform all tests in 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

(Continued in next column)

(Continued from previous column)

- **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).

(Continued on next page)

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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 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.

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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).

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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) & Ground	Greater than 500 K Ohms	See 1
8 (BR) & 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)***
- **Engine running**
- **Gear Selector: D**
- **Speedometer: 30 km/h (20 mph)**

Measure Between	Correct Voltage	For Diagnosis
8 (BR) & 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.

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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

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Measure Between	Correct Voltage	For Diagnosis
• 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 wire from the Automatic Transmission Range Switch, and 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 (OR/BK) & Ground	Approximately 5 Volts	See 2
9 (OR/BK) & 10 (BR)	Approximately 5 Volts	See 3
• Operate Throttle through its full range.		
7 (YL) & 10 (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

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- 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.

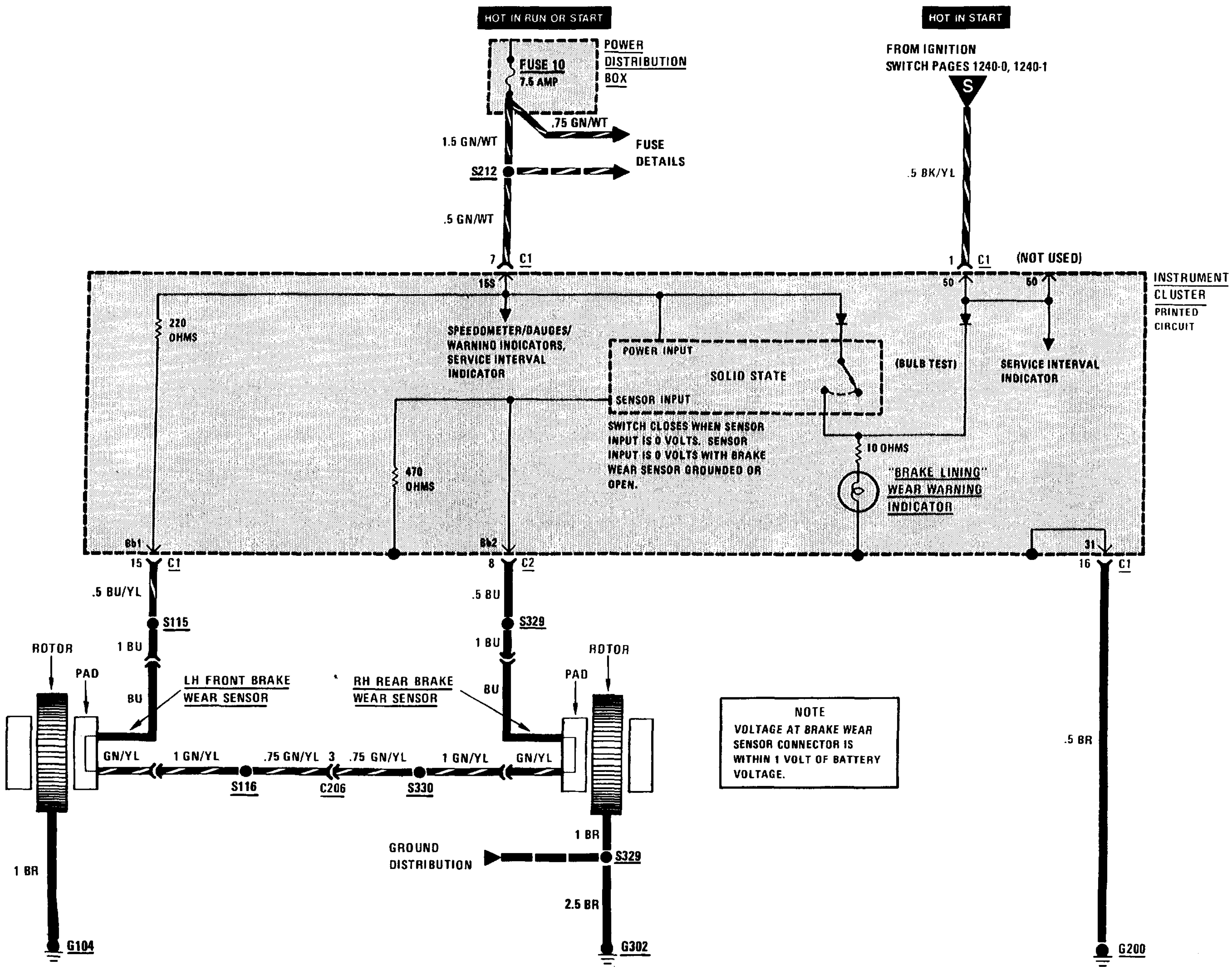
CIRCUIT OPERATION

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 returns to E.

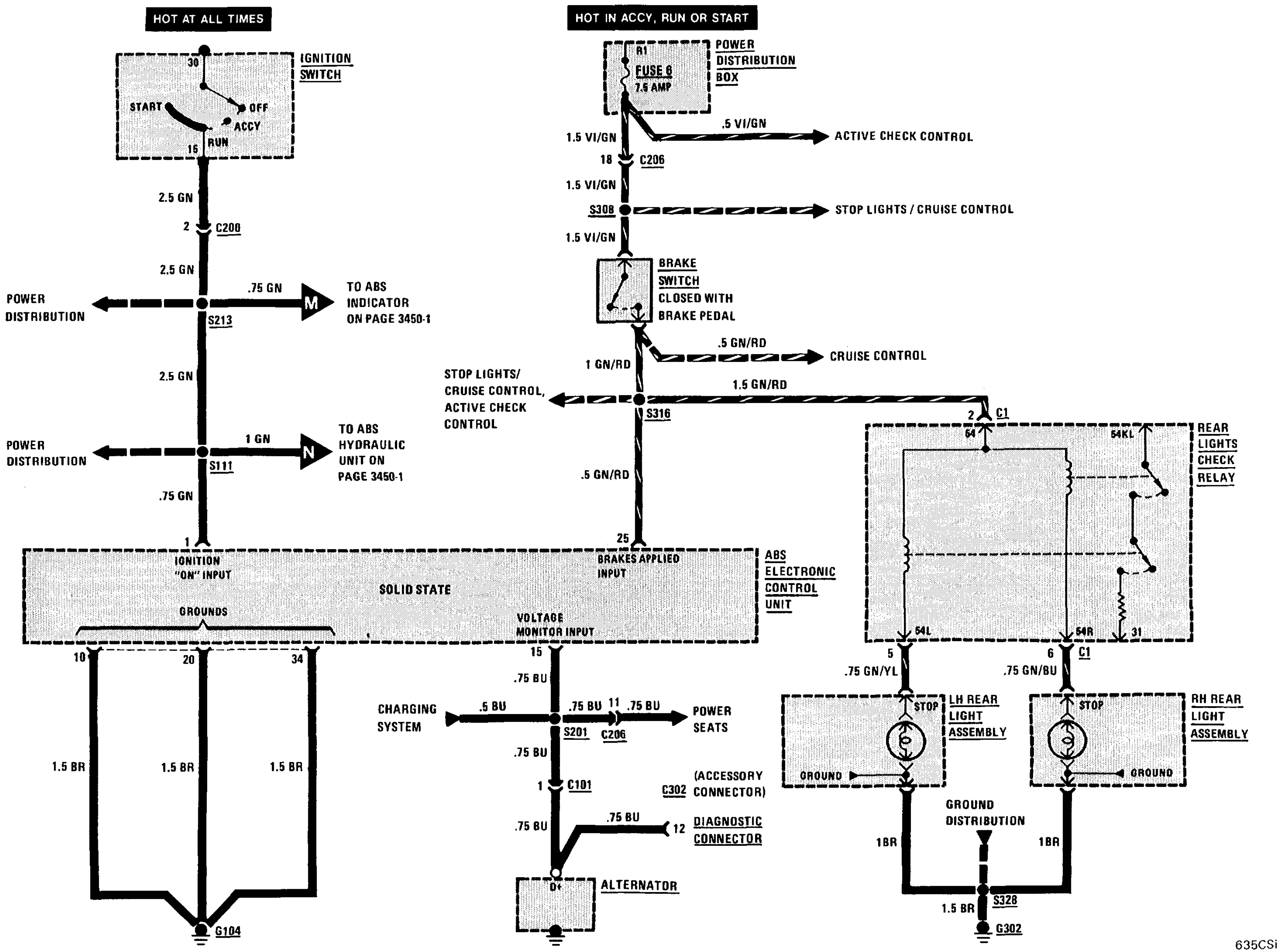
The Transmission Control Unit monitors engine speed (terminal 21), fuel rate (terminal 11), Throttle position (terminal 7), road speed (terminals 8 and 27), Kickdown signal (terminal 2), Gear Selector position (terminals 4, 30, 29, 28 and 18) and Program Selector Switch position (terminals 14 and 15). 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.

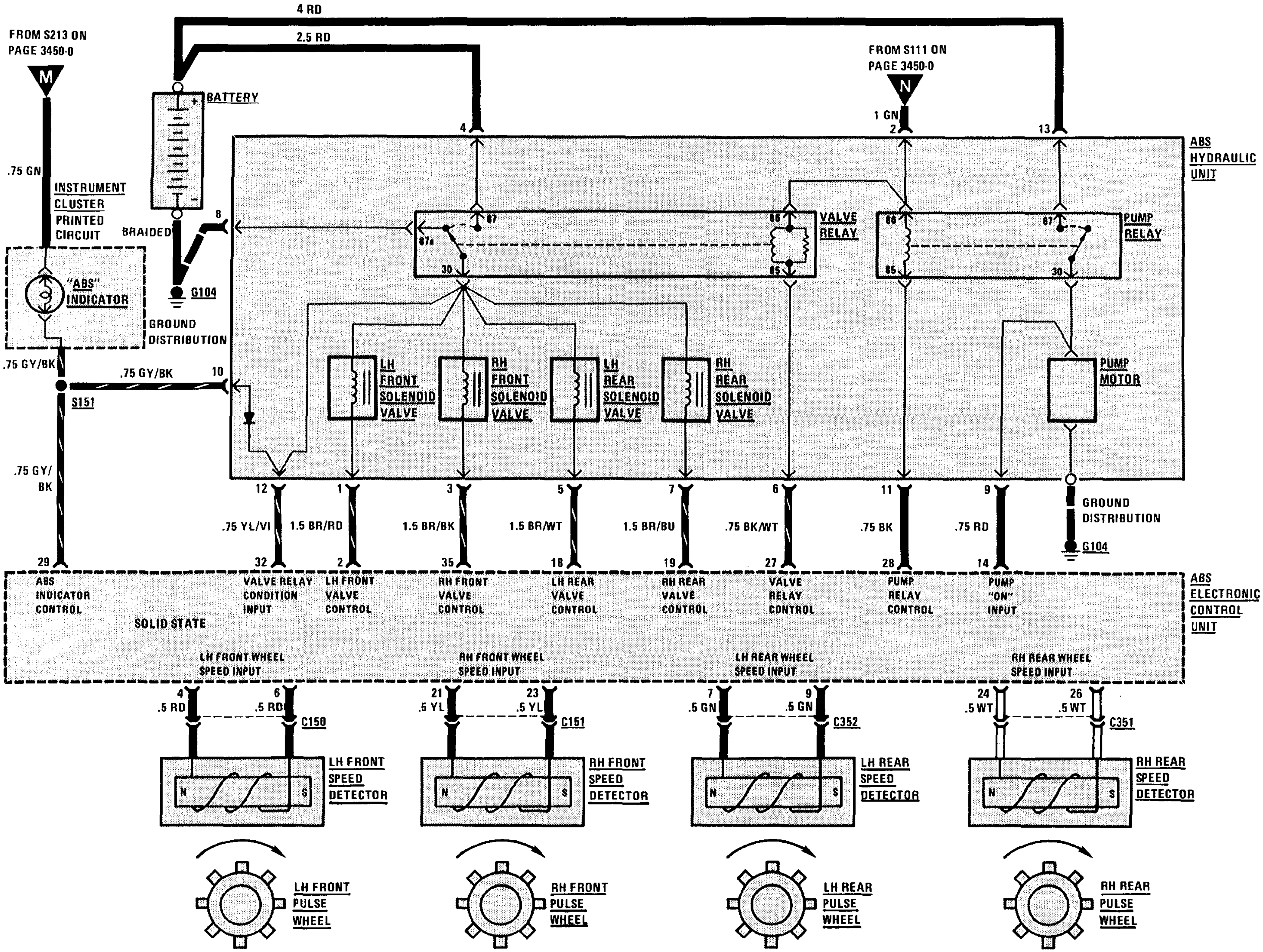
The Transmission Fault Indicator will light with the engine running, if a problem with the control system occurs. When a fault is detected, the vehicle can only be driven in third and reverse gears. Neutral and Park also retain their functions. Voltage to the transmission (terminal 1) is not present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

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

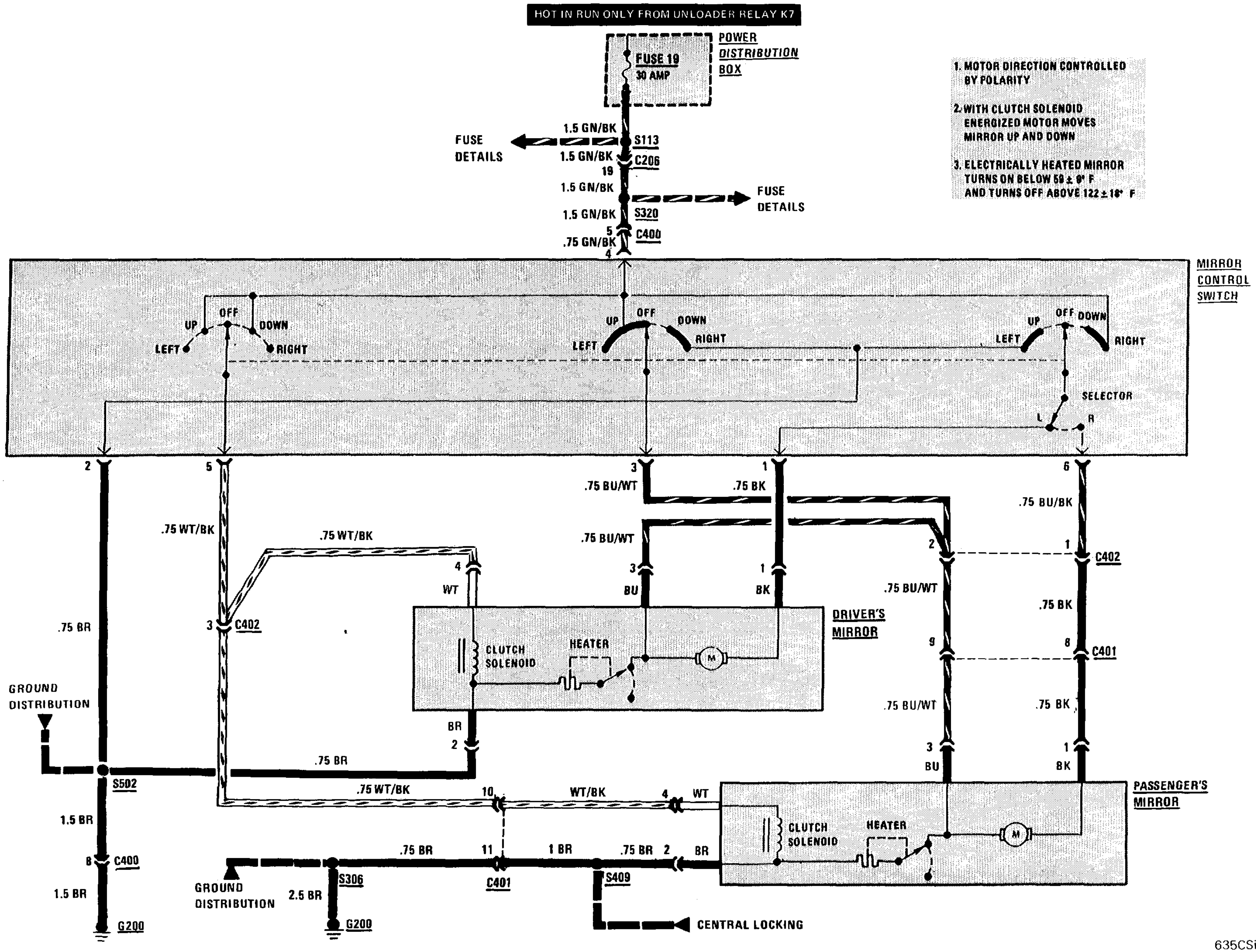


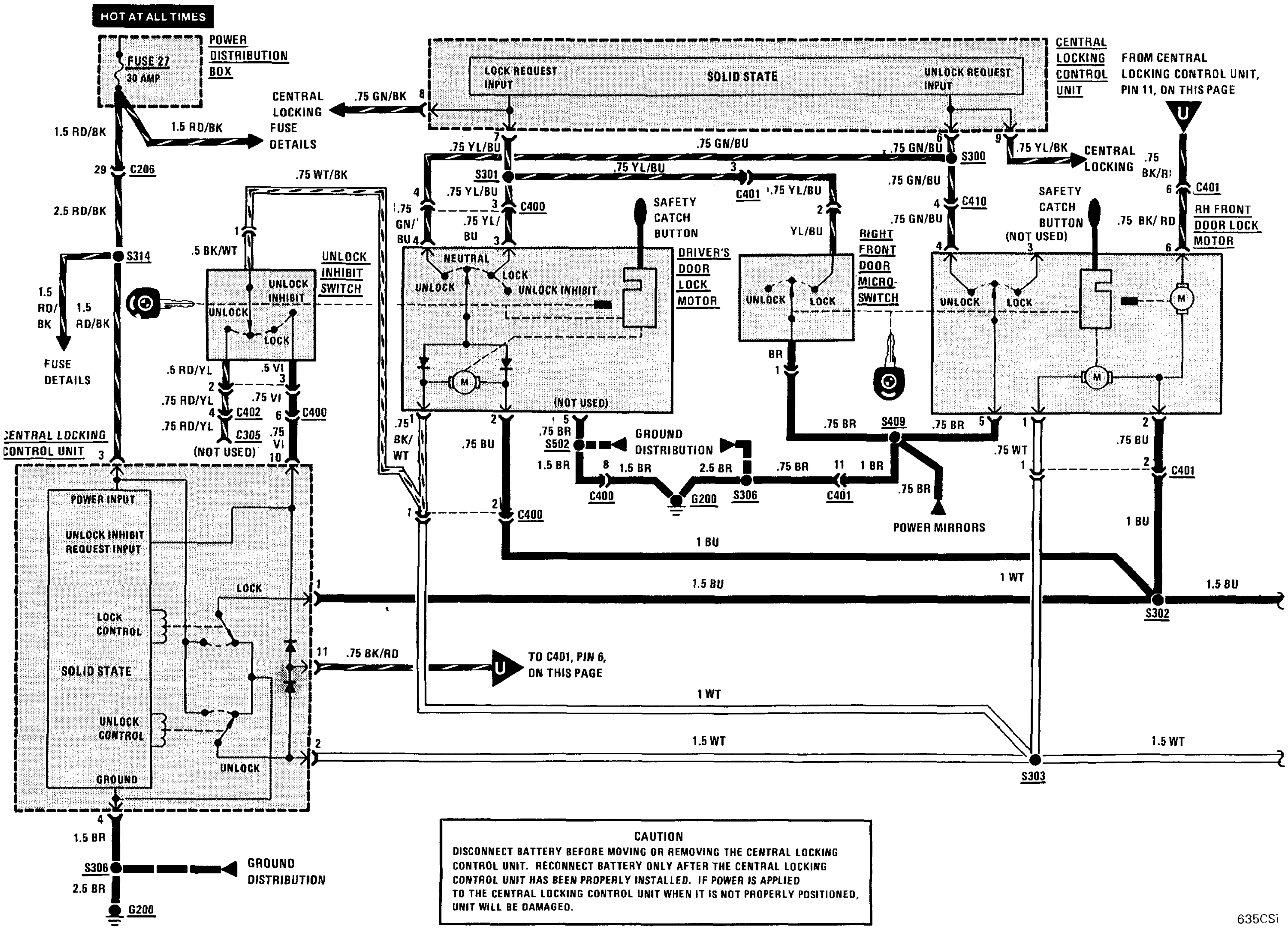
HOT IN RUN OR START
HOT IN START
FUSE 10
7.5 AMP
POWER DISTRIBUTION BOX
FROM IGNITION SWITCH PAGES 1240-0, 1240-1
S
.75 GN/WT
1.5 GN/WT
FUSE DETAILS
S212
.5 BK/YL
.5 GN/WT
7 C1
1 C1
(NOT USED)
INSTRUMENT CLUSTER
PRINTED CIRCUIT
15S
50
50
220 OHMS
SPEEDOMETER/GAUGES/ WARNING INDICATORS, SERVICE INTERVAL INDICATOR
POWER INPUT
SOLID STATE
(BULB TEST)
SERVICE INTERVAL INDICATOR
SENSOR INPUT
SWITCH CLOSES WHEN SENSOR INPUT IS 0 VOLTS. SENSOR INPUT IS 0 VOLTS WITH BRAKE WEAR SENSOR GROUNDED OR OPEN.
10 OHMS
470 OHMS
"BRAKE LINING" WEAR WARNING INDICATOR
6b1
6b2
31
15 C1
8 C2
16 C1
.5 BU/YL
.5 BU
S115
S329
ROTOR
1 BU
1 BU
ROTOR
PAD
PAD
LH FRONT BRAKE WEAR SENSOR
RH REAR BRAKE WEAR SENSOR
BU
BU
GN/YL
1 GN/YL
.75 GN/YL
3
.75 GN/YL
1 GN/YL
GN/YL
S116
C206
S330
NOTE
VOLTAGE AT BRAKE WEAR SENSOR CONNECTOR IS WITHIN 1 VOLT OF BATTERY VOLTAGE.
.5 BR
1 BR
GROUND DISTRIBUTION
S329
1 BR
2.5 BR
G104
G302
G200


HOT AT ALL TIMES
HOT IN ACCY, RUN OR START
IGNITION SWITCH
30
START
OFF
ACCY
RUN
16
2.5 GN
2 C200
2.5 GN
POWER DISTRIBUTION
.75 GN
M
TO ABS INDICATOR ON PAGE 3450-1
S213
2.5 GN
POWER DISTRIBUTION
1 GN
N
TO ABS HYDRAULIC UNIT ON PAGE 3450-1
S111
.75 GN
1
IGNITION "ON" INPUT
SOLID STATE
GROUNDS
10
20
34
1.5 BR
1.5 BR
1.5 BR
G104
R1
FUSE 6
7.5 AMP
POWER DISTRIBUTION BOX
.5 VI/GN
ACTIVE CHECK CONTROL
1.5 VI/GN
18 C206
1.5 VI/GN
S308
STOP LIGHTS / CRUISE CONTROL
1.5 VI/GN
BRAKE SWITCH
CLOSED WITH BRAKE PEDAL
.5 GN/RD
CRUISE CONTROL
1 GN/RD
STOP LIGHTS/ CRUISE CONTROL, ACTIVE CHECK CONTROL
1.5 GN/RD
S316
.5 GN/RD
25
BRAKES APPLIED INPUT
ABS ELECTRONIC CONTROL UNIT
VOLTAGE MONITOR INPUT
15
.75 BU
CHARGING SYSTEM
.5 BU
.75 BU
11
.75 BU
POWER SEATS
S201
C206
.75 BU
1 C101
C302
(ACCESSORY CONNECTOR)
.75 BU
.75 BU
12
DIAGNOSTIC CONNECTOR
D+
ALTERNATOR
2 C1
54
54KL
REAR LIGHTS CHECK RELAY
54L
54R
31
5
6 C1
.75 GN/YL
.75 GN/BU
STOP
LH REAR LIGHT ASSEMBLY
GROUND
STOP
RH REAR LIGHT ASSEMBLY
GROUND
GROUND DISTRIBUTION
1BR
1BR
1.5 BR
S328
G302



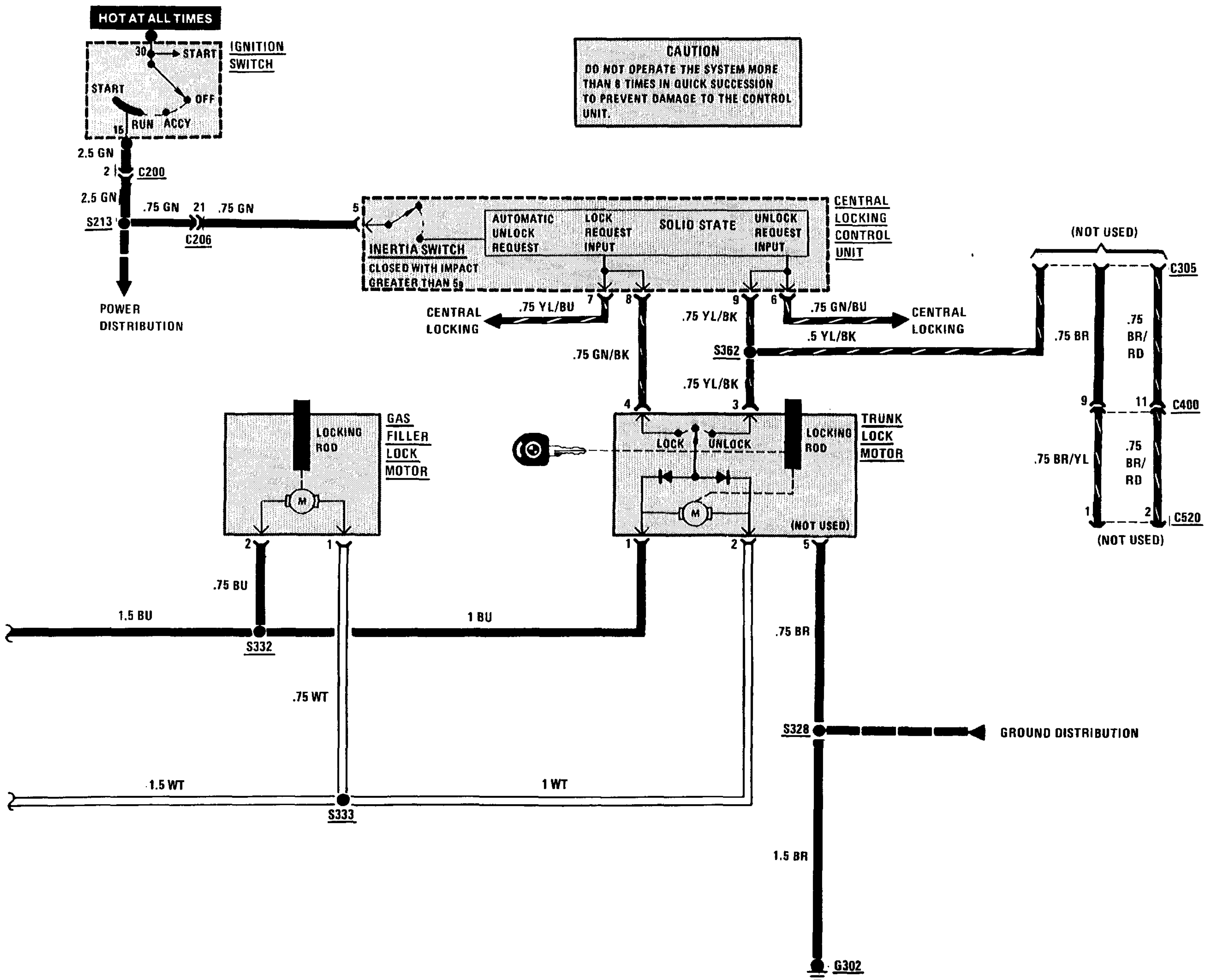
4 RD
2.5 RD
FROM S213 ON PAGE 3450-0
M
BATTERY
FROM S111 ON PAGE 3450-0
N
1 GN
.75 GN
INSTRUMENT CLUSTER PRINTED CIRCUIT
BRAIDED
G104
"ABS" INDICATOR
GROUND DISTRIBUTION
ABS HYDRAULIC UNIT
VALVE RELAY
PUMP RELAY
.75 GY/BK
S151
LH FRONT SOLENOID VALVE
RH FRONT SOLENOID VALVE
LH REAR SOLENOID VALVE
RH REAR SOLENOID VALVE
PUMP MOTOR
.75 GY/BK
.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
GROUND DISTRIBUTION
G104
ABS INDICATOR CONTROL
SOLID STATE
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
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 ONLY FROM UNLOADER RELAY K7
FUSE 19
30 AMP
POWER DISTRIBUTION BOX
1. MOTOR DIRECTION CONTROLLED BY POLARITY
2. WITH CLUTCH SOLENOID ENERGIZED MOTOR MOVES MIRROR UP AND DOWN
3. ELECTRICALLY HEATED MIRROR TURNS ON BELOW 59 ± 9° F AND TURNS OFF ABOVE 122 ± 18° F
1.5 GN/BK
S113
FUSE DETAILS
C206
S320
C400
.75 GN/BK
MIRROR CONTROL SWITCH
UP
OFF
DOWN
LEFT
RIGHT
SELECTOR
L
R
.75 BU/WT
.75 BK
.75 BU/BK
.75 WT/BK
.75 BR
C402
C401
WT
BU
BK
BR
DRIVER'S MIRROR
CLUTCH SOLENOID
HEATER
M
GROUND DISTRIBUTION
S502
1.5 BR
G200
WT/BK
PASSENGER'S MIRROR
1 BR
2.5 BR
S306
S409
CENTRAL LOCKING



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
START
OFF
RUN
ACCY
15
2.5 GN
2
C200
2.5 GN
S213
.75 GN
21
.75 GN
C206
POWER DISTRIBUTION
CAUTION
DO NOT OPERATE THE SYSTEM MORE THAN 8 TIMES IN QUICK SUCCESSION TO PREVENT DAMAGE TO THE CONTROL UNIT.
5
INERTIA SWITCH
CLOSED WITH IMPACT GREATER THAN 5g
AUTOMATIC UNLOCK REQUEST
LOCK REQUEST INPUT
SOLID STATE
UNLOCK REQUEST INPUT
CENTRAL LOCKING CONTROL UNIT
7
8
9
6
.75 YL/BU
CENTRAL LOCKING
.75 YL/BK
.75 GN/BU
CENTRAL LOCKING
.5 YL/BK
S362
.75 GN/BK
.75 YL/BK
(NOT USED)
C305
.75 BR
.75 BR/RD
9
11
C400
.75 BR/YL
.75 BR/RD
1
2
C520
(NOT USED)
4
3
LOCKING ROD
GAS FILLER LOCK MOTOR
LOCK
UNLOCK
LOCKING ROD
TRUNK LOCK MOTOR
(NOT USED)
2
1
1
2
5
.75 BU
1.5 BU
S332
1 BU
.75 WT
.75 BR
S328
GROUND DISTRIBUTION
1.5 WT
1 WT
S333
1.5 BR
G302

TROUBLESHOOTING HINTS

1. Check Fuse 27 by operating the On-Board Computer.

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.

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	Perform Test B
	Driver's door does not double lock	Mechanical problem, see BMW Troubleshooting Manual
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

SYSTEM CHECK TABLE (CONT'D)

OPERATION	RESPONSE	REPAIR ACTION
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 ground in the BK wires at terminal 11. • If short to ground is not present, replace the Central Locking Control Unit • If short to ground is present isolate wiring from Door Lock Motors one at a time to find short
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.**

A: CONTROL UNIT LOCK TEST (TABLE 1)

Measure: VOLTAGE
At: CONTROL UNIT CONNECTOR (Connected)

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

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

1. Check the RD/BK 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 JUMPERS
At: CONTROL UNIT CONNECTOR (Disconnected)

Jumper Between	Correct Result	For Diagnosis
1 (BU) & 3 (RD/BK) 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 S302 and the WT wire to splice S303 for opens (see schematic).

B: UNLOCK INHIBIT TEST

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

Jumper Between	Correct Result	For Diagnosis
10 (VI) & Ground	Doors double lock	See 1

- If the result is correct, check the VI, and WT/BK wires for opens (see schematic). Replace the Unlock Inhibit Switch if the wires and connections are OK.

1. Check the BK/RD wires for opens (see schematic). Replace the Central Locking Control Unit, if the wires and connections are OK.

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 Locking 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 then activates the Lock Relay and applies voltage from Fuse 27 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. 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.

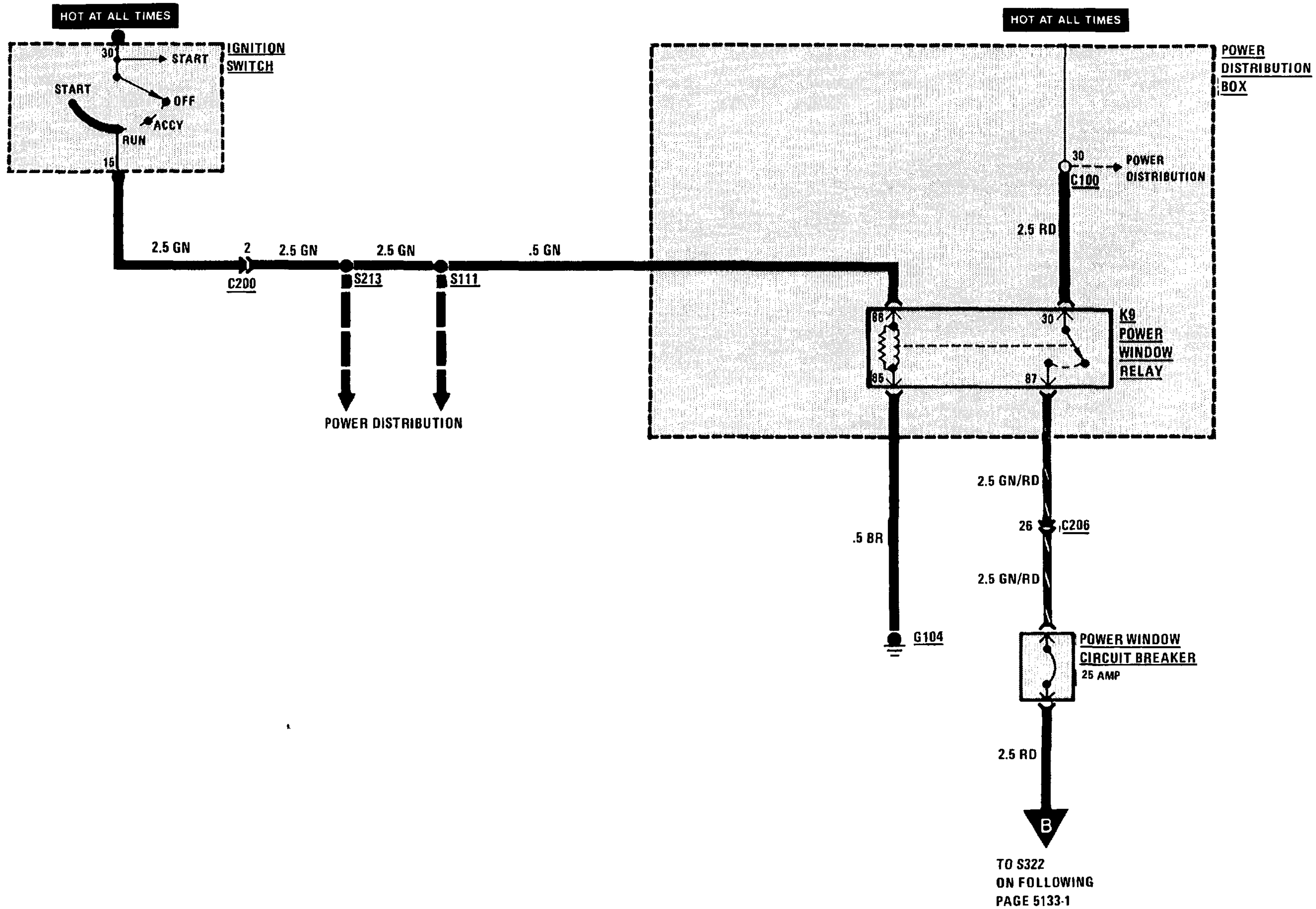
Unlock Inhibit

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, ground is applied to the Unlock Inhibit motors in the other lock units. The Central Locking Control Unit is grounded at terminal 10 and then activates the Lock Relay. Voltage is applied to the Unlock Inhibit motors through the BU wire. They are now activated and engage the other Unlock Inhibit mechanisms. The direction of the motors is reversed when the doors are unlocked (see Unlock).

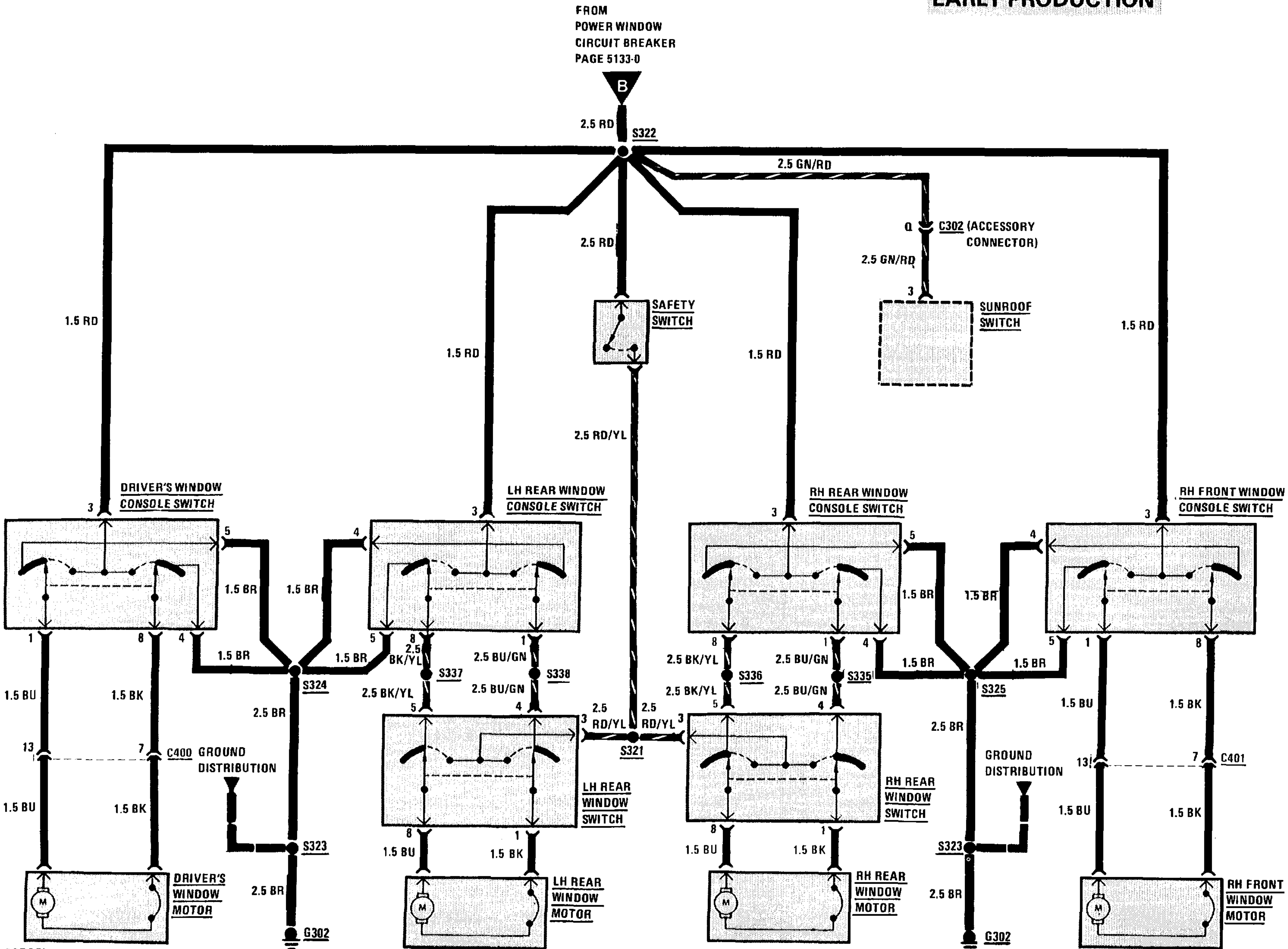
Trunk Lock

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

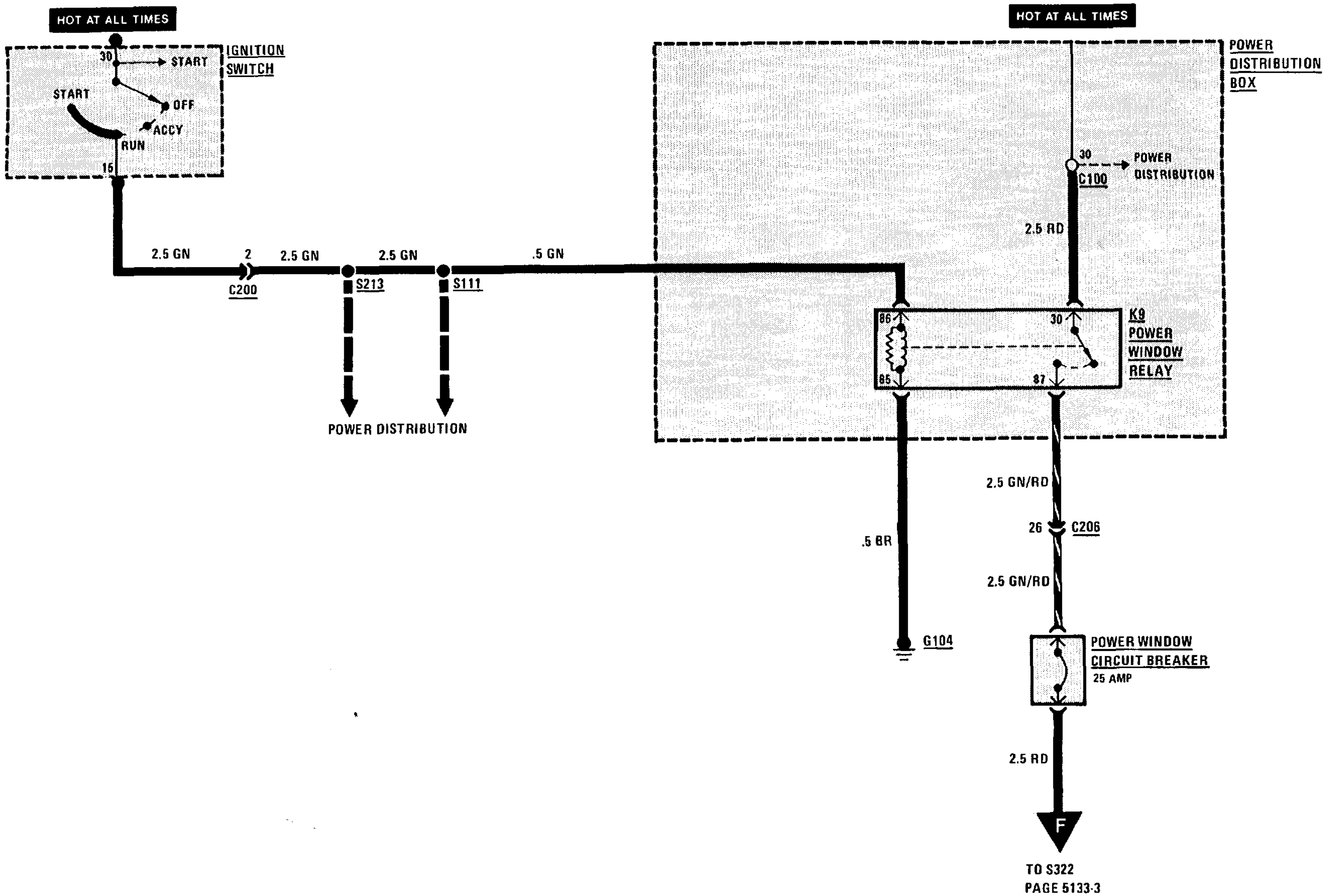
EARLY PRODUCTION



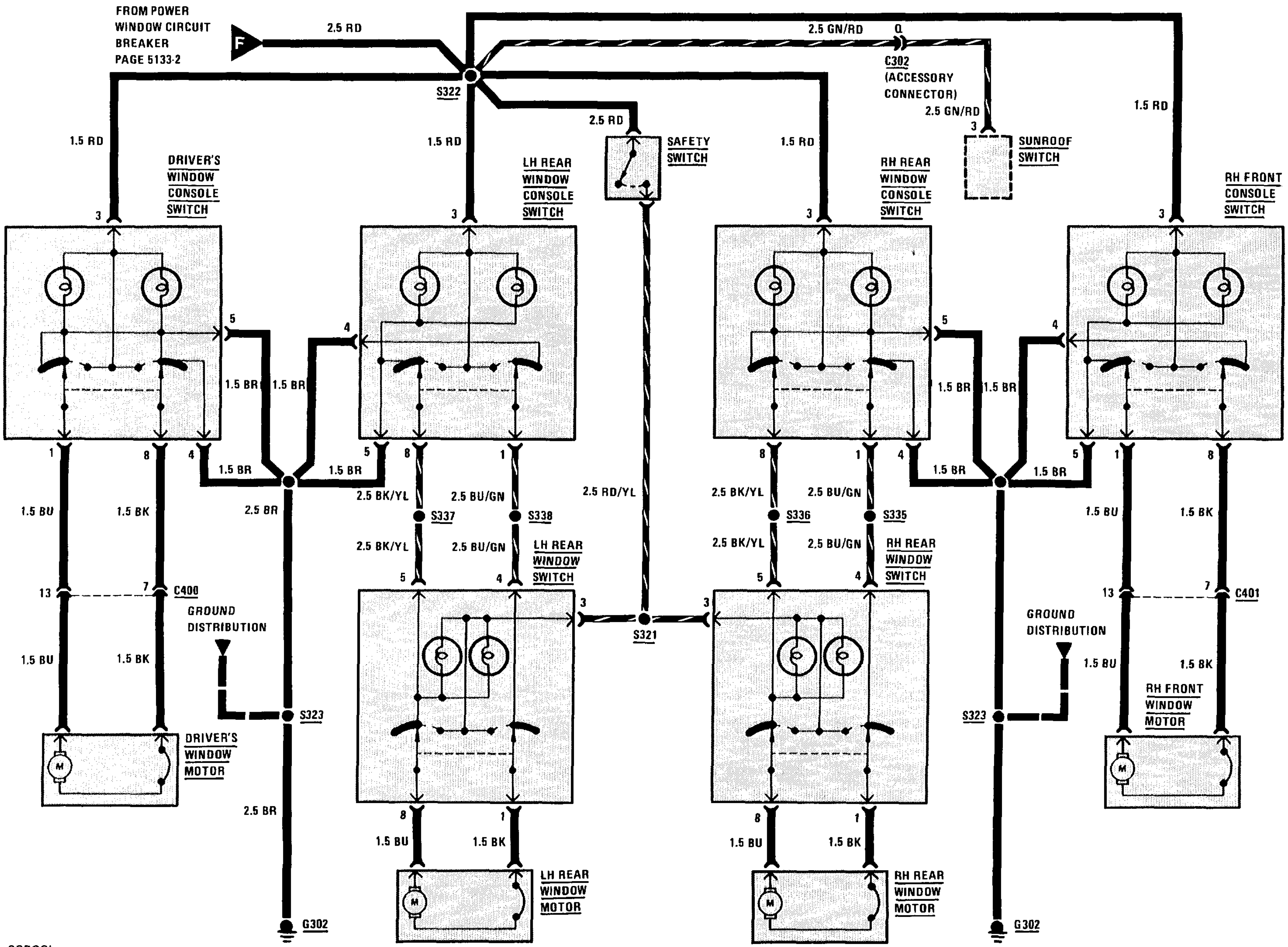
EARLY PRODUCTION



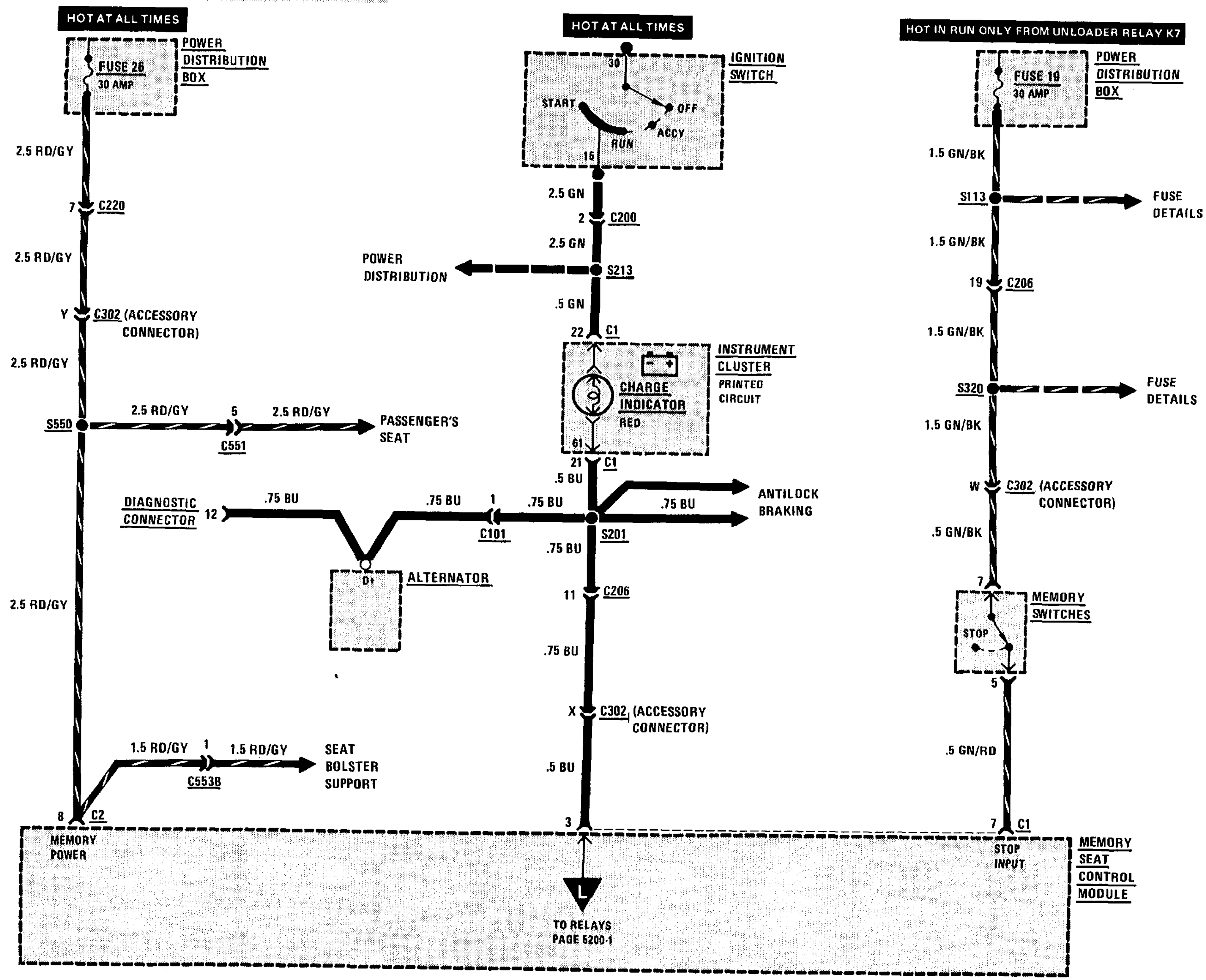
LATE PRODUCTION



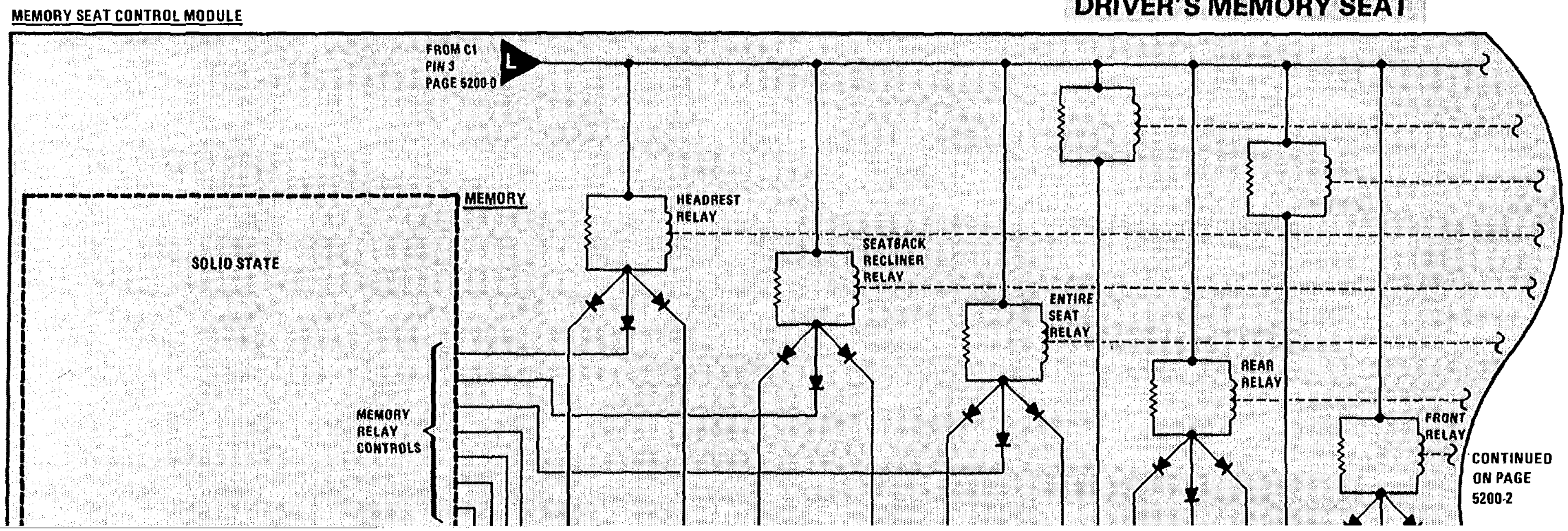
LATE PRODUCTION



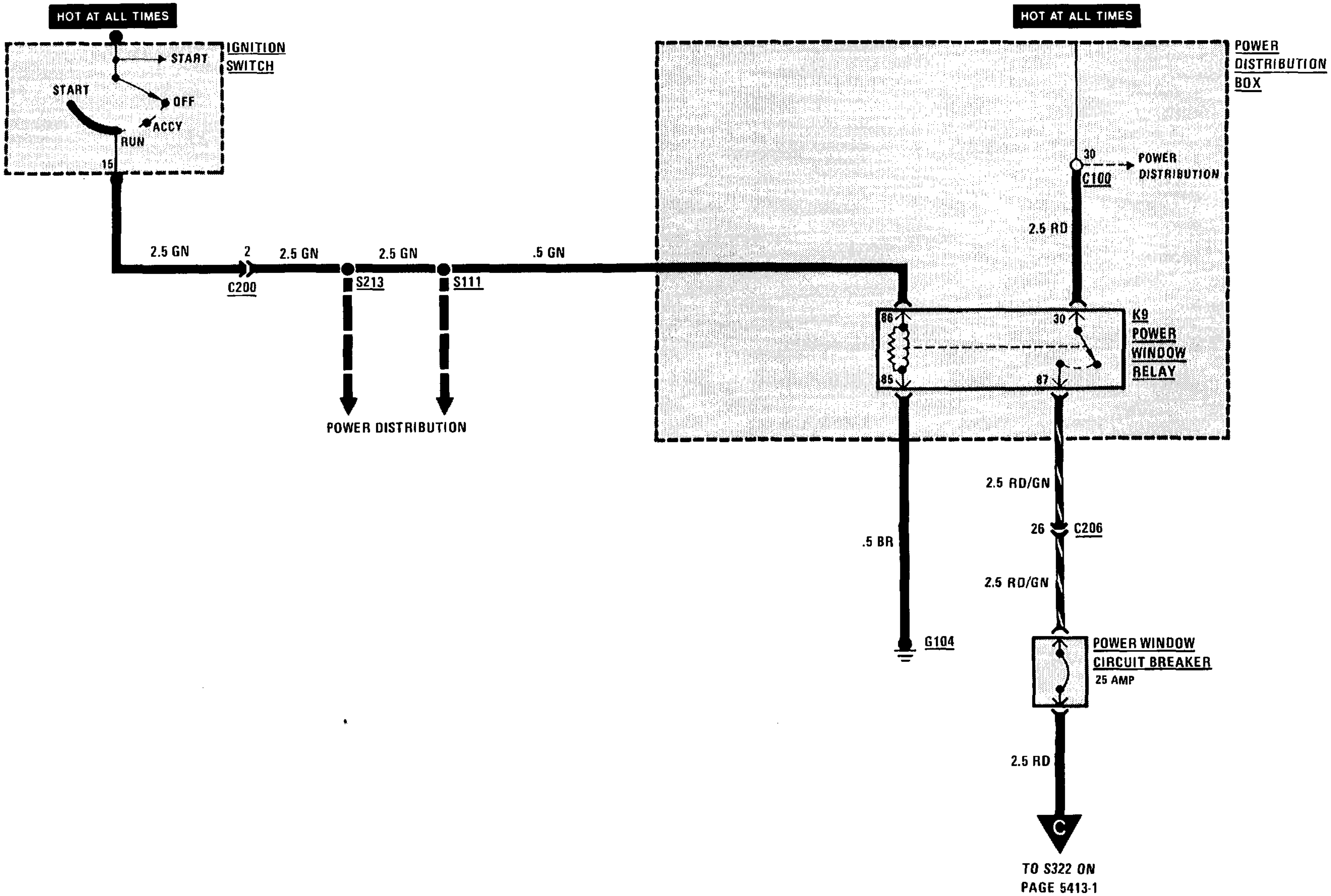
DRIVER'S MEMORY SEAT



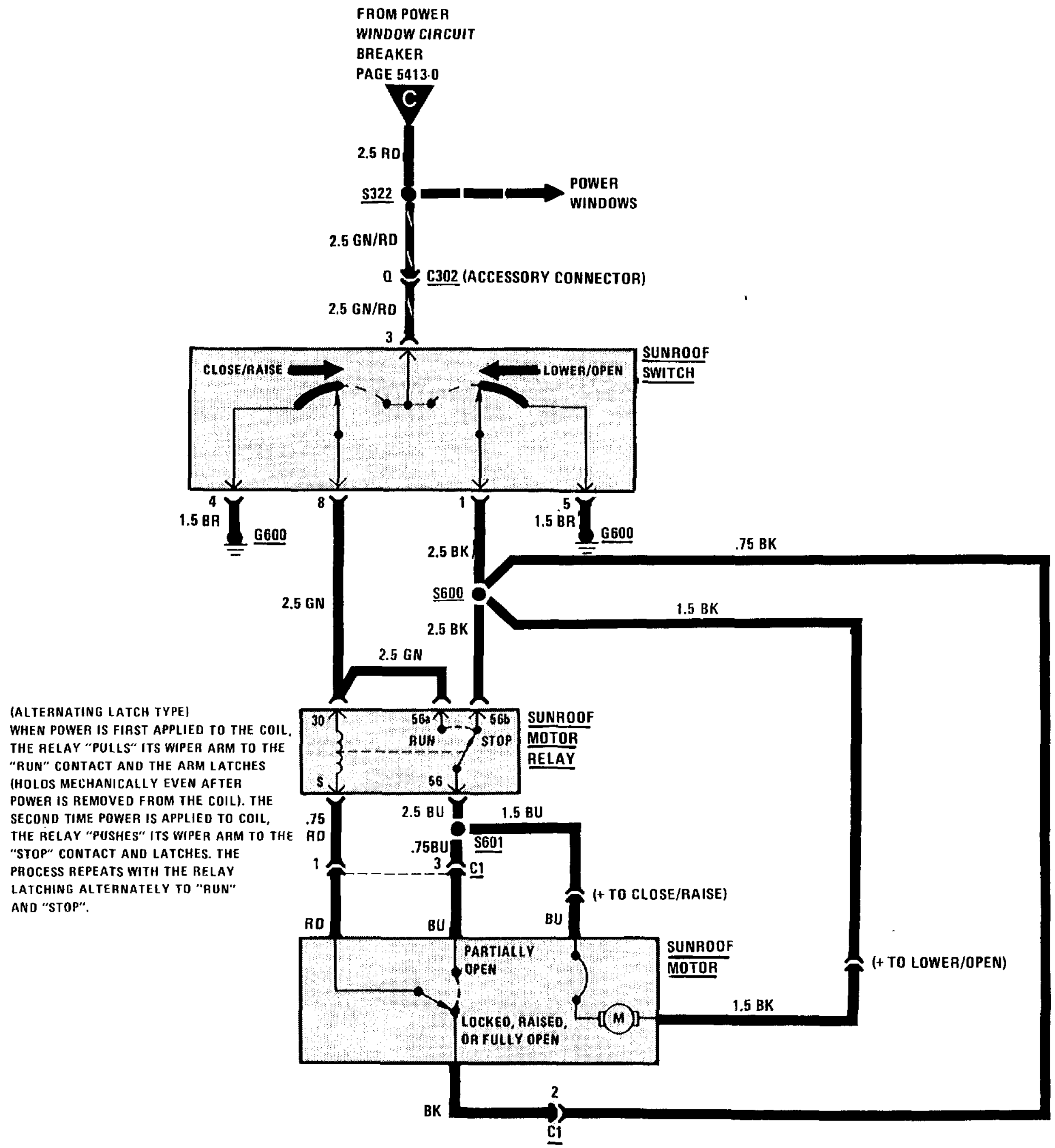
DRIVER'S MEMORY SEAT



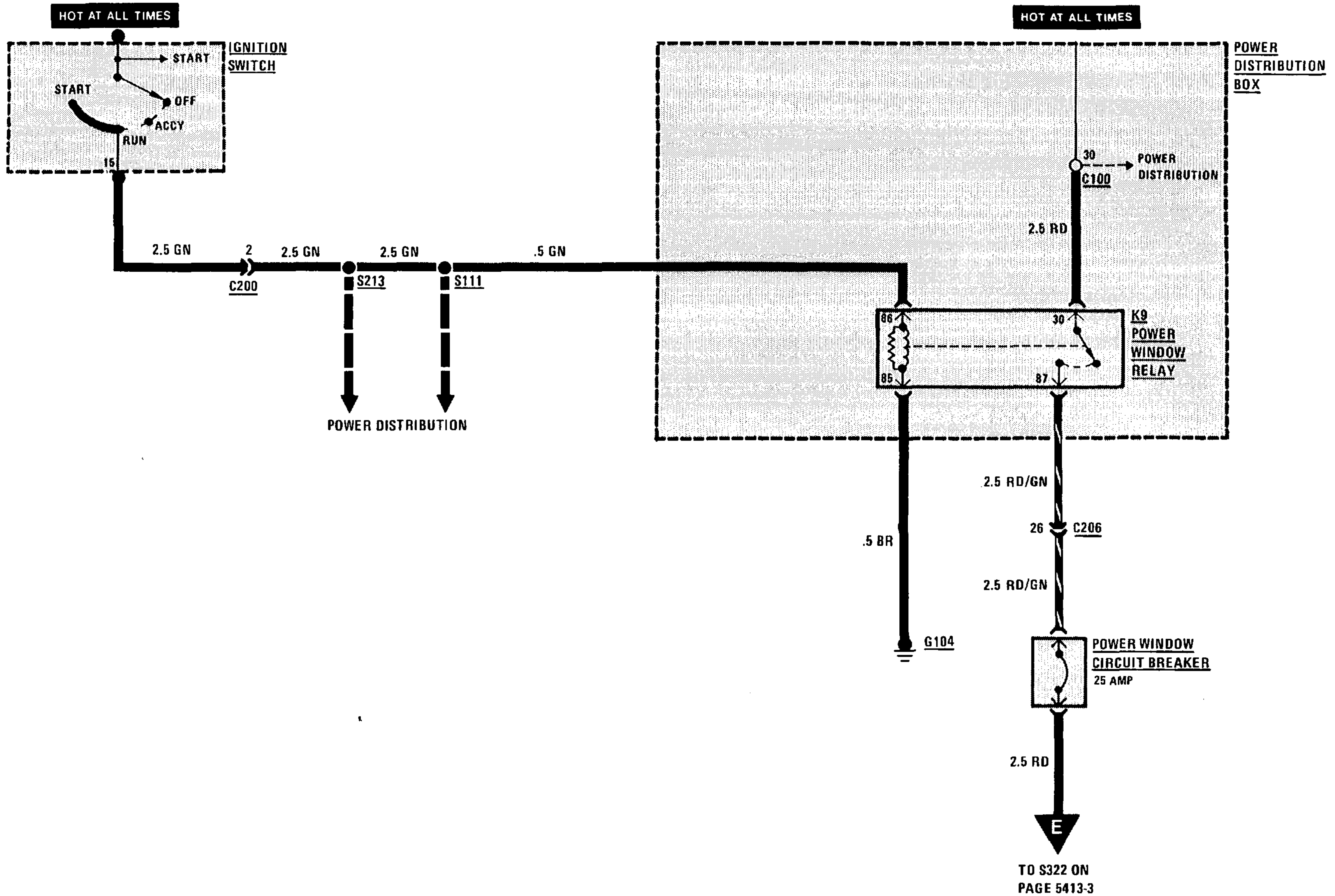
EARLY PRODUCTION



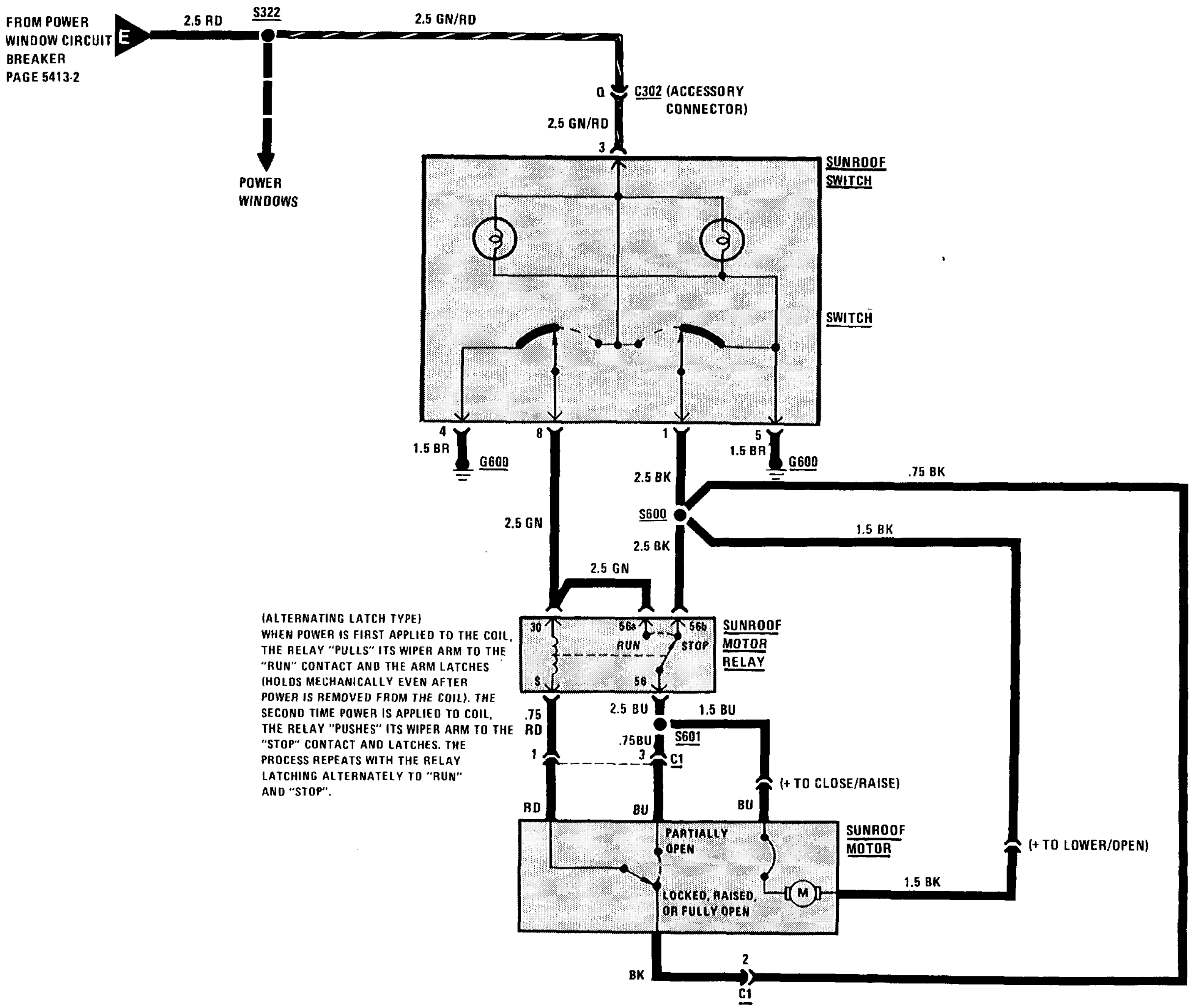
EARLY PRODUCTION



LATE PRODUCTION

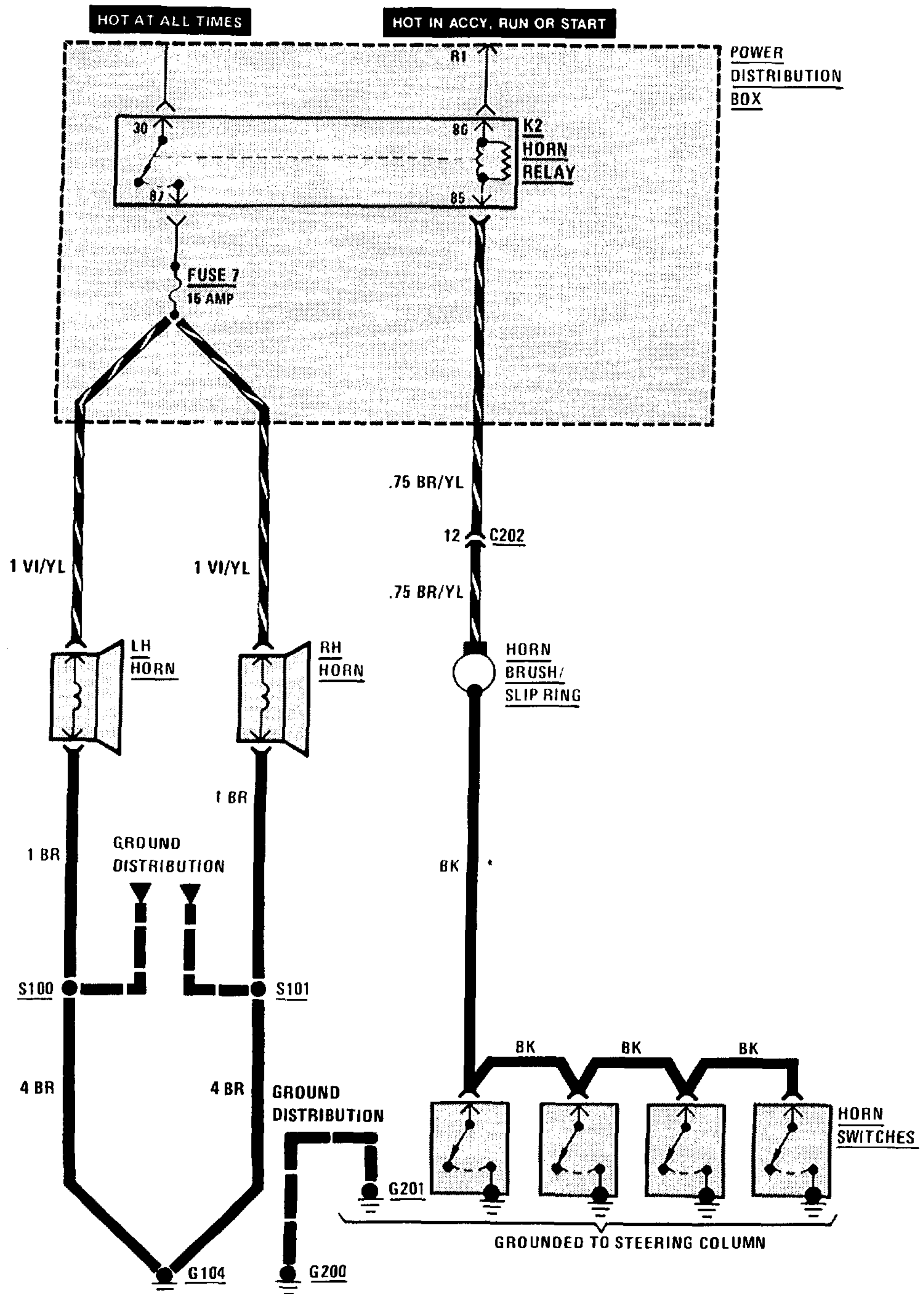


LATE PRODUCTION

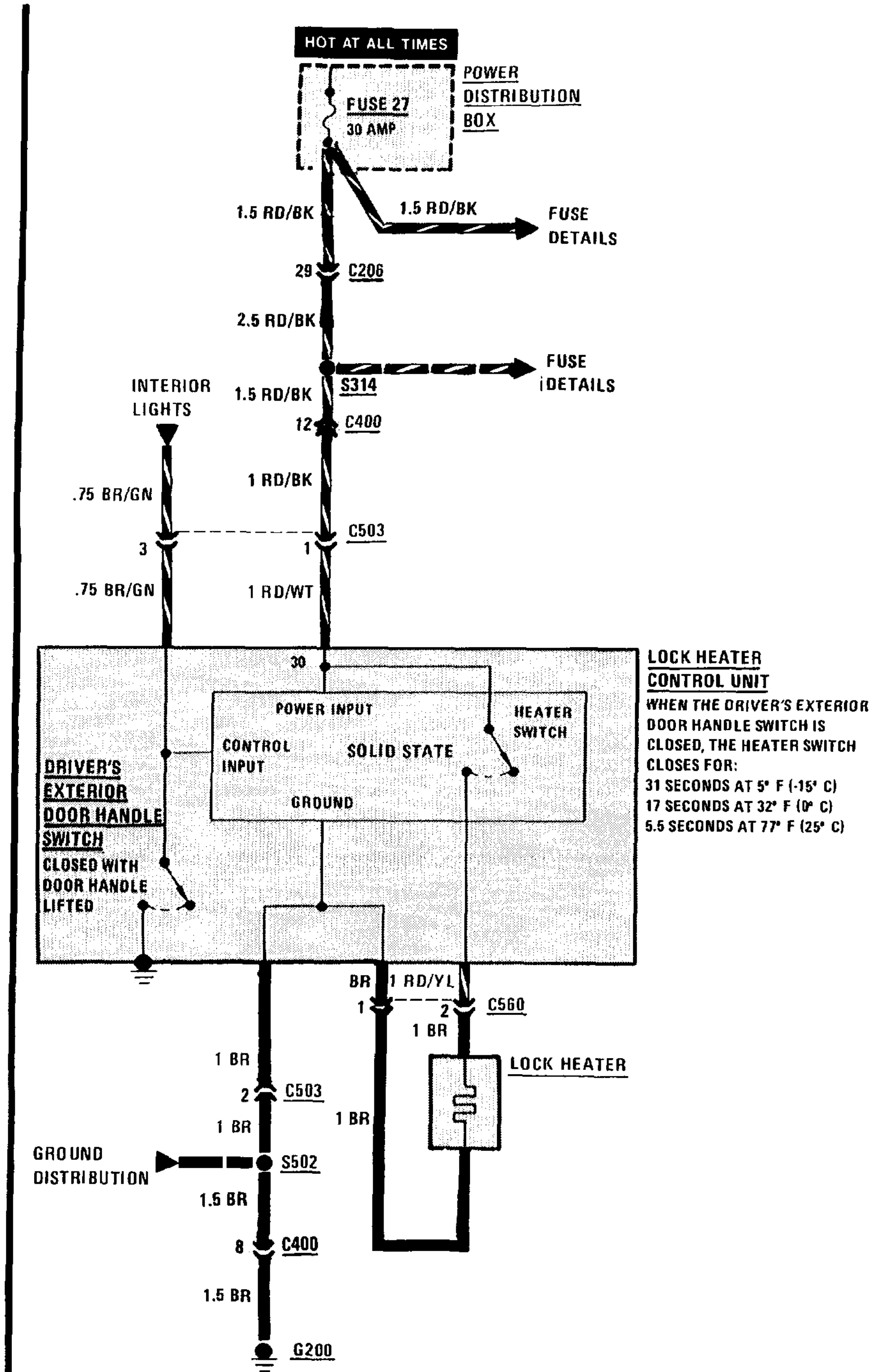


(ALTERNATING LATCH TYPE)
WHEN POWER IS FIRST APPLIED TO THE COIL, THE RELAY "PULLS" ITS WIPER ARM TO THE "RUN" CONTACT AND THE ARM LATCHES (HOLDS MECHANICALLY EVEN AFTER POWER IS REMOVED FROM THE COIL). THE SECOND TIME POWER IS APPLIED TO COIL, THE RELAY "PUSHES" ITS WIPER ARM TO THE "STOP" CONTACT AND LATCHES. THE PROCESS REPEATS WITH THE RELAY LATCHING ALTERNATELY TO "RUN" AND "STOP".

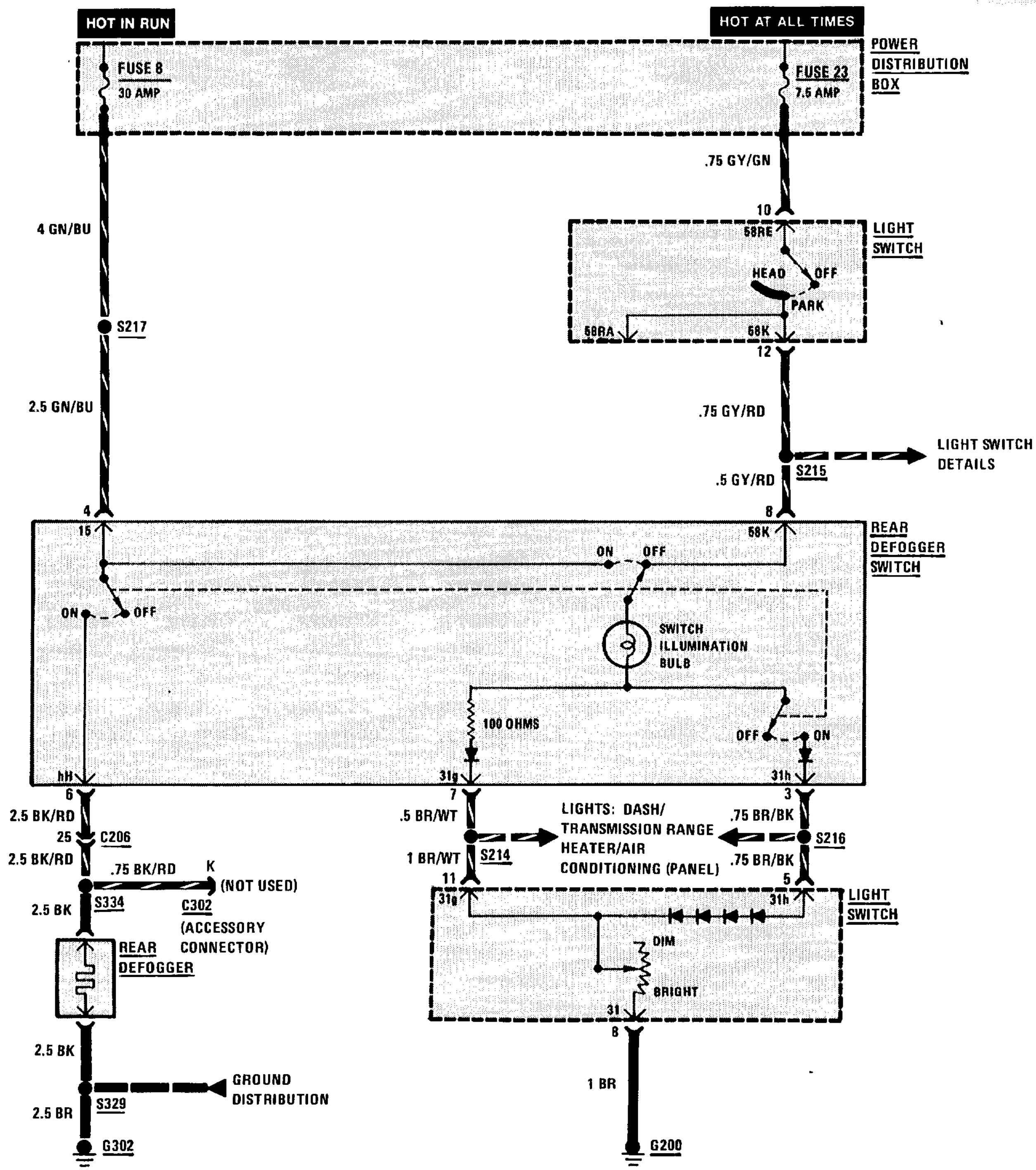
HORN



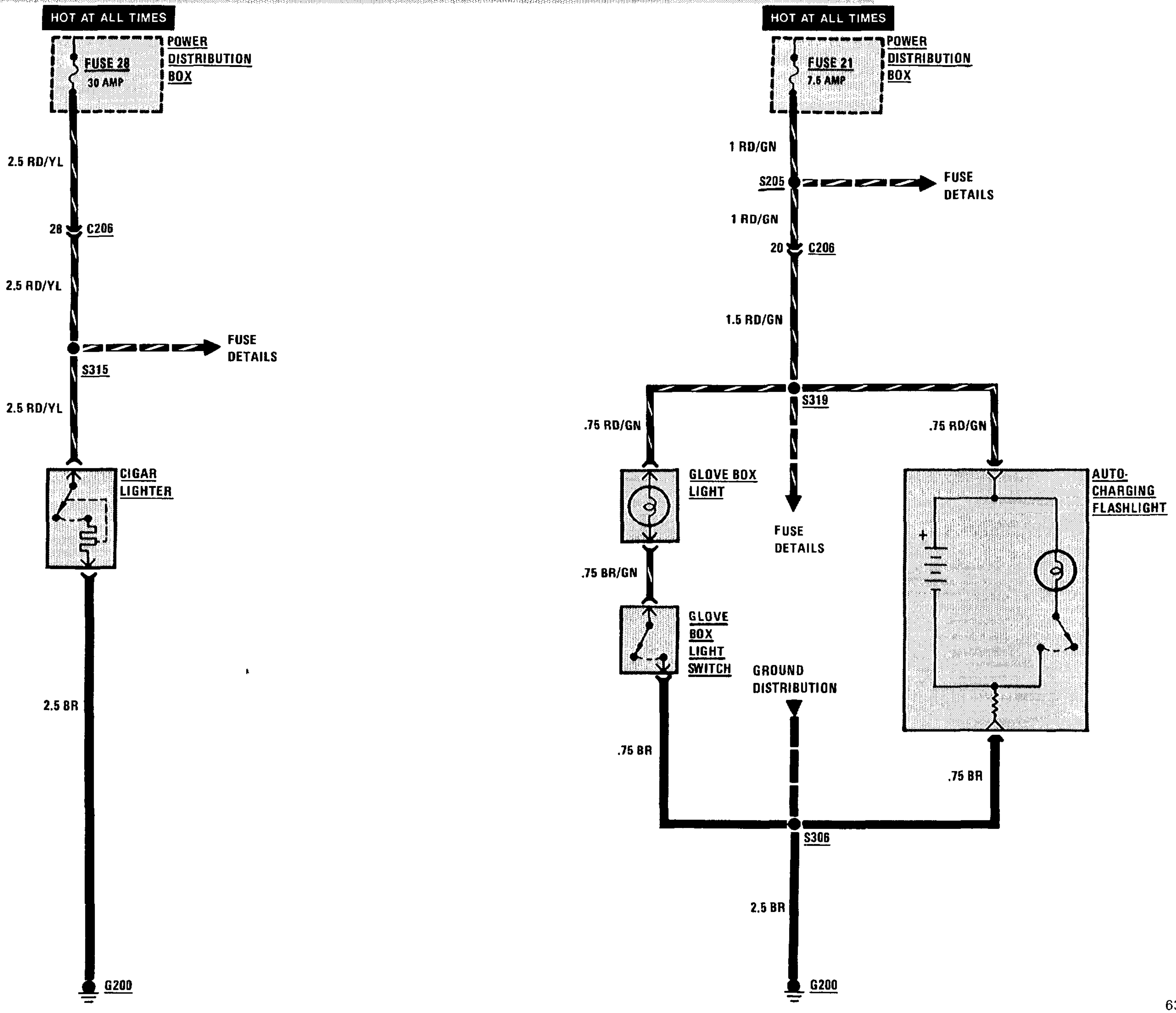
HEATED DOOR LOCK



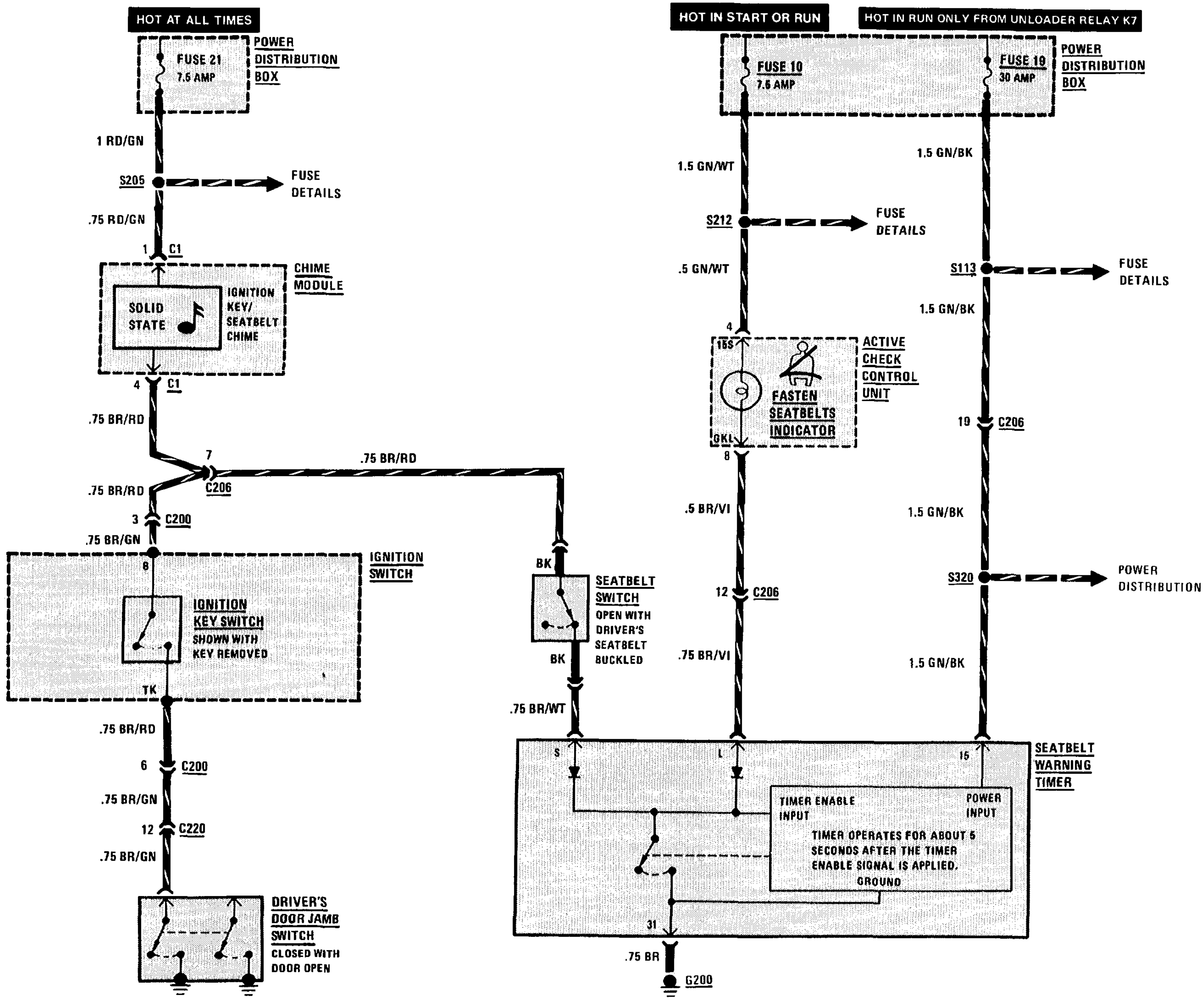
REAR DEFOGGER



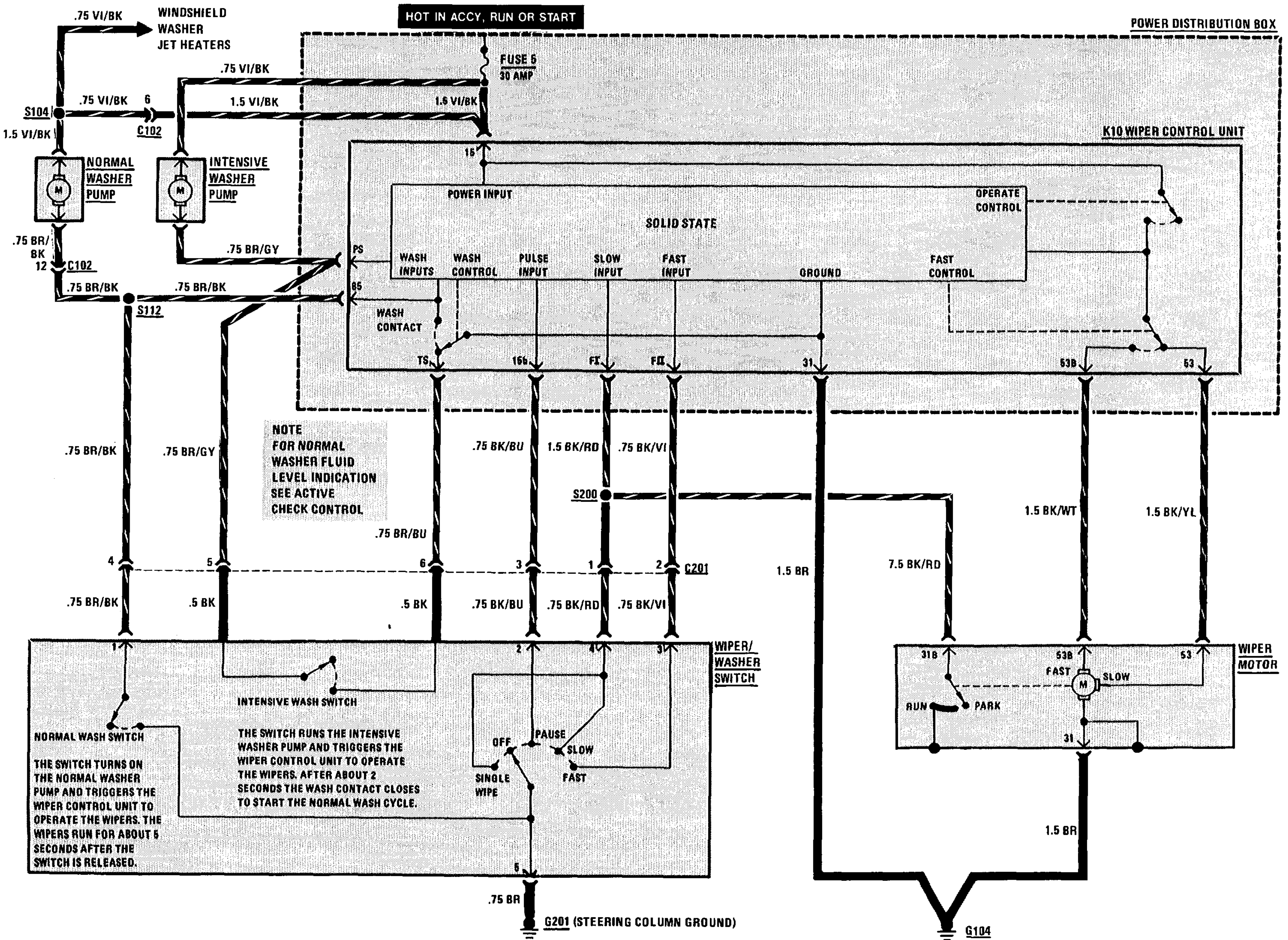
CIGAR LIGHTER/GLOVE BOX LIGHT/AUTO-CHARGING FLASHLIGHT

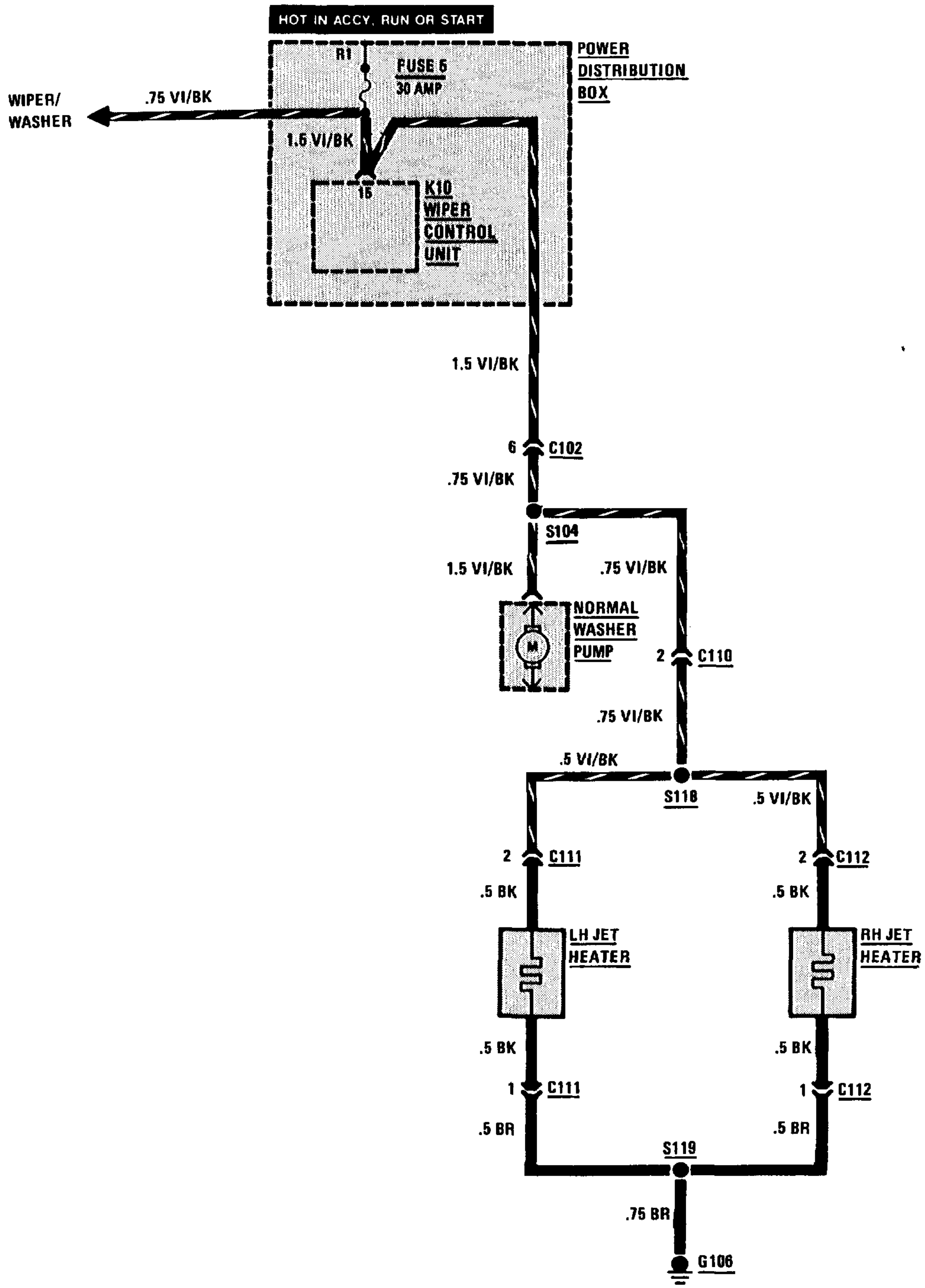


6131-0 IGNITION KEY WARNING/SEATBELT WARNING

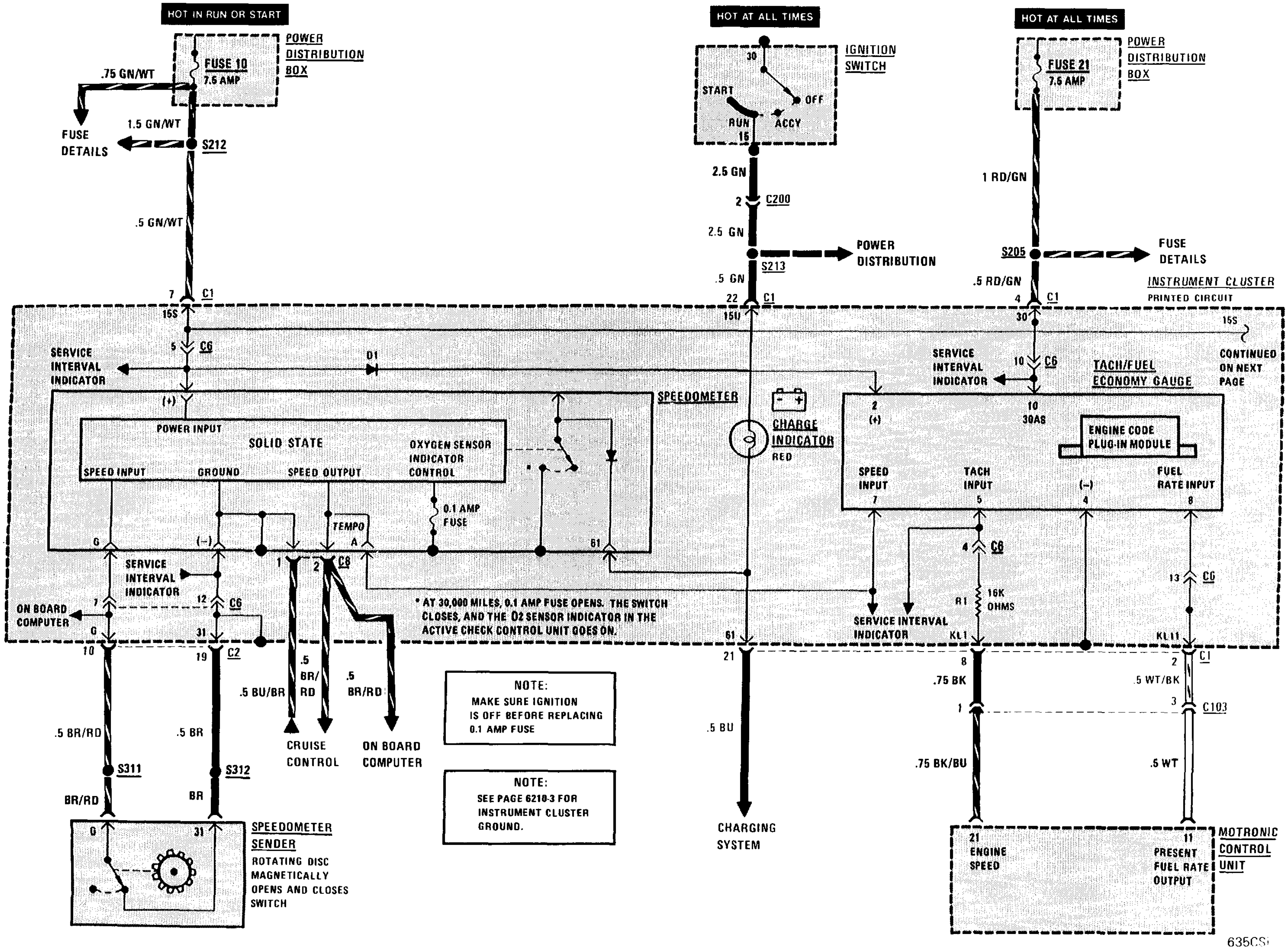


635CSi

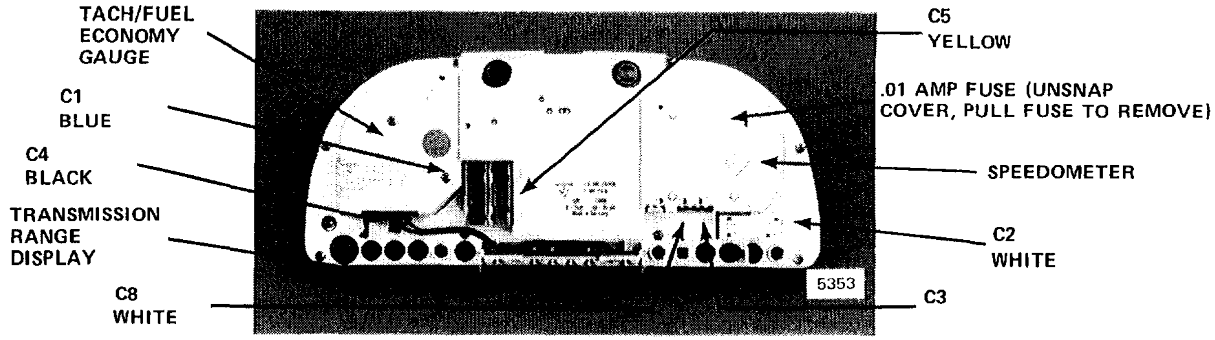

HOT IN ACCY, RUN OR START
POWER DISTRIBUTION BOX
FUSE 5
30 AMP
.75 VI/BK
WINDSHIELD WASHER JET HEATERS
S104
1.5 VI/BK
C102
NORMAL WASHER PUMP
INTENSIVE WASHER PUMP
.75 BR/BK
.75 BR/GY
S112
K10 WIPER CONTROL UNIT
POWER INPUT
OPERATE CONTROL
SOLID STATE
WASH INPUTS
WASH CONTROL
PULSE INPUT
SLOW INPUT
FAST INPUT
GROUND
FAST CONTROL
WASH CONTACT
PS
85
15
TS
156
FI
FII
31
53B
53
NOTE
FOR NORMAL WASHER FLUID LEVEL INDICATION SEE ACTIVE CHECK CONTROL
.75 BK/BU
1.5 BK/RD
.75 BK/VI
.75 BR/BU
S200
1.5 BK/WT
1.5 BK/YL
7.5 BK/RD
1.5 BR
C201
.5 BK
.75 BK/RD
WIPER/WASHER SWITCH
INTENSIVE WASH SWITCH
NORMAL WASH SWITCH
THE SWITCH TURNS ON THE NORMAL WASHER PUMP AND TRIGGERS THE WIPER CONTROL UNIT TO OPERATE THE WIPERS. THE WIPERS RUN FOR ABOUT 5 SECONDS AFTER THE SWITCH IS RELEASED.
THE SWITCH RUNS THE INTENSIVE WASHER PUMP AND TRIGGERS THE WIPER CONTROL UNIT TO OPERATE THE WIPERS. AFTER ABOUT 2 SECONDS THE WASH CONTACT CLOSES TO START THE NORMAL WASH CYCLE.
OFF
PAUSE
SLOW
FAST
SINGLE WIPE
WIPER MOTOR
31B
53B
53
FAST
SLOW
RUN
PARK
.75 BR
G201 (STEERING COLUMN GROUND)
G104


HOT IN ACCY, RUN OR START
R1
FUSE 5
30 AMP
POWER
DISTRIBUTION
BOX
WIPER/
WASHER
.75 VI/BK
1.5 VI/BK
15
K10
WIPER
CONTROL
UNIT
1.5 VI/BK
6
C102
.75 VI/BK
S104
1.5 VI/BK
.75 VI/BK
NORMAL
WASHER
PUMP
M
2
C110
.75 VI/BK
.5 VI/BK
S118
.5 VI/BK
2
C111
2
C112
.5 BK
.5 BK
LH JET
HEATER
RH JET
HEATER
.5 BK
.5 BK
1
C111
1
C112
.5 BR
.5 BR
S119
.75 BR
G106

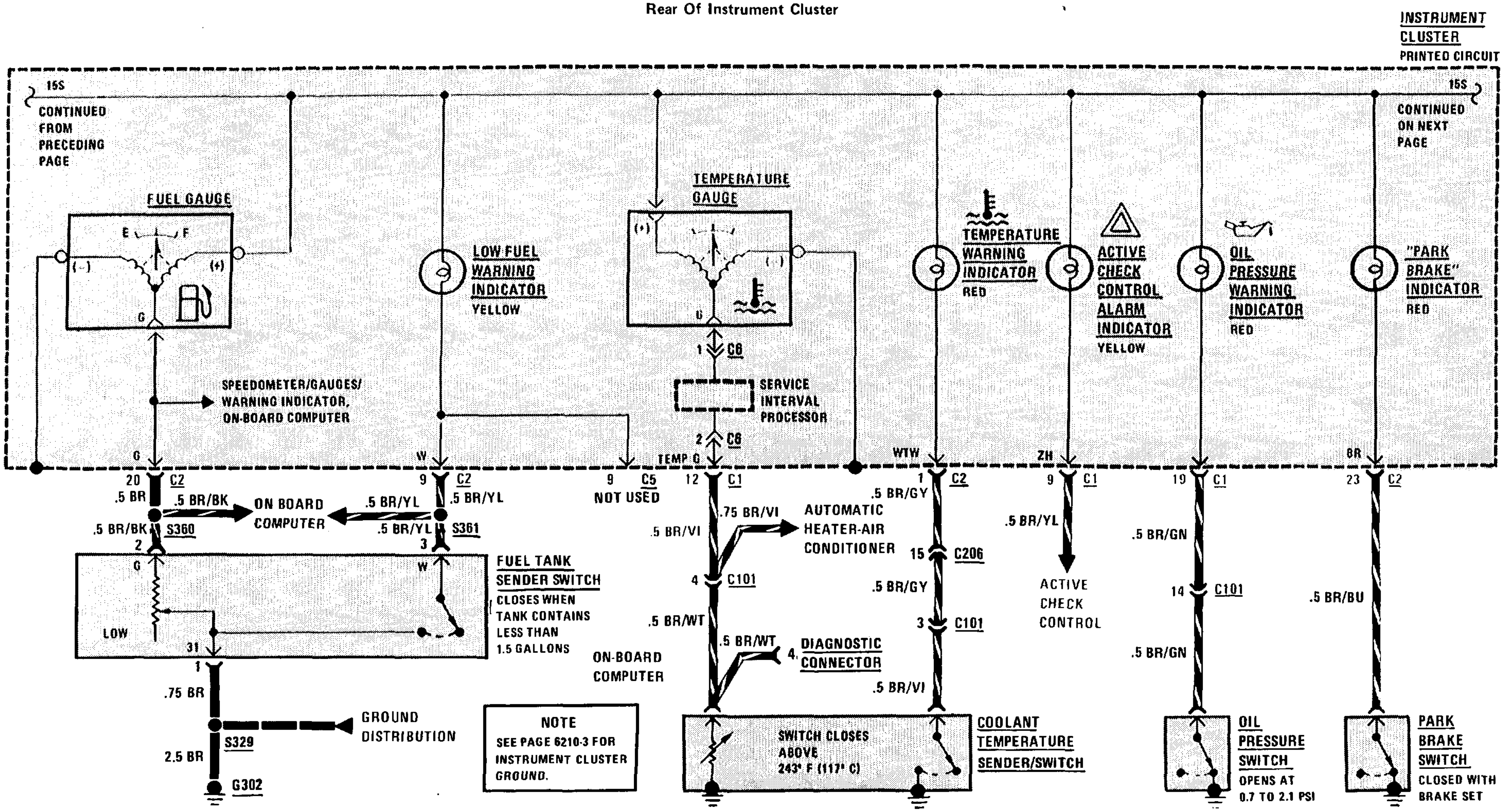
SPEEDOMETER/GAUGES/WARNING INDICATORS EARLY PRODUCTION



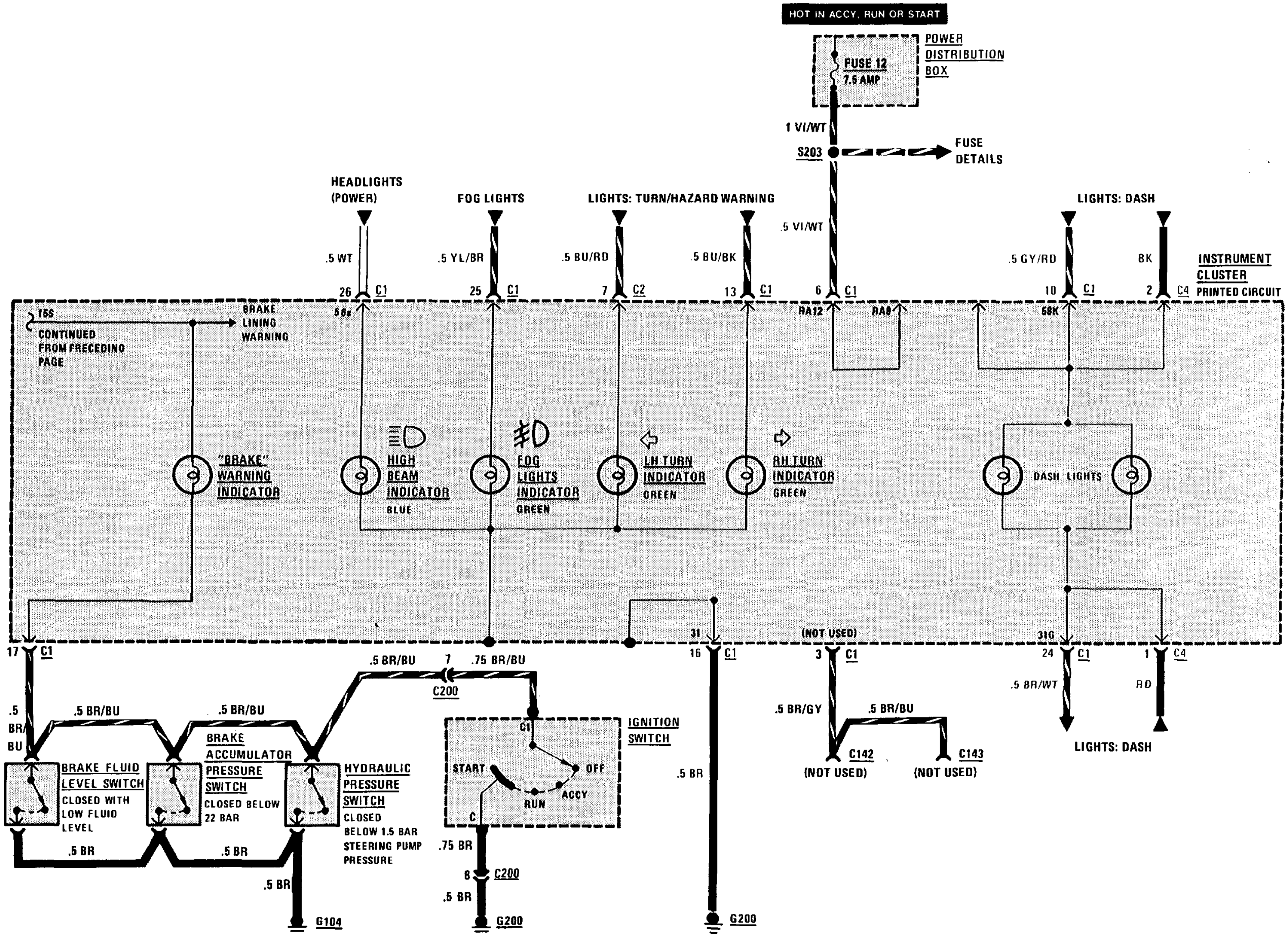
GAUGES/WARNING INDICATORS EARLY PRODUCTION



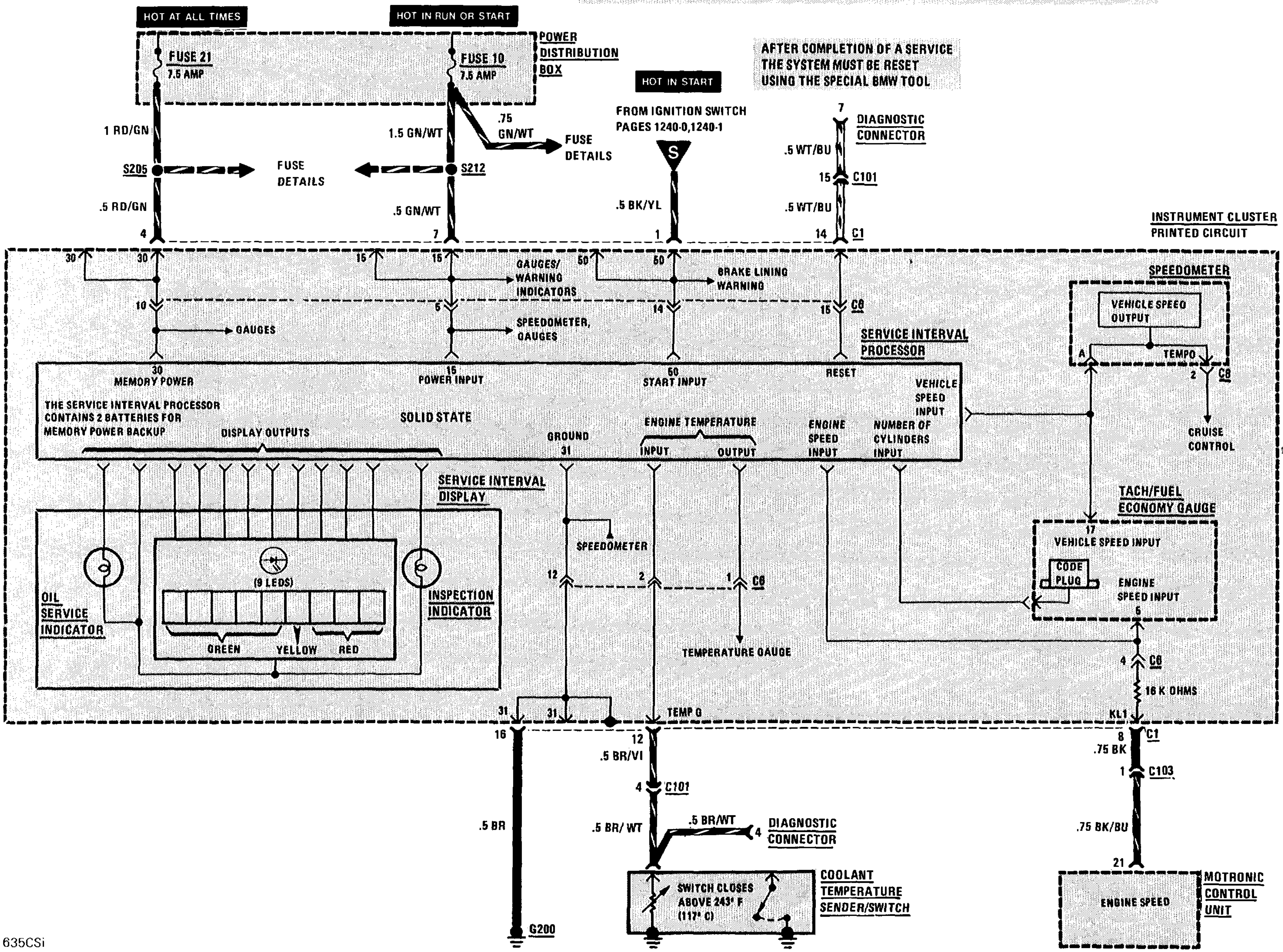
Rear Of Instrument Cluster



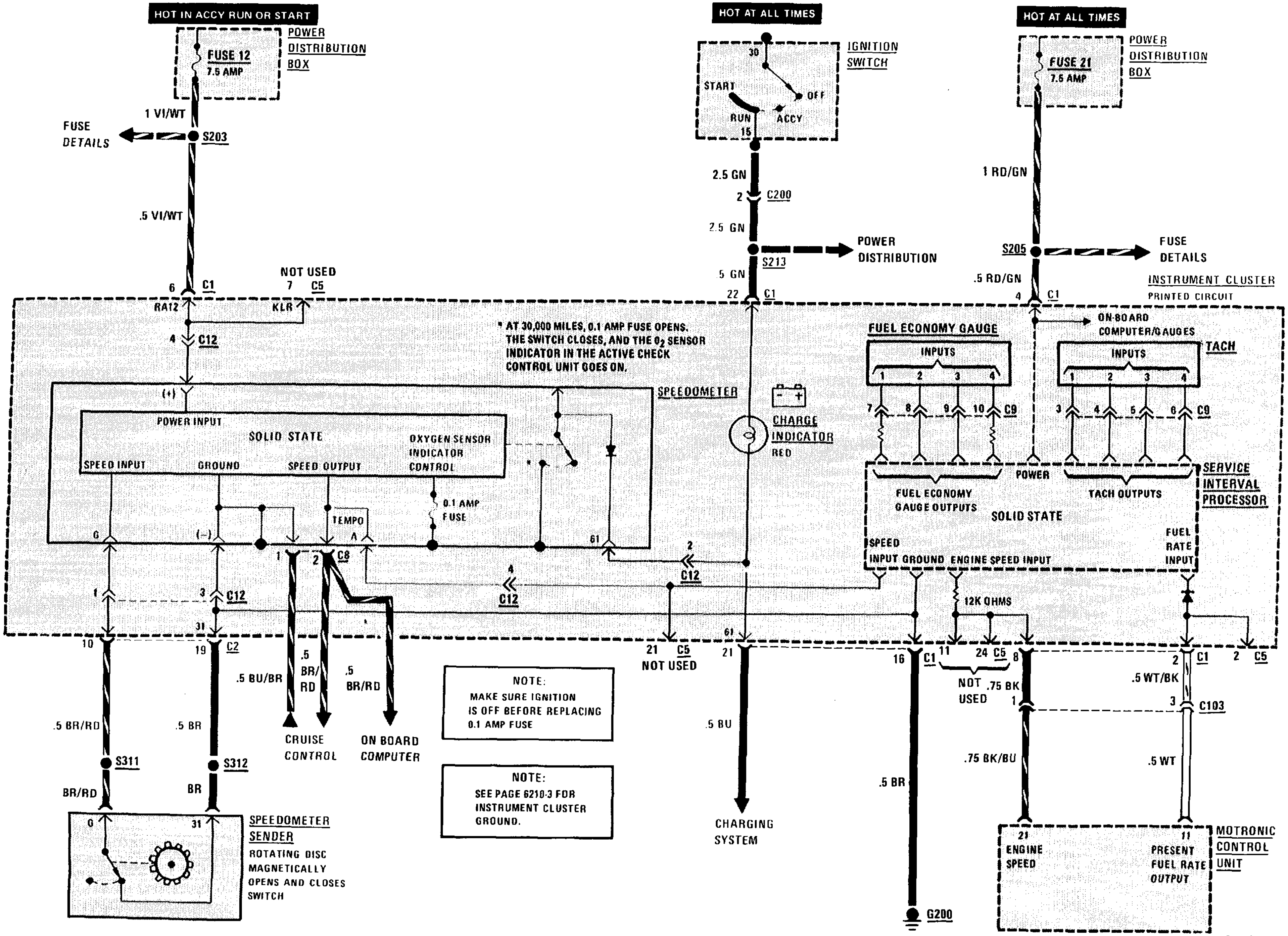
WARNING INDICATORS EARLY PRODUCTION



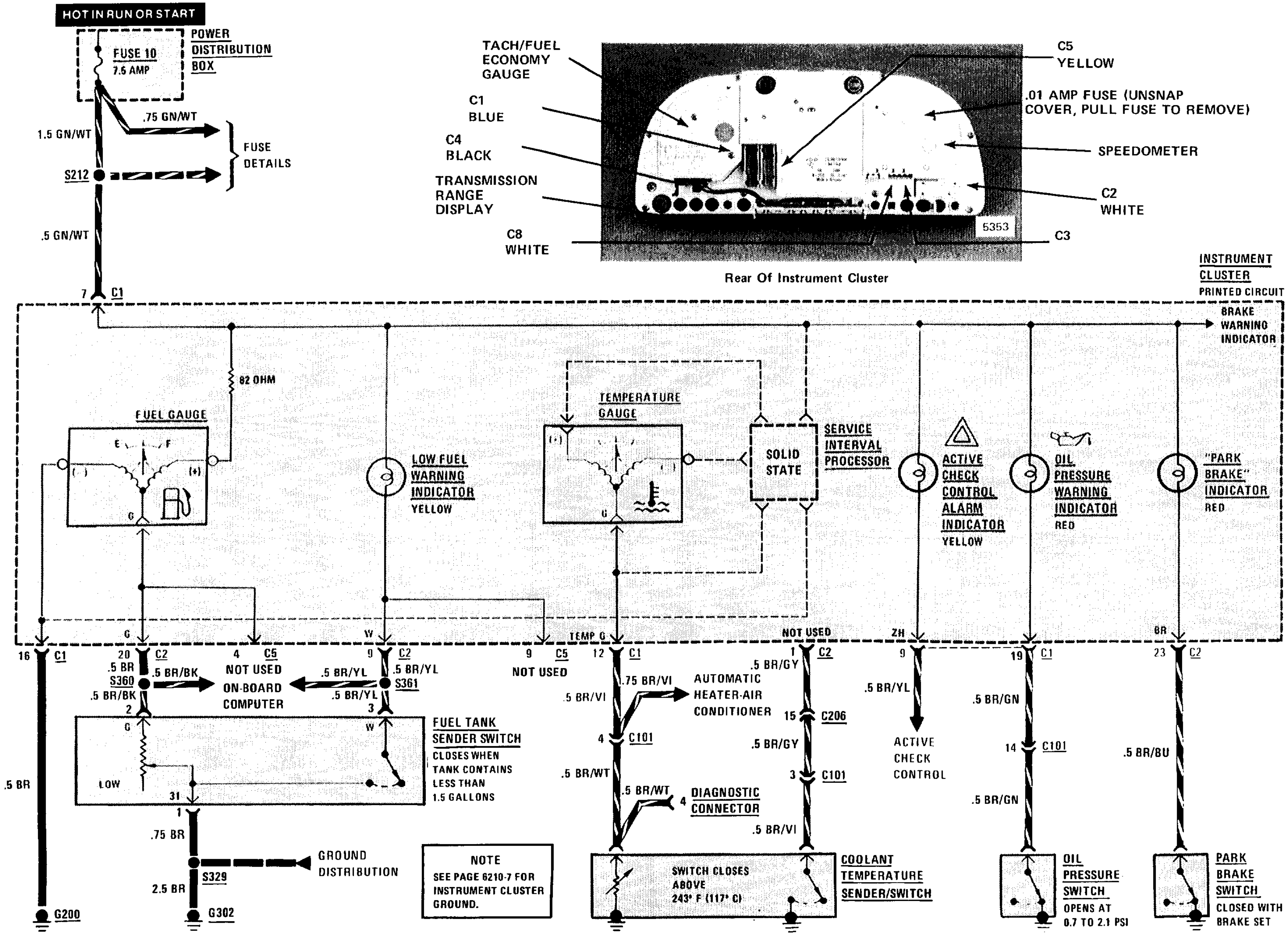
SERVICE INTERVAL INDICATOR EARLY PRODUCTION



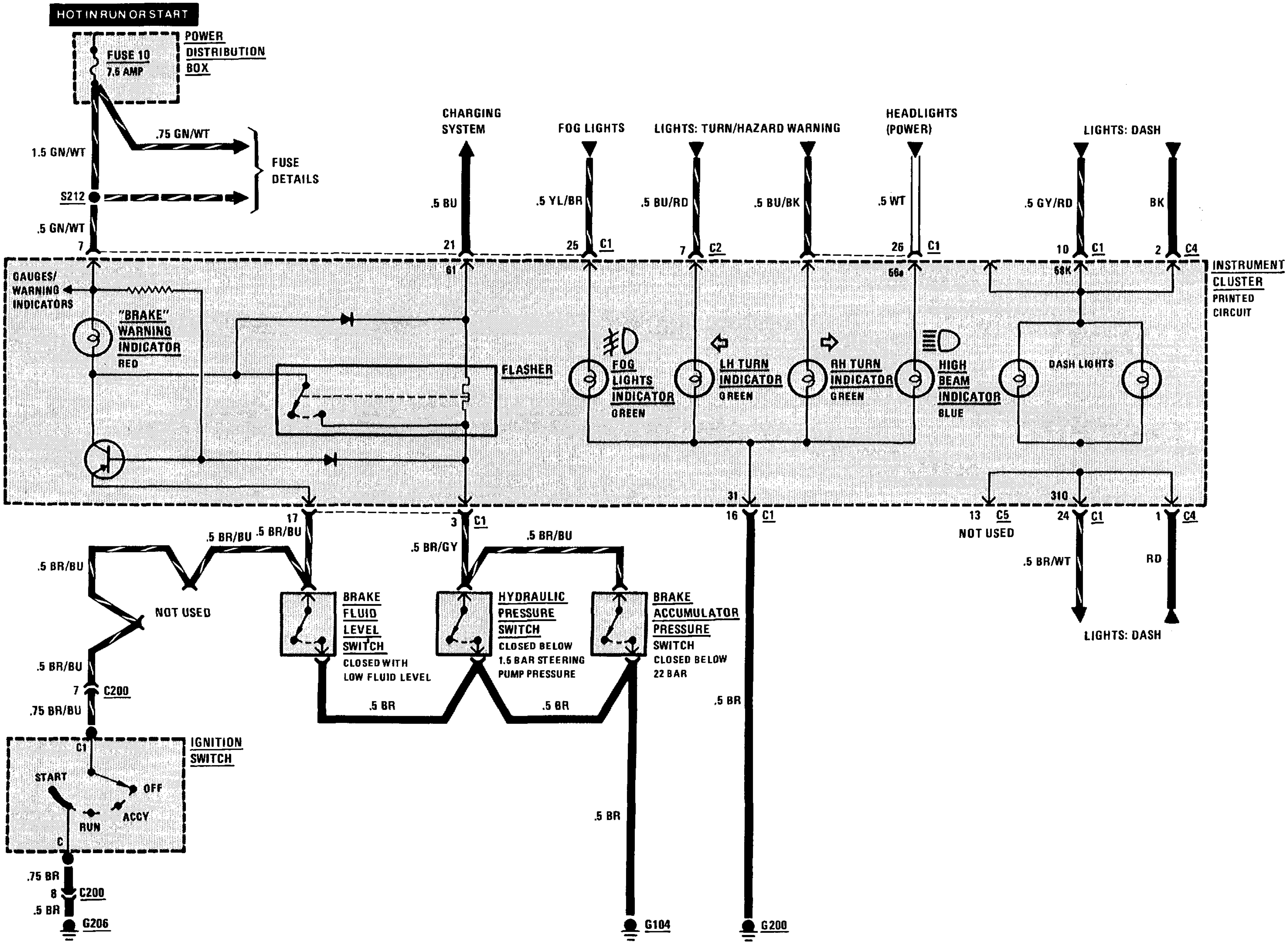
SPEEDOMETER/GAUGES/WARNING INDICATORS LATE PRODUCTION



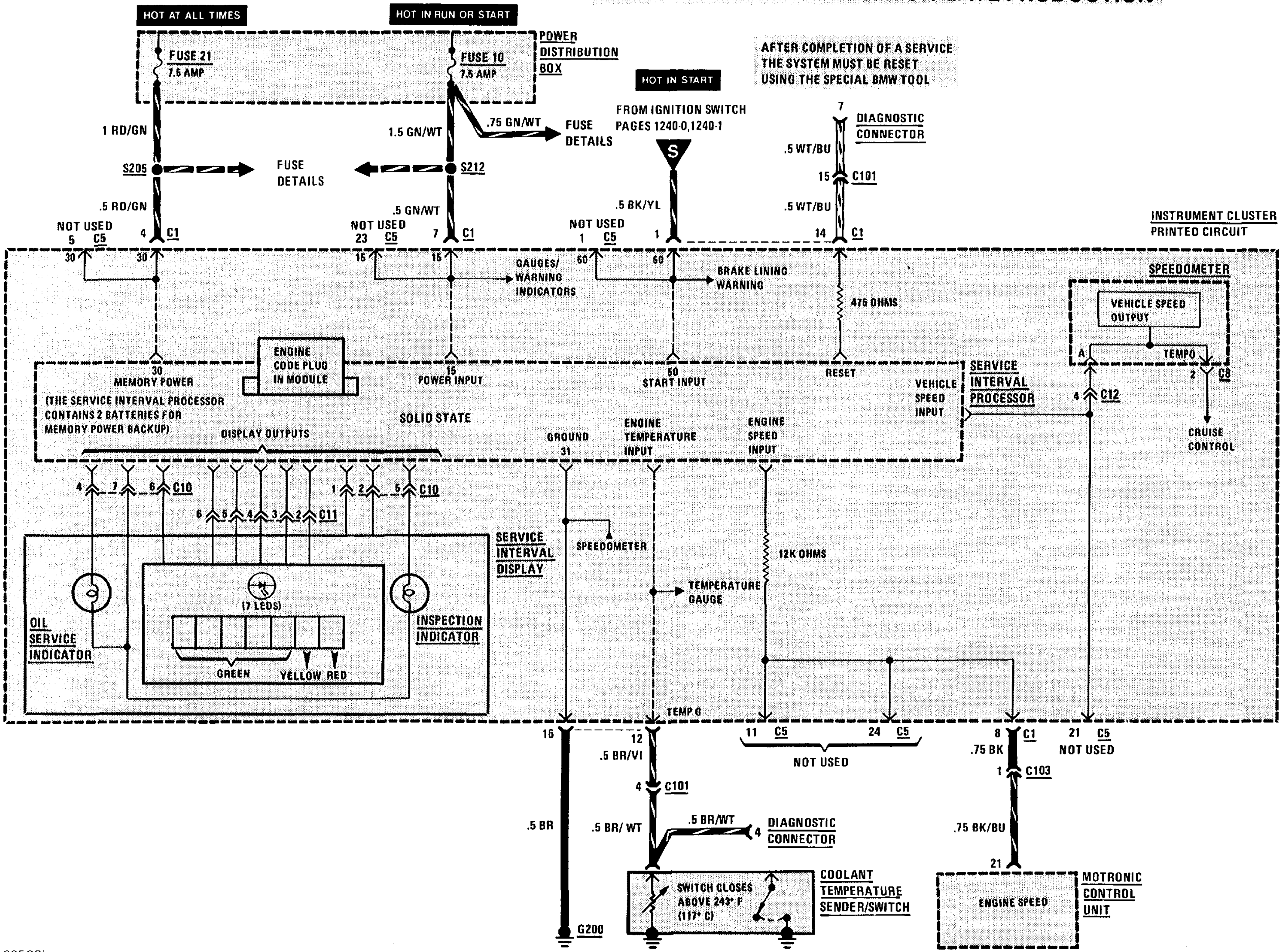
GAUGES/WARNING INDICATORS LATE PRODUCTION



WARNING INDICATORS LATE PRODUCTION



SERVICE INTERVAL INDICATOR LATE PRODUCTION



ACTIVE CHECK CONTROL

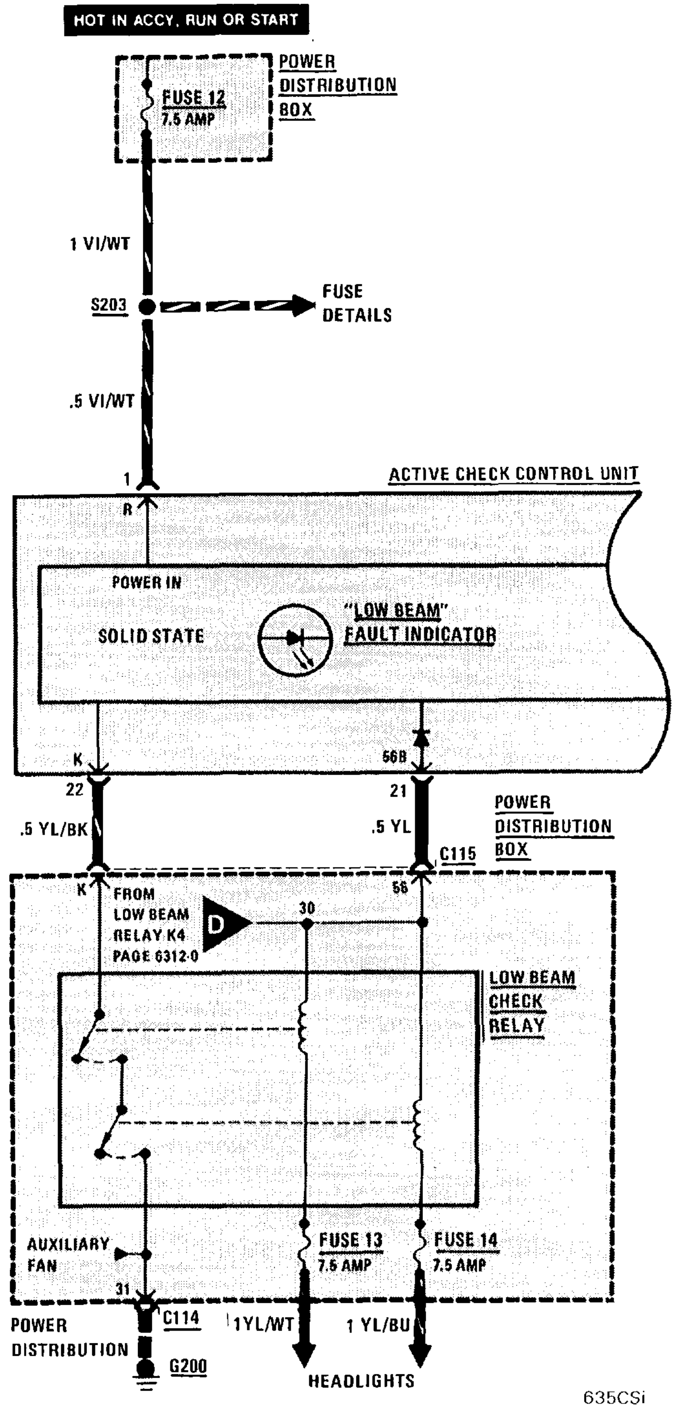
1. When the Ignition Switch is initially placed in "Run," the Active Check Control Arm Indicator flashes, and the Active Check Control Unit Brake Light LED and panel light illuminate for test purposes. Depressing the brake pedal clears the display.

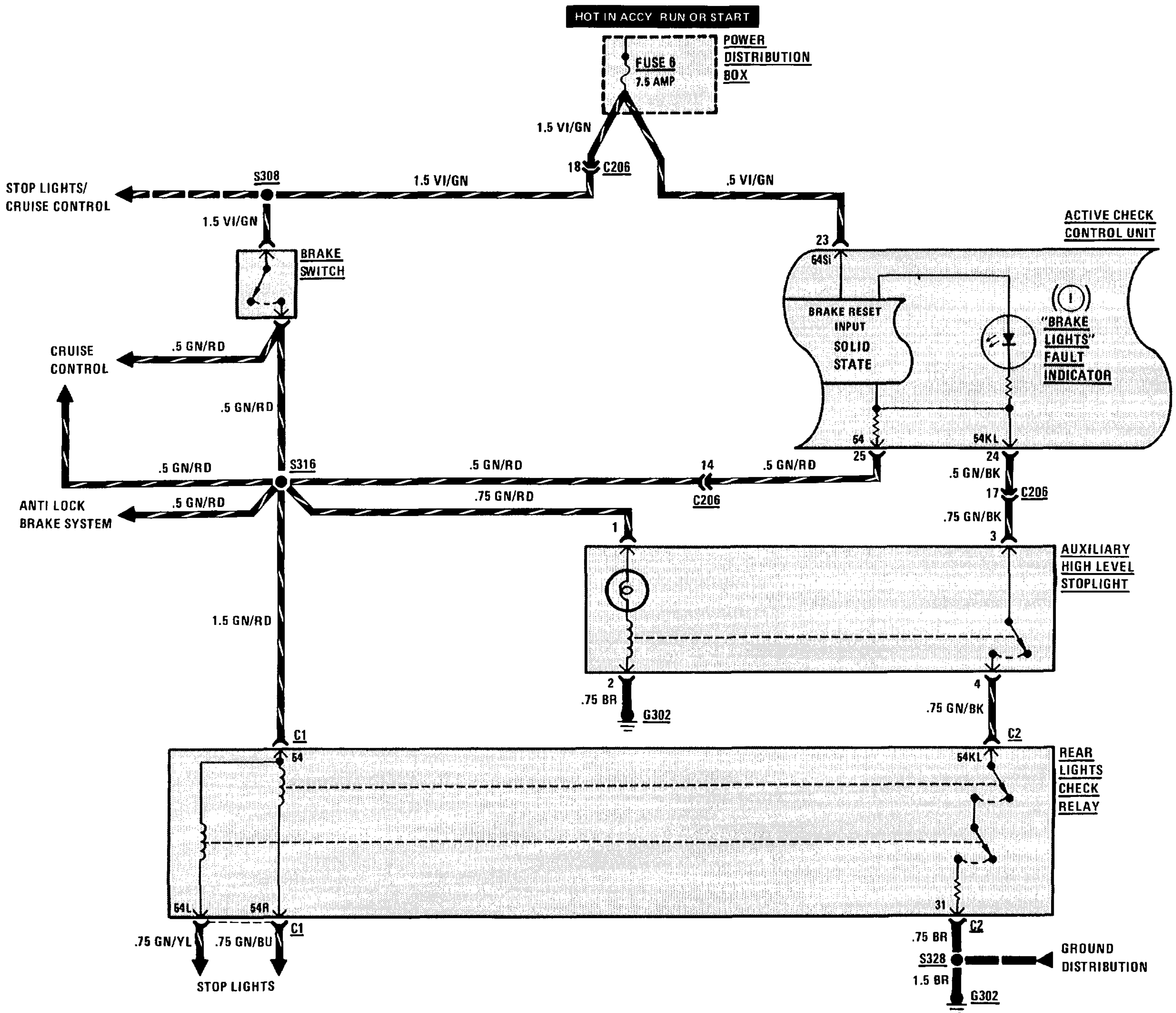
2. When the Ignition Switch is placed in "Run," fault monitoring begins. To monitor the low beams, rear lights, or license lights, those circuits must be on. The brake lights are monitored only while the brake pedal is depressed.

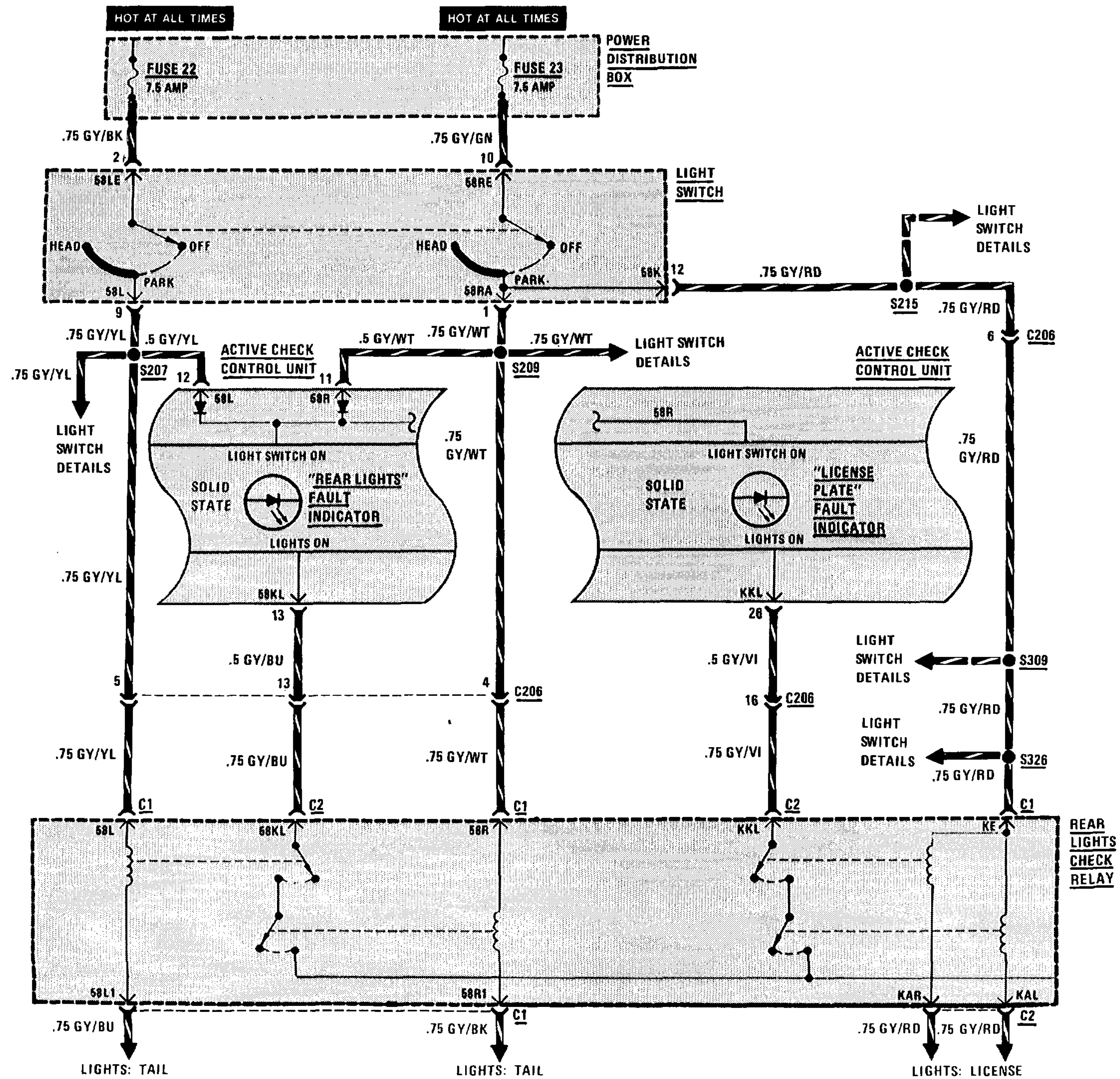
3. When a fault occurs, the alarm indicator flashes, the appropriate LED fault indicator lights, and the panel light goes on for five seconds. Depressing the test button will clear the alarm indicator, but the LED fault indicator remains on.

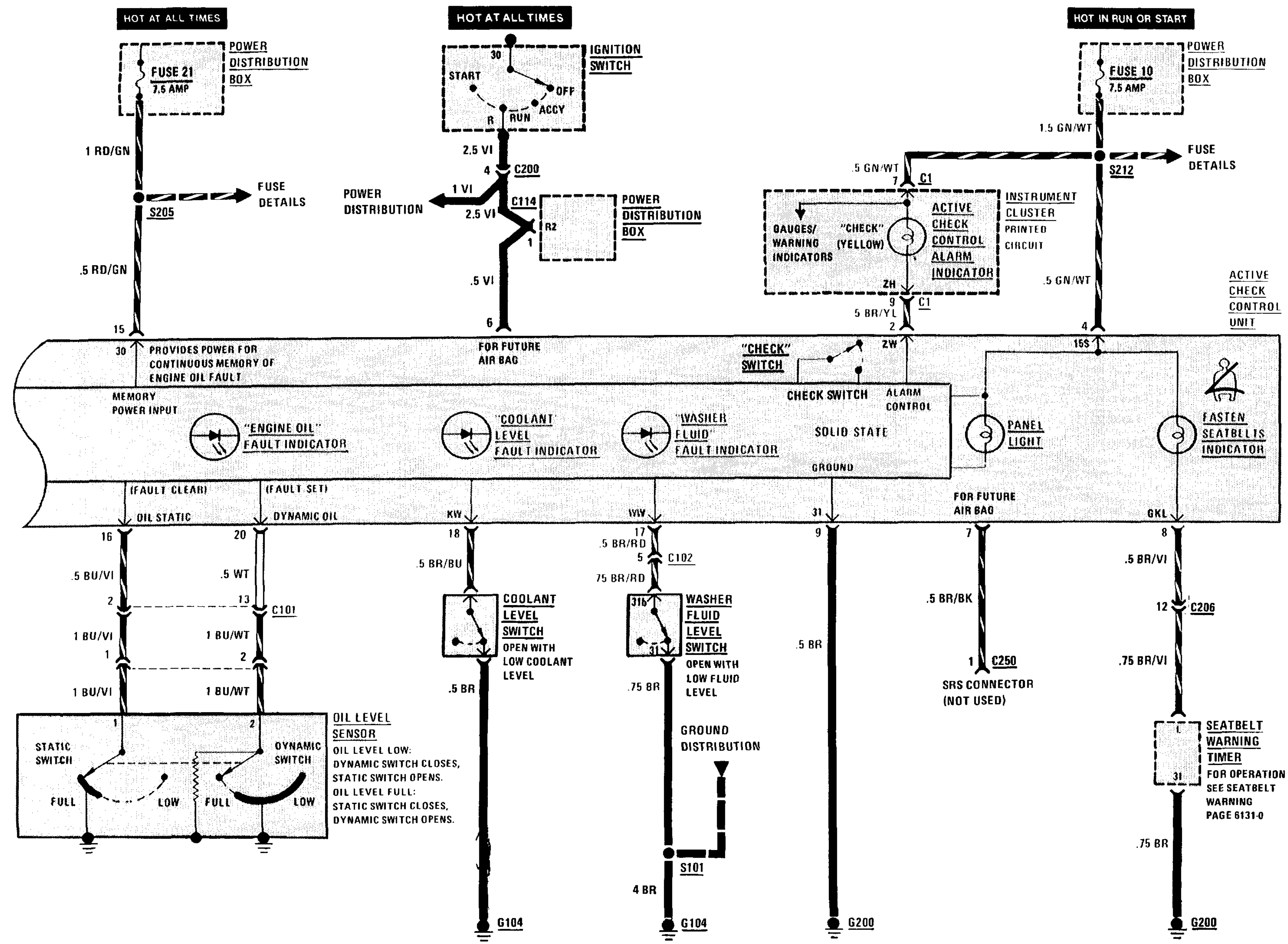
Figure 1 - Active Check Control Unit (Dash, Left Of Steering Column)

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



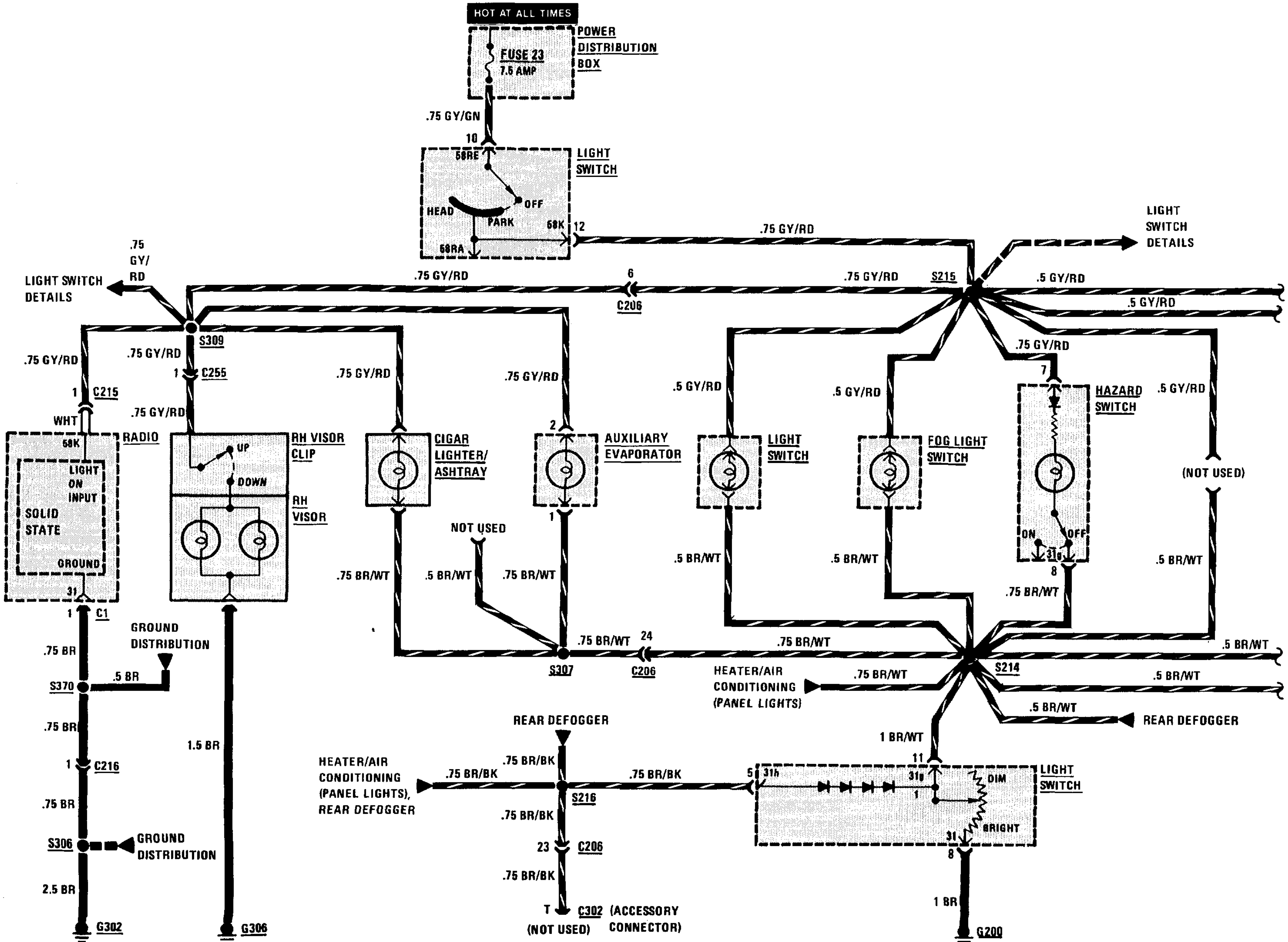

HOT IN ACCY RUN OR START
FUSE 6
7.5 AMP
POWER DISTRIBUTION BOX
1.5 VI/GN
18
C206
1.5 VI/GN
.5 VI/GN
S308
STOP LIGHTS/ CRUISE CONTROL
1.5 VI/GN
BRAKE SWITCH
23
54Si
ACTIVE CHECK CONTROL UNIT
BRAKE RESET INPUT
SOLID STATE
"BRAKE LIGHTS" FAULT INDICATOR
CRUISE CONTROL
.5 GN/RD
.5 GN/RD
54
25
54KL
24
.5 GN/RD
S316
.5 GN/RD
14
.5 GN/RD
C206
.5 GN/BK
17
C206
ANTI LOCK BRAKE SYSTEM
.5 GN/RD
.75 GN/RD
.75 GN/BK
1
3
AUXILIARY HIGH LEVEL STOPLIGHT
1.5 GN/RD
2
.75 BR
G302
4
.75 GN/BK
C1
C2
54
54KL
REAR LIGHTS CHECK RELAY
54L
54R
31
.75 GN/YL
.75 GN/BU
C1
C2
.75 BR
S328
1.5 BR
G302
GROUND DISTRIBUTION
STOP LIGHTS


HOT AT ALL TIMES
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 22 7.5 AMP
FUSE 23 7.5 AMP
.75 GY/BK
.75 GY/GN
LIGHT SWITCH
58LE
58RE
HEAD
OFF
PARK
58L
58RA
58K
.75 GY/RD
S215
LIGHT SWITCH DETAILS
.75 GY/YL
.5 GY/YL
S207
ACTIVE CHECK CONTROL UNIT
.5 GY/WT
.75 GY/WT
S209
LIGHT SWITCH DETAILS
C206
LIGHT SWITCH ON
SOLID STATE
"REAR LIGHTS" FAULT INDICATOR
LIGHTS ON
58KL
"LICENSE PLATE" FAULT INDICATOR
KKL
.5 GY/BU
.5 GY/VI
S309
S326
.75 GY/BU
.75 GY/VI
REAR LIGHTS CHECK RELAY
58R
KE
58L1
58R1
KAR
KAL
.75 GY/BK
LIGHTS: TAIL
LIGHTS: TAIL
LIGHTS: LICENSE

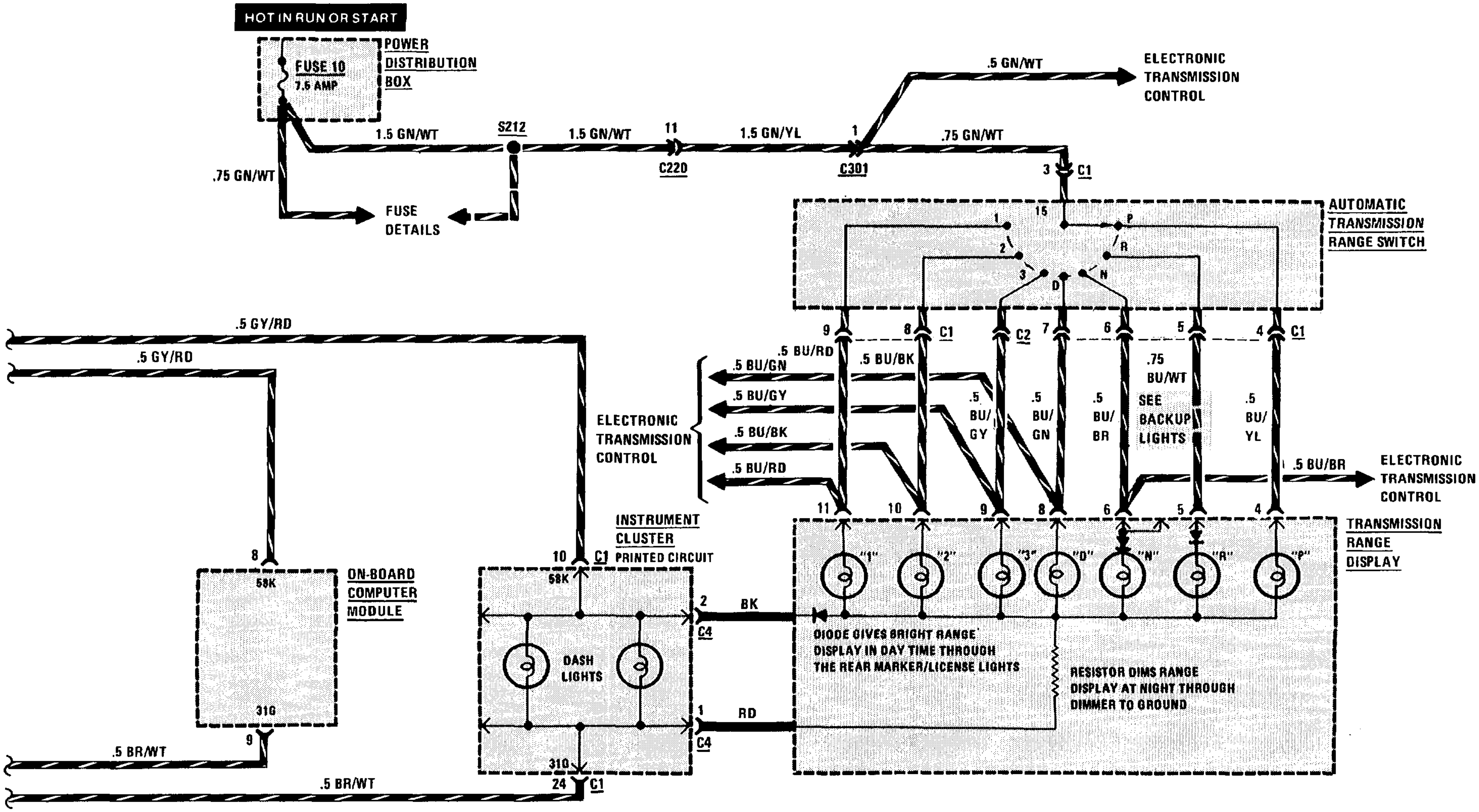


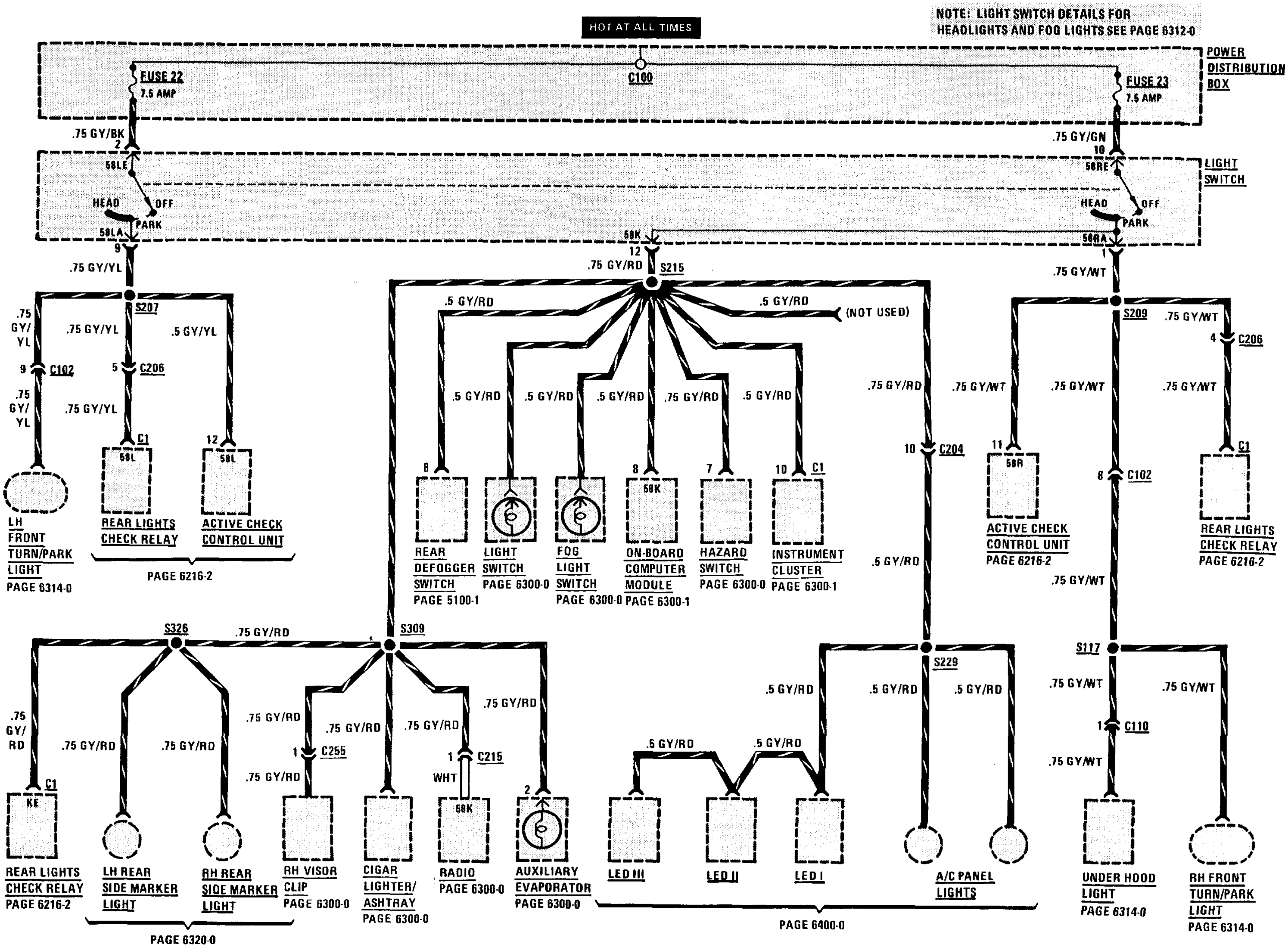
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 21 7.5 AMP
1 RD/GN
FUSE DETAILS
S205
.5 RD/GN
HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
ACCY
R
RUN
2.5 VI
C200
1 VI
POWER DISTRIBUTION
C114
2.5 VI
R2
POWER DISTRIBUTION BOX
.5 VI
HOT IN RUN OR START
POWER DISTRIBUTION BOX
FUSE 10 7.5 AMP
1.5 GN/WT
FUSE DETAILS
S212
.5 GN/WT
C1
GAUGES/ WARNING INDICATORS
"CHECK" (YELLOW)
ACTIVE CHECK CONTROL ALARM INDICATOR
INSTRUMENT CLUSTER PRINTED CIRCUIT
ZH
5 BR/YL
.5 GN/WT
ACTIVE CHECK CONTROL UNIT
PROVIDES POWER FOR CONTINUOUS MEMORY OF ENGINE OIL FAULT
FOR FUTURE AIR BAG
"CHECK" SWITCH
ZW
15S
MEMORY POWER INPUT
CHECK SWITCH
ALARM CONTROL
"ENGINE OIL" FAULT INDICATOR
"COOLANT" LEVEL FAULT INDICATOR
"WASHER FLUID" FAULT INDICATOR
SOLID STATE
GROUND
PANEL LIGHT
FASTEN SEATBELTS INDICATOR
(FAULT CLEAR)
(FAULT SET)
OIL STATIC
DYNAMIC OIL
KW
WW
FOR FUTURE AIR BAG
GKL
.5 BU/VI
.5 WT
C101
1 BU/VI
1 BU/WT
1 BU/VI
1 BU/WT
.5 BR/BU
COOLANT LEVEL SWITCH
OPEN WITH LOW COOLANT LEVEL
.5 BR
.5 BR/RD
C102
75 BR/RD
WASHER FLUID LEVEL SWITCH
OPEN WITH LOW FLUID LEVEL
.75 BR
GROUND DISTRIBUTION
S101
4 BR
G104
G104
.5 BR
G200
.5 BR/BK
C250
SRS CONNECTOR (NOT USED)
.5 BR/VI
C206
.75 BR/VI
SEATBELT WARNING TIMER
FOR OPERATION SEE SEATBELT WARNING PAGE 6131-0
.75 BR
G200
OIL LEVEL SENSOR
OIL LEVEL LOW: DYNAMIC SWITCH CLOSES, STATIC SWITCH OPENS.
OIL LEVEL FULL: STATIC SWITCH CLOSES, DYNAMIC SWITCH OPENS.
STATIC SWITCH
DYNAMIC SWITCH
FULL
LOW
FULL
LOW

LIGHTS: DASH/TRANSMISSION RANGE/RH VISOR

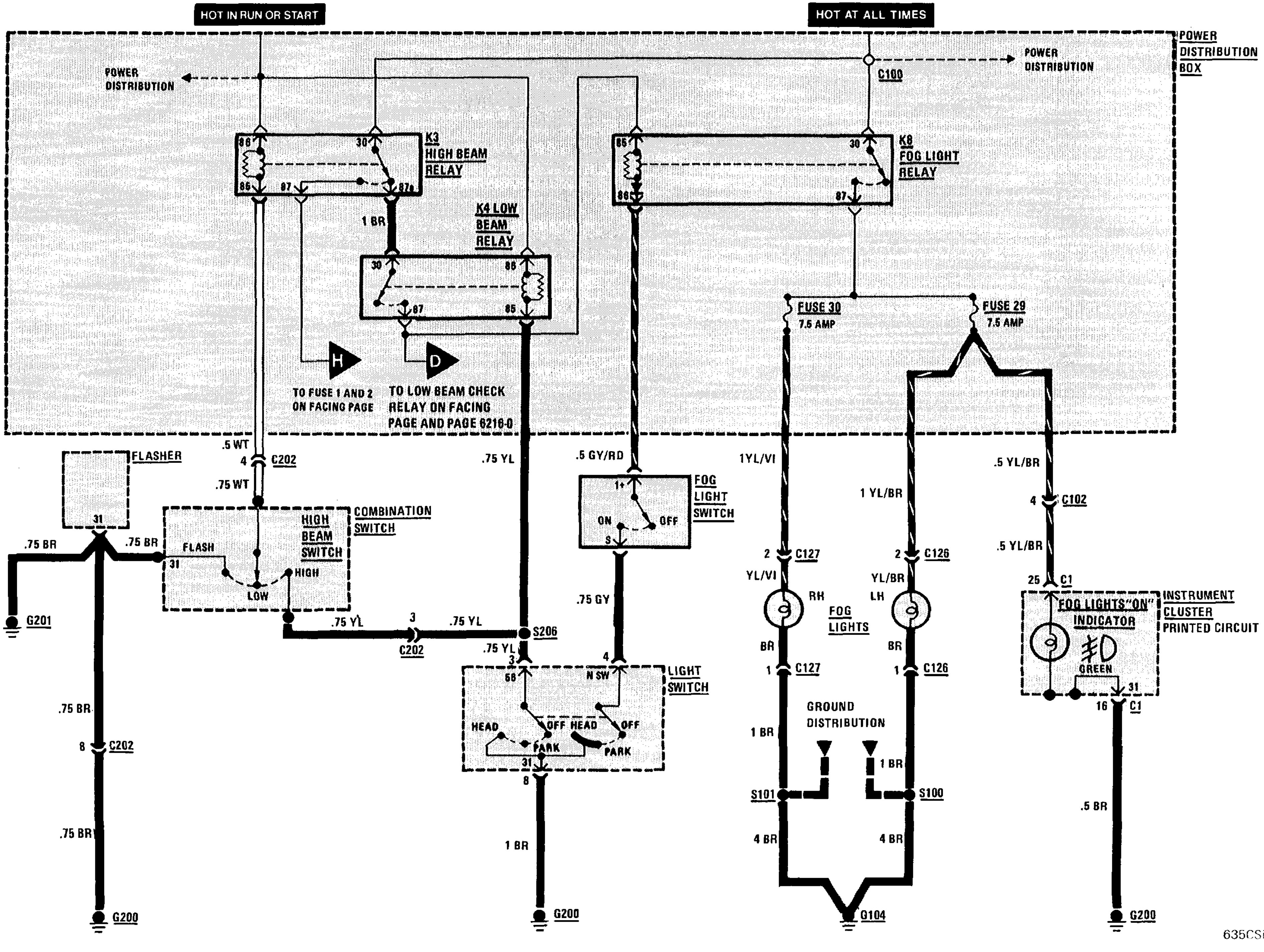


LIGHTS: DASH/TRANSMISSION RANGE

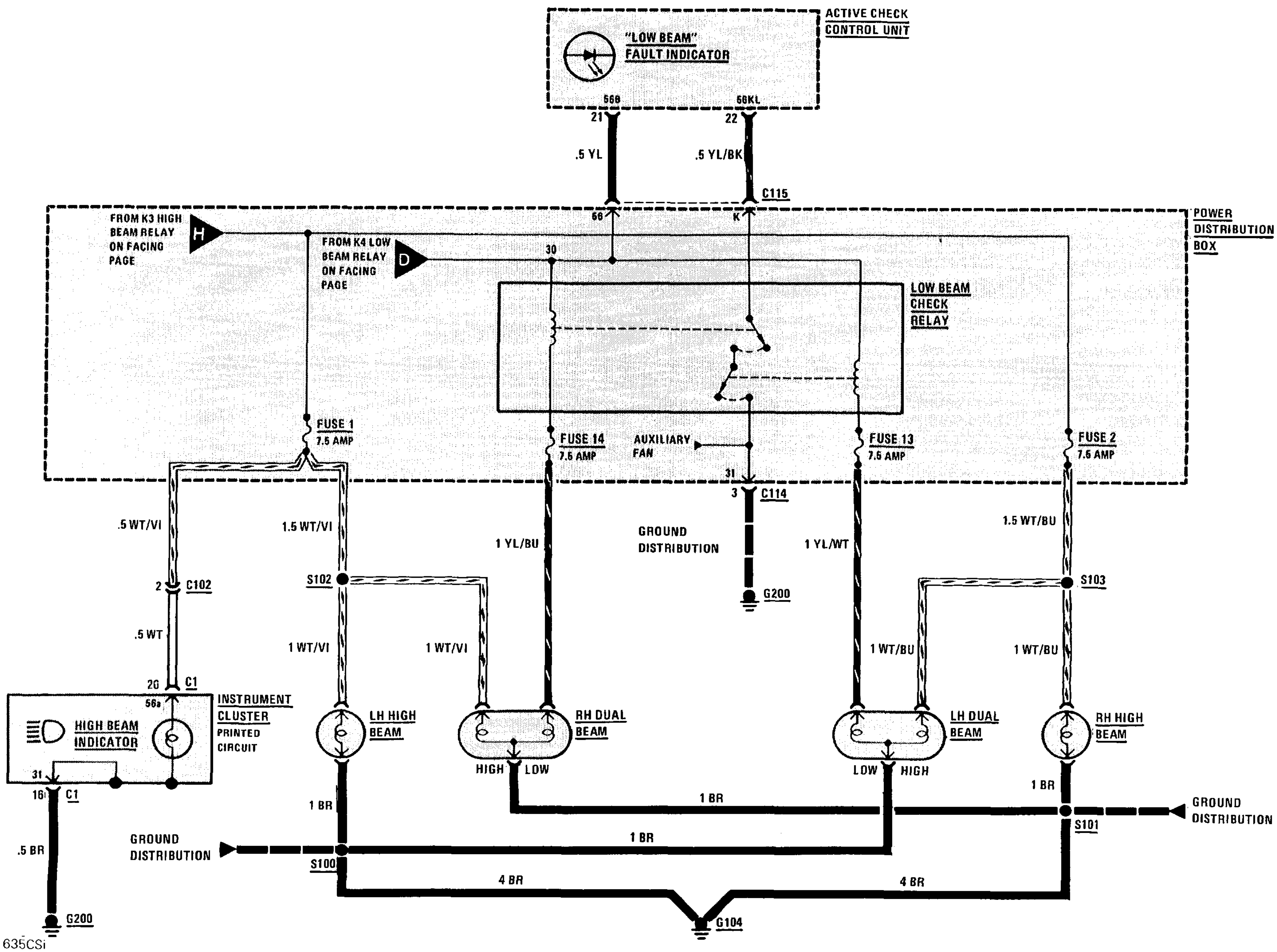



HOT AT ALL TIMES
NOTE: LIGHT SWITCH DETAILS FOR HEADLIGHTS AND FOG LIGHTS SEE PAGE 6312-0
POWER DISTRIBUTION BOX
FUSE 22 7.5 AMP
C100
FUSE 23 7.5 AMP
.75 GY/BK
.75 GY/GN
LIGHT SWITCH
58LE
58RE
HEAD
OFF
PARK
58LA
58K
58RA
.75 GY/YL
.75 GY/RD
S215
.75 GY/WT
S207
S209
.5 GY/YL
.5 GY/RD
(NOT USED)
C102
C206
C204
C1
LH FRONT TURN/PARK LIGHT PAGE 6314-0
REAR LIGHTS CHECK RELAY
ACTIVE CHECK CONTROL UNIT
PAGE 6216-2
REAR DEFOGGER SWITCH PAGE 5100-1
LIGHT SWITCH PAGE 6300-0
FOG LIGHT SWITCH PAGE 6300-0
ON-BOARD COMPUTER MODULE PAGE 6300-1
HAZARD SWITCH PAGE 6300-0
INSTRUMENT CLUSTER PAGE 6300-1
ACTIVE CHECK CONTROL UNIT PAGE 6216-2
REAR LIGHTS CHECK RELAY PAGE 6216-2
S326
S309
S229
S117
C255
C215
C110
WHT
KE
58K
REAR LIGHTS CHECK RELAY PAGE 6216-2
LH REAR SIDE MARKER LIGHT
RH REAR SIDE MARKER LIGHT
PAGE 6320-0
RH VISOR CLIP PAGE 6300-0
CIGAR LIGHTER/ ASHTRAY PAGE 6300-0
RADIO PAGE 6300-0
AUXILIARY EVAPORATOR PAGE 6300-0
LED III
LED II
LED I
A/C PANEL LIGHTS
PAGE 6400-0
UNDER HOOD LIGHT PAGE 6314-0
RH FRONT TURN/PARK LIGHT PAGE 6314-0

HEADLIGHTS (CONTROL) AND FOG LIGHTS



HEADLIGHTS (POWER)



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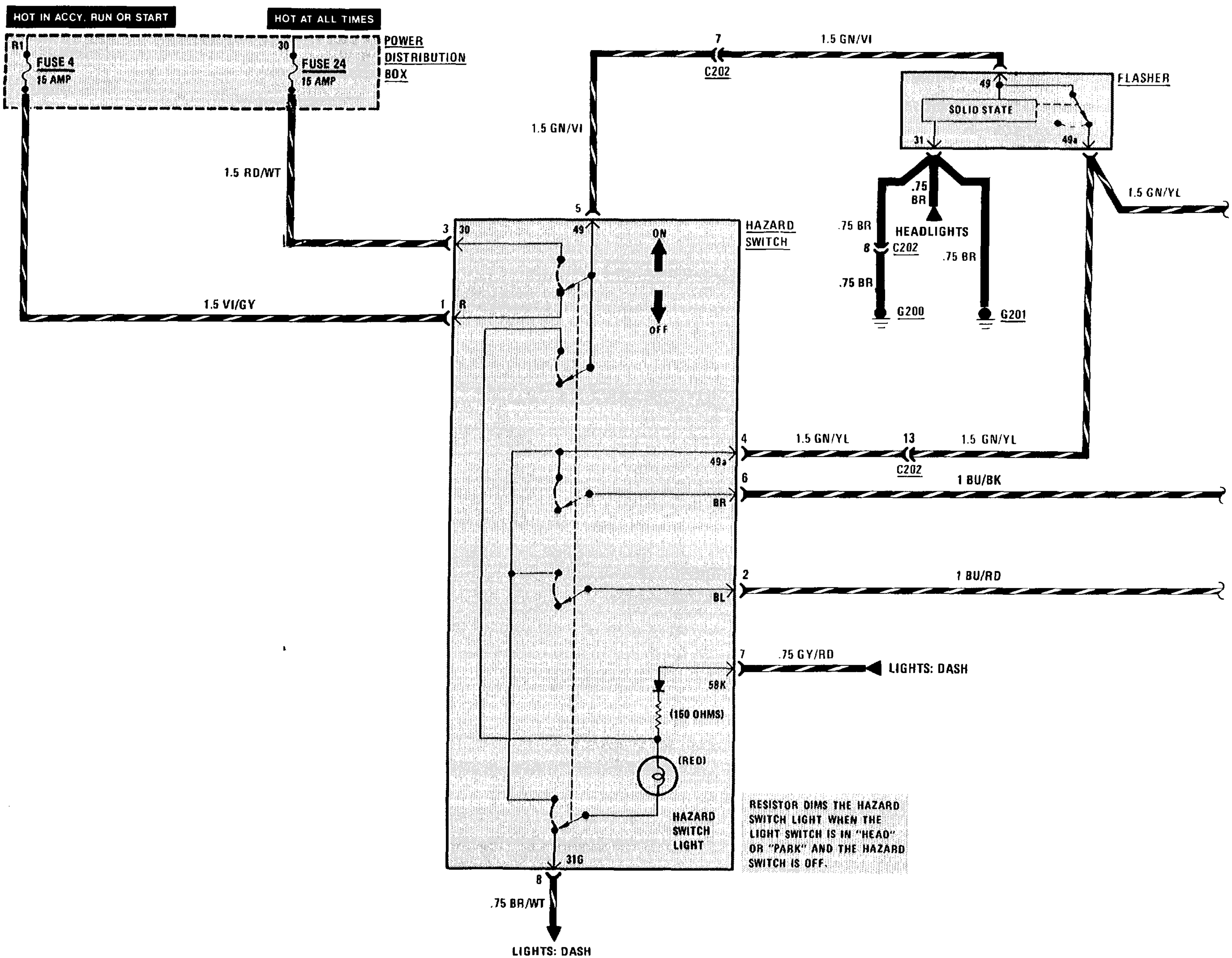
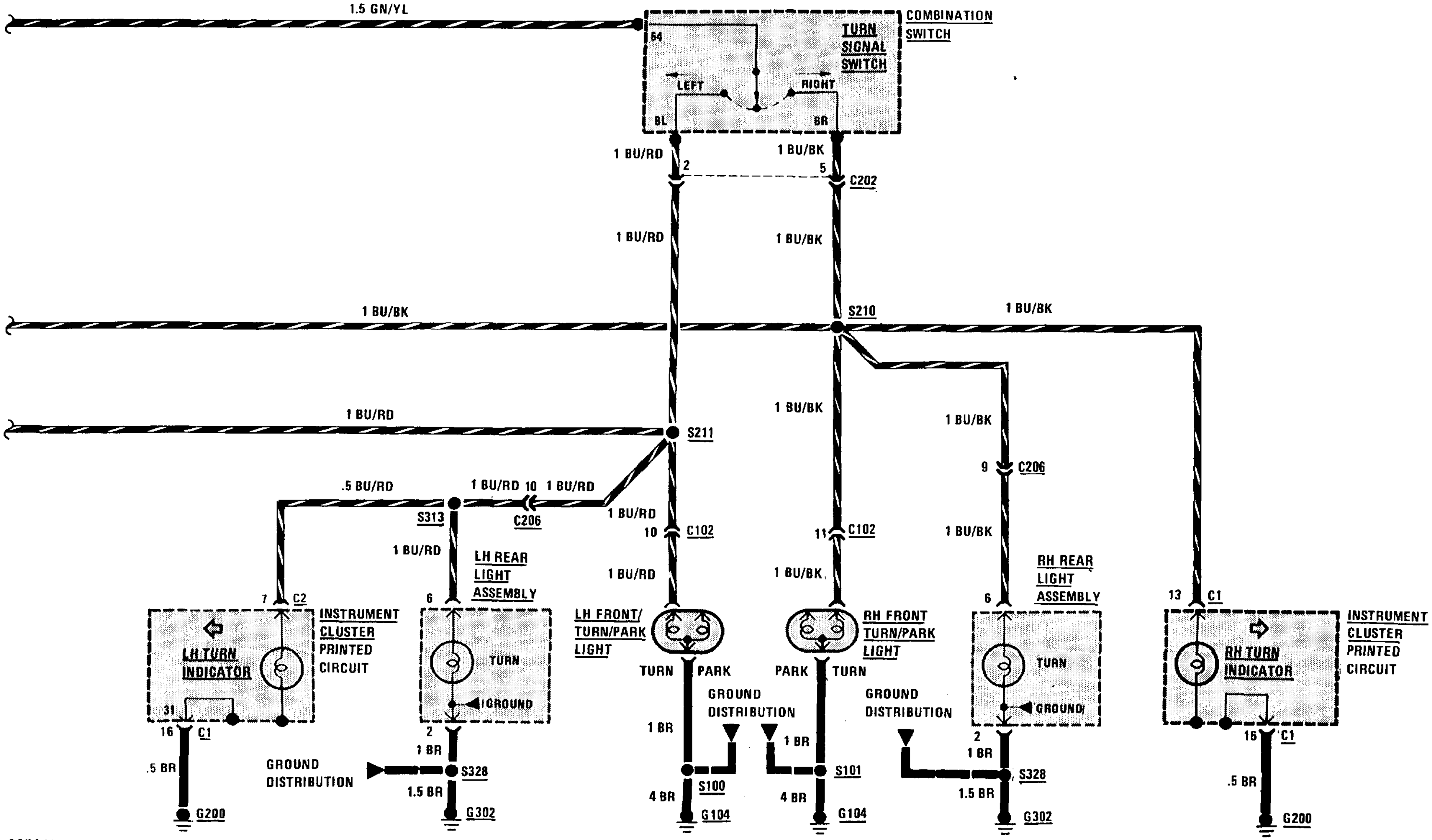
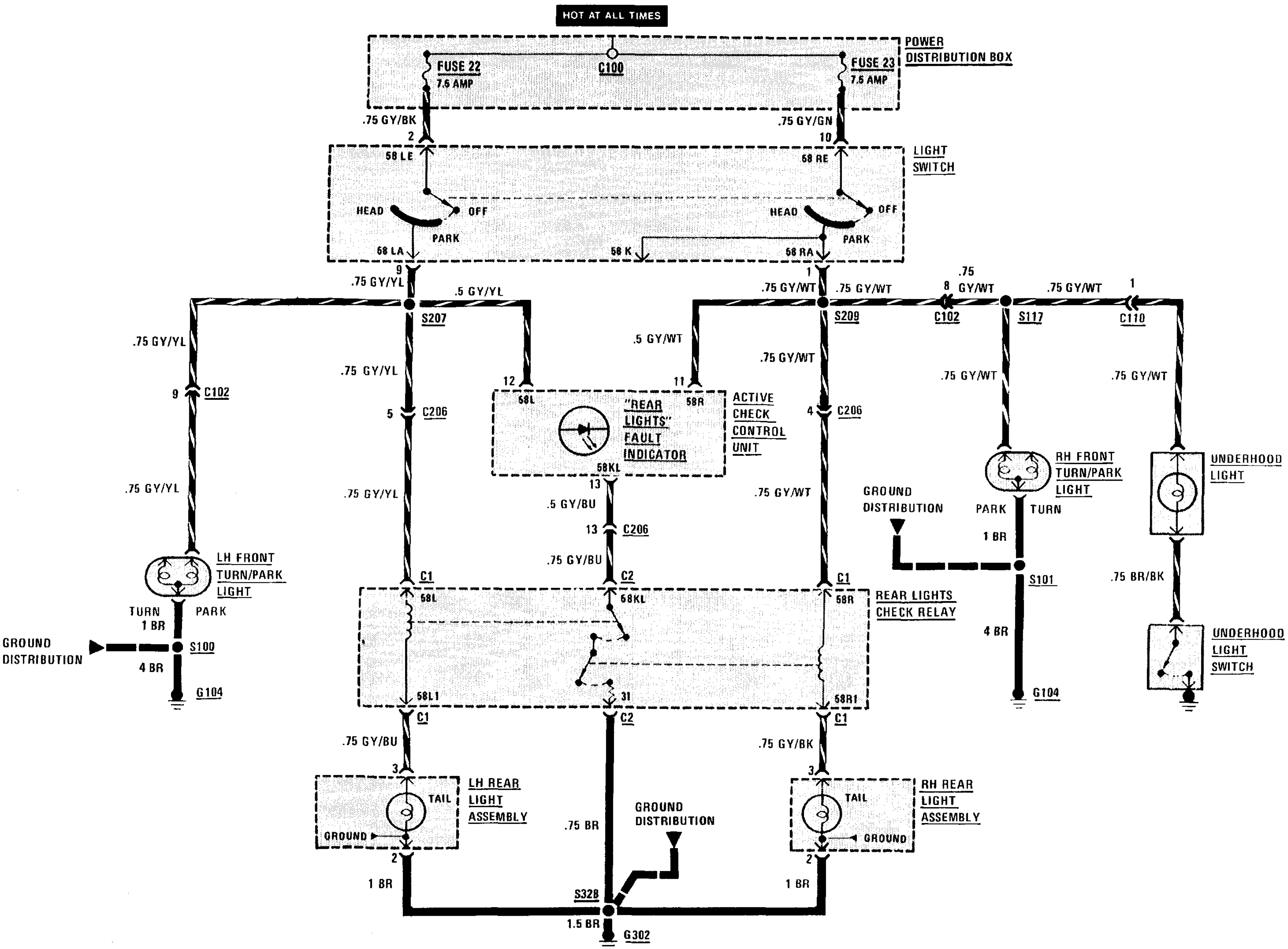
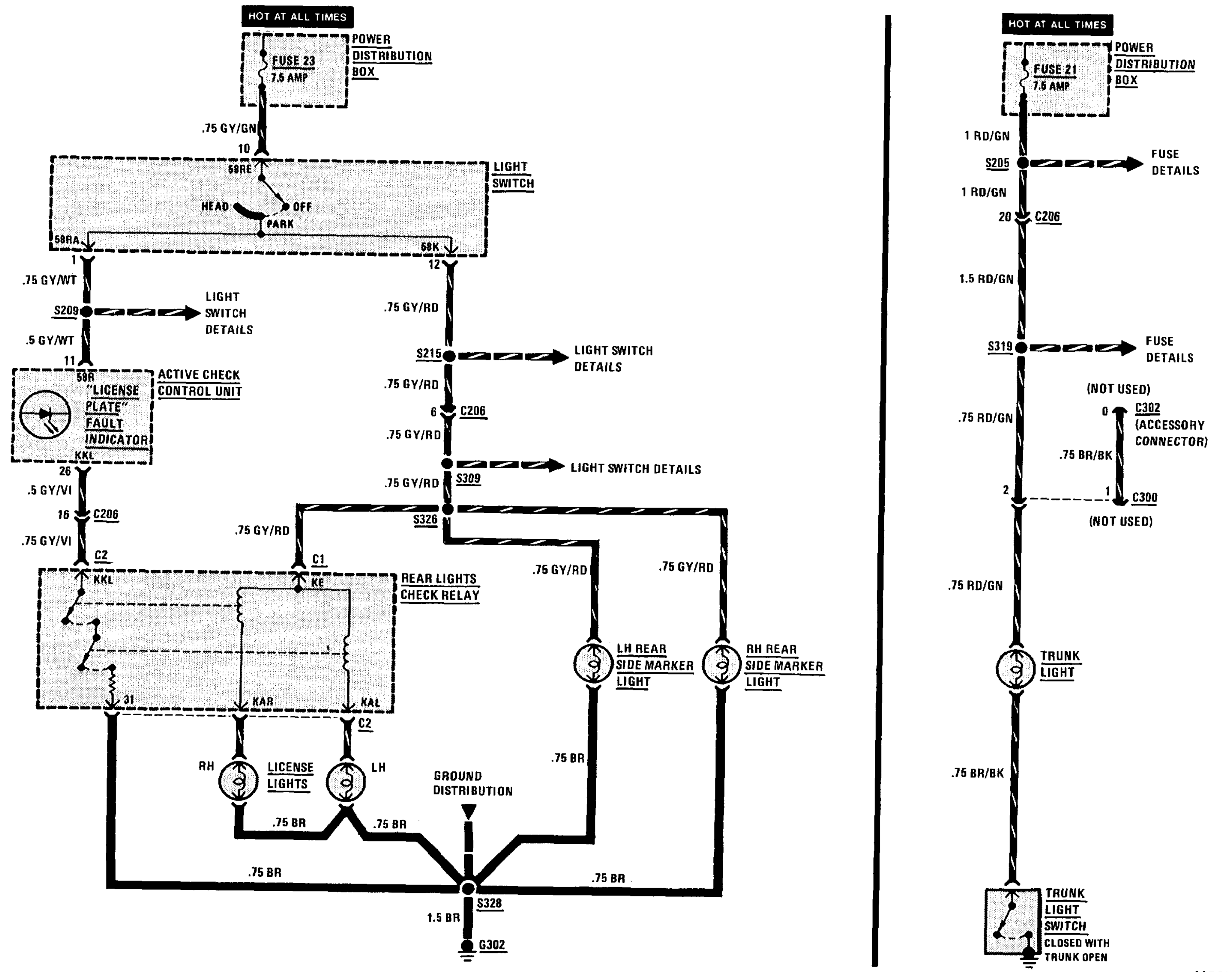
6313-0 TURN/HAZARD LIGHTS

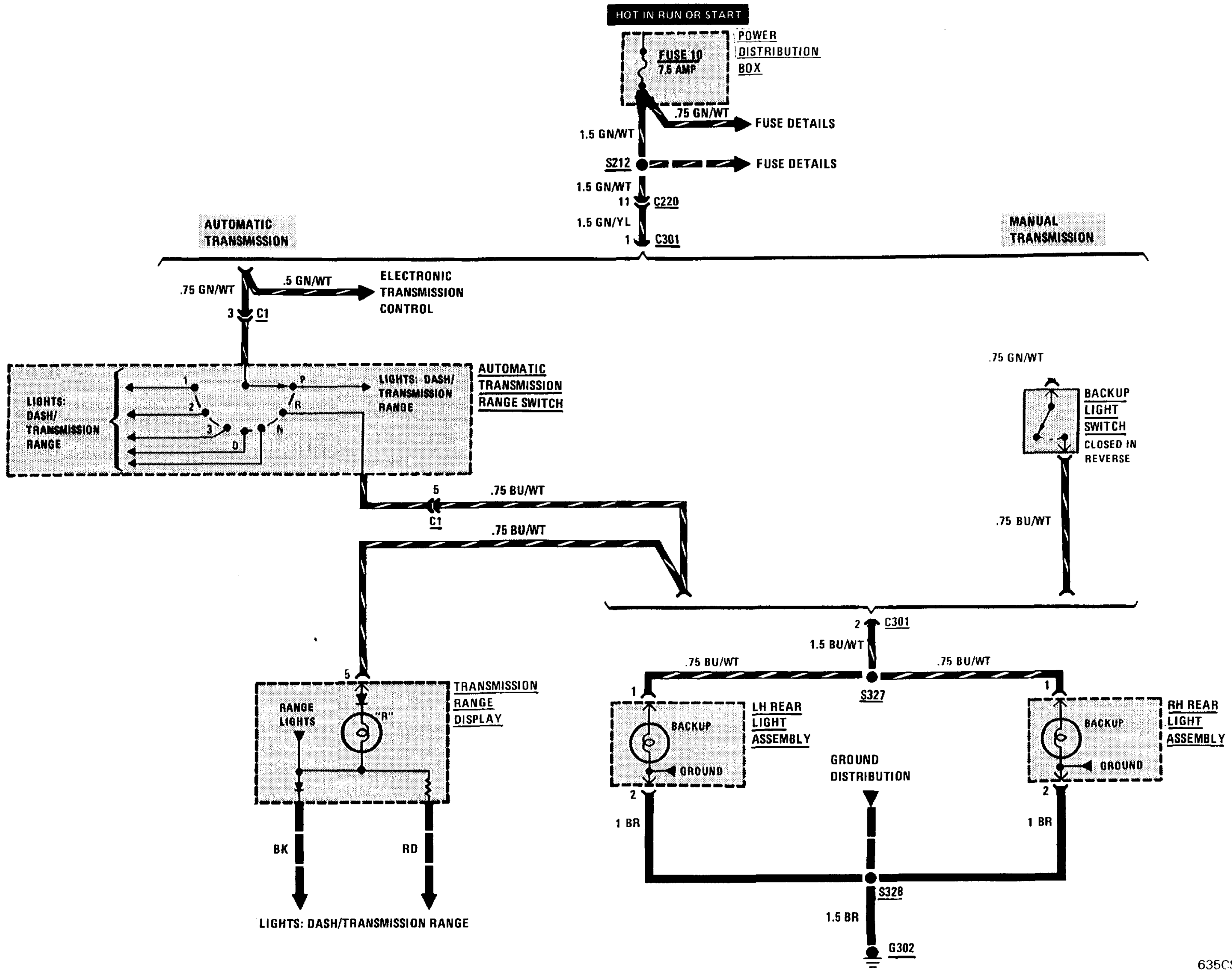


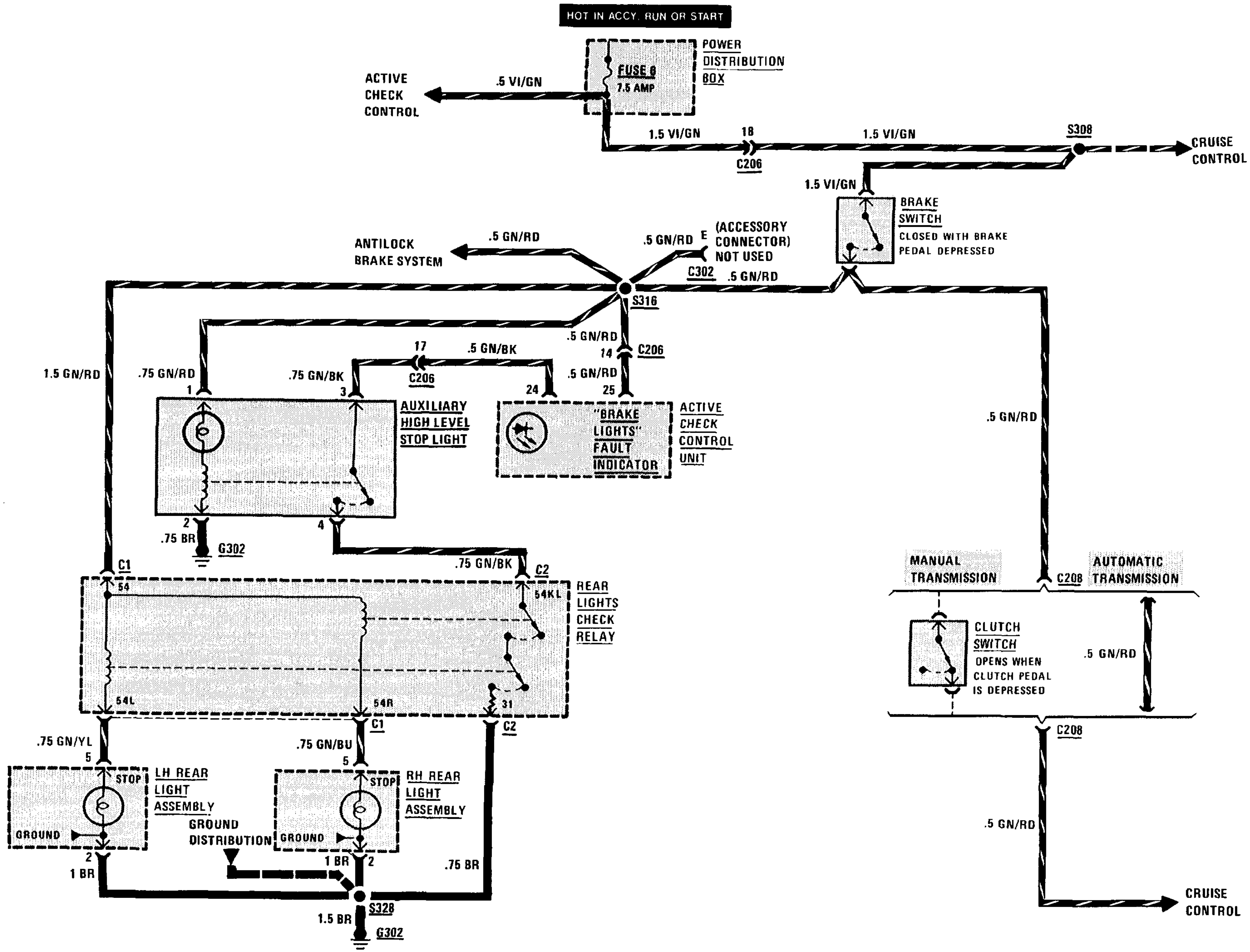

1.5 GN/YL
COMBINATION SWITCH
TURN SIGNAL SWITCH
54
LEFT
RIGHT
BL
BR
1 BU/RD
1 BU/BK
2
5
C202
1 BU/RD
1 BU/BK
1 BU/BK
S210
1 BU/BK
1 BU/BK
1 BU/RD
S211
1 BU/BK
.5 BU/RD
1 BU/RD 10 1 BU/RD
S313
C206
1 BU/RD
9 C206
10 C102
11 C102
1 BU/RD
1 BU/RD
1 BU/BK
1 BU/BK
LH REAR LIGHT ASSEMBLY
RH REAR LIGHT ASSEMBLY
7 C2
6
6
13 C1
INSTRUMENT CLUSTER PRINTED CIRCUIT
LH TURN INDICATOR
TURN
GROUND
LH FRONT/ TURN/PARK LIGHT
RH FRONT TURN/PARK LIGHT
TURN PARK
PARK TURN
GROUND DISTRIBUTION
GROUND DISTRIBUTION
RH TURN INDICATOR
INSTRUMENT CLUSTER PRINTED CIRCUIT
31
16 C1
2
1 BR
1 BR
1 BR
2
1 BR
16 C1
.5 BR
GROUND DISTRIBUTION
S328
1.5 BR
S100
S101
4 BR
4 BR
S328
1.5 BR
.5 BR
G200
G302
G104
G104
G302
G200

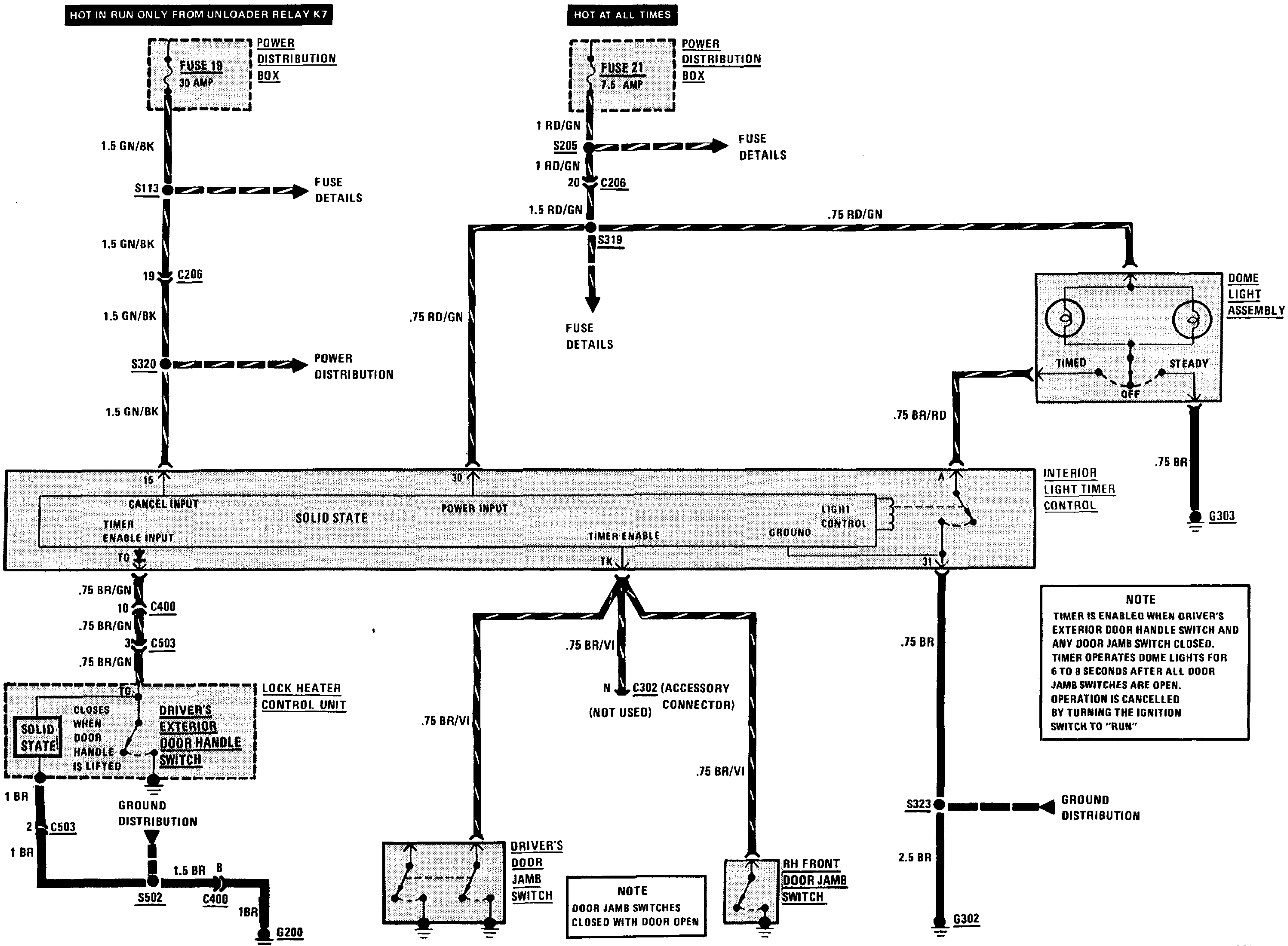


HOT AT ALL TIMES
POWER DISTRIBUTION BOX
FUSE 22 7.5 AMP
C100
FUSE 23 7.5 AMP
.75 GY/BK
.75 GY/GN
LIGHT SWITCH
58 LE
58 RE
HEAD
OFF
PARK
58 LA
58 K
58 RA
.75 GY/YL
.5 GY/YL
S207
.75 GY/WT
S209
C102
S117
C110
.5 GY/WT
C206
ACTIVE CHECK CONTROL UNIT
"REAR LIGHTS" FAULT INDICATOR
58L
58R
58KL
.5 GY/BU
.75 GY/BU
RH FRONT TURN/PARK LIGHT
UNDERHOOD LIGHT
GROUND DISTRIBUTION
TURN
1 BR
S101
4 BR
G104
.75 BR/BK
UNDERHOOD LIGHT SWITCH
LH FRONT TURN/PARK LIGHT
S100
REAR LIGHTS CHECK RELAY
C1
C2
58L1
31
58R1
.75 GY/BK
LH REAR LIGHT ASSEMBLY
TAIL
GROUND
RH REAR LIGHT ASSEMBLY
.75 BR
S328
1.5 BR
G302

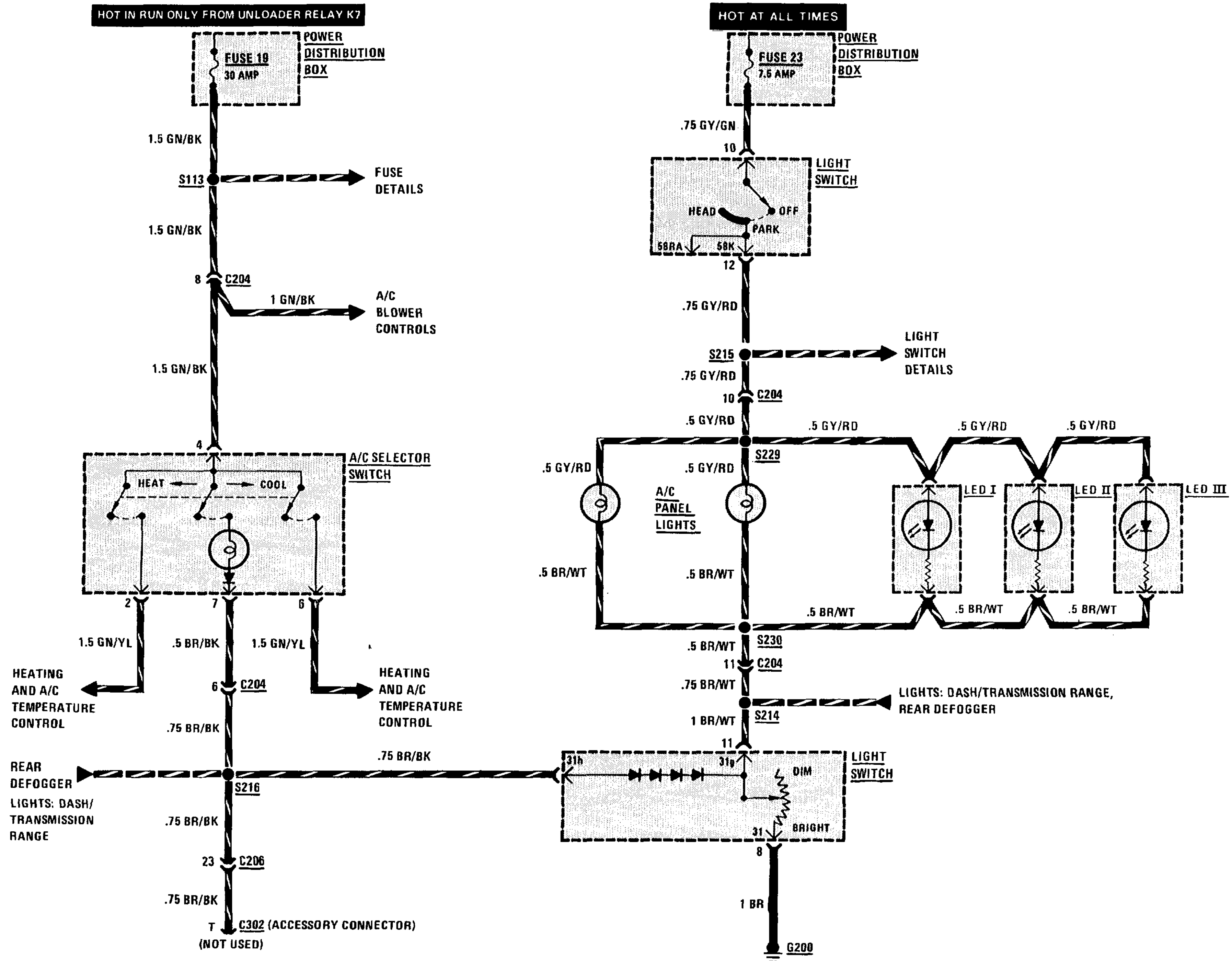

HOT AT ALL TIMES
FUSE 23
7.5 AMP
POWER DISTRIBUTION BOX
.75 GY/GN
10
58RE
LIGHT SWITCH
HEAD
OFF
PARK
58RA
58K
1
12
.75 GY/WT
S209
LIGHT SWITCH DETAILS
.5 GY/WT
11
58R
"LICENSE PLATE" FAULT INDICATOR
ACTIVE CHECK CONTROL UNIT
KKL
26
.5 GY/VI
16
C206
.75 GY/VI
C2
.75 GY/RD
S215
LIGHT SWITCH DETAILS
.75 GY/RD
6
C206
.75 GY/RD
LIGHT SWITCH DETAILS
.75 GY/RD
S309
S326
.75 GY/RD
C1
KE
REAR LIGHTS CHECK RELAY
31
KAR
KAL
C2
.75 GY/RD
.75 GY/RD
LH REAR SIDE MARKER LIGHT
RH REAR SIDE MARKER LIGHT
RH
LICENSE LIGHTS
LH
GROUND DISTRIBUTION
.75 BR
.75 BR
.75 BR
.75 BR
.75 BR
.75 BR
S328
1.5 BR
G302
HOT AT ALL TIMES
FUSE 21
7.5 AMP
POWER DISTRIBUTION BOX
1 RD/GN
S205
FUSE DETAILS
1 RD/GN
20
C206
1.5 RD/GN
S319
FUSE DETAILS
(NOT USED)
0
C302
(ACCESSORY CONNECTOR)
.75 RD/GN
.75 BR/BK
2
1
C300
(NOT USED)
.75 RD/GN
TRUNK LIGHT
.75 BR/BK
TRUNK LIGHT SWITCH
CLOSED WITH TRUNK OPEN


HOT IN RUN OR START
FUSE 10
7.5 AMP
POWER DISTRIBUTION BOX
.75 GN/WT
FUSE DETAILS
1.5 GN/WT
S212
FUSE DETAILS
1.5 GN/WT
11 C220
1.5 GN/YL
1 C301
AUTOMATIC TRANSMISSION
MANUAL TRANSMISSION
.75 GN/WT
.5 GN/WT
ELECTRONIC TRANSMISSION CONTROL
3 C1
LIGHTS: DASH/ TRANSMISSION RANGE
LIGHTS: DASH/ TRANSMISSION RANGE
AUTOMATIC TRANSMISSION RANGE SWITCH
.75 GN/WT
BACKUP LIGHT SWITCH
CLOSED IN REVERSE
5
.75 BU/WT
C1
.75 BU/WT
.75 BU/WT
2 C301
1.5 BU/WT
.75 BU/WT
.75 BU/WT
S327
5
TRANSMISSION RANGE DISPLAY
RANGE LIGHTS
"R"
LH REAR LIGHT ASSEMBLY
BACKUP
GROUND
RH REAR LIGHT ASSEMBLY
BACKUP
GROUND
GROUND DISTRIBUTION
1 BR
1 BR
BK
RD
S328
1.5 BR
G302
LIGHTS: DASH/TRANSMISSION RANGE

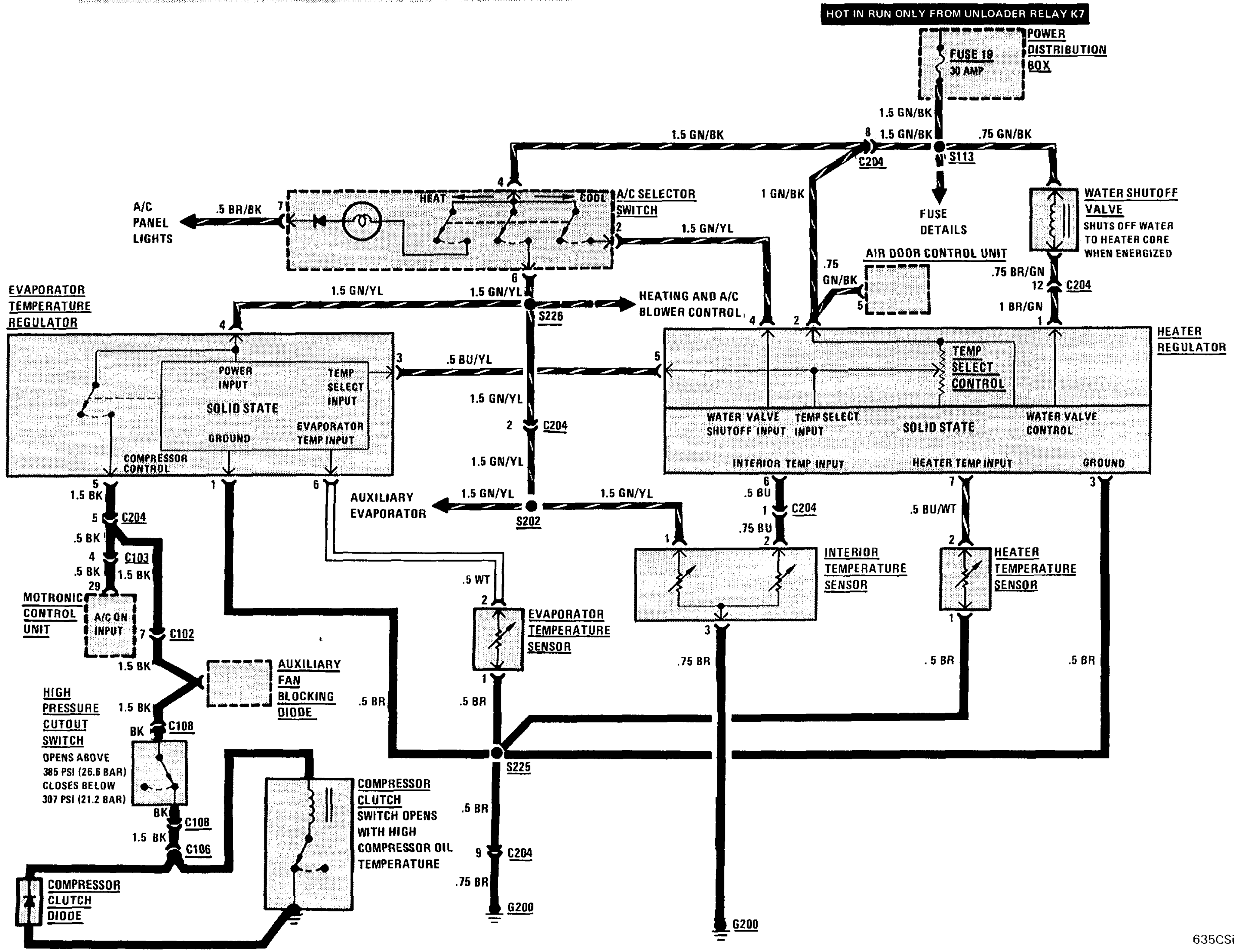

HOT IN ACCY, RUN OR START
POWER DISTRIBUTION BOX
FUSE 6
7.5 AMP
ACTIVE CHECK CONTROL
.5 VI/GN
1.5 VI/GN
18
C206
1.5 VI/GN
S308
CRUISE CONTROL
1.5 VI/GN
BRAKE SWITCH
CLOSED WITH BRAKE PEDAL DEPRESSED
ANTILOCK BRAKE SYSTEM
.5 GN/RD
.5 GN/RD
E
(ACCESSORY CONNECTOR) NOT USED
C302
.5 GN/RD
S316
.5 GN/RD
14
C206
17
.5 GN/BK
C206
.5 GN/RD
1.5 GN/RD
.75 GN/RD
.75 GN/BK
1
3
24
25
AUXILIARY HIGH LEVEL STOP LIGHT
"BRAKE LIGHTS" FAULT INDICATOR
ACTIVE CHECK CONTROL UNIT
.5 GN/RD
2
4
.75 BR
G302
.75 GN/BK
C1
C2
54
54KL
REAR LIGHTS CHECK RELAY
54L
54R
31
C1
C2
MANUAL TRANSMISSION
C208
AUTOMATIC TRANSMISSION
CLUTCH SWITCH
OPENS WHEN CLUTCH PEDAL IS DEPRESSED
.5 GN/RD
C208
.75 GN/YL
5
STOP
LH REAR LIGHT ASSEMBLY
GROUND
.75 GN/BU
5
STOP
RH REAR LIGHT ASSEMBLY
GROUND DISTRIBUTION
GROUND
2
1 BR
1 BR
2
.75 BR
S328
1.5 BR
G302
.5 GN/RD
CRUISE CONTROL


HOT IN RUN ONLY FROM UNLOADER RELAY K7
HOT AT ALL TIMES
FUSE 19
30 AMP
POWER DISTRIBUTION BOX
FUSE 21
7.5 AMP
POWER DISTRIBUTION BOX
1 RD/GN
S205
FUSE DETAILS
1 RD/GN
20 C206
1.5 RD/GN
.75 RD/GN
S319
FUSE DETAILS
1.5 GN/BK
S113
FUSE DETAILS
1.5 GN/BK
19 C206
1.5 GN/BK
S320
POWER DISTRIBUTION
1.5 GN/BK
.75 RD/GN
DOME LIGHT ASSEMBLY
TIMED
STEADY
OFF
.75 BR/RD
.75 BR
G303
15
30
A
CANCEL INPUT
TIMER ENABLE INPUT
SOLID STATE
POWER INPUT
TIMER ENABLE
GROUND
LIGHT CONTROL
INTERIOR LIGHT TIMER CONTROL
TO
TK
31
.75 BR/GN
10 C400
.75 BR/GN
3 C503
.75 BR/GN
.75 BR/VI
N C302 (ACCESSORY CONNECTOR)
(NOT USED)
.75 BR/VI
.75 BR/VI
.75 BR
NOTE
TIMER IS ENABLED WHEN DRIVER'S EXTERIOR DOOR HANDLE SWITCH AND ANY DOOR JAMB SWITCH CLOSED. TIMER OPERATES DOME LIGHTS FOR 6 TO 8 SECONDS AFTER ALL DOOR JAMB SWITCHES ARE OPEN. OPERATION IS CANCELLED BY TURNING THE IGNITION SWITCH TO "RUN"
LOCK HEATER CONTROL UNIT
TO
SOLID STATE
CLOSES WHEN DOOR HANDLE IS LIFTED
DRIVER'S EXTERIOR DOOR HANDLE SWITCH
GROUND DISTRIBUTION
1 BR
2 C503
1 BR
S502
1.5 BR
8
C400
1BR
G200
DRIVER'S DOOR JAMB SWITCH
NOTE
DOOR JAMB SWITCHES CLOSED WITH DOOR OPEN
RH FRONT DOOR JAMB SWITCH
S323
GROUND DISTRIBUTION
2.5 BR
G302

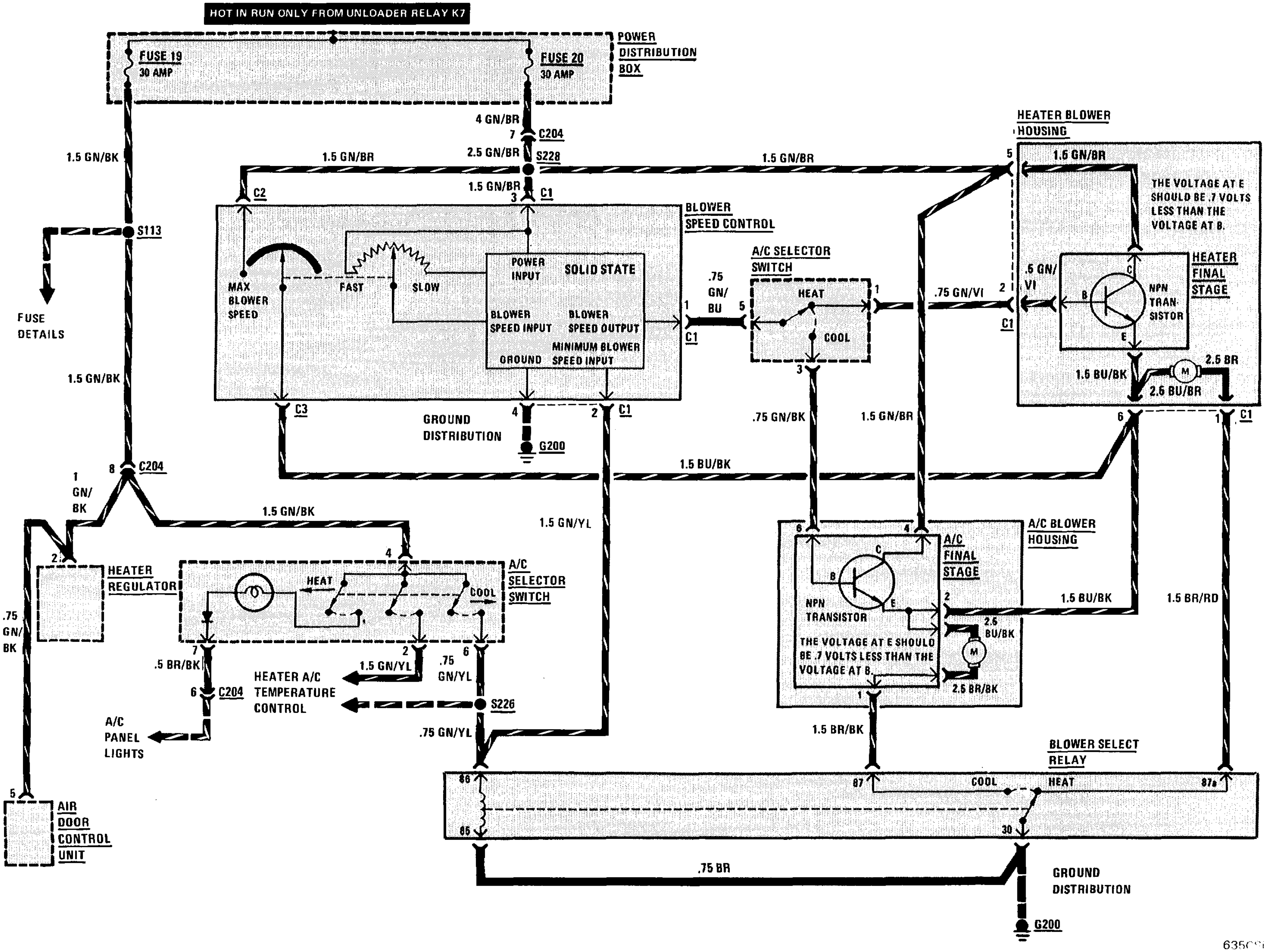
HEATING AND A/C PANEL LIGHTS



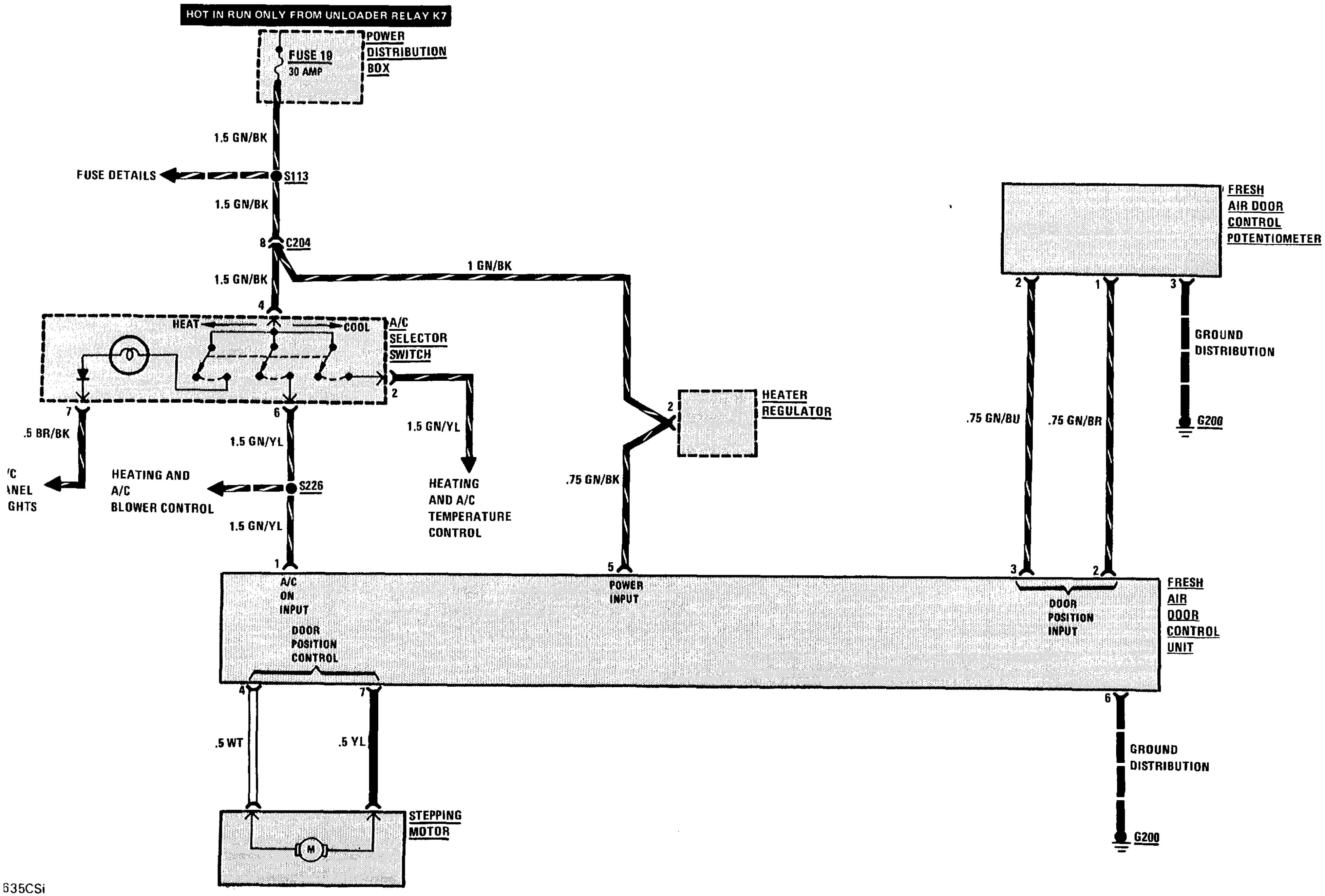
HEATING AND A/C TEMPERATURE CONTROL



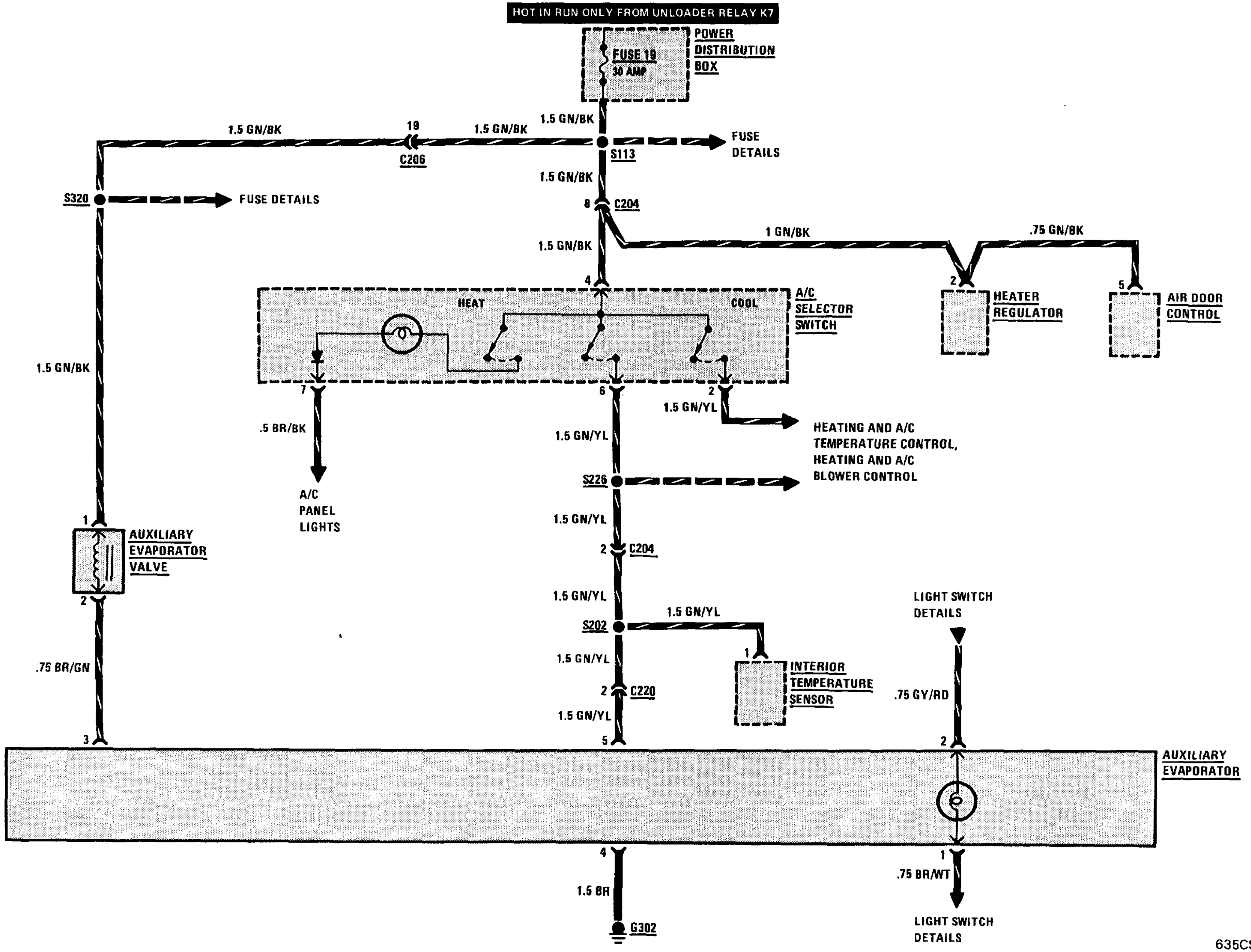
HEATING AND A/C BLOWER CONTROL

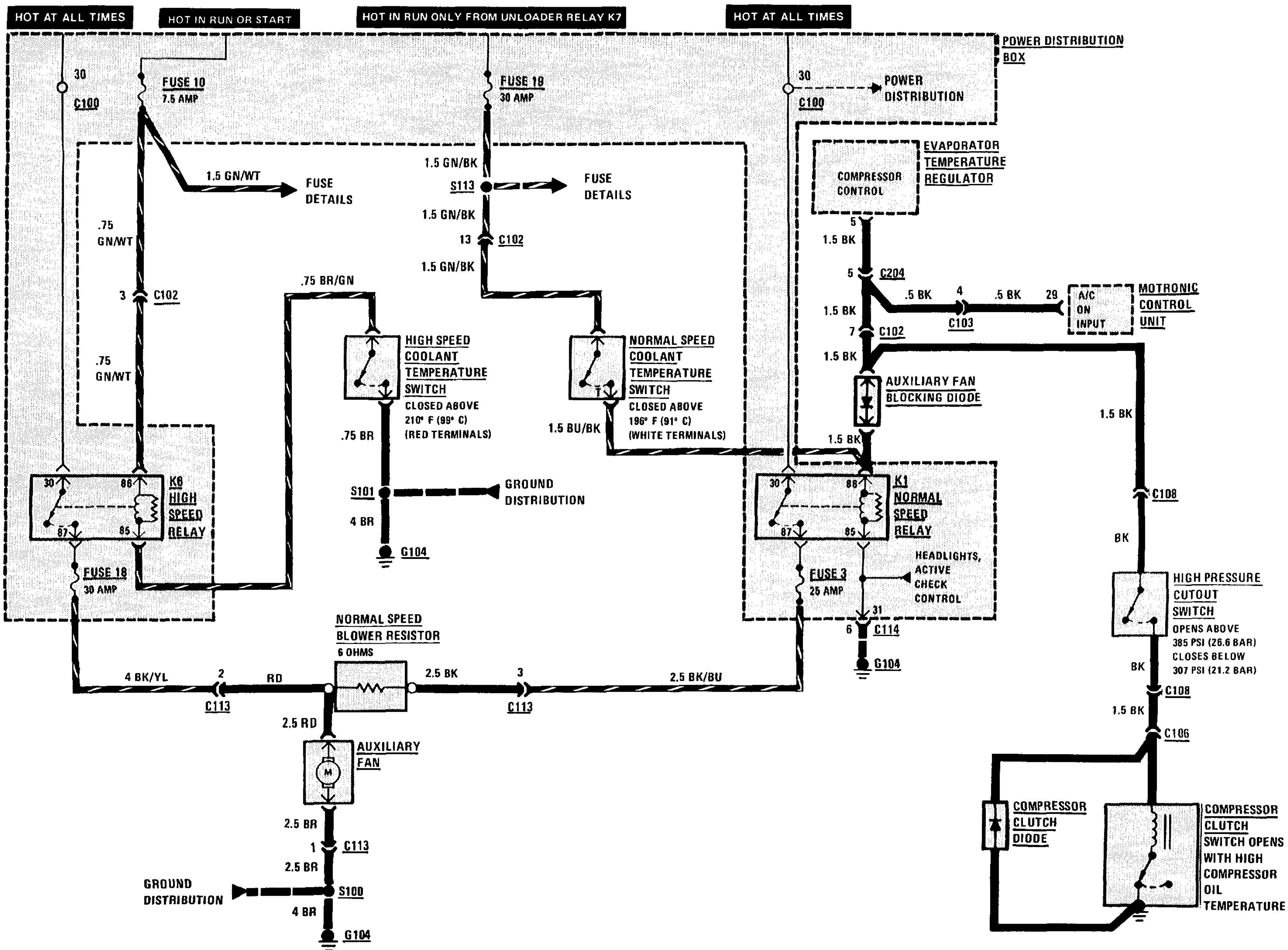


HEATING AND A/C BLOWER CONTROL



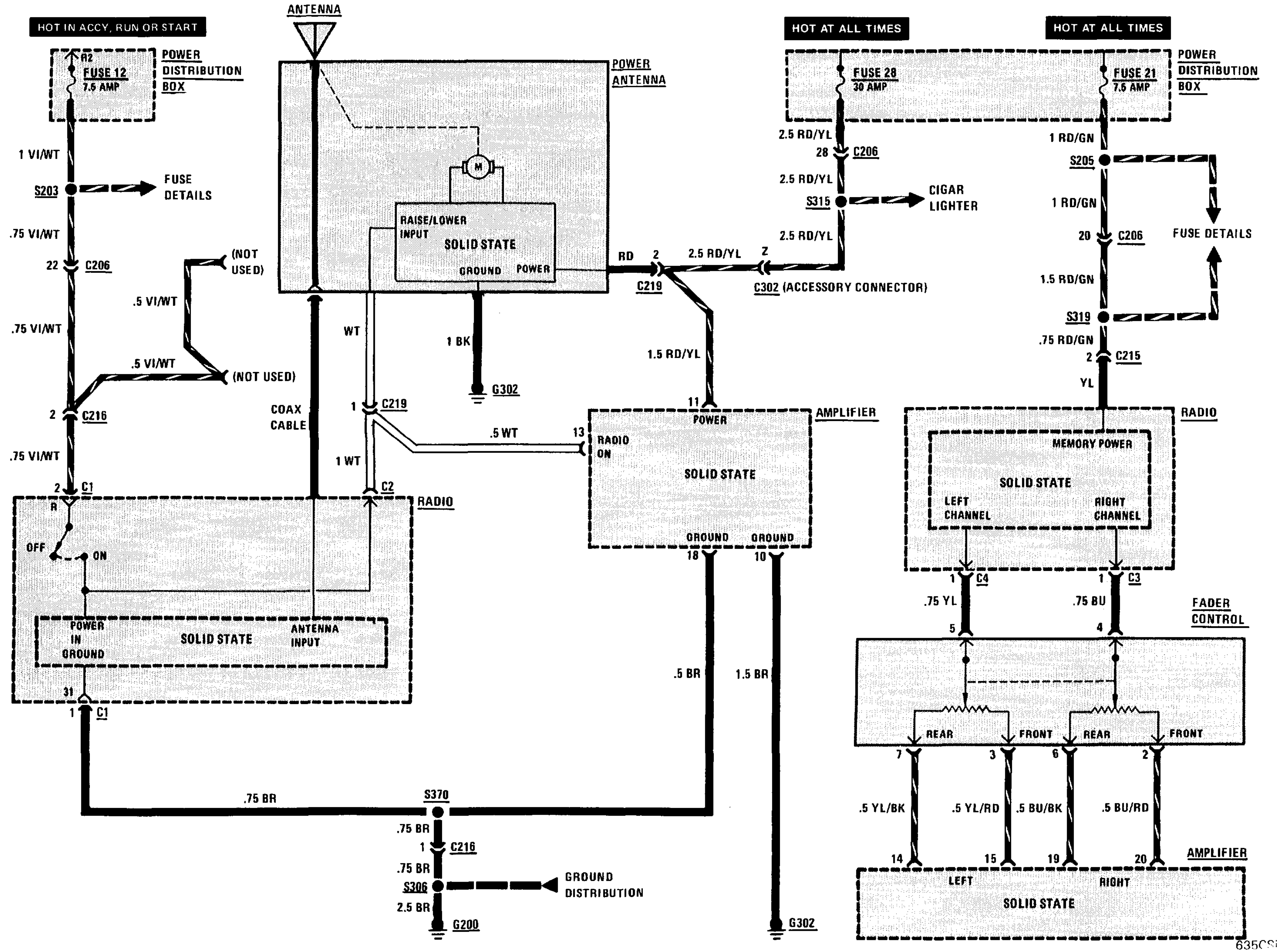
LATE PRODUCTION ONLY



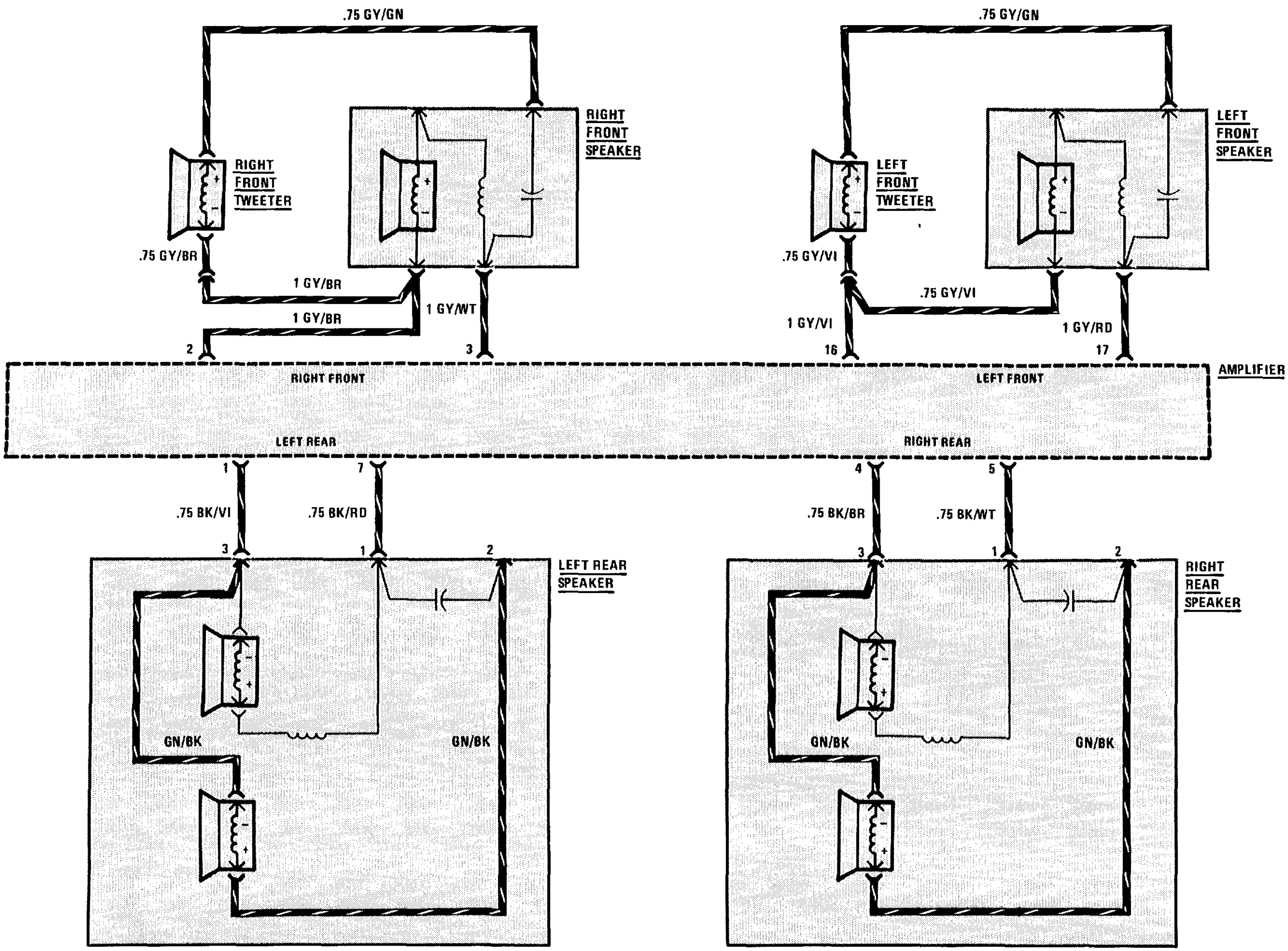


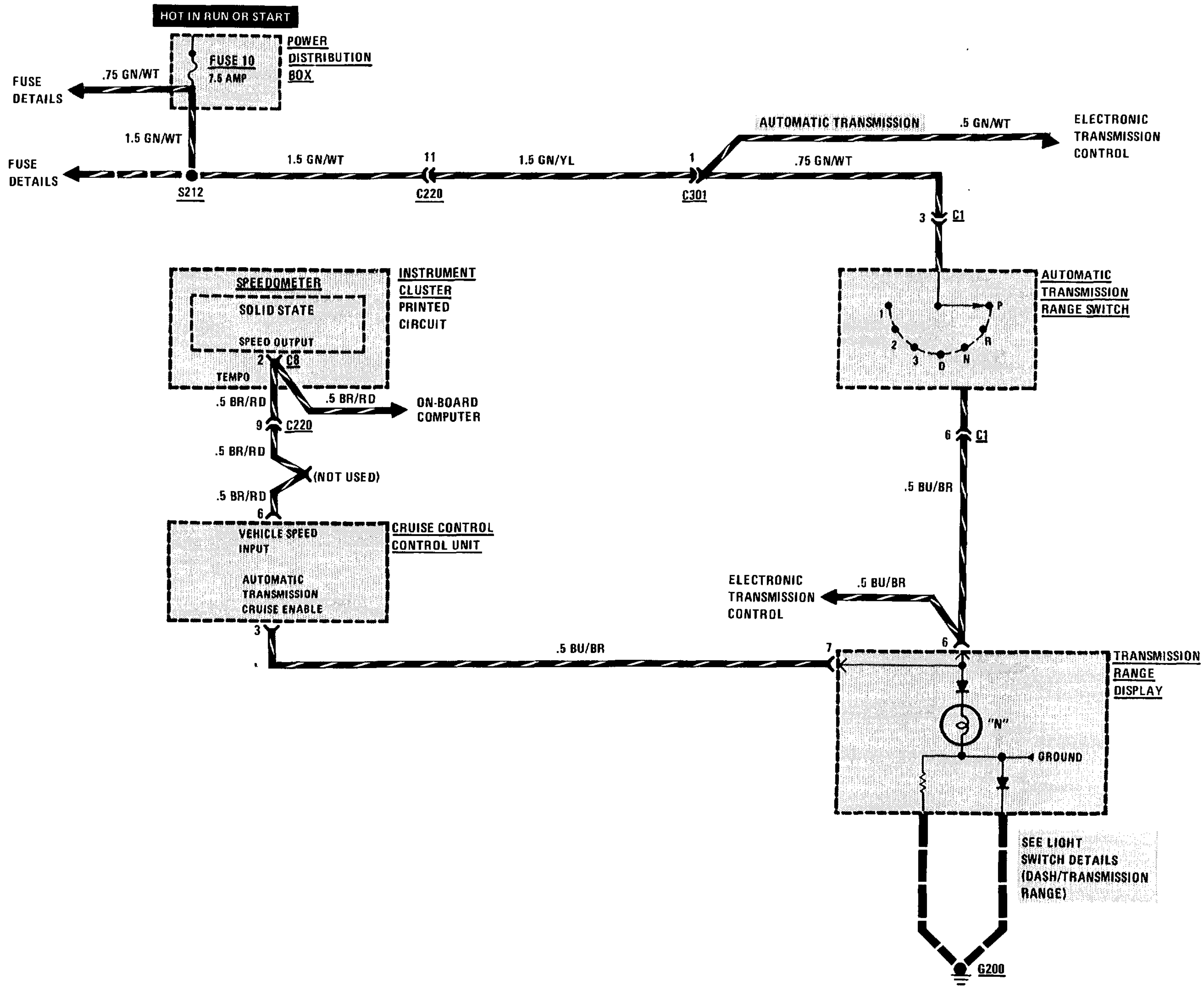
HOT AT ALL TIMES
HOT IN RUN OR START
HOT IN RUN ONLY FROM UNLOADER RELAY K7
HOT AT ALL TIMES
POWER DISTRIBUTION BOX
30
C100
FUSE 10
7.5 AMP
1.5 GN/WT
FUSE DETAILS
FUSE 19
30 AMP
1.5 GN/BK
S113
FUSE DETAILS
1.5 GN/BK
13
C102
1.5 GN/BK
30
POWER DISTRIBUTION
C100
EVAPORATOR TEMPERATURE REGULATOR
COMPRESSOR CONTROL
5
1.5 BK
5
C204
.5 BK
4
.5 BK
29
C103
A/C ON INPUT
MOTRONIC CONTROL UNIT
1.5 BK
7
C102
1.5 BK
AUXILIARY FAN BLOCKING DIODE
1.5 BK
1.5 BK
.75 GN/WT
3
C102
.75 GN/WT
.75 BR/GN
HIGH SPEED COOLANT TEMPERATURE SWITCH
CLOSED ABOVE 210° F (99° C) (RED TERMINALS)
NORMAL SPEED COOLANT TEMPERATURE SWITCH
CLOSED ABOVE 196° F (91° C) (WHITE TERMINALS)
.75 BR
1.5 BU/BK
S101
GROUND DISTRIBUTION
4 BR
G104
30
86
87
85
K6 HIGH SPEED RELAY
FUSE 18
30 AMP
30
86
87
85
K1 NORMAL SPEED RELAY
HEADLIGHTS, ACTIVE CHECK CONTROL
FUSE 3
25 AMP
31
6
C114
G104
C108
BK
HIGH PRESSURE CUTOUT SWITCH
OPENS ABOVE 385 PSI (26.6 BAR)
CLOSES BELOW 307 PSI (21.2 BAR)
BK
C108
1.5 BK
C106
NORMAL SPEED BLOWER RESISTOR
6 OHMS
4 BK/YL
2
RD
2.5 BK
3
2.5 BK/BU
C113
C113
2.5 RD
AUXILIARY FAN
M
2.5 BR
1
C113
2.5 BR
S100
GROUND DISTRIBUTION
4 BR
G104
COMPRESSOR CLUTCH DIODE
COMPRESSOR CLUTCH SWITCH OPENS WITH HIGH COMPRESSOR OIL TEMPERATURE

635CSi

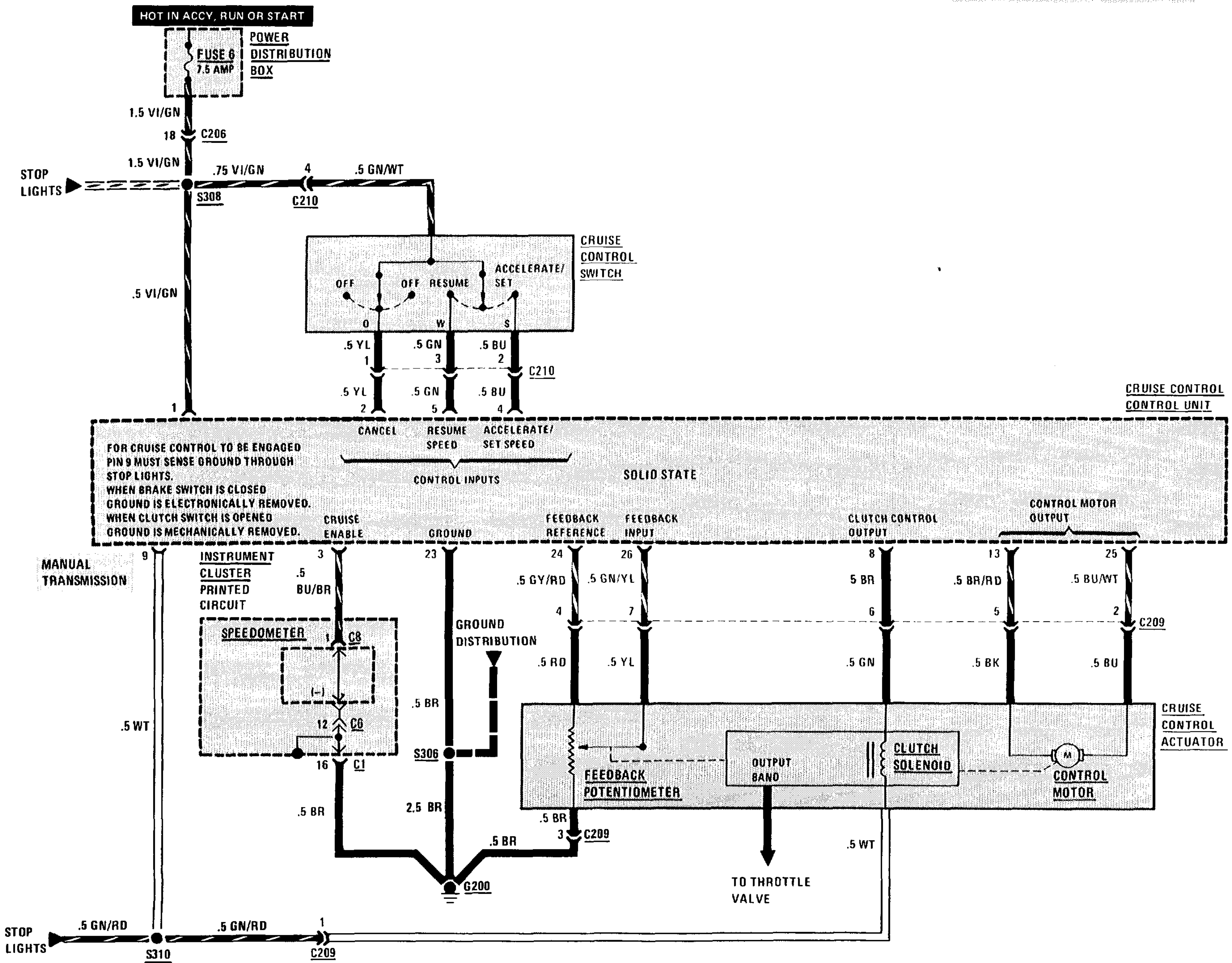


HOT IN ACCY, RUN OR START
FUSE 12
7.5 AMP
POWER DISTRIBUTION BOX
1 VI/WT
S203
FUSE DETAILS
.75 VI/WT
C206
.5 VI/WT
(NOT USED)
C216
C1
RADIO
OFF
ON
POWER IN GROUND
SOLID STATE
ANTENNA INPUT
ANTENNA
POWER ANTENNA
M
RAISE/LOWER INPUT
SOLID STATE
GROUND
POWER
COAX CABLE
WT
1 WT
C219
C2
1 BK
G302
RD
2.5 RD/YL
C302 (ACCESSORY CONNECTOR)
1.5 RD/YL
.5 WT
AMPLIFIER
POWER
RADIO ON
SOLID STATE
GROUND
.5 BR
1.5 BR
.75 BR
S370
S306
GROUND DISTRIBUTION
2.5 BR
G200
HOT AT ALL TIMES
FUSE 28
30 AMP
S315
CIGAR LIGHTER
FUSE 21
7.5 AMP
1 RD/GN
S205
FUSE DETAILS
1.5 RD/GN
S319
.75 RD/GN
C215
YL
RADIO
MEMORY POWER
SOLID STATE
LEFT CHANNEL
RIGHT CHANNEL
C4
C3
.75 YL
.75 BU
FADER CONTROL
REAR
FRONT
.5 YL/BK
.5 YL/RD
.5 BU/BK
.5 BU/RD
AMPLIFIER
LEFT
RIGHT
SOLID STATE
635CSi

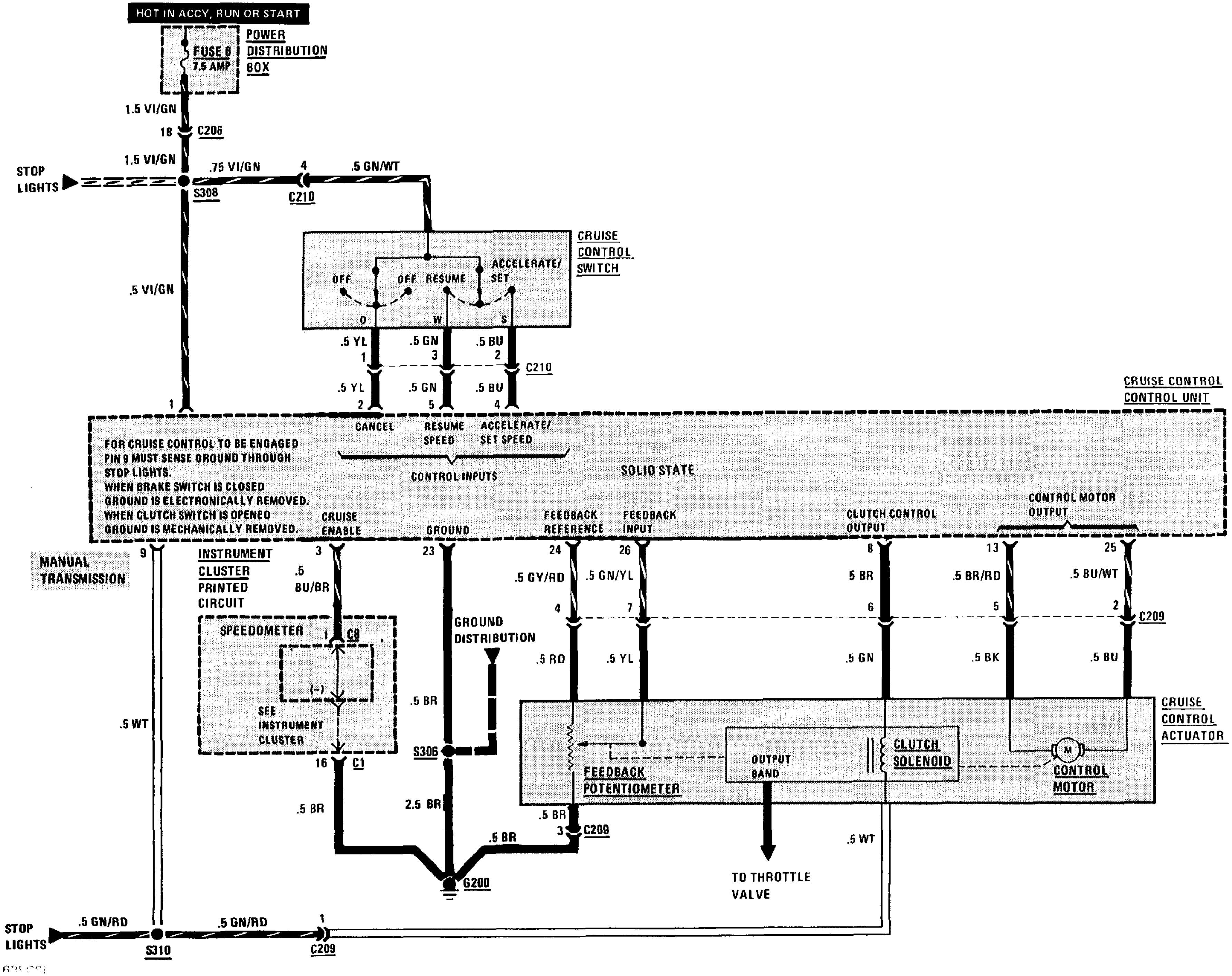

.75 GY/GN
RIGHT FRONT TWEETER
RIGHT FRONT SPEAKER
.75 GY/BR
1 GY/BR
1 GY/BR
1 GY/WT
2
3
.75 GY/GN
LEFT FRONT TWEETER
LEFT FRONT SPEAKER
.75 GY/VI
.75 GY/VI
1 GY/VI
1 GY/RD
16
17
AMPLIFIER
RIGHT FRONT
LEFT FRONT
LEFT REAR
RIGHT REAR
1
7
4
5
.75 BK/VI
.75 BK/RD
.75 BK/BR
.75 BK/WT
3
1
2
LEFT REAR SPEAKER
GN/BK
GN/BK
3
1
2
RIGHT REAR SPEAKER
GN/BK
GN/BK

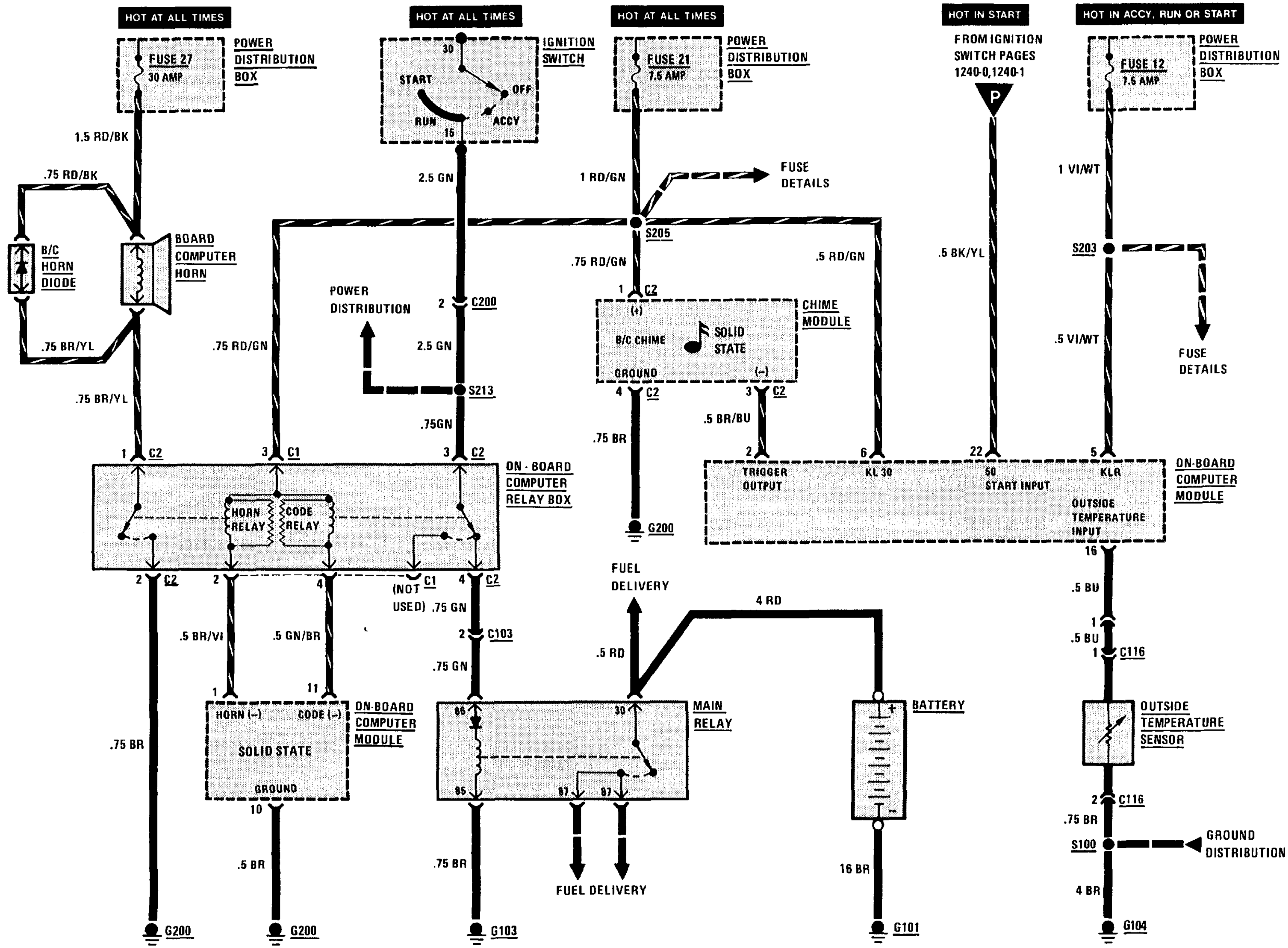

HOT IN RUN OR START
FUSE 10
7.5 AMP
POWER DISTRIBUTION BOX
.75 GN/WT
FUSE DETAILS
1.5 GN/WT
FUSE DETAILS
S212
1.5 GN/WT
11
C220
1.5 GN/YL
1
C301
AUTOMATIC TRANSMISSION
.5 GN/WT
ELECTRONIC TRANSMISSION CONTROL
.75 GN/WT
3 C1
SPEEDOMETER
SOLID STATE
SPEED OUTPUT
INSTRUMENT CLUSTER PRINTED CIRCUIT
2 C8
TEMPO
.5 BR/RD
.5 BR/RD
ON-BOARD COMPUTER
9 C220
.5 BR/RD
(NOT USED)
.5 BR/RD
6
VEHICLE SPEED INPUT
AUTOMATIC TRANSMISSION CRUISE ENABLE
CRUISE CONTROL CONTROL UNIT
3
.5 BU/BR
AUTOMATIC TRANSMISSION RANGE SWITCH
1
2
3
D
N
R
P
6 C1
.5 BU/BR
ELECTRONIC TRANSMISSION CONTROL
.5 BU/BR
7
6
TRANSMISSION RANGE DISPLAY
"N"
GROUND
SEE LIGHT SWITCH DETAILS (DASH/TRANSMISSION RANGE)
G200

EARLY PRODUCTION



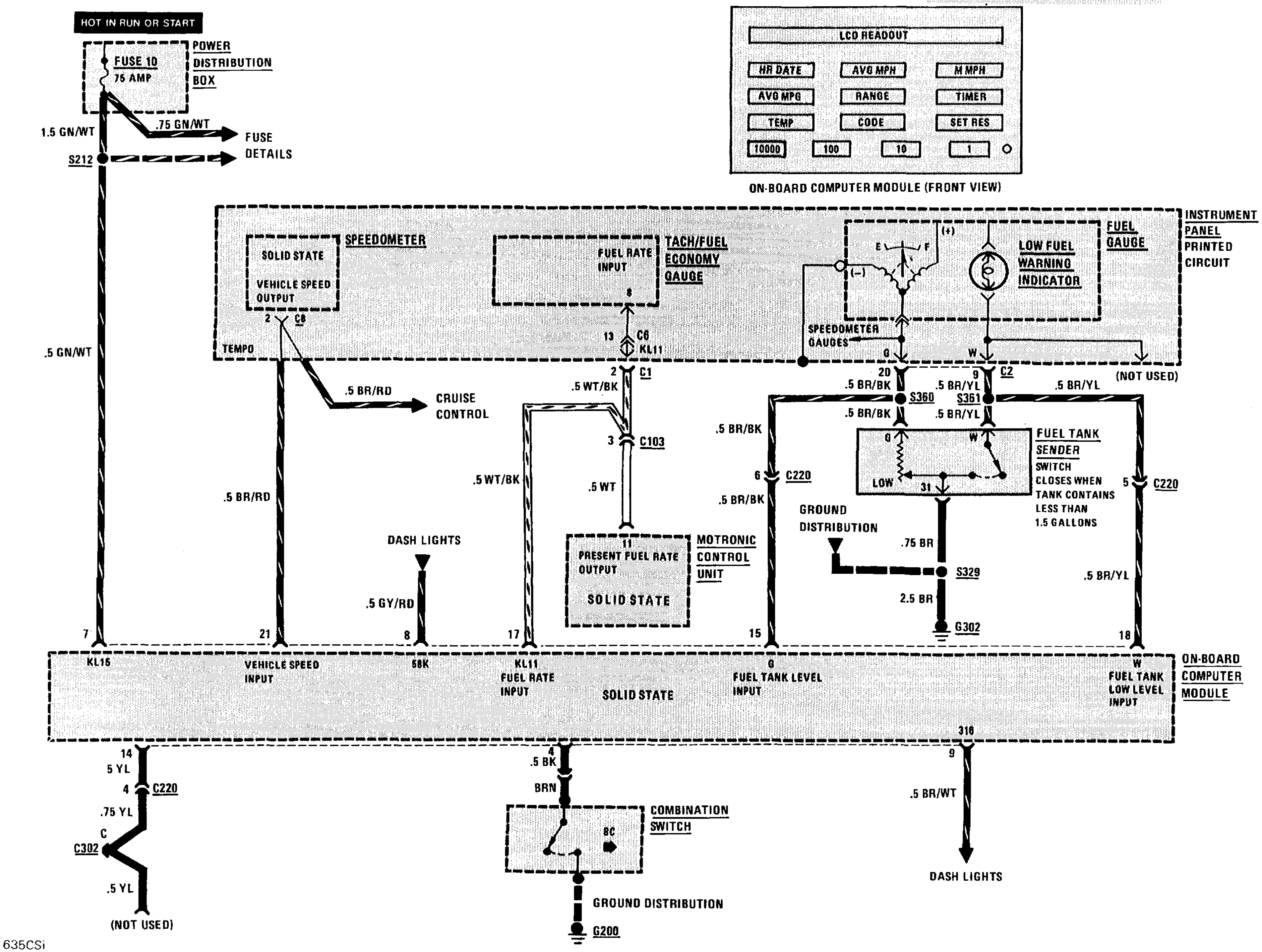
LATE PRODUCTION



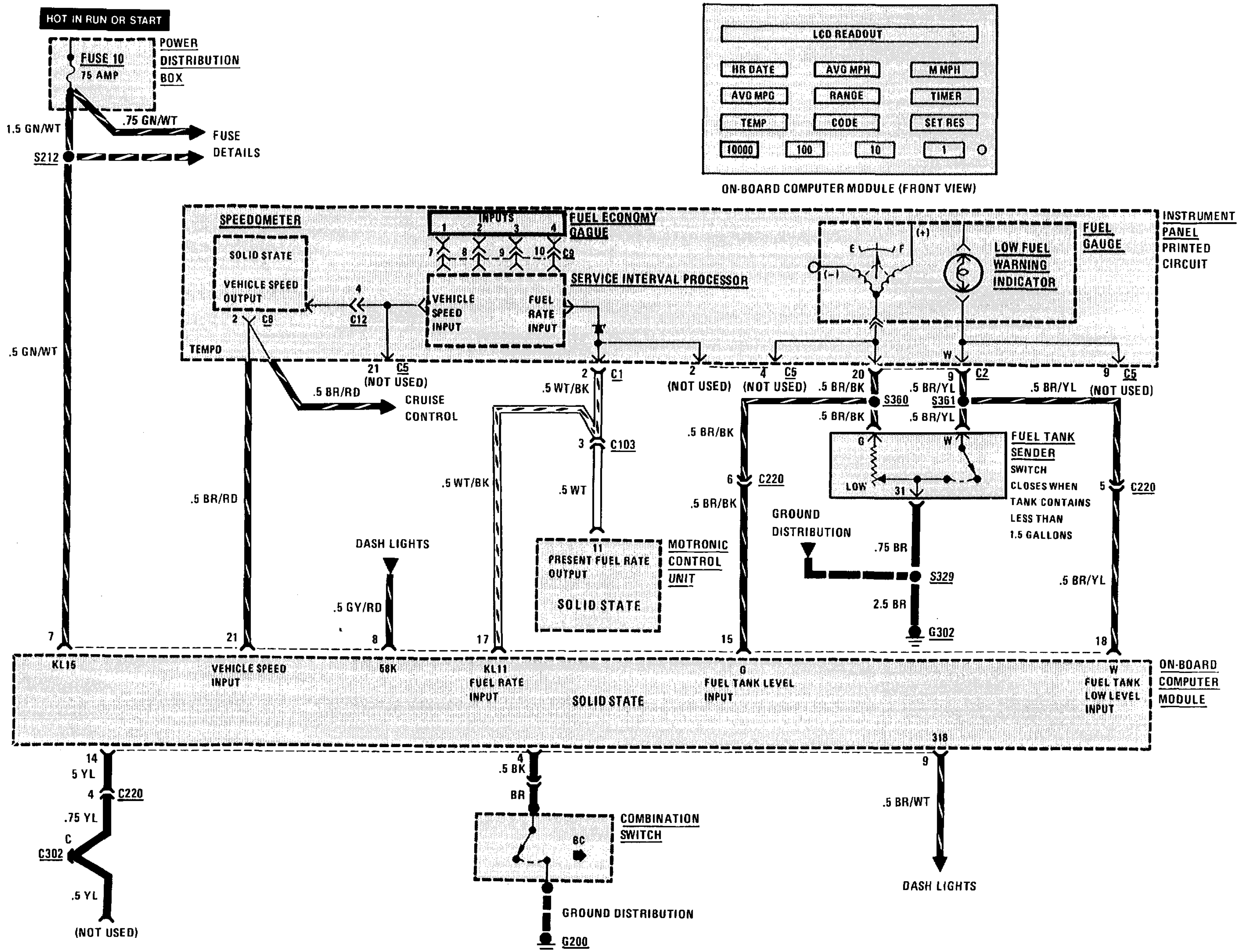

HOT AT ALL TIMES
FUSE 27
30 AMP
POWER DISTRIBUTION BOX
1.5 RD/BK
.75 RD/BK
B/C HORN DIODE
BOARD COMPUTER HORN
.75 BR/YL
.75 BR/YL
HOT AT ALL TIMES
IGNITION SWITCH
30
START
OFF
RUN
ACCY
15
2.5 GN
POWER DISTRIBUTION
2 C200
2.5 GN
S213
.75GN
.75 RD/GN
HOT AT ALL TIMES
FUSE 21
7.5 AMP
POWER DISTRIBUTION BOX
1 RD/GN
FUSE DETAILS
S205
.75 RD/GN
1 C2
(+)
B/C CHIME
SOLID STATE
GROUND
(-)
CHIME MODULE
4 C2
3 C2
.5 BR/BU
.75 BR
G200
.5 RD/GN
HOT IN START
FROM IGNITION SWITCH PAGES 1240-0,1240-1
P
.5 BK/YL
HOT IN ACCY, RUN OR START
FUSE 12
7.5 AMP
POWER DISTRIBUTION BOX
1 VI/WT
S203
FUSE DETAILS
.5 VI/WT
1 C2
3 C1
3 C2
HORN RELAY
CODE RELAY
ON - BOARD COMPUTER RELAY BOX
2 C2
2
4
C1
4 C2
(NOT USED)
2
TRIGGER OUTPUT
6
KL 30
22
50
START INPUT
5
KLR
OUTSIDE TEMPERATURE INPUT
ON-BOARD COMPUTER MODULE
16
.5 BU
1
.5 BU
1 C116
OUTSIDE TEMPERATURE SENSOR
2 C116
.75 BR
S100
GROUND DISTRIBUTION
4 BR
G104
.75 BR
G200
.5 BR/VI
.5 GN/BR
1
11
HORN (-)
CODE (-)
SOLID STATE
GROUND
ON-BOARD COMPUTER MODULE
10
.5 BR
G200
.75 GN
2 C103
.75 GN
FUEL DELIVERY
.5 RD
4 RD
86
30
85
87
87
MAIN RELAY
.75 BR
G103
FUEL DELIVERY
BATTERY
16 BR
G101

635

EARLY PRODUCTION



LATE PRODUCTION



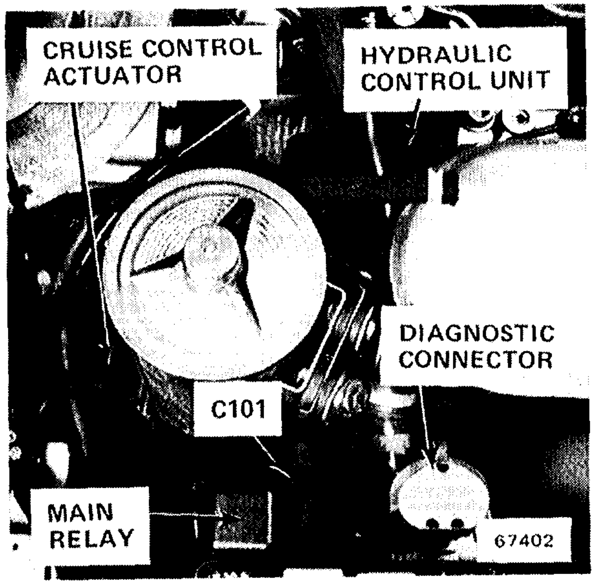


Figure 1 - Right of Left Front Wheel Well

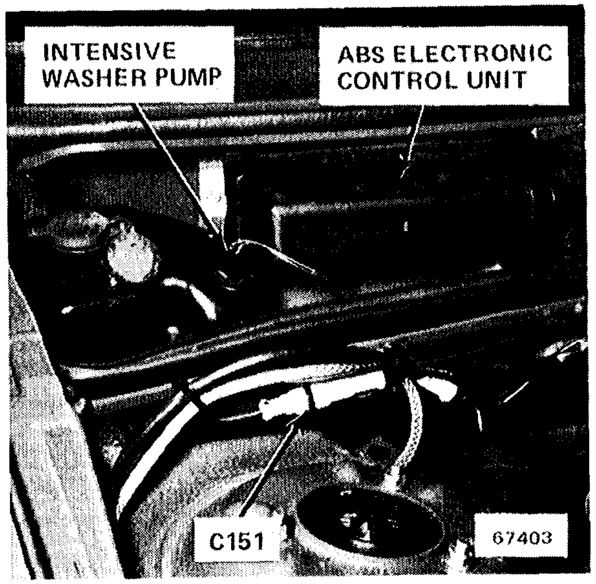


Figure 3 - RH Rear Corner of Engine Compartment

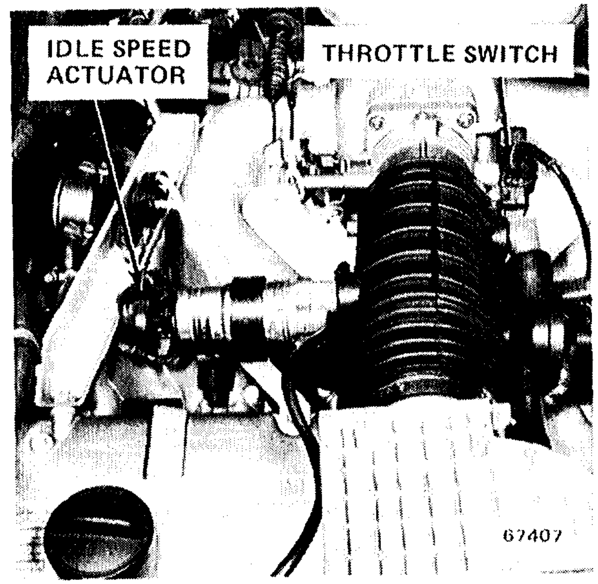


Figure 5 - Top Center of Engine

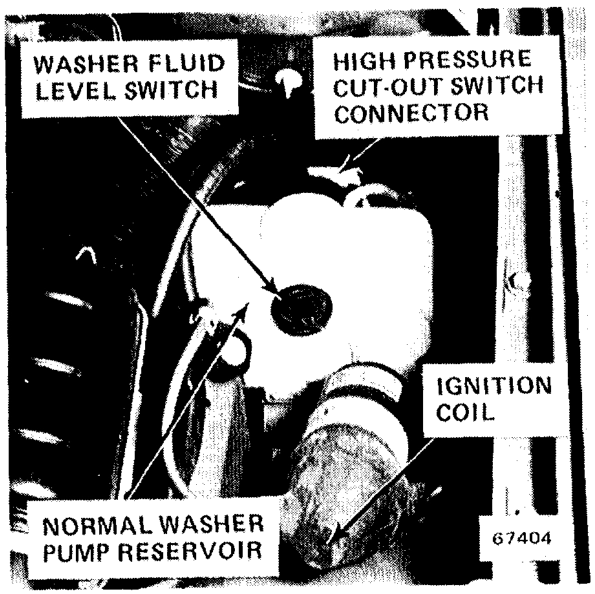


Figure 2 - Ahead of Right Front Wheel Well

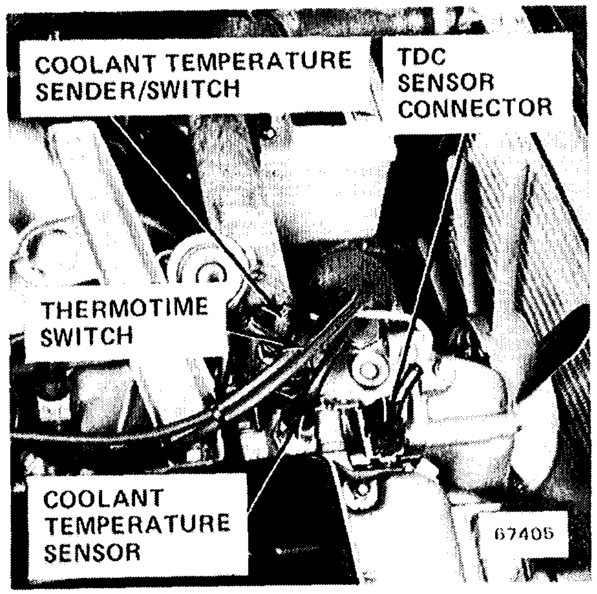


Figure 4 - Top Front of Engine

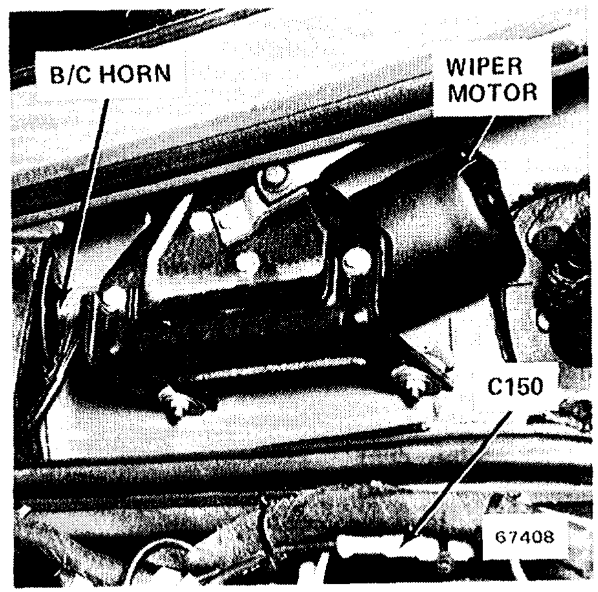


Figure 6 - Under Left Side of Cowl

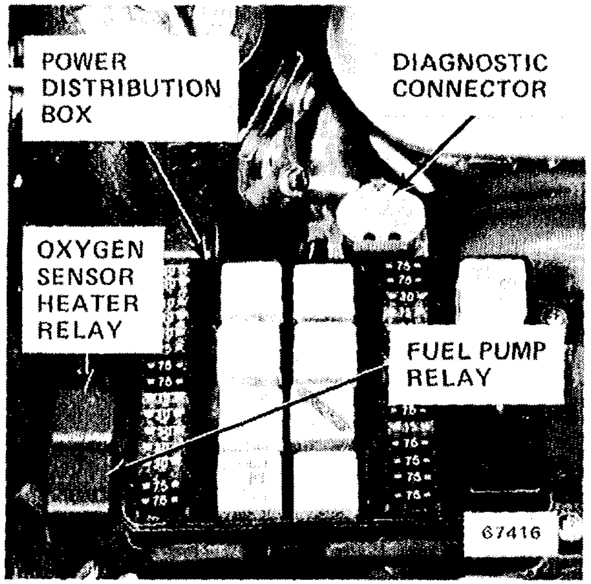


Figure 1 - Top of Left Front Wheel Well

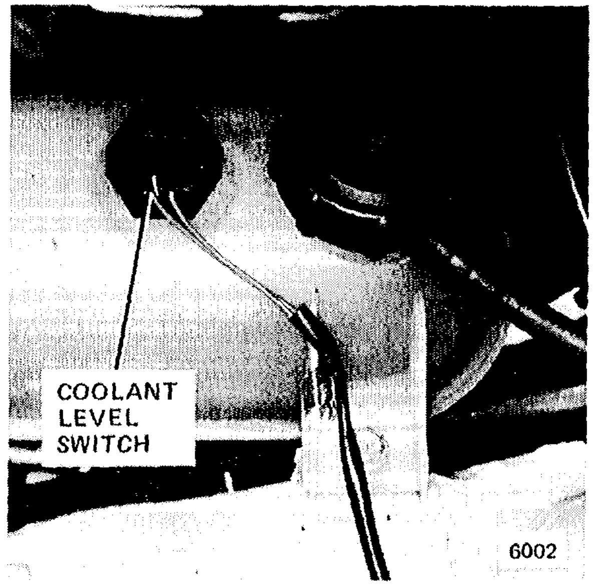


Figure 3 - Right of Left Front Wheel Well

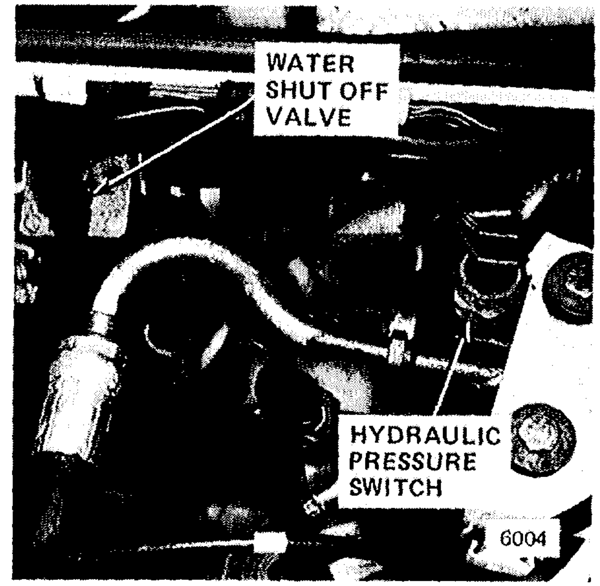


Figure 5 - Left Rear Corner of Engine Compartment

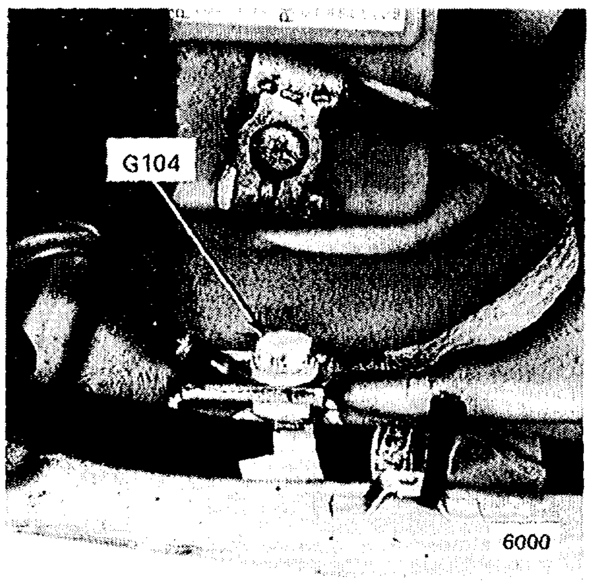


Figure 2 - Inner Fender, Left of Battery

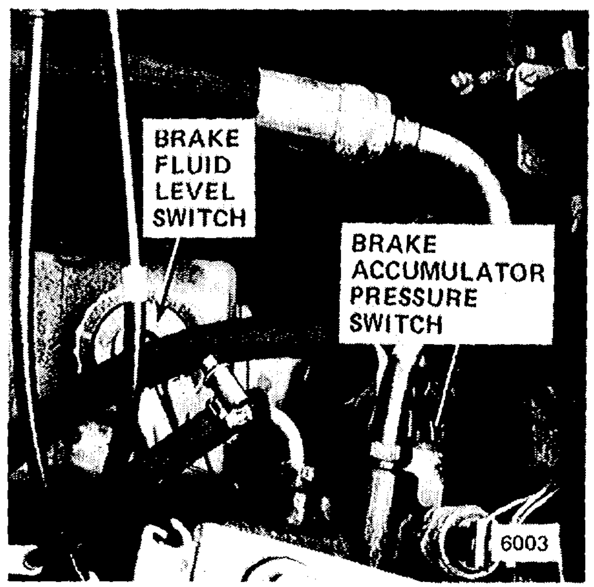


Figure 4 - Left Rear Corner of Engine Compartment

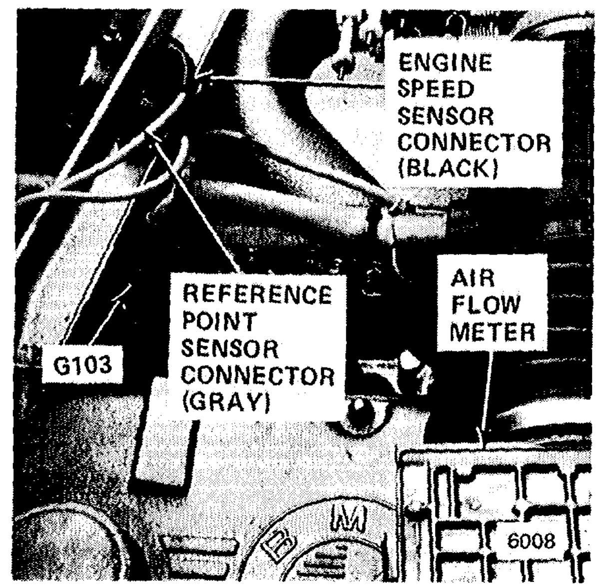


Figure 6 - Top Rear of Engine

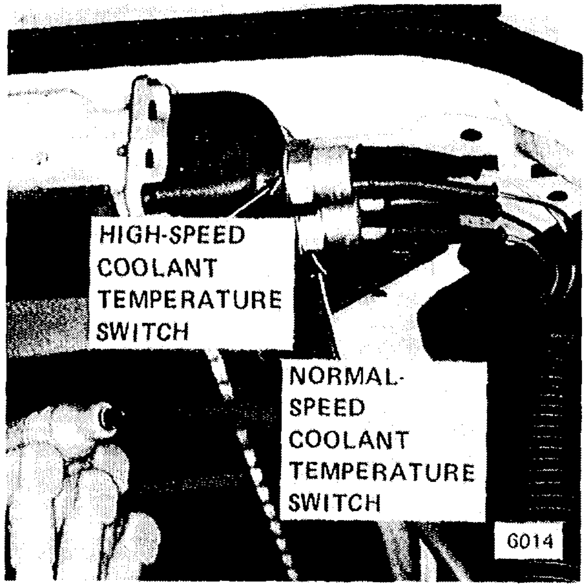


Figure 1 - Top Right Side of Radiator

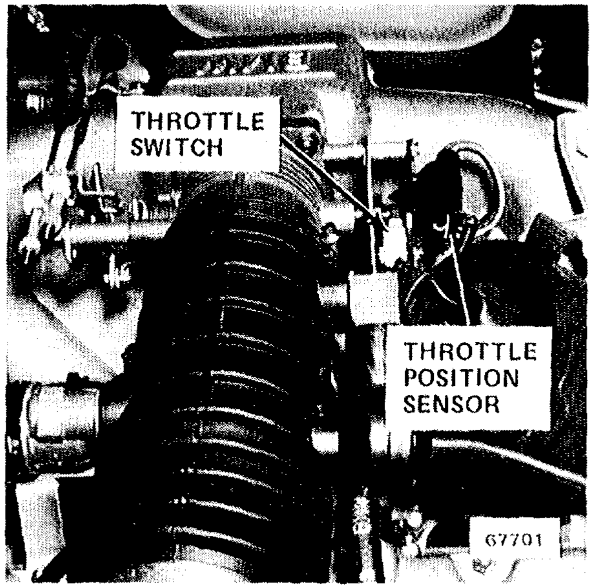


Figure 3 - Top Center of Engine

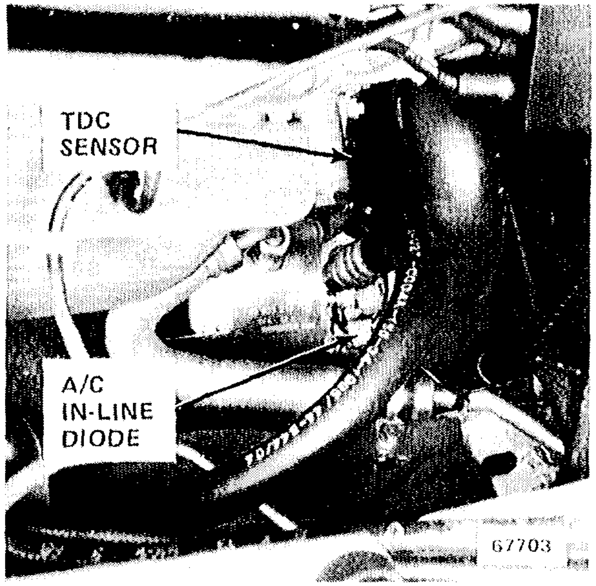


Figure 5 - RH Front of Engine

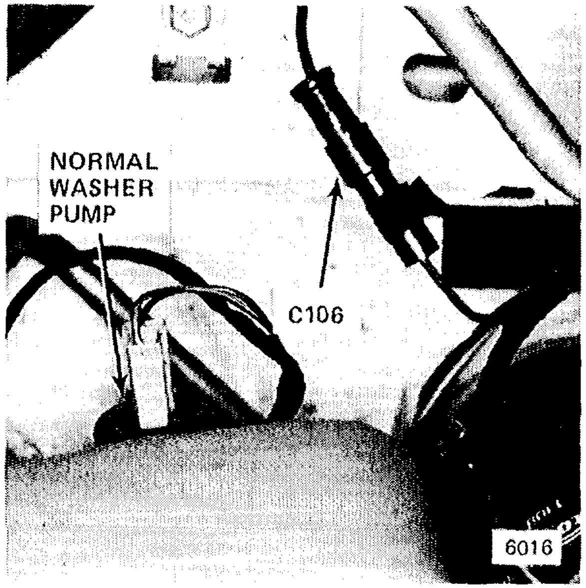


Figure 2 - Ahead of Right Front Wheel Well

Figure 4 - Rear of Engine

Figure 6 - LH Front Wheel Well

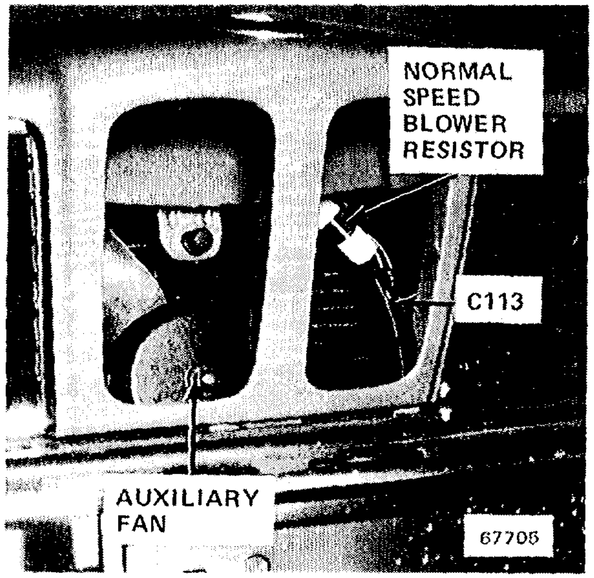


Figure 1 - Front of Car (Center Grills Removed)

Figure 3 - Behind Left Side of Console

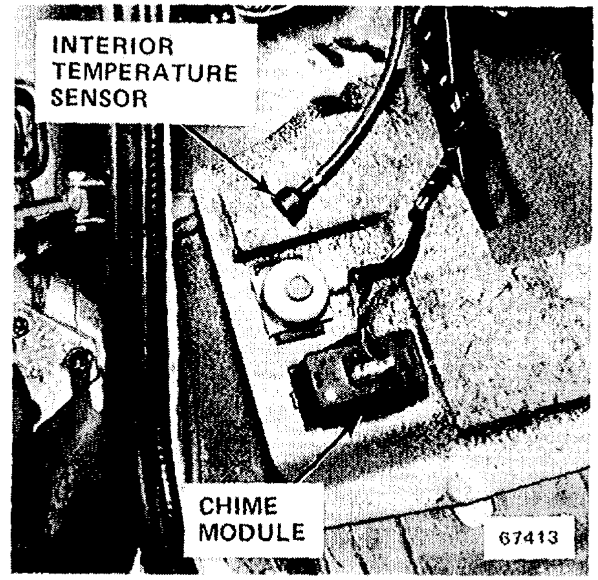


Figure 5 - Behind Dash, Left of Steering Column

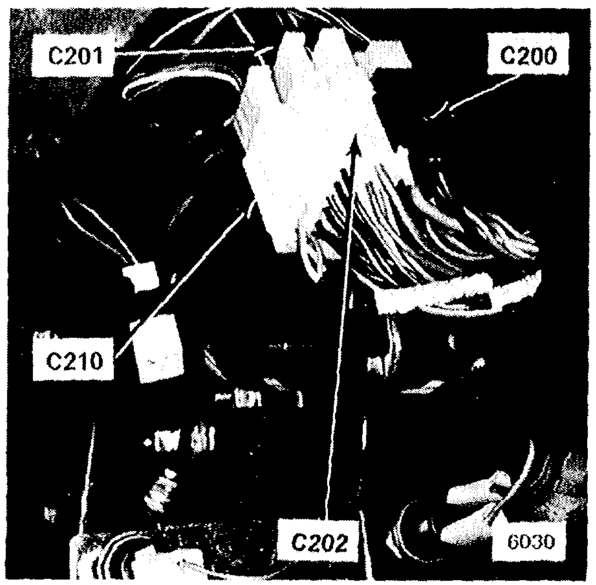


Figure 2 - Driver's Footwell, Above Brake Pedal

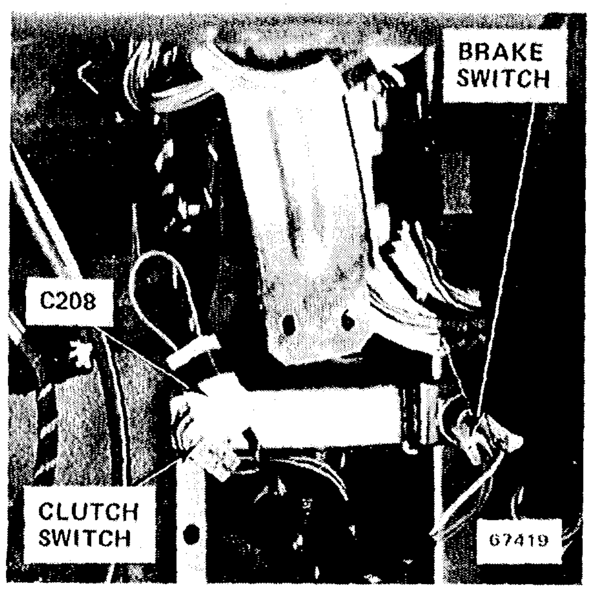


Figure 4 - Driver's Footwell, Above Brake Pedal

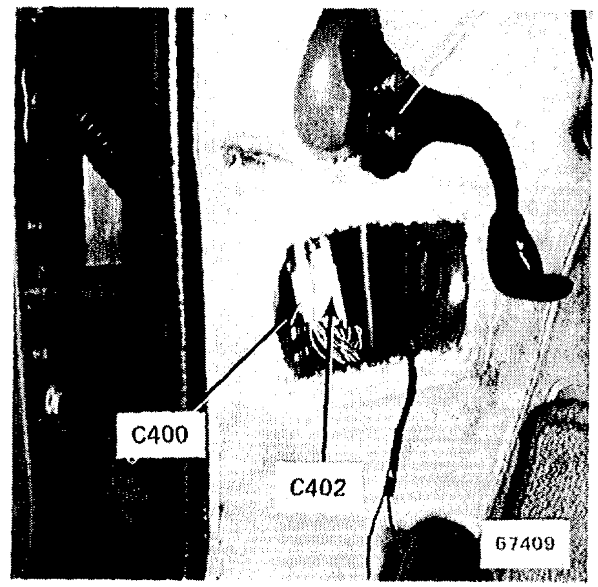


Figure 6 - LH Front Kick Panel

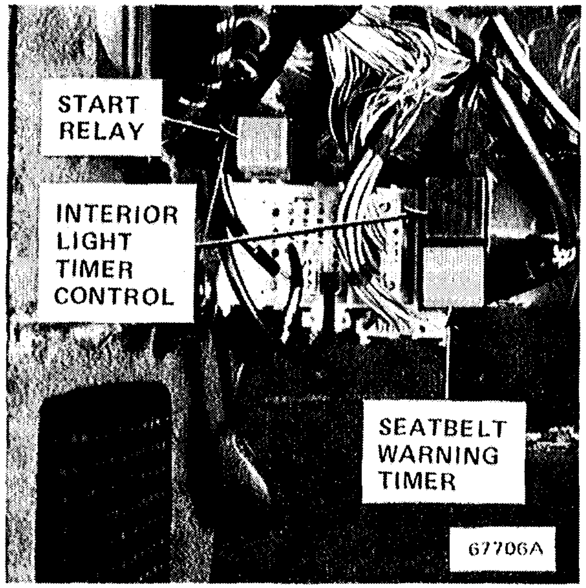


Figure 1 - Near LH Front Kick Panel

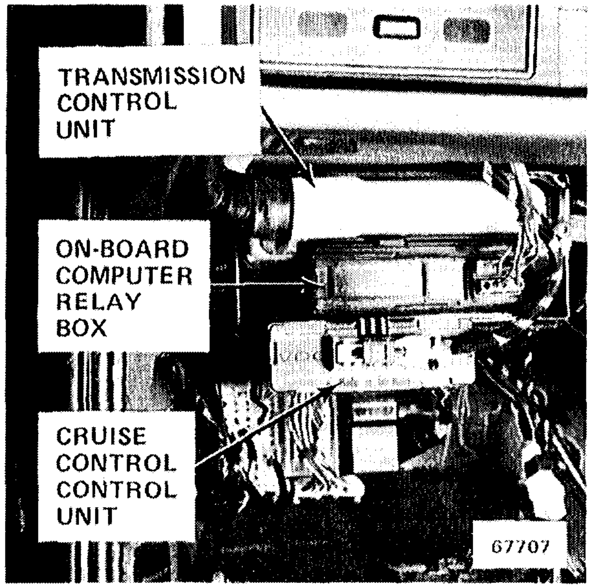


Figure 3 - Above LH Front Kick Panel

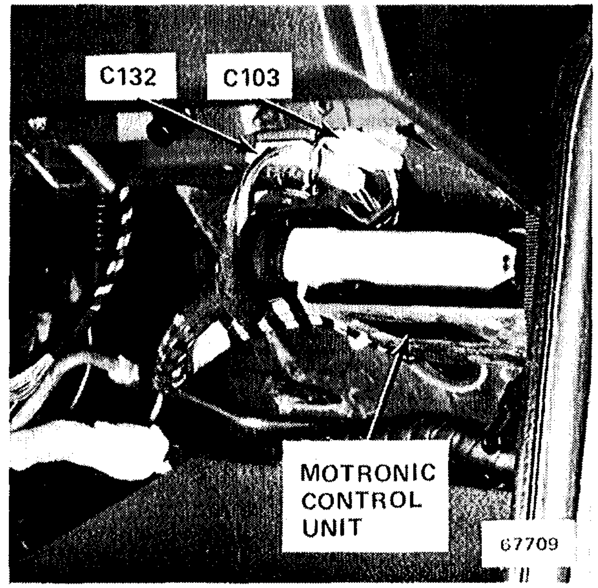


Figure 5 - Above Glove Box

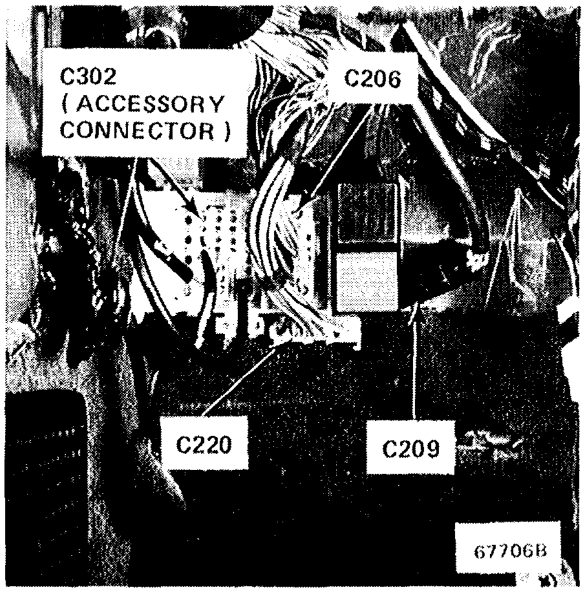


Figure 2 - Near LH Front Kick Panel

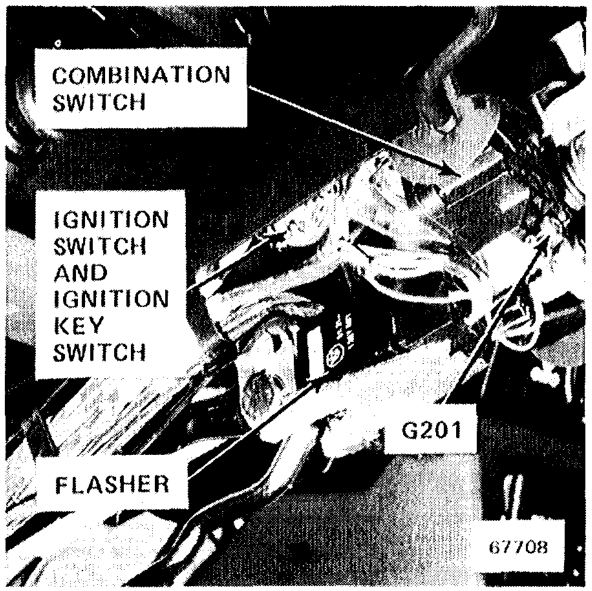


Figure 4 - Underside of Steering Column

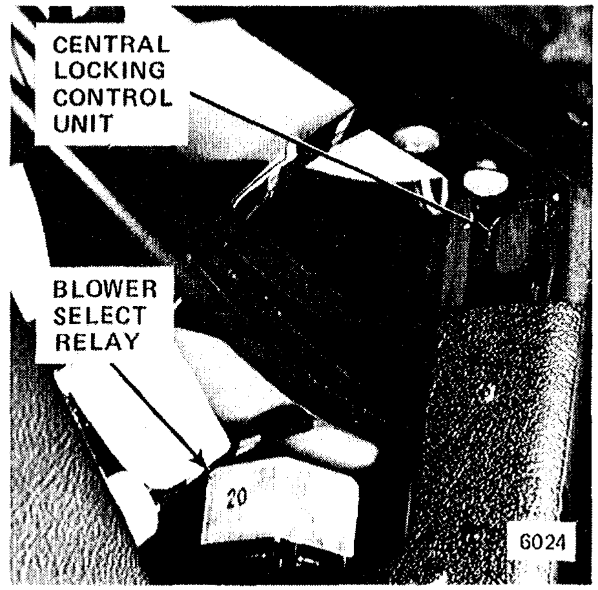


Figure 6 - Behind Dash, Left of Glove Box

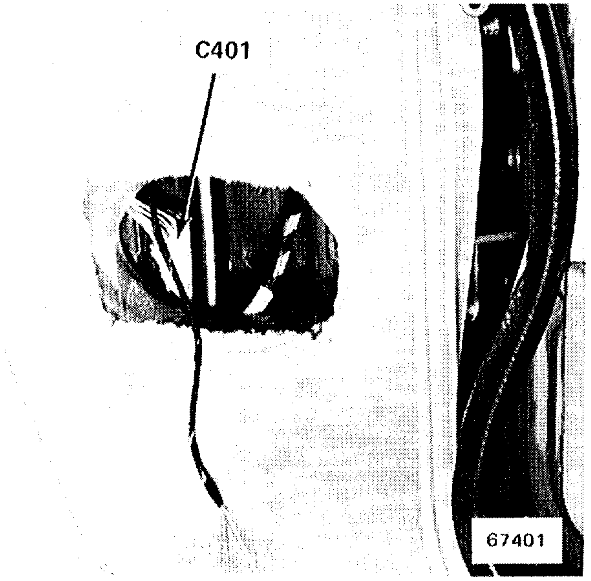


Figure 1 - RH Front Kick Panel

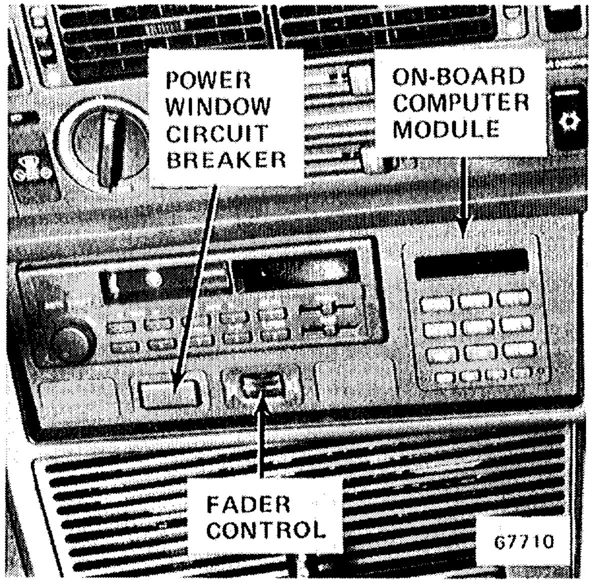


Figure 3 - Center Console

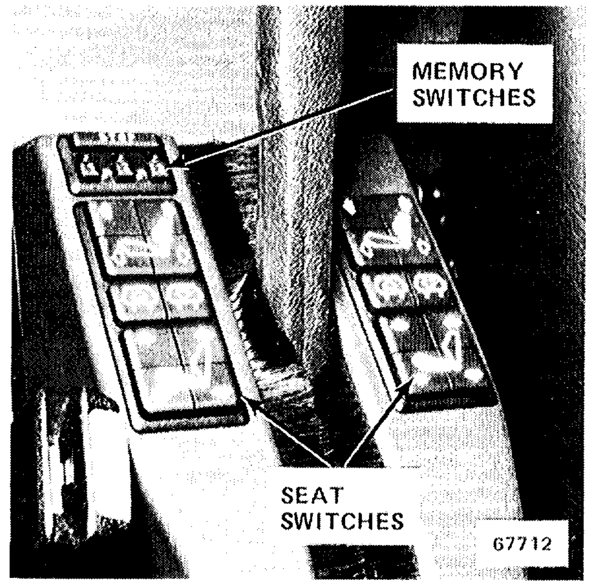


Figure 5 - Center Console

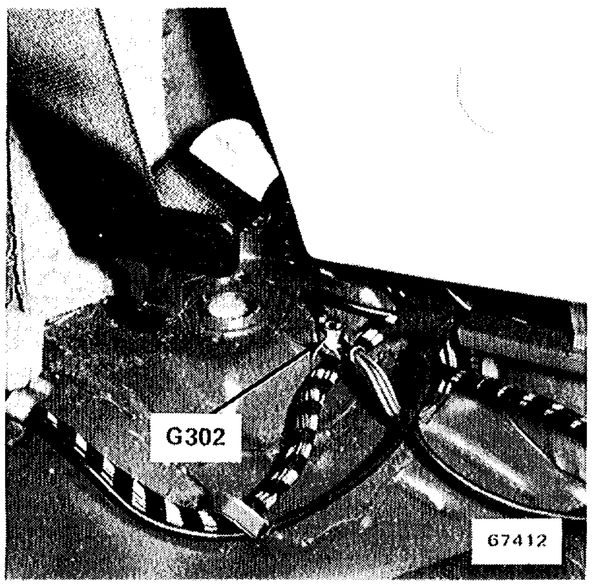


Figure 2 - Under LH Side of Rear Seat

Figure 4 - Center Console

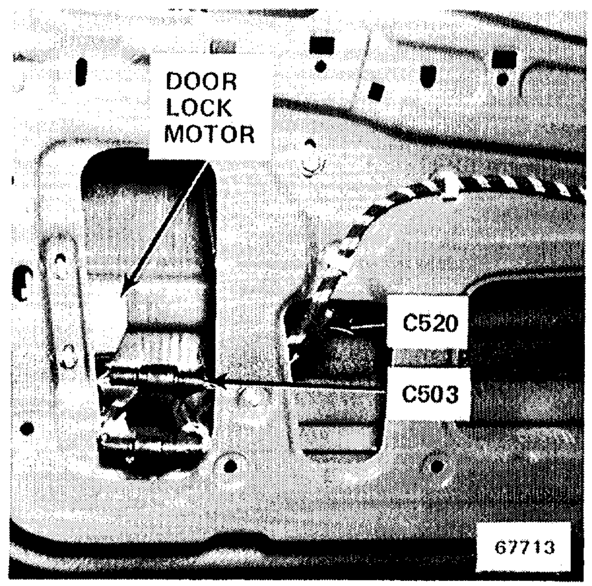


Figure 6 - Inside Driver's Door

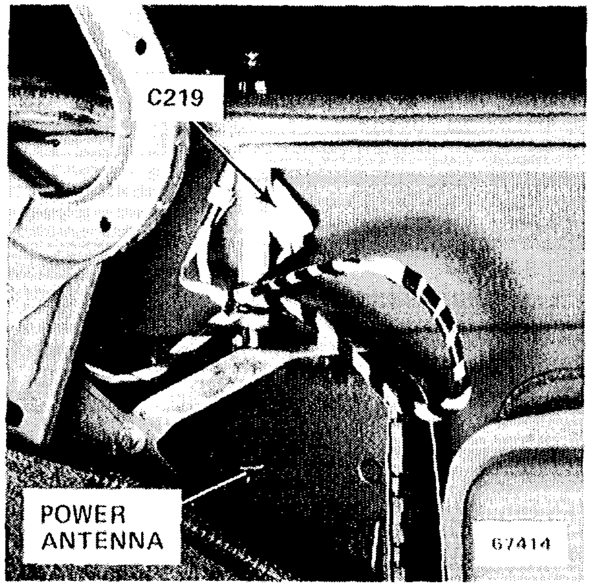


Figure 1 - RH Side of Trunk

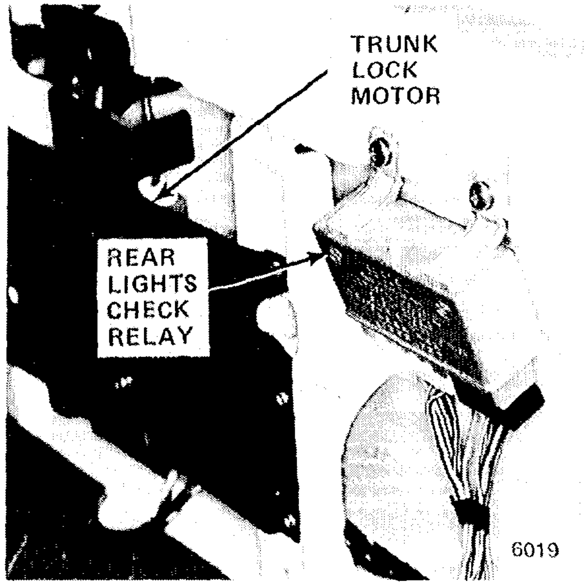


Figure 3 - Rear Panel of Trunk

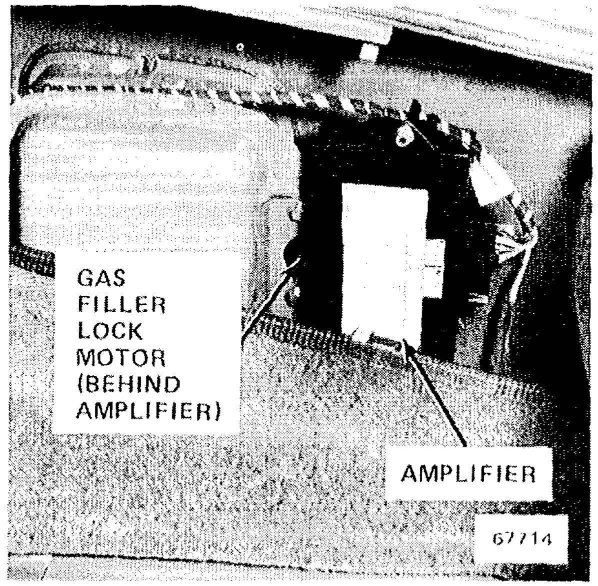


Figure 5 - Right Side of Trunk

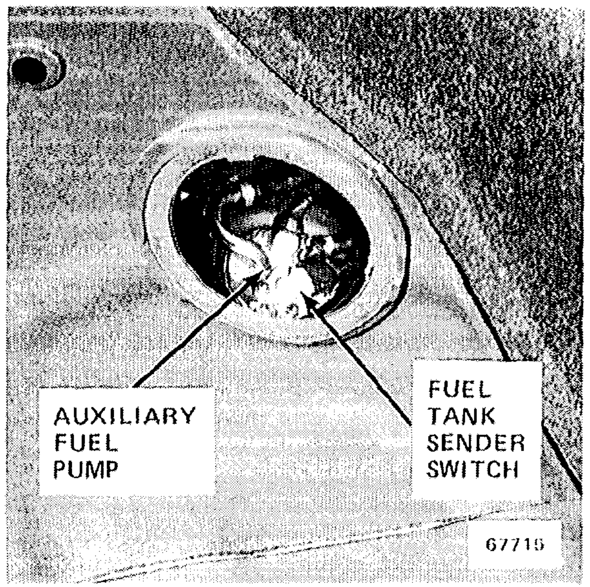


Figure 2 - RH Side of Trunk Floor

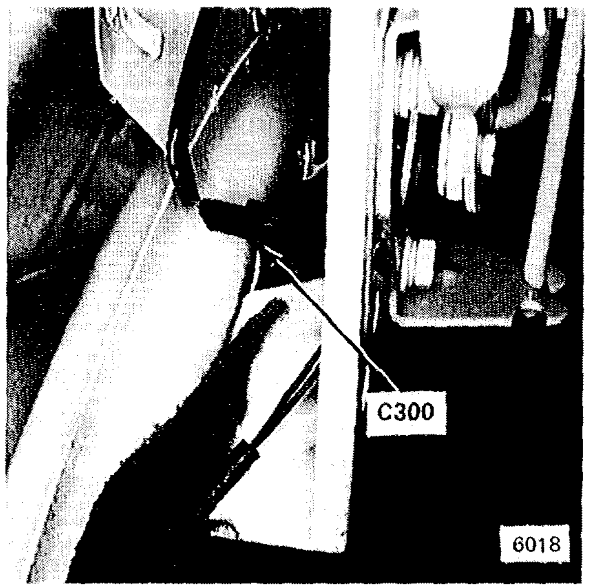


Figure 4 - Left Trunk Hinge

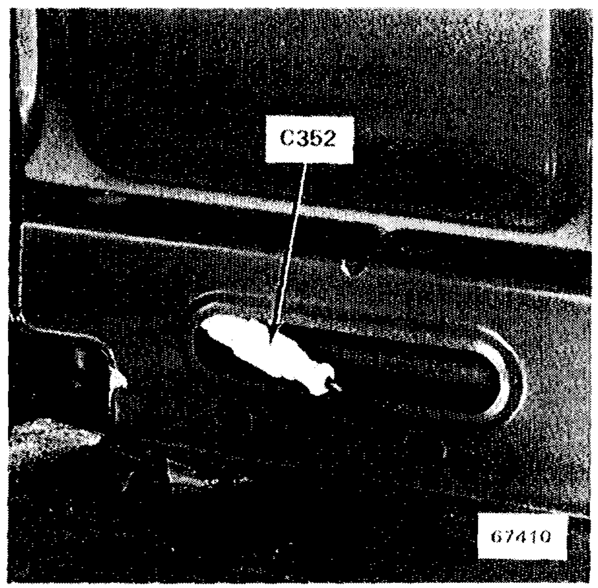


Figure 6 - LH Front of Trunk

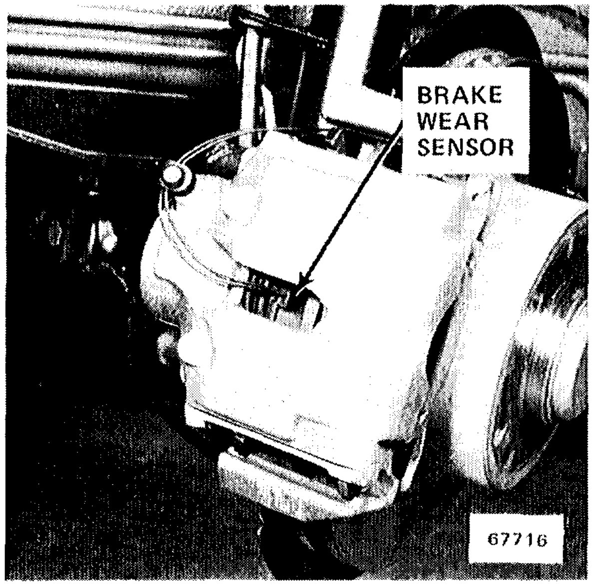


Figure 1 - LH Front Brake Assembly (RH Rear Similar)

Figure 2 - Bottom of Oil Pan

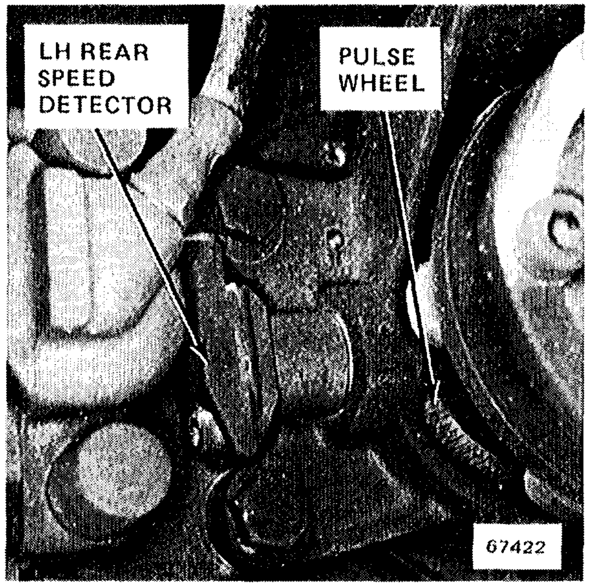


Figure 3 - Back of Left Rear Wheel

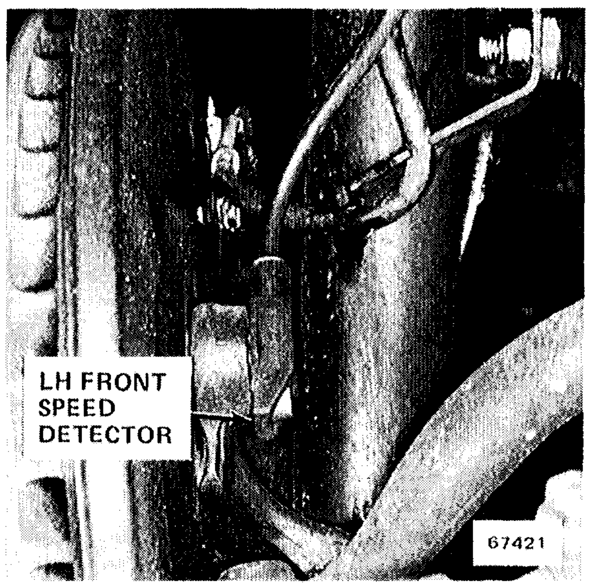


Figure 4 - Back of Left Front Wheel

SPLICE LOCATION 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.

Index-Splice Locations 635

SPLICE	HARNESS	PAGE NUMBER
S100	FRONT	8000-1
S101	FRONT	8000-1
S102	FRONT	8000-1
S103	FRONT	8000-1
S104	FRONT	8000-1
S105	ENGINE	8000-3
S106	ENGINE	8000-3
S108	ENGINE	8000-3
S109	ENGINE	8000-3
S110	ENGINE	8000-3
S111	MIDDLE	8000-2
S112	MIDDLE	8000-2
S113	MIDDLE	8000-2
S115	MIDDLE	8000-2
S116	MIDDLE	8000-2
S117	FRONT	8000-1
S118	WASHER JETS	NOT SHOWN
S119	WASHER JETS	NOT SHOWN
S151	MIDDLE	8000-2
S200	MIDDLE	8000-2
S201	MIDDLE	8000-2
S202	MIDDLE	8000-2
S203	MIDDLE	8000-2
S204	MIDDLE	8000-2
S205	MIDDLE	8000-2
S206	MIDDLE	8000-2
S207	MIDDLE	8000-2
S209	MIDDLE	8000-2
S210	MIDDLE	8000-2
S211	MIDDLE	8000-2
S212	MIDDLE	8000-2
S213	MIDDLE	8000-2
S214	MIDDLE	8000-2
S215	MIDDLE	8000-2
S216	MIDDLE	8000-2
S217	MIDDLE	8000-2
S221	REAR	8000-4
S222	REAR	8000-4
S223	REAR	8000-4
S225	A/C	NOT SHOWN
S226	A/C	NOT SHOWN
S227	A/C	NOT SHOWN
S228	A/C	NOT SHOWN
S229	A/C	NOT SHOWN
S230	A/C	NOT SHOWN
S300	REAR	8000-4
S301	REAR	8000-4
S302	REAR	8000-4
S303	REAR	8000-4
S306	REAR	8000-4
S307	REAR	8000-4
S308	REAR	8000-4
S309	REAR	8000-4
S310	REAR	8000-4
S313	REAR	8000-4
S314	REAR	8000-4
S315	REAR	8000-4
S316	REAR	NOT SHOWN
S319	REAR	8000-4
S320	REAR	8000-4
S324	REAR	8000-4
S325	REAR	8000-4
S326	REAR	8000-4
S327	REAR	8000-4
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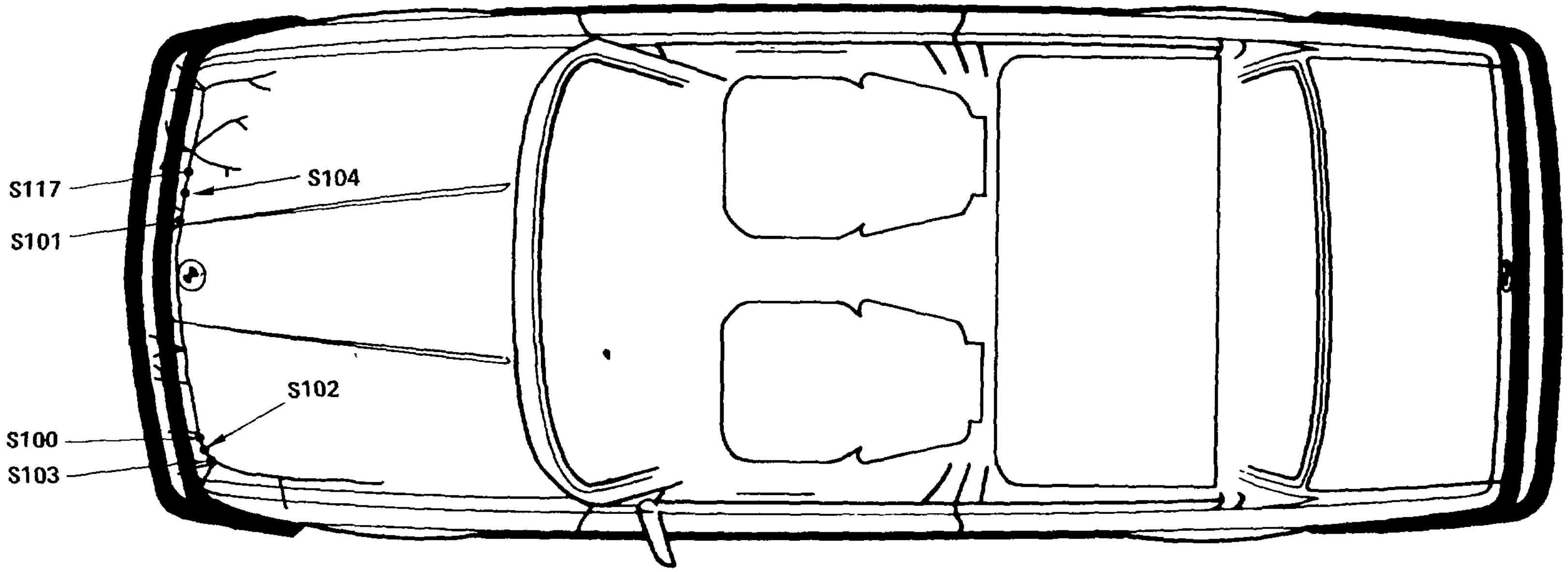
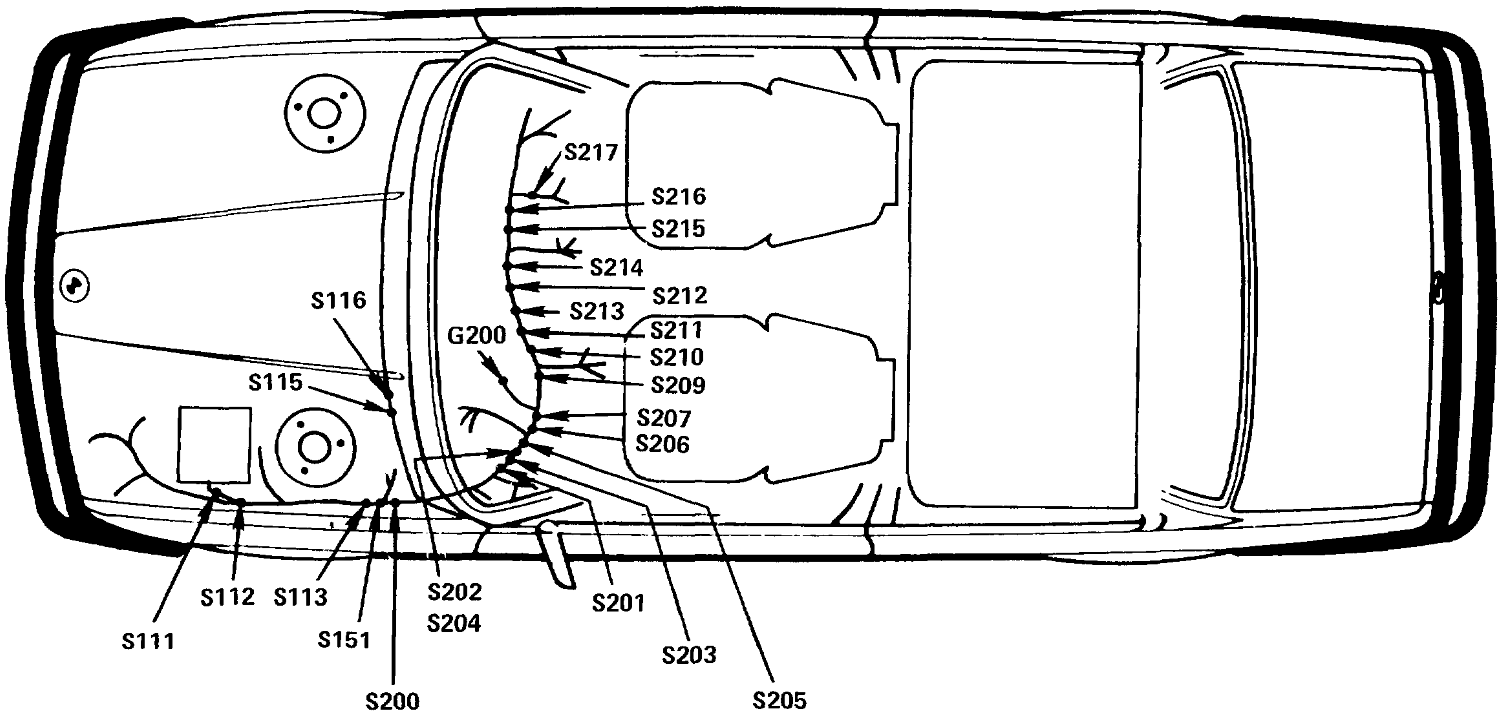
S334	REAR	8000-4
S335	REAR	8000-4
S336	REAR	8000-4
S337	REAR	8000-4
S338	REAR	8000-4
S360	REAR	8000-4
S361	REAR	8000-4
S362	REAR	8000-4
S370	SOUND SYSTEM	NOT SHOWN
S409	DOOR	NOT SHOWN
S502	DOOR	NOT SHOWN
S550	POWER SEATS	NOT SHOWN
S551	POWER SEATS	NOT SHOWN
S552	BOLSTER SUPPORT	NOT SHOWN
S553	BOLSTER SUPPORT	NOT SHOWN
S600	SUNROOF	NOT SHOWN
S601	SUNROOF	NOT SHOWN

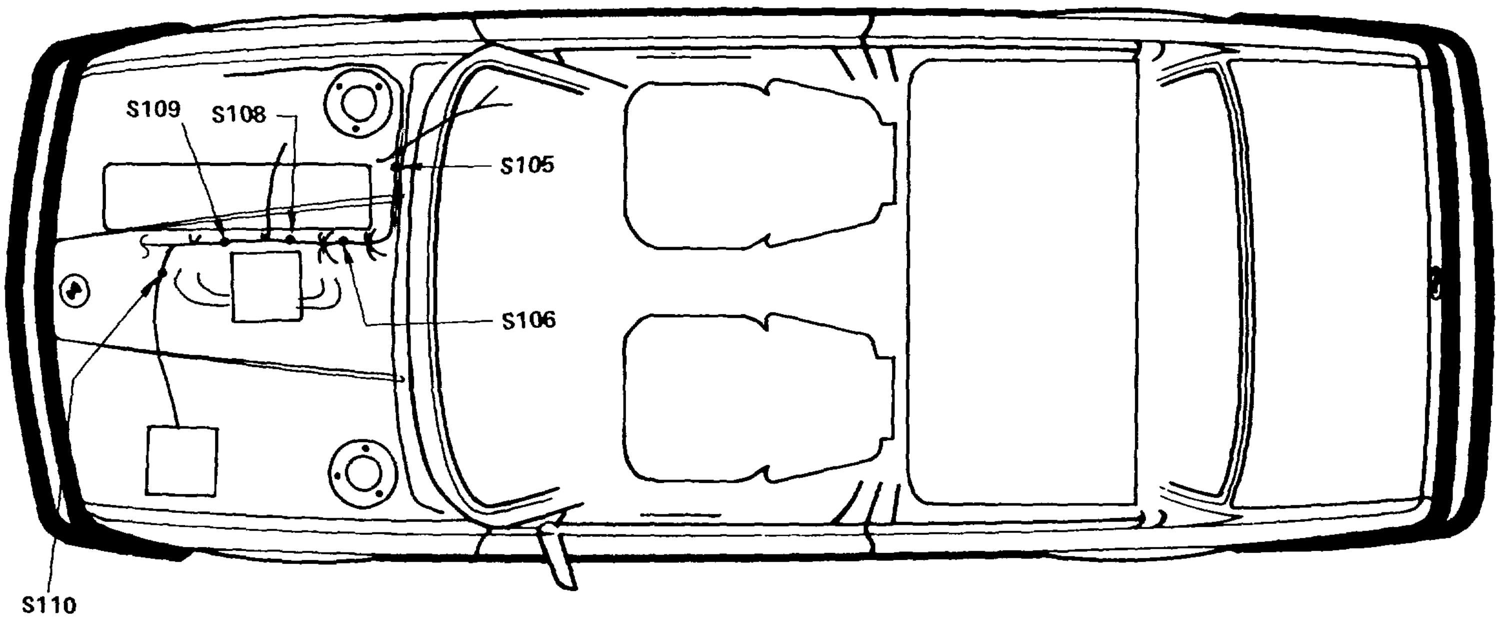
FRONT HARNESS



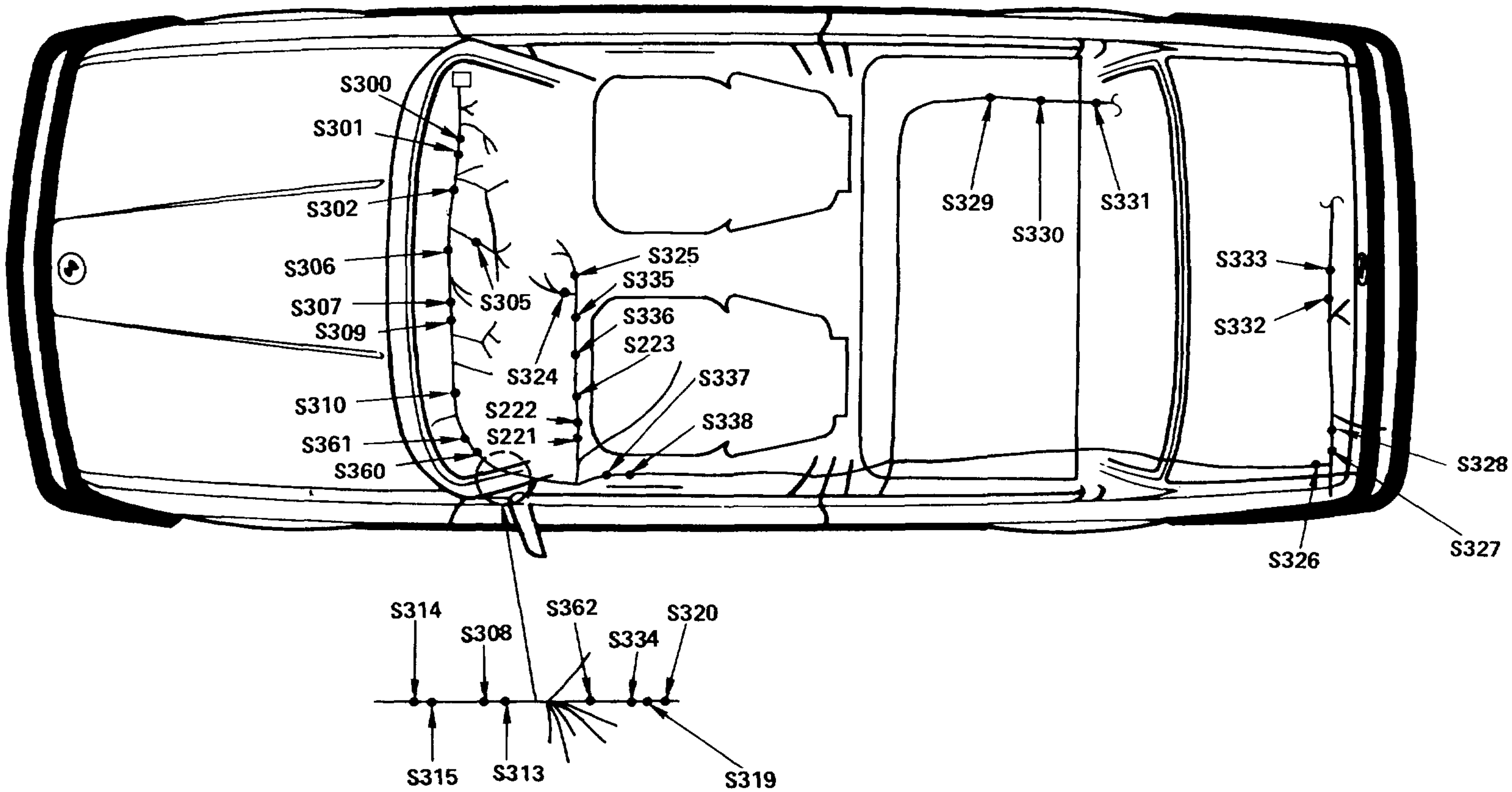
MIDDLE HARNESS



ENGINE HARNESS

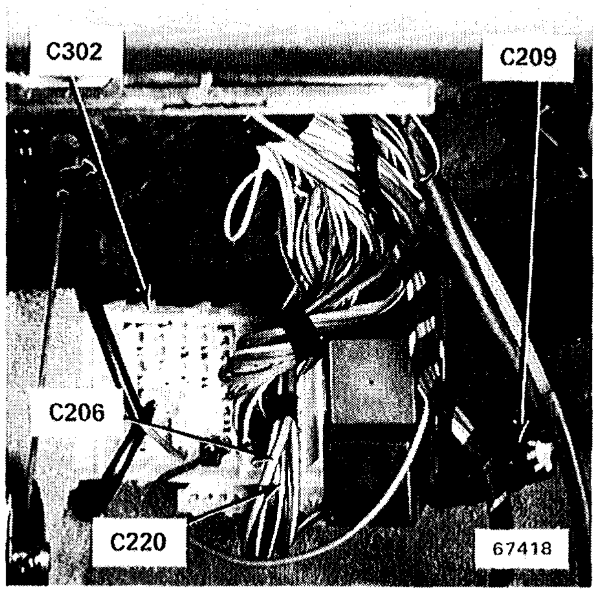


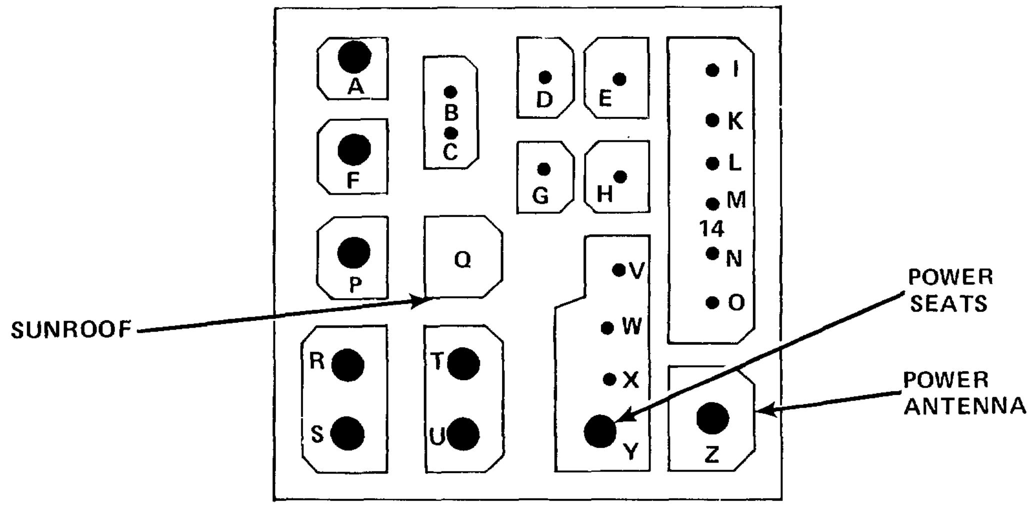
REAR HARNESS



635C

ACCESSORY CONNECTOR (302)

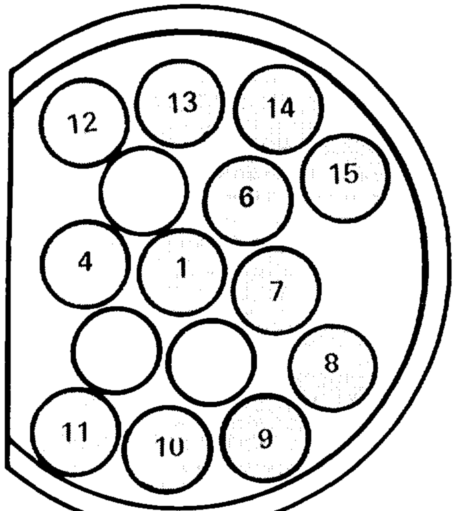




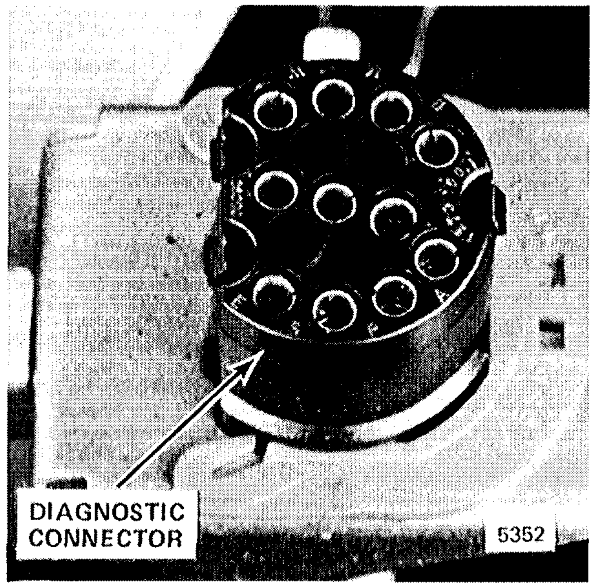
ACCESSORY CONNECTOR C302 FRONT VIEW

Figure 1 - Under Left Side Of Dash

DIAGNOSTIC CONNECTOR



DIAGNOSTIC CONNECTOR FACE



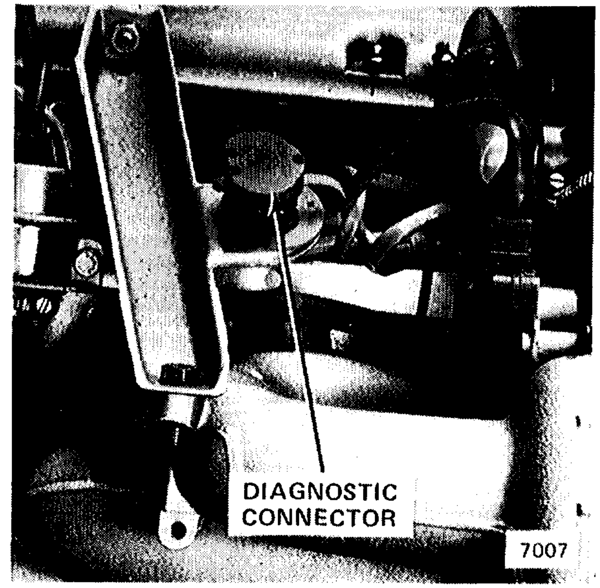
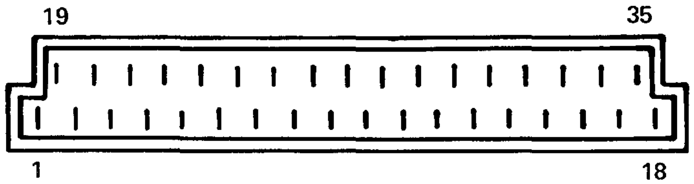


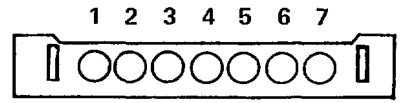
Figure 1 - On Power Distribution Box

PIN	WIRE SIZE	WIRE COLOR	CIRCUIT AND COMPONENT CONNECTED
1	1.5	BR	Ground Distribution, G103
4	.5	BR/WT	Gauges/Warning Indicators, Coolant Temperature Sender.
6	.5	WT/BK	Not Used (Wiring Shown On Charging System)
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	.75	GN	Ignition, Ignition Coil.
14	2.5	RD	Charge System, Alternator.
15	1.5	GN/YL	Oxygen Sensor, Oxygen Sensor Heater Relay.



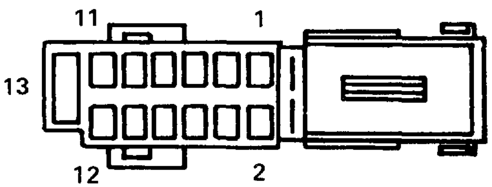
Wiring Face

ABS ELECTRONIC CONTROL UNIT



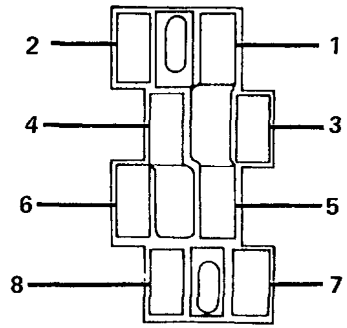
Wiring Face

AIR DOOR CONTROL



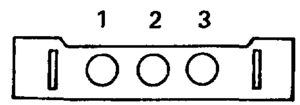
Mating Face

ABS HYDRAULIC UNIT



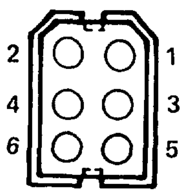
Wiring Face

A/C SELECTOR SWITCH



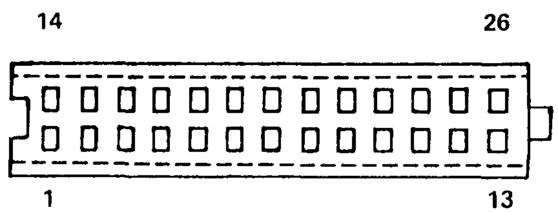
Wiring Face

AIR DOOR POTENTIOMETER



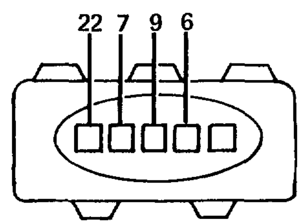
Wiring Face

A/C BLOWER HOUSING



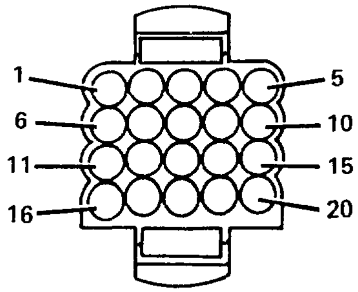
Wiring Face

ACTIVE CHECK CONTROL UNIT



Wiring Face

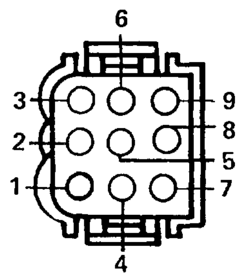
AIR FLOW METER



Wiring Face

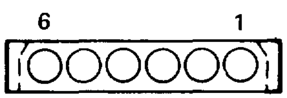
AMPLIFIER

(SOUND SYSTEM)



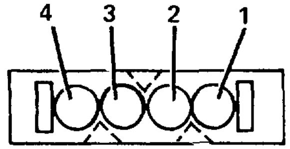
Wiring Face

AUTOMATIC TRANSMISSION RANGE SWITCH



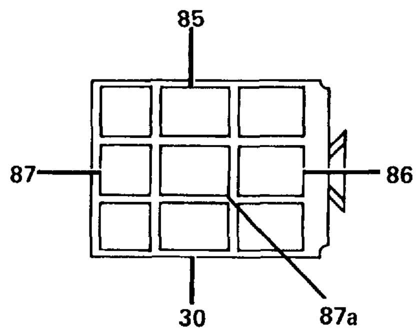
Wiring Face

AUXILIARY EVAPORATOR



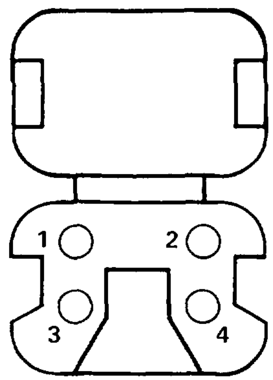
Wiring Face

AUXILIARY HIGH LEVEL STOP LIGHT



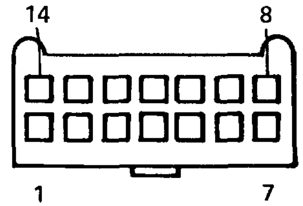
Wiring Face

BLOWER SELECT RELAY



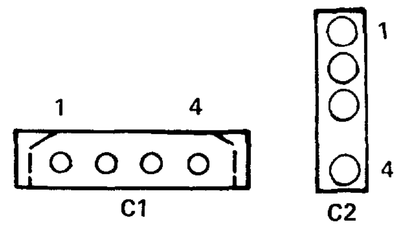
Wiring Face

BLOWER SPEED CONTROL (C1)



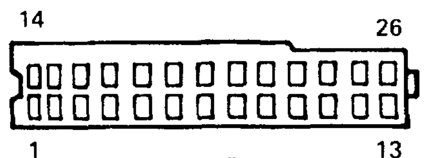
Wiring Face

CENTRAL LOCKING CONTROL UNIT



Wiring Face

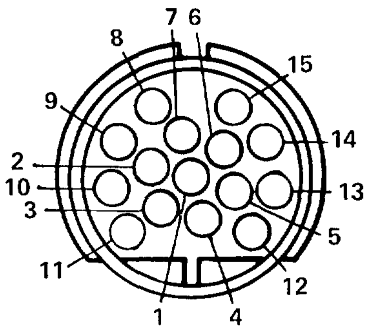
CHIME MODULE



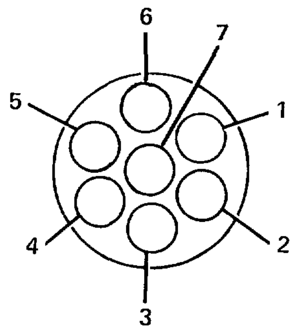
Wiring Face

CRUISE CONTROL

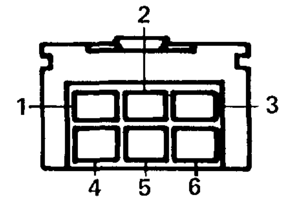
CONTROL UNIT



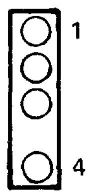
Mating Face
DIAGNOSTIC CONNECTOR



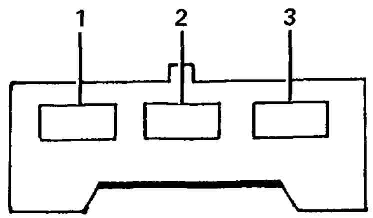
Wiring Face
DRIVER'S SEAT (C8)



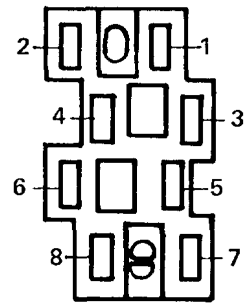
Wiring Face
EVAPORATOR TEMPERATURE REGULATOR



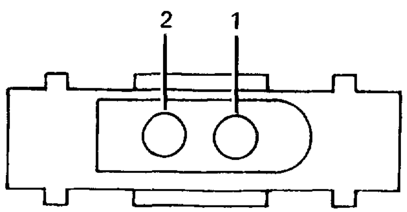
Wiring Face
DIGITAL CLOCK



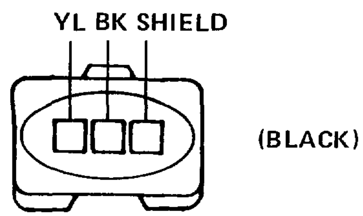
Wiring Face
DRIVER'S SEAT
(C9,C10,C11,C12)



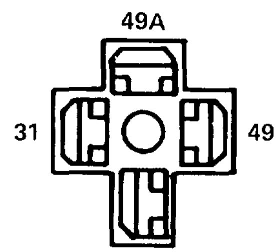
Mating Face
FADER CONTROL



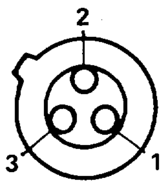
Wiring Face
DRIVER'S SEAT
(C6,C7,C13,C14)



Engine Harness Wiring Face
ENGINE SPEED SENSOR

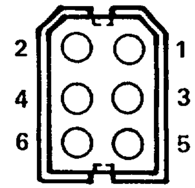


Wiring Face
FLASHER



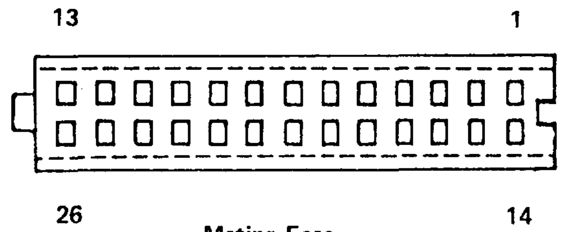
Wiring Face

FRONT TURN PARK LIGHT



Wiring Face

HEATER BLOWER HOUSING



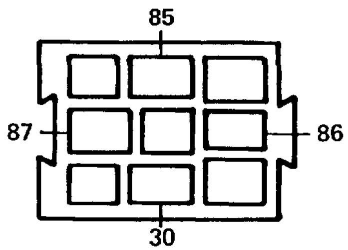
Mating Face

INSTRUMENT CLUSTER

C1= (BLUE)

C2= (WHITE)

C3= (YELLOW)

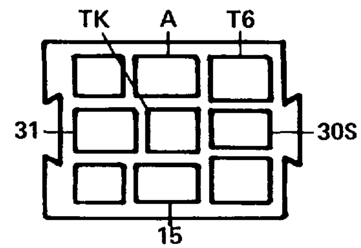


Wiring Face

FUEL PUMP RELAY

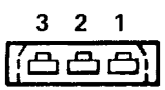
Wiring Face

HEATER REGULATOR



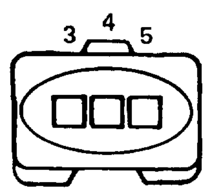
Wiring Face

INTERIOR LIGHT TIMER CONTROL



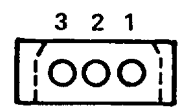
Wiring Face

FUEL TANK SENDER



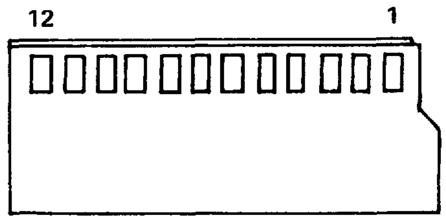
Wiring Face

IDLE SPEED ACTUATOR



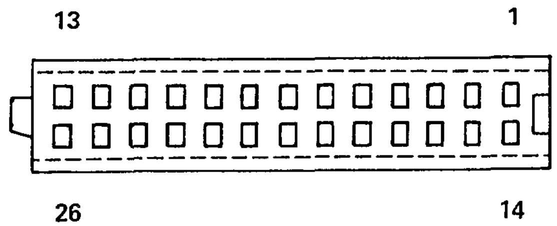
Wiring Face

INTERIOR TEMPERATURE SENSOR



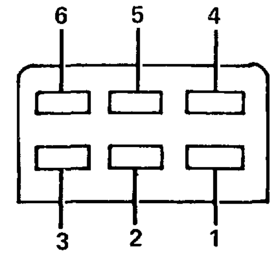
Mating Face

LIGHT SWITCH



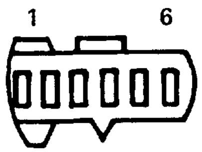
Wiring Face

MEMORY SEAT CONTROL UNIT (C1)



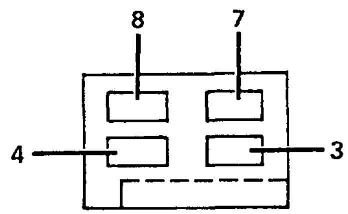
Wiring Face

MEMORY SEAT CONTROL UNIT (C4)



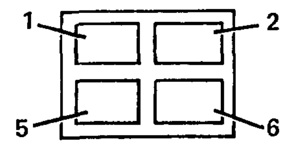
Wiring Face

LOCK MOTOR (CENTRAL LOCKING)



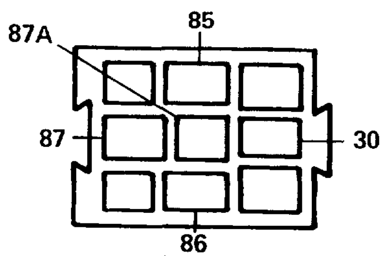
Wiring Face

MEMORY SEAT CONTROL UNIT (C2)



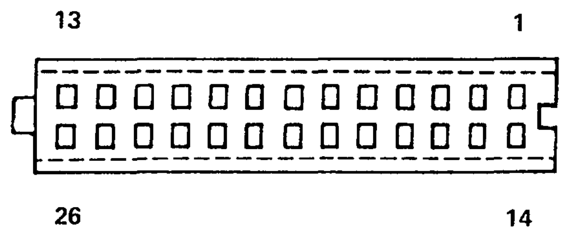
Wiring Face

MEMORY SEAT CONTROL UNIT (C5)



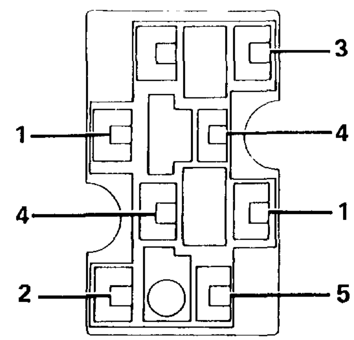
Wiring Face

MAIN RELAY



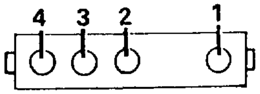
Wiring Face

MEMORY SEAT CONTROL UNIT (C3)



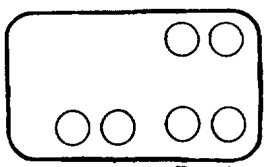
Wiring Face

MEMORY SWITCH



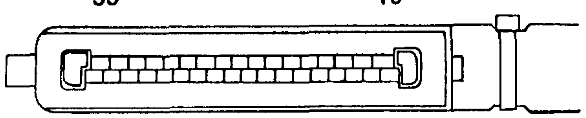
Wiring Face

MIRROR



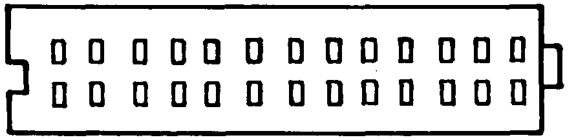
Mating Face

MIRROR CONTROL SWITCH



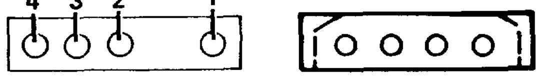
Mating Face

MOTRONIC CONTROL UNIT



Wiring Face

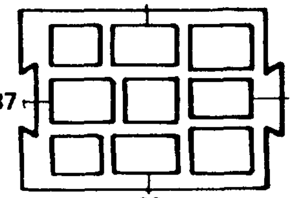
ON BOARD COMPUTER MODULE



Wiring Face C1

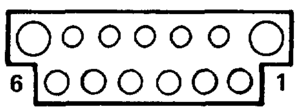
Wiring Face C2

ON-BOARD COMPUTER RELAY BOX



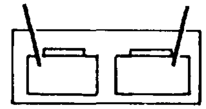
Wiring Face

OXYGEN SENSOR HEATER RELAY



Wiring Face

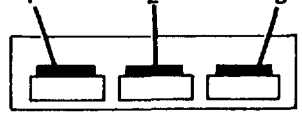
PASSENGER SEAT CONTROLLER (C1)



Wiring Face

PROGRAM SWITCH (C1)

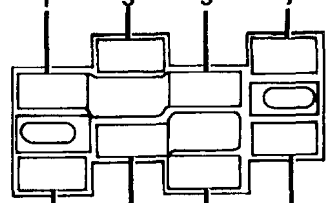
(ELECTRONIC TRANSMISSION)



Wiring Face

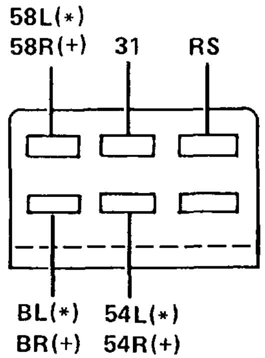
PROGRAM SWITCH (C2)

(ELECTRONIC TRANSMISSION)



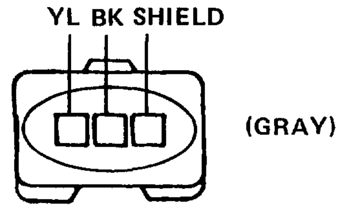
Wiring Face

REAR DEFOGGER SWITCH



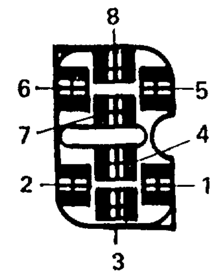
(*)=LEFT SIDE
(+)=RIGHT SIDE

REAR LIGHT ASSEMBLY



Engine Harness Wiring Face

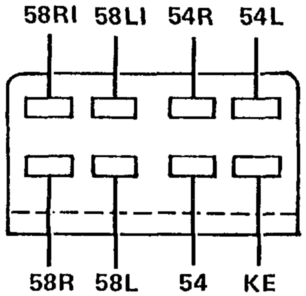
REFERENCE POINT SENSOR



Wiring Face

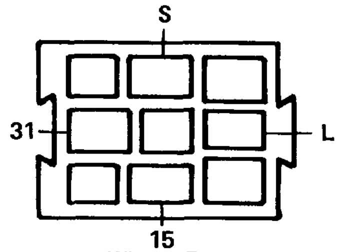
SEATSWITCH (C2)

(FRONT/REAR)



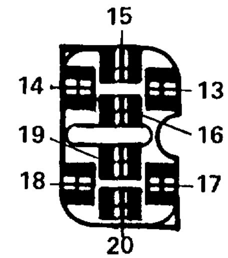
Wiring Face

REAR LIGHTS CHECK RELAY (C1)



Wiring Face

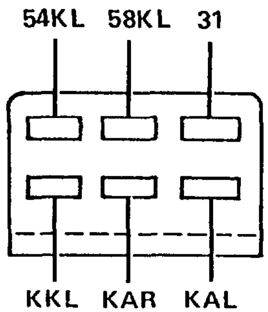
SEAT BELT WARNING TIMER



Wiring Face

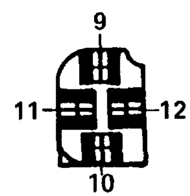
SEAT SWITCH (C3)

(ENTIRE SEAT/SEAT BACK RECLINER)



Wiring Face

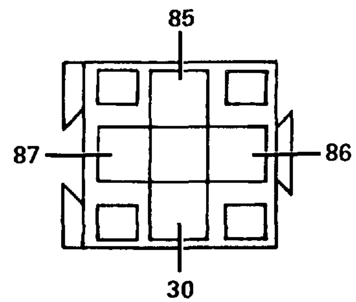
REAR LIGHTS CHECK RELAY (C2)



Wiring Face

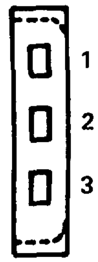
SEAT SWITCH (C1)

(HEADREST)

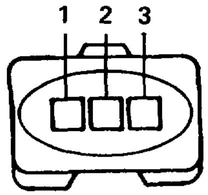


Wiring Face

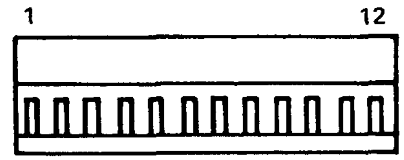
START RELAY



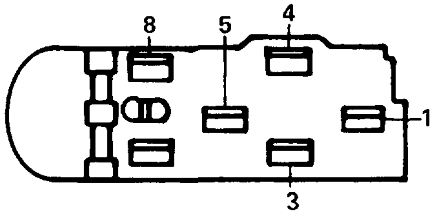
Wiring Face
SUNROOF MOTOR (CI)



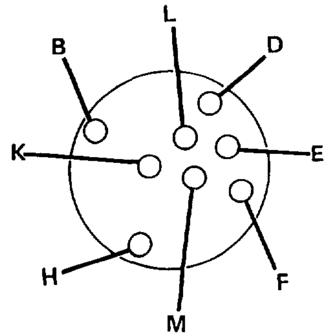
Wiring Face
THROTTLE SWITCH
(MANUAL TRANSMISSION)



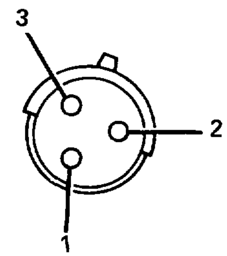
Wiring Face
TRANSMISSION RANGE DISPLAY



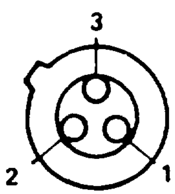
Wiring Face
SUNROOF SWITCH



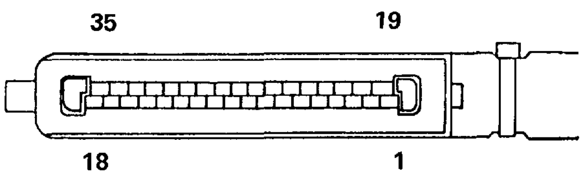
Wiring Face
TRANSMISSION



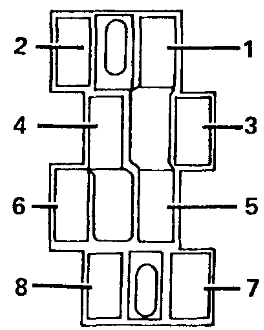
Mating Face
UNLOCK INHIBIT SWITCH



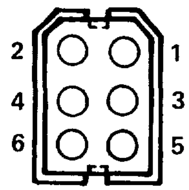
Wiring Face
THROTTLE POSITION SENSOR
(ELECTRONIC TRANSMISSION)



Mating Face
TRANSMISSION CONTROL UNIT

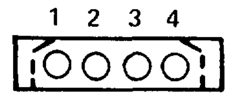


Wiring Face
WINDOW SWITCHES



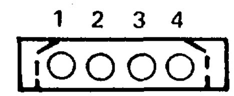
Wiring Face

WIPER MOTOR



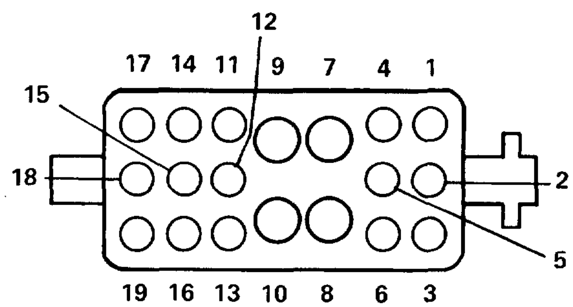
Wiring Face

C103



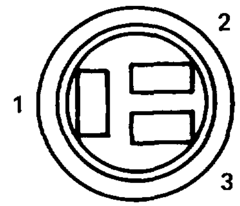
Wiring Face

C132



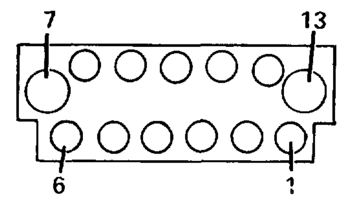
Wiring Face

C101



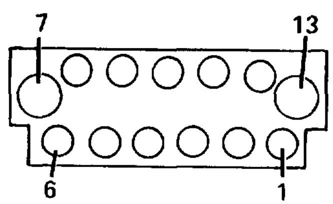
Wiring Face

C113



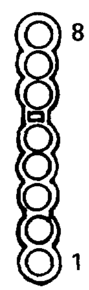
Wiring Face

C133



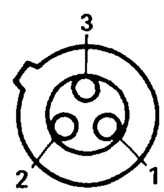
Wiring Face

C102



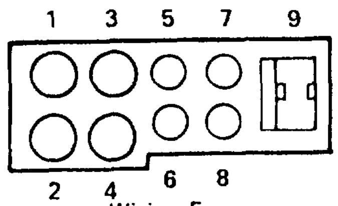
Wiring Face

C114

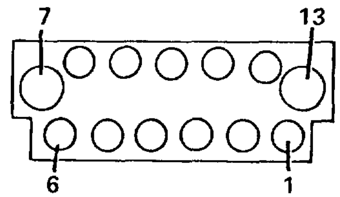


Wiring Face

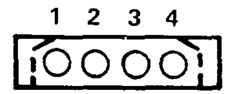
C141



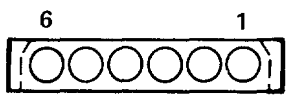
Wiring Face
C200



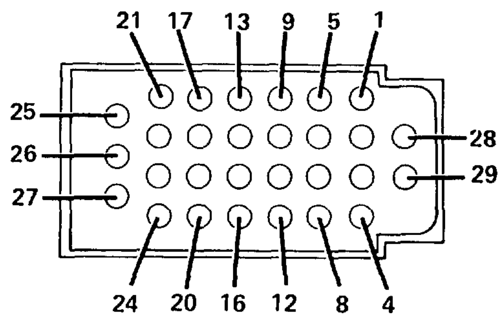
Wiring Face
C204



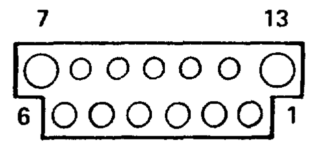
Wiring Face
C210



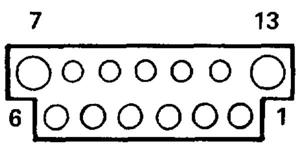
Wiring Face
C201



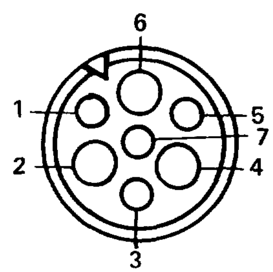
Wiring Face
C206



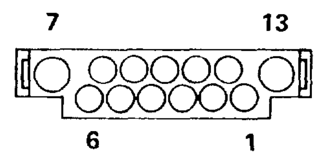
Wiring Face
C220



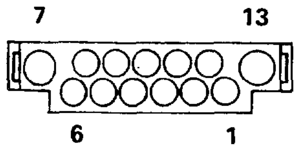
Wiring Face
C202



Wiring Face
C209

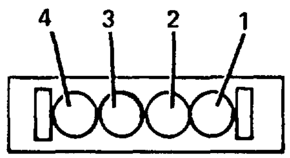


Wiring Face
C400



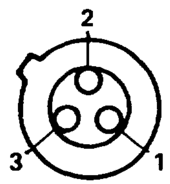
Wiring Face

C401



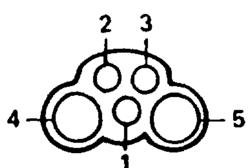
Wiring Face

C402



Wiring Face

C503



Wiring Face

C551

COMPONENTS		Page-Figure
A/C Blower Housing	Behind center console	
A/C Final Stage	Inside A/C blower housing	
A/C In-Line Diode	On RH side of A/C compressor	7000-2-5
ABS Electronic Control Unit	Below right side of windshield, behind shock tower	7000-0-3
ABS Hydraulic Unit	Right of left front wheel well	7000-0-1
Active Check Control Module	In dash, left of steering column	
Air Door Control	Under dash, left of glove box	
Air Flow Meter	Top right side of engine	7000-1-6
Amplifier	RH side of trunk	7000-6-1
Auto-Charging Flashlight	In glove box	
Auto. Trans. Range Switch	On left side of shift lever	
Auxiliary Fan	Ahead of radiator	7000-3-1
Auxiliary Fan Blocking Diode	Inside front harness, near RH headlights	
Auxiliary Fuel Pump	RH side of trunk floor, below access panel	7000-6-2
B/C Horn Diode	Near alarm horn	
Back Up Light Switch	On left side of manual transmission	
Blower Select Relay	Under dash, left of glove box	7000-4-6
Board Computer Horn	Under left side of fresh air intake cowl	7000-0-6
Brake Accum. Pres. Switch	Right of left front shock tower	7000-1-4
Brake Fluid Level Switch	To left of engine, on brake fluid reservoir	7000-1-4
Brake Switch	Above brake pedal	7000-3-4
Central Locking Control Unit	Under dash, left of glove box	7000-4-6
Chime Module	Under LH side of dash, on hush panel	7000-3-5
Clutch Switch	Above clutch pedal	7000-3-4
Cold Start Valve	Between intake ports 3 and 4	
Combination Switch	On LH side of steering column	7000-4-4
Compressor Clutch	On front of A/C compressor	
Coolant Level Switch	Top of coolant reservoir	7000-1-3
Coolant Temperature Sender/ Switch	Front of engine, on thermostat housing	7000-0-4
Coolant Temperature Sensor	Front of engine, top of thermostat housing	7000-0-4
Cruise Control Actuator	RH side of LH front wheel well	7000-0-1
Cruise Control Control Unit	Under LH side of dash, above speaker	7000-4-3
Diagnostic Connector	On LH front wheel well, near power distribution box	7000-0-1
Door Lock Motors	In each door, behind panel	7000-5-6
Driver's Seat Controller	Under driveer's seat, on frame	
Driver's Seat Switches	On center console, left of shift lever	7000-5-5
Engine Speed Sensor	On LH side of transmission bell housing	7000-1-6
Evaporator Temp. Regulator	On left side of heater-A/C unit	7000-3-3
Evaporator Temperature Sensor	In center console, below back of radio	

Fader Control	In center console, below radio face	7000-5-3
Filter Capacitor	On back of alternator	
Flasher	Upper left side of steering column	7000-4-4
Front Speed Detectors	Back of front wheels, on dust shields	7000-7-4
Fuel Injectors	Top of engine, near each cylinder	
Fuel Pump Relay	On power distribution box	7000-1-1
Fuel Tank Sender Switch	RH side of trunk floor, below access panel	7000-6-2
Gas Filler Lock Motor	In trunk, behind right rear wheel well	7000-6-1
Heater Blower Housing	Behind center console	
Heater Final Stage	Inside heater blower housing	
Heater Regulator	Behind temperature select control	7000-3-3
High Pressure Cut-Out Switch	On receiver-drier	7000-0-2
High Speed Coolant Temp. Switch	Upper right side of radiator (red terminals)	7000-2-1
Horn Brush/Slip Ring	Under hub of steering wheel	
Horn Switches	On steering wheel	
Hydraulic Pressure Switch	Right of left front shock tower	7000-1-5
Idle Speed Actuator	Top right side of engine	7000-0-5
Ignition Coil	On right wheel well, behind headlights	7000-0-2
Ignition Key Switch	In upper part of steering column	7000-4-4
Ignition Switch	In upper part of steering column	7000-4-4
Intensive Washer Pump	Behind right front shock tower, in reservoir	7000-0-3
Interior Light Timer Control	Under LH side of dash, on body electrical bracket	7000-4-1
Interior Temperature Sensor	Under LH side of dash	7000-3-5
Jet Heaters	On washer jet nozzles	
LH Front Brake Wear Sensor	Near caliper, connected to brake pad	7000-7-1
Lock Heater	In left front door, on door lock	
Lock Heater Control Unit	In left front door, near door lock	
Lock Inhibit Switch	In passenger's door, at lock cylinder	
Main Fuel Pump	Under car, above right rear axle	
Main Relay	On power distribution box	7000-0-1
Memory Seat Control Module	Under front of driver's seat	
Memory Switches	On center console, left of shift lever	7000-5-5
Motronic Control Unit	Under RH side of dash, above glove box	7000-4-5
Normal Speed Blower Resistor	Ahead of radiator, on auxiliary fan shield	7000-3-1
Normal Speed Cool. Temp. Switch	Upper right side of radiator (white terminals)	7000-2-1
Normal Washer Pump	Ahead of RH front wheel well, in reservoir	7000-2-2
Oil Level Sensor	Bottom of engine oil pan	7000-7-2

Oil Pressure Switch	Left rear end of cylinder head	7000-2-4
On-Board Computer Module	In center console, right of radio face	7000-5-3
On-Board Computer Relay Box	Under LH side of dash, above speaker	7000-4-3
Outside Temperature Sensor	Under left front side of bumper	
Oxygen Sensor	Underneath car, on catalytic converter	
Oxygen Sensor Heater Relay	On power distribution box	7000-1-1
Park Brake Switch	In shift console, at base of parking brake	
Passenger's Seat Controller	Under passenger's seat, on frame	
Passenger's Seat Switches	On center console, right of shift lever	7000-5-5
Potentiometer	Under dash, left of glove box	
Power Antenna	RH side of trunk, near hinge	7000-6-5
Power Distribution Box	Top front of left front wheel well	7000-1-1
Power Window Circuit Breaker	In center console, below radio face	7000-5-3
Program Selector Switch	On center console, to right of shift lever	7000-5-4
Pulse Wheels	Inner sides of rotors	7000-7-3
Rear Lights Check Relay	In trunk, left of rear panel center support	7000-6-3
Rear Speed Detectors	Back of rear wheels, near brake assembly	7000-7-3
Reference Point Sensor	On LH side of transmission bell housing	7000-1-6
RH Rear Brake Wear Sensor	Near caliper, connected to brake pad	7000-7-1
Safety Switch	In center console, to left of shift lever	7000-5-4
Seatbelt Switch	In driver's seatbelt buckle	
Seatbelt Warning Timer	Under LH side of dash, on body electrical bracket	7000-4-1
Speedometer Sender	In rear of differential	
Start Relay	Under LH side of dash, on body electrical bracket	7000-4-1
Starter	Lower LH rear of engine	
Stepping Motor	Under dash, left of glove box	
Sunroof Motor	Above headliner, above rear view mirror	
Sunroof Motor Relay	Above headliner, above rear view mirror	
TDC Sensor	Above crankshaft vibration damper	7000-2-5
Thermo-Time Switch	Front of engine, top of thermostat housing	7000-0-4
Throttle Position Sensor	Top center of engine, behind rubber boot	7000-2-3
Throttle Switch	Top LH side of engine, below throttle body	7000-2-3
Transmission Control Unit	Under LH side of dash, above speaker	7000-4-3
Transmission Kickdown Switch	Passenger compartment, under accelerator pedal	
Trunk Light Switch	In trunk lid, near trunk lock	
Trunk Lock Motor	In trunk, in trunk lock support	7000-6-3
Underhood Light Switch	Left of right hood hinge	
Unlock Inhibit Switch	In driver's door, at lock cylinder	
Washer Fluid Level Switch	Ahead of right front wheel well, in reservoir	7000-0-2

Water Shut-Off Valve	Center rear of engine compartment	7000-1-5
Window Motors	In each door, behind panel	
Wiper Motor	Under left side of fresh air intake cowl	7000-0-6

CONNECTORS

C101 (17 pin)	On right side of power distribution box	7000-0-1
C102 (13 pin)	Inside power distribution box	7000-2-6
C103 (4 pin)	Under RH side of dash, above glove box	7000-4-5
C106 (1 pin)	Behind right headlights	7000-2-2
C110 (2 pin)	Ahead of right headlights' access panel	
C111 (2 pin)	Underside of hood, near LH washer jet nozzle	
C112 (2 pin)	Underside of hood, near RH washer jet nozzle	
C113 (3 pin)	Left side of auxiliary fan shield	7000-3-1
C114 (8 pin)	In power distribution box, on underside of printed circuit board	
C115 (2 pin)	In power distribution box, on underside of printed circuit board	
C126 (2 pin)	Behind left side of front spoiler	
C127 (2 pin)	Behind right side of front spoiler	
C132 (4 pin)	Under RH side of dash, above glove box	7000-4-5
C133 (13 pin)	Under right side of dash, above glove box	
C141 (3 pin)	Mounted underneath car, left of transmission	
C150 (2 pin)	Behind LH front shock tower	7000-0-6
C151 (2 pin)	Behind RH front shock tower	7000-0-3
C152 (8 pin)	Under center of car, near transmission	
C200 (10 pin)	Under LH side of dash, on LH side of steering column	7000-3-2
C201 (6 pin)	Under LH side of dash, on LH side of steering column	7000-3-2
C202 (13 pin)	Under LH side of dash, on LH side of steering column	7000-3-2
C204 (13 pin)	Behind center console, above radio	
C205 (1 pin)	Under LH side of dash	
C206 (29 pin)	Under LH side of dash, on body electrical bracket	7000-4-2
C208 (2 pin)	Above clutch pedal	7000-3-4
C209 (7 pin)	Under LH side of dash, near body electrical bracket	7000-4-2
C210 (4 pin)	Under LH side of dash, on LH side of steering column	7000-3-2
C214 (2 pin)	Under LH side of dash, near steering column	
C215 (2 pin)	Behind radio	

C216 (2 pin)	Behind radio	
C219 (2 pin)	RH side of trunk, near antenna	7000-6-5
C220 (13 pin)	Under LH side of dash, on body electrical bracket	7000-4-2
C250 (6 pin)	Under LH side of dash	
C300 (2 pin)	Base of left trunk hinge	7000-6-4
C301 (2 pin)	In center console, ahead of shift lever	
C302 (Accessory Connector)	Under LH side of dash, on body elecctrical bracket	7000-4-2
C305 (4 pin)	Under LH side of dash	
C351 (2 pin)	RH front of trunk	
C352 (2 pin)	LH front of trunk	7000-6-6
C400 (13 pin)	Behind LH front speaker	7000-3-6
C401 (13 pin)	Behind RH front speaker	7000-5-1
C402 (4 pin)	Behind LH front speaker	7000-3-6
C503 (3 pin)	In lower rear corner of driver's door	7000-5-6
C520 (2 pin)	In lower rear corner of driver's door	7000-5-6
C551 (2 pin)	Under center console	
C552 (5 pin)	Under driver's seat	
C553 (5 pin)	Under driver's seat	
C560 (2 pin)	In driver's door	

GROUNDS

G101	LH side of engine, on motor mount	
G103 (Engine Ground)	Top rear of engine	7000-1-6
G104 (Main Body Ground)	Inner side of LH fender, near battery	7000-1-2
G106	On right hood hinge	
G200 (Front Interior Ground)	On dash frame, left of steering column	
G201 (Column Ground)	On upper left side of steering column	7000-4-4
G302 (Rear Interior Ground)	Under LH side of rear seat	7000-5-2
G303	Above left B pillar	
G600	Above headliner, above rear view mirror	