

1992  
 BMW 525i, 525it, 535i, M5 (E34)  
 Electrical  
 Troubleshooting  
 Manual  
 Vehicles Produced 7/91 to 9/92

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SUNROOF MOTOR, M24 .....	5410.0-03
SUNROOF POSITION SWITCH, S39 .....	5410.0-02
SUNROOF SWITCH, S38 .....	5410.0-02
SUNROOF SWITCH, S38 .....	5410.2-01
SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG) .....	3234.0-00
SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE, A12 .....	3234.0-00
SUPPRESSION FILTER, C900 .....	6424.0-01
SYMBOLS .....	0140.0-00
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TAIL LIGHT, RIGHT, H30 .....	6314.0-01
TELEPHONE HANDSET, U4 .....	6561.0-01
TELEPHONE INTERFACE US, A192 .....	6561.0-01
TELEPHONE TRANSCEIVER, H38 .....	6561.0-00
TEMPERATURE SWITCH, B6235 .....	1290.0-00
TEMPERATURE SWITCH, S36 .....	6454.0-00
THIGH SUPPORT MOTOR, DRIVER'S, M65 .....	5200.0-04
THIGH SUPPORT MOTOR, PASSENGER'S, M66 .....	5200.0-04
THIGH SUPPORT POTENTIOMETER, R15 .....	5200.0-06
THIGH SUPPORT SWITCH, DRIVER'S, S93 .....	5200.0-04
THIGH SUPPORT SWITCH, PASSENGER'S, S94 .....	5200.0-04
THROTTLE POSITION SENSOR, R6252 .....	1210.7-05
THROTTLE POSITION SENSOR, S6250 .....	1210.2-01
THROTTLE POSITION SENSOR, S6251 .....	1210.4-07
THROTTLE POSITION SENSOR, S6251 .....	2460.0-02
TRANSMISSION CONTROL MODULE (EGS), A8500 .....	2460.0-00
TRANSMISSION CONTROL MODULE (EGS), A8500 .....	2460.2-00
TRANSMISSION POSITION INDICATOR LIGHT, E82 .....	6300.0-03
TRANSMISSION RANGE SELECTOR LIGHT, E9500 .....	6300.0-03
TRANSMISSION VALVE UNIT, Y8505 .....	2460.0-04
TRANSMISSION VALVE UNIT, Y8505 .....	2460.2-01
TRUNK COMPARTMENT LIGHT, E32 .....	6320.0-01
TRUNK LID LIGHT, E33 .....	6320.0-02
TRUNK LID SWITCH, S61 .....	6320.0-01
TRUNK LIGHT, LEFT, H90 .....	6320.0-01

TRUNK LIGHT, RIGHT, H91 .....	6320.0-01
TRUNK LOCK MOTOR, M17 .....	5126.0-04
TURN/HAZARD LIGHTS .....	6313.0-00
TURN LIGHT, LEFT FRONT, H7 .....	6313.0-02
TURN LIGHT, LEFT REAR, H6 .....	6313.0-02
TURN LIGHT, RIGHT FRONT, H4 .....	6313.0-02
TURN LIGHT, RIGHT REAR, H5 .....	6313.0-02
UNCOUPLING DIODE (KL61), V9501 .....	1230.0-00
UNLOADER RELAY, TERMINAL 15, K9 .....	0670.2-05
UNLOADER RELAY, TERMINAL 61, K61 .....	1230.0-00
UNLOADER RELAY, TERMINAL R, K3 .....	0670.2-05
VEHICLE SPEED SENSOR, B10 .....	6200.0-06
VOLUME AIR FLOW SENSOR, B6233 .....	1210.1-09
VOLUME AIR FLOW SENSOR, B6233 .....	1210.2-09
WASHER FLUID LEVEL SWITCH, S64 .....	6200.0-12
WASHER JET HEATER, LEFT, E51 .....	6169.0-00
WASHER JET HEATER, RIGHT, E52 .....	6169.0-00
WASHER PUMP, M4 .....	6160.0-02
WASHER PUMP RELAY, K5 .....	6160.0-02
WATER VALVE ASSEMBLY, Y4 .....	6450.5-01
WHEEL CAMBER CONTROL MODULE, B22 .....	6200.0-14
WIDE OPEN THROTTLE CUT-OFF RELAY, K86 .....	6450.5-08
WINDOW LIMIT SWITCH, DRIVER'S, S43 .....	5133.0-01
WINDOW LIMIT SWITCH, LEFT REAR, S45 .....	5133.0-03
WINDOW LIMIT SWITCH, PASSENGER'S, S44 .....	5133.0-01
WINDOW LIMIT SWITCH, RIGHT REAR, S46 .....	5133.0-03
WINDOW MOTOR, DRIVER'S, M21 .....	5133.0-04
WINDOW MOTOR, LEFT REAR, M20 .....	5133.0-04
WINDOW MOTOR, PASSENGER'S, M23 .....	5133.0-05
WINDOW MOTOR, RIGHT REAR, M22 .....	5133.0-05
WINDOW MOTOR, RELAY, K90 .....	5126.0-06
WINDOW SWITCH, LEFT REAR, S41 .....	5133.0-01
WINDOW SWITCH, RIGHT REAR, S42 .....	5133.0-01
WINDOW SWITCH ASSEMBLY, FRONT CONSOLE, S40 .....	5133.0-00
WINDSHIELD WASHER JET HEATERS .....	6169.0-00
WIPER MOTOR, M3 .....	6160.0-01
WIPER RELAY, K11 .....	6160.0-00



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WIPER/WASHER FLUID LEVEL SWITCH, REAR, S176 .....	6200.0-12
WIPER/WASHER INTERVAL CONTROL MODULE, REAR, A36 ..	6162.0-00
WIPER/WASHER SWITCH, S5 .....	6160.0-00
ZKE CENTRAL LOCKING (ZV) .....	5126.0-00
ZKE DOOR LOCK HEATING (TSH) .....	5120.0-00
ZKE HEADLIGHT WASHER (SRA) .....	6167.0-00
ZKE INTERIOR LIGHTS CONTROL (IB) .....	6330.0-00
ZKE POWER WINDOWS (FH) .....	5133.0-00
ZKE SUNROOF (SHD) .....	5410.0-00

BMW  
5

0110.0

### Schematics

The schematics divide the entire vehicle electrical system into individual circuits. Interacting electrical components are shown on one common schematic.

Switches and other components are represented in such a way that their general layout and function are self-explicit. They are arranged on the sheet such that the current path can be followed from positive (top) to negative (bottom).

**Important:** The components and wires are not drawn to scale. For instance, a lead with a length of over 1m can be shown as a lead which is only a few cm long. To enhance the clarity of the schematics, all connectors and splices between fuses and components as well as between grounds and components have been omitted. If this information should be required, it may be referenced in cells **0670.3 Fuse Details** and **0670.4 Ground Distribution**.

All circuit symbols used are listed and explained in cell **0140.0 Symbols**.

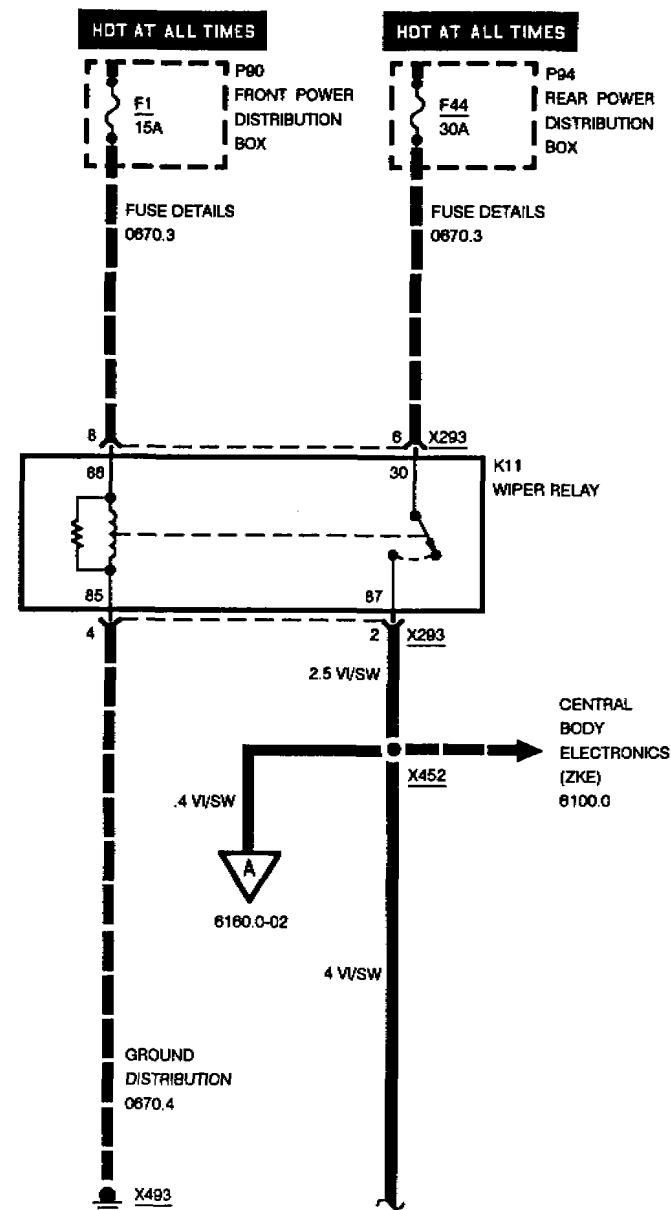
In cell **7000.0 Component Location Chart** all important connectors, ground points and components are listed in tabular form. It provides a precise description of the component locations in the vehicle.

In cell **7100.0 Component Location Views** the locations of the connectors and components which are difficult to locate are shown in photographs. In cell **8500.0 Connector Views** diagrams of all connectors with more than three pins are illustrated.

Included in this ETM are foldout block diagrams. These are overviews of the entire system (EGS, ABS, AC etc.) which helps understand the relationships between various components and control unit of the system being diagnosed.

### Example

General conventions can be explained based on the following schematic example.



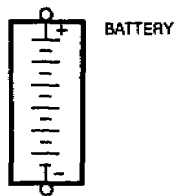


### General Conventions

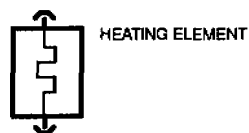
1. Switches and relays are always shown in rest position (e.g. K11).
2. A component shown in a dashed frame signifies that the component is illustrated only in part (e.g. P90 and P91).
3. A component shown in a completely drawn frame signifies that the component is illustrated in full (e.g. K11).
4. The dashed line between pin 8 and pin 6 of connector X293 indicates that both pins belong to connector X293.
5. The dashed line from fuse 1 to pin 8 of connector X293 shows the positive supply of relay K11. If required, refer to cell 0670.3 Fuse Details at fuse F1 for the complete line progressing with plug connections, line branches, wire colors and cross sections.
6. The dashed line with an arrow at splice X452 indicates that several wires lead to splice X452. All lines leading to the connection are illustrated in cell 6100.0 Central Body Electronics (ZKE). An interrupted line with an arrow indicates that only this one wire leads to another circuit.
7. The dashed line from pin 4 of connector X293 to ground X493 shows the ground supply for relay K11. If required, refer to cell 0670.4 Ground Distribution at ground X493 for the complete line progression with all plug connections, line branches, wire colors and cross sections.
8. The interrupted line from splice X452 with an A in the open arrow is continued on page 6160.0-02. Termination of wire 4 VI/SW from splice X452 with a wavy line indicates that the wire is continued on the opposite page.



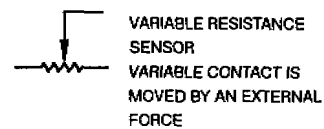
# SYMBOLS



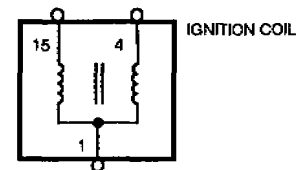
BATTERY



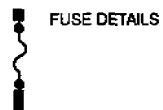
HEATING ELEMENT



VARIABLE RESISTANCE SENSOR  
VARIABLE CONTACT IS MOVED BY AN EXTERNAL FORCE



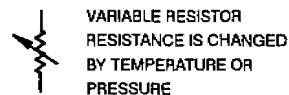
IGNITION COIL



FUSE DETAILS



LOUDSPEAKER OR HORN



VARIABLE RESISTOR  
RESISTANCE IS CHANGED BY TEMPERATURE OR PRESSURE



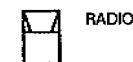
CONTROL/POWER ELECTRONICS



FUSIBLE LINK



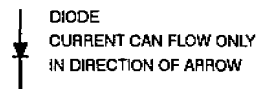
INDUCTIVE SENSOR



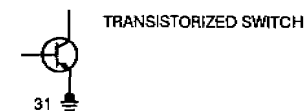
RADIO



LIGHT



DIODE  
CURRENT CAN FLOW ONLY IN DIRECTION OF ARROW



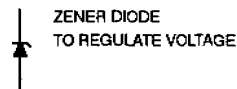
TRANSISTORIZED SWITCH



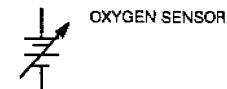
CIRCUIT BREAKER



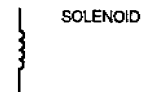
PERMANENT MAGNET MOTOR  
ONE SPEED



ZENER DIODE  
TO REGULATE VOLTAGE



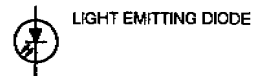
OXYGEN SENSOR



SOLENOID



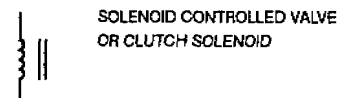
PERMANENT MAGNET MOTOR  
TWO SPEEDS



LIGHT EMITTING DIODE

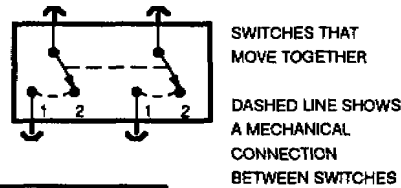
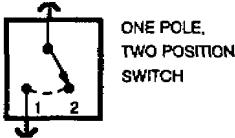
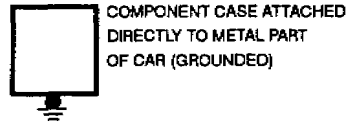
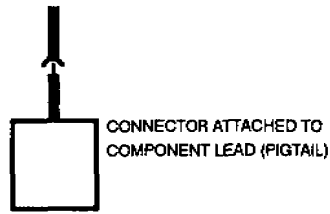


VEHICLE SPEED SENSOR

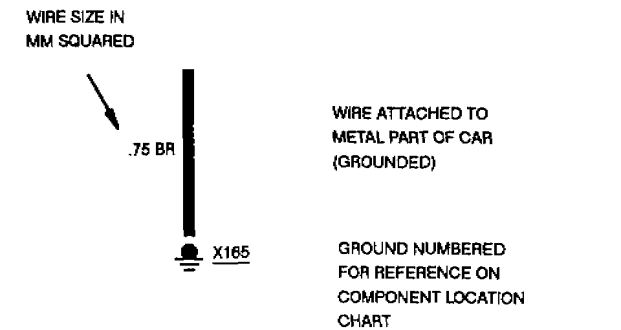
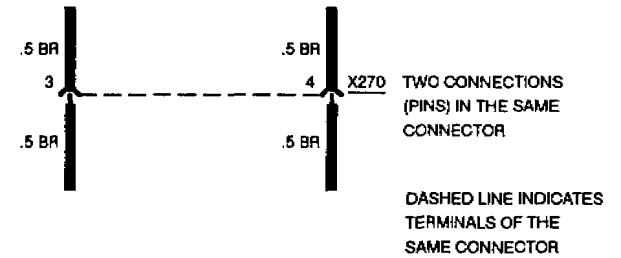
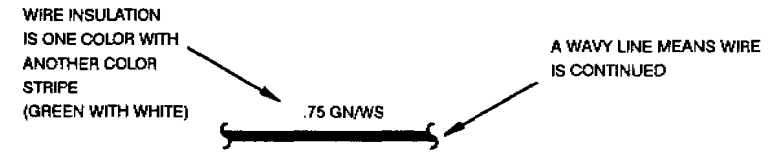
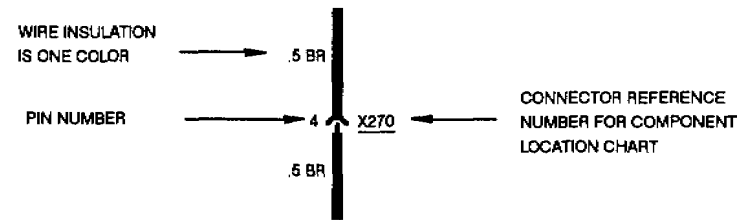
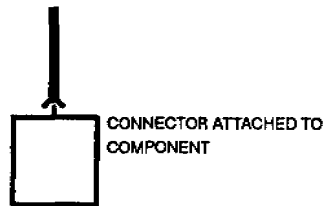


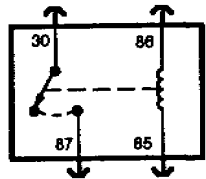
SOLENOID CONTROLLED VALVE  
OR CLUTCH SOLENOID

# SYMBOLS

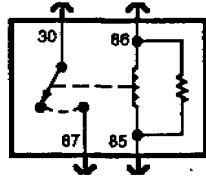


WIRE COLOR	
BL	BLUE
BR	BROWN
GE	YELLOW
GN	GREEN
GR	GRAY
OR	ORANGE
RS	PINK
RT	RED
SW	BLACK
VI	VIOLET
WS	WHITE
TR	TRANSPARENT

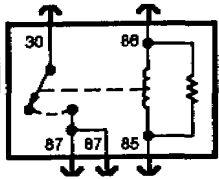




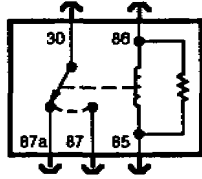
CONTACT RELAY



RELAY WITH RESISTOR  
ACROSS WINDING

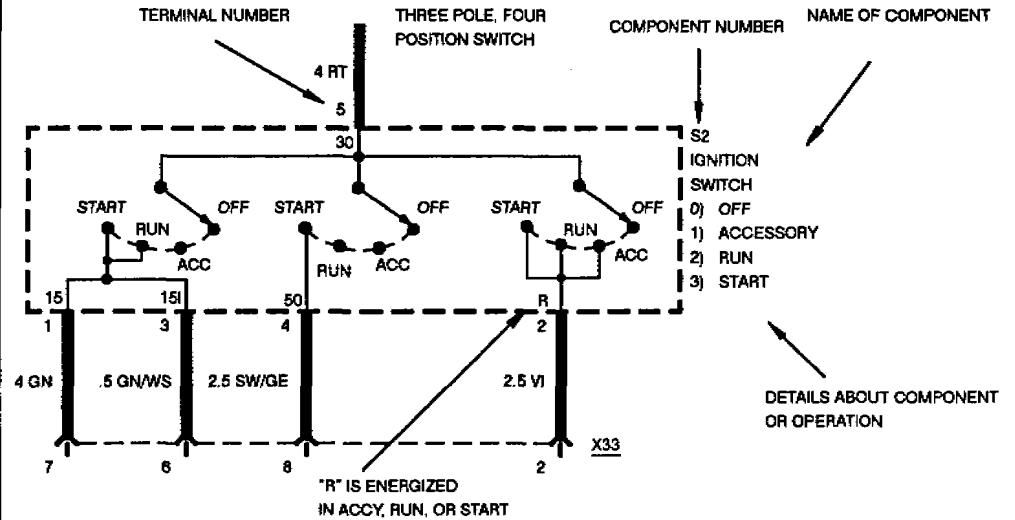


CONTACT RELAY WITH TWO  
OUTPUTS



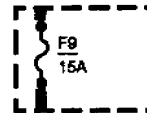
CHANGEOVER RELAY WITH  
TWO OUTPUTS

TERMINAL NUMBER	DESCRIPTION
30	RELAY INPUT
85	RELAY OUTPUT (WINDING)
86	RELAY INPUT (WINDING)
87	RELAY OUTPUT (ENERGIZED)
87a	RELAY OUTPUT (AT REST)



TERMINAL NUMBER	DESCRIPTION	TERMINAL NUMBER	DESCRIPTION
50	VOLTAGE: IGNITION SWITCH IN START	15I	VOLTAGE: IGNITION SWITCH IN RUN
30	VOLTAGE: SUPPLIED AT ALL TIMES	R	VOLTAGE: IGNITION SWITCH IN ACCESSORY, RUN OR START
15	VOLTAGE: IGNITION SWITCH IN RUN OR START	31	GROUND

**HDT AT ALL TIMES**



INDICATES THAT FUSE 9 IS SUPPLIED WITH POWER AT ALL TIMES

**POWER STATUS**

**HDT AT ALL TIMES**

**HDT IN RUN AND START**

**HDT IN ACCY, RUN AND START**

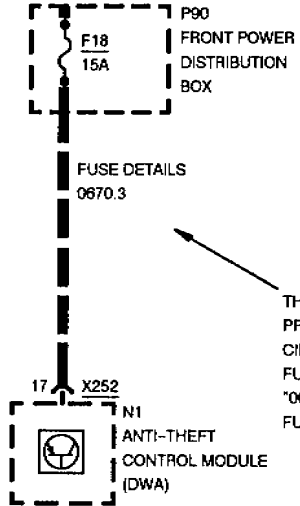
**DESCRIPTION**

VOLTAGE: SUPPLIED AT ALL TIMES

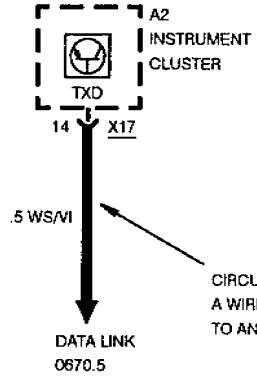
VOLTAGE: IGNITION SWITCH IN RUN OR START

VOLTAGE: IGNITION SWITCH IN ACCESSORY, RUN OR START

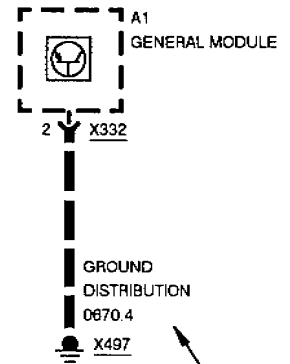
HOT IN ACCY, RUN AND START



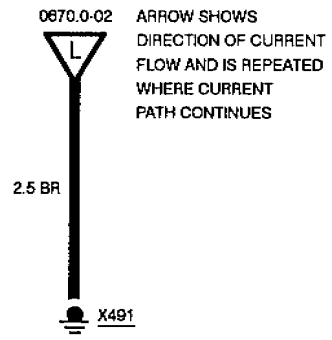
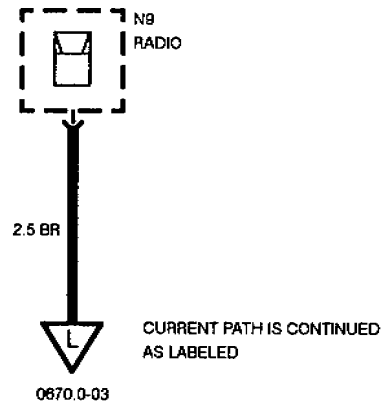
THE COMPLETE WIRE PROGRESSION AND FURTHER CIRCUITS CONNECTED TO FUSE 18 ARE SHOWN IN CELL "0670.3 FUSE DETAILS" AT FUSE 18



CIRCUIT REFERENCE- A WIRE WHICH CONNECTS TO ANOTHER CIRCUIT



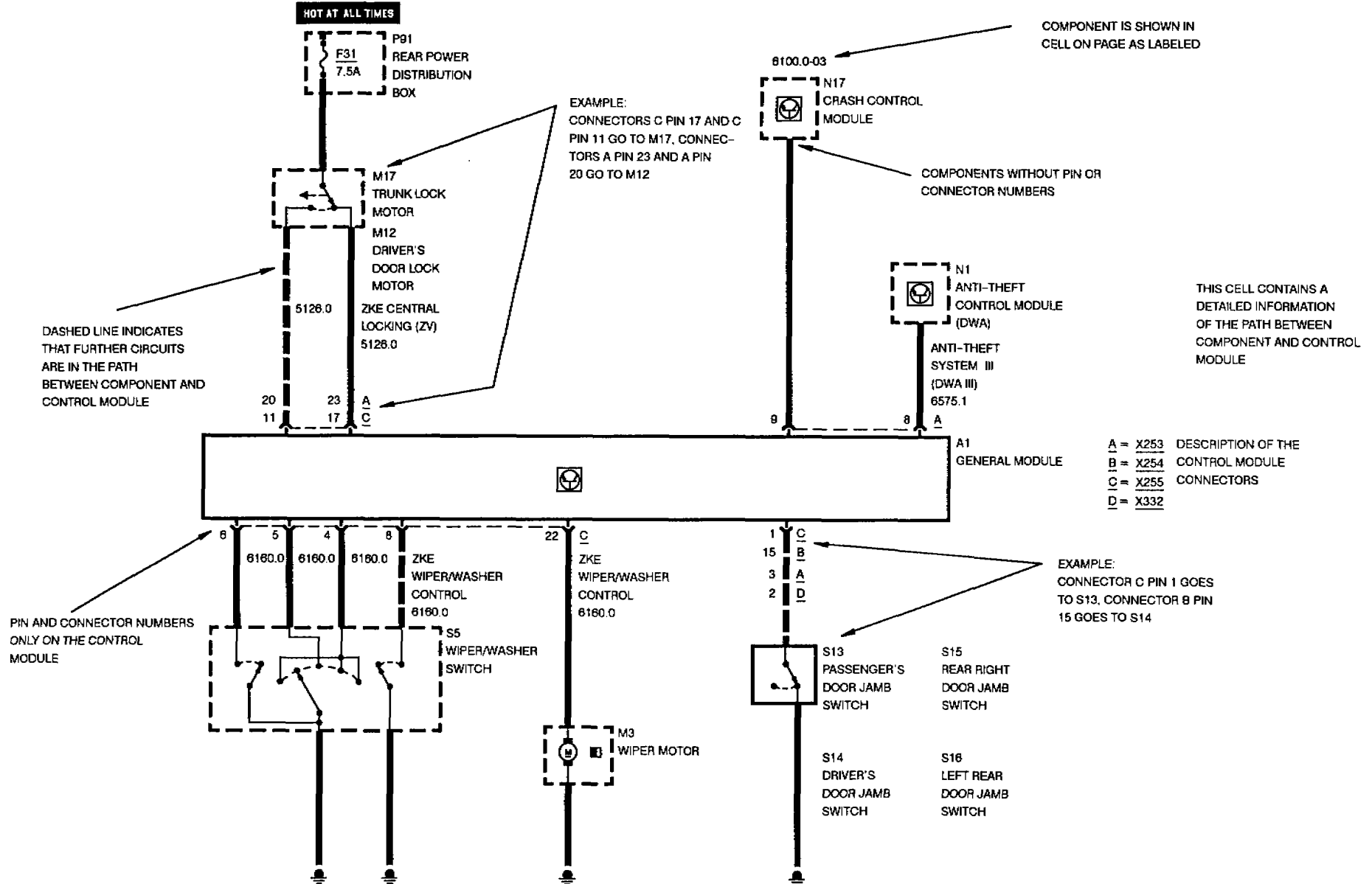
THE COMPLETE WIRE PROGRESSION AND FURTHER CIRCUITS CONNECTED TO GROUND X497 ARE SHOWN IN CELL "0670.4 GROUND DISTRIBUTION" AT GROUND X497





# SYMBOLS

## BLOCK DIAGRAM



BMW  
5

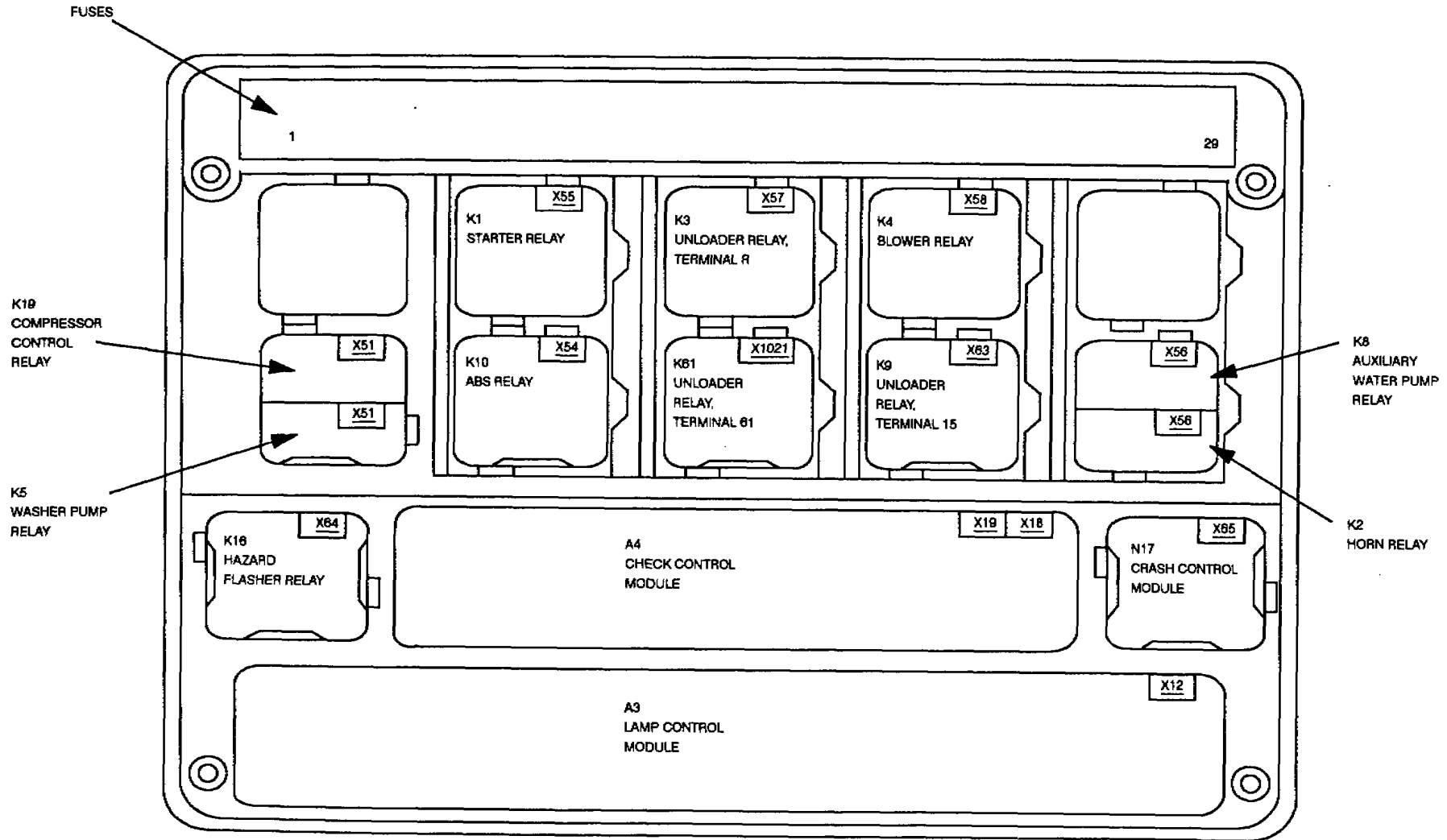
0670.0



# POWER DISTRIBUTION CHART

## FRONT POWER DISTRIBUTION BOX

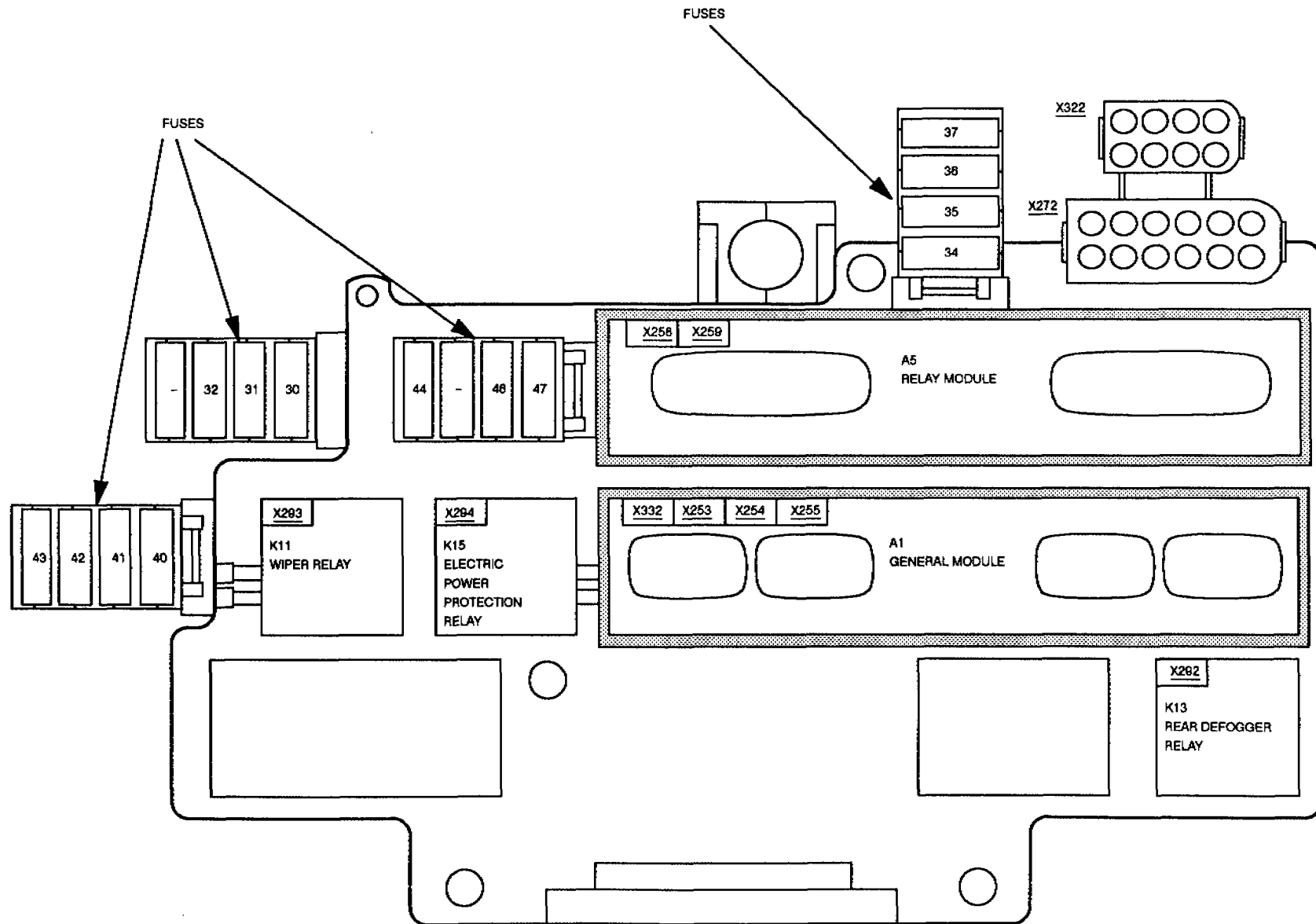
ZKE





# POWER DISTRIBUTION CHART

## REAR POWER DISTRIBUTION BOX WITH ZKE

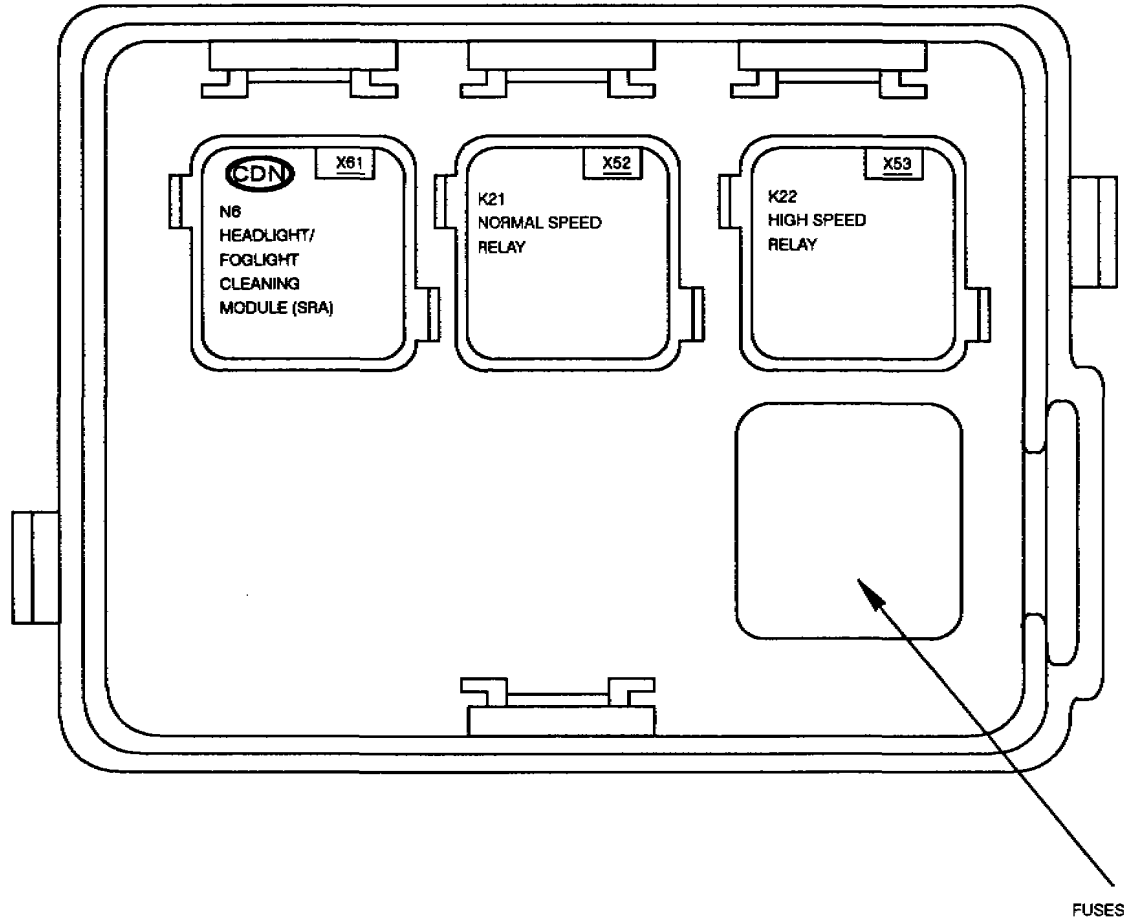






# POWER DISTRIBUTION CHART

## AUXILIARY RELAY BOX



BMW  
5

0670.1



# FUSE CHART

## FUSES 1 TO 29

		FUSE NUMBER																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
		15A	7.5A	7.5A	7.5A	10A	15A	15A		15A	7.5A	7.5A	15A	7.5A	7.5A	7.5A	30A	7.5A	15A	30A	10A	10A	30A	15A	10A	30A	30A	7.5A	15A	7.5A	
1210.1	ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)																														
1210.2	ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)																														
1210.4	ENGINE CONTROL SYSTEM (DME M1.2, 6-CYLINDER S38)																														
1210.7	ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)																														
1230.0	CHARGING SYSTEM																														
1240.0	START																														
1270.0	ELECTRONIC THROTTLE CONTROL (EML 6-CYLINDER)	●																													
1290.0	E-BOX FAN																														
2460.0	ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)	●																													
2460.2	ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)	●																													
3231.0	ELECTRIC STEERING COLUMN ADJUSTMENT																														
3240.0	POWER ASSIST STEERING (SERVOTRONIC)																														
3450.0	SLIP CONTROL (ABS)	●																													
3450.1	SLIP CONTROL (ABS/ASC)	●																													
5116.0	POWER MIRRORS					●							●																		
5120.0	ZKE DOOR LOCK HEATING (TSH)																														
5126.0	ZKE CENTRAL LOCKING (ZV)																														
5133.0	ZKE POWER WINDOWS (FH)																														
5200.0	POWER SEATS																														



# FUSE CHART

## FUSES 1 TO 29

		FUSE NUMBER																												
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
		15A	7.5A	7.5A	7.5A	10A	15A	15A		15A	7.5A	7.5A	15A	7.5A	7.5A	7.5A	30A	7.5A	15A	30A	10A	10A	30A	15A	10A	30A	30A	7.5A	15A	7.5A
5200.1	SEAT/MIRROR MEMORY SYSTEM (SM/SPM)												●					●		●										
5203.0	HEATED SEATS																		●											
5410.0	ZKE SUNROOF (SHD)																			●										
5410.2	DOUBLE PANEL POWER SUNROOF (ZKE)																													
6100.0	CENTRAL BODY ELECTRONICS (ZKE)			●	●	●													●							●				
6133.0	HORN									●																				
6160.0	ZKE WIPER/WASHER CONTROL	●																								●				
6162.0	REAR WINDOW WIPER/WASHER CONTROL																													
6167.0	ZKE HEADLIGHT WASHER (SRA)			●	●	●													●					●						
6169.0	WINDSHIELD WASHER JET HEATERS												●																	
6200.0	INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)	●																	●			●								●
6213.2	MULTI-FUNCTION CLOCK	●																				●								
6300.0	LIGHT SWITCH DETAILS		●	●	●	●																								
6301.0	LAMP MONITOR (LKM)	●	●	●	●	●		●		●	●		●	●	●															
6312.0	HEADLIGHTS/ FOG LIGHTS		●	●		●		●		●	●		●	●																
6313.0	TURN/HAZARD LIGHTS		●	●			●							●	●															
6314.0	PARK/TAIL/ UNDERHOOD LIGHTS				●	●										●						●								
6320.0	LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS					●										●						●								
6322.0	BACK UP LIGHTS												●																	



# FUSE CHART

## FUSES 1 TO 29

	FUSE NUMBER																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
	15A	7.5A	7.5A	7.5A	10A	15A	15A		15A	7.5A	7.5A	15A	7.5A	7.5A	7.5A	30A	7.5A	15A	30A	10A	10A	30A	15A	10A	30A	30A	7.5A	15A	7.5A
6325.0 BRAKE LIGHTS	●														●														
6330.0 ZKE INTERIOR LIGHTS CONTROL (IB)					●													●		●	●								
6332.0 INTERIOR ACCESSORIES					●													●		●						●			
6350.0 CRASH CONTROL MODULE		●				●				●	●																		
6412.19 PARK VENTILATION WITH IHKR/F3																			●	●									
6424.0 REAR WINDOW DEFOGGER																													
6450.5 INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)									●										●	●							●		●
6454.0 AUXILIARY FAN									●																●				●
6510.1 RADIO/HIFI																			●										
6510.2 RADIO PROVISIONS																			●										
6561.0 CELLULAR TELEPHONE (PROVISIONS)									●										●										
6571.0 CRUISE CONTROL (TEMPOMAT)	●																●												
6575.2 ANTI-THEFT SYSTEM (ALPINE)																			●			●							
6581.0 ON-BOARD COMPUTER (BCIV)	●																●				●								



# FUSE CHART

## FUSES 30 TO 49

		FUSE NUMBER																				
		30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	
		7.5A	7.5A			20A		30A	20A				30A	30A	30A	30A		30A	30A			
1210.1	ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)																					
1210.2	ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)																					
1210.4	ENGINE CONTROL SYSTEM (DME M1.2, 6-CYLINDER S38)																					
1210.7	ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)																					
1230.0	CHARGING SYSTEM																					
1240.0	START																					
1270.0	ELECTRONIC THROTTLE CONTROL (EML 6-CYLINDER)																					
1290.0	E-BOX FAN																					
2460.0	ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)																					
2460.2	ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)																					
3231.0	ELECTRIC STEERING COLUMN ADJUSTMENT					●																
3240.0	POWER ASSIST STEERING (SERVOTRONIC)																					
3450.0	SLIP CONTROL (ABS)																					
3450.1	SLIP CONTROL (ABS/ASC)																					
5116.0	POWER MIRRORS																					
5120.0	ZKE DOOR LOCK HEATING (TSH)	●																				
5126.0	ZKE CENTRAL LOCKING (ZV)	●	●					●											●			
5133.0	ZKE POWER WINDOWS (FH)	●	●																●			
5200.0	POWER SEATS												●	●								



# FUSE CHART

## FUSES 30 TO 49

	FUSE NUMBER																			
	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
	7.5A	7.5A			20A		30A	20A				30A	30A	30A	30A		30A	30A		
5200.1 SEAT/MIRROR MEMORY SYSTEM (SM/SPM)																				
5203.0 HEATED SEATS																				
5410.0 ZKE SUNROOF (SHD)	●	●																●		
5410.2 DOUBLE PANEL POWER SUNROOF (ZKE)	●																			
6100.0 CENTRAL BODY ELECTRONICS (ZKE)	●																	●		
6133.0 HORN																				
6160.0 ZKE WIPER/WASHER CONTROL															●					
6162.0 REAR WINDOW WIPER/WASHER CONTROL								●												
6167.0 ZKE HEADLIGHT WASHER (SRA)																				
6169.0 WINDSHIELD WASHER JET HEATERS																				
6200.0 INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)																				
6213.2 MULTI-FUNCTION CLOCK																				
6300.0 LIGHT SWITCH DETAILS																				
6301.0 LAMP MONITOR (LKM)																				
6312.0 HEADLIGHTS/ FOG LIGHTS																				
6313.0 TURN/HAZARD LIGHTS																				
6314.0 PARK/TAIL/ UNDERHOOD LIGHTS																				
6320.0 LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS																				
6322.0 BACK UP LIGHTS																				

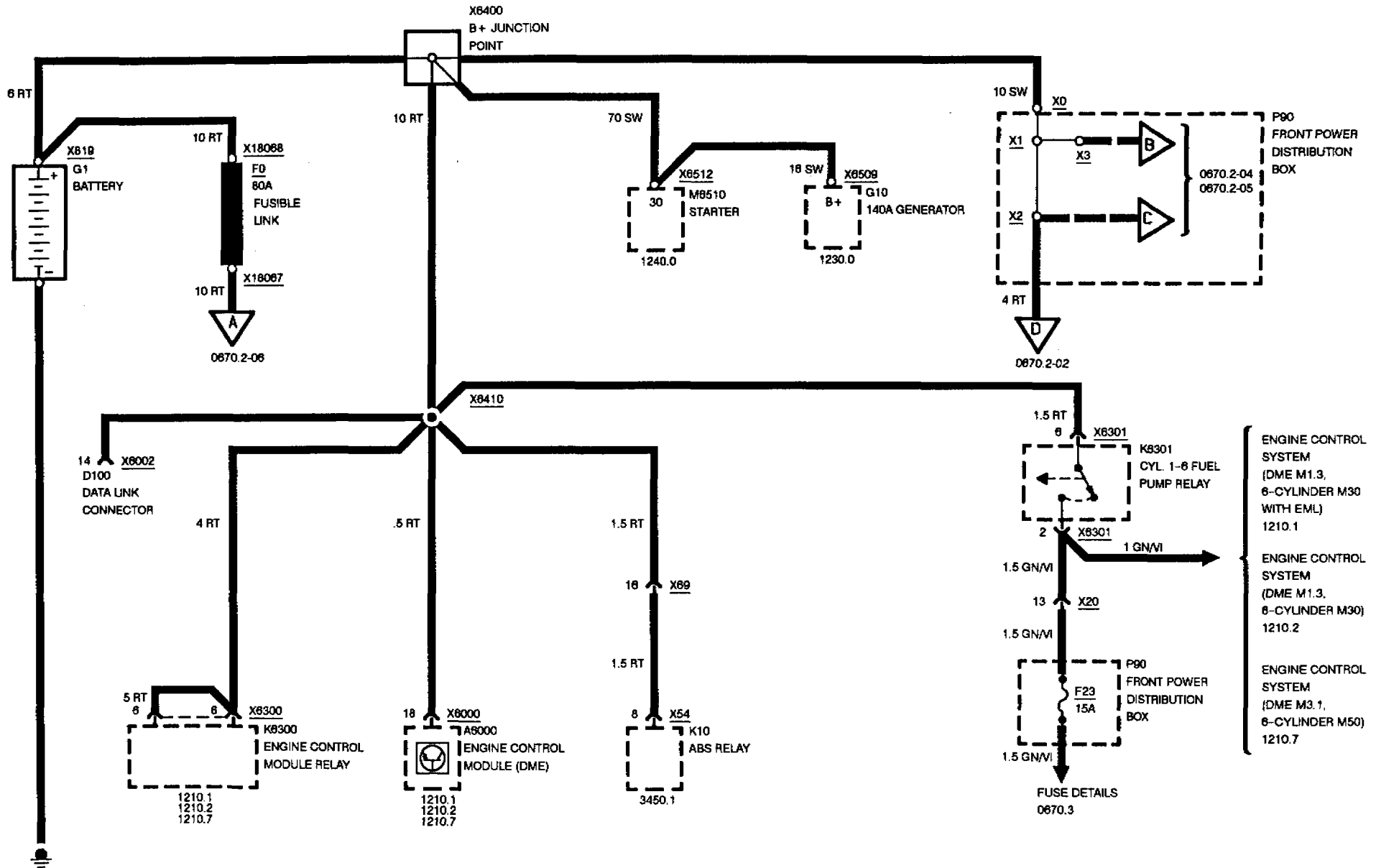


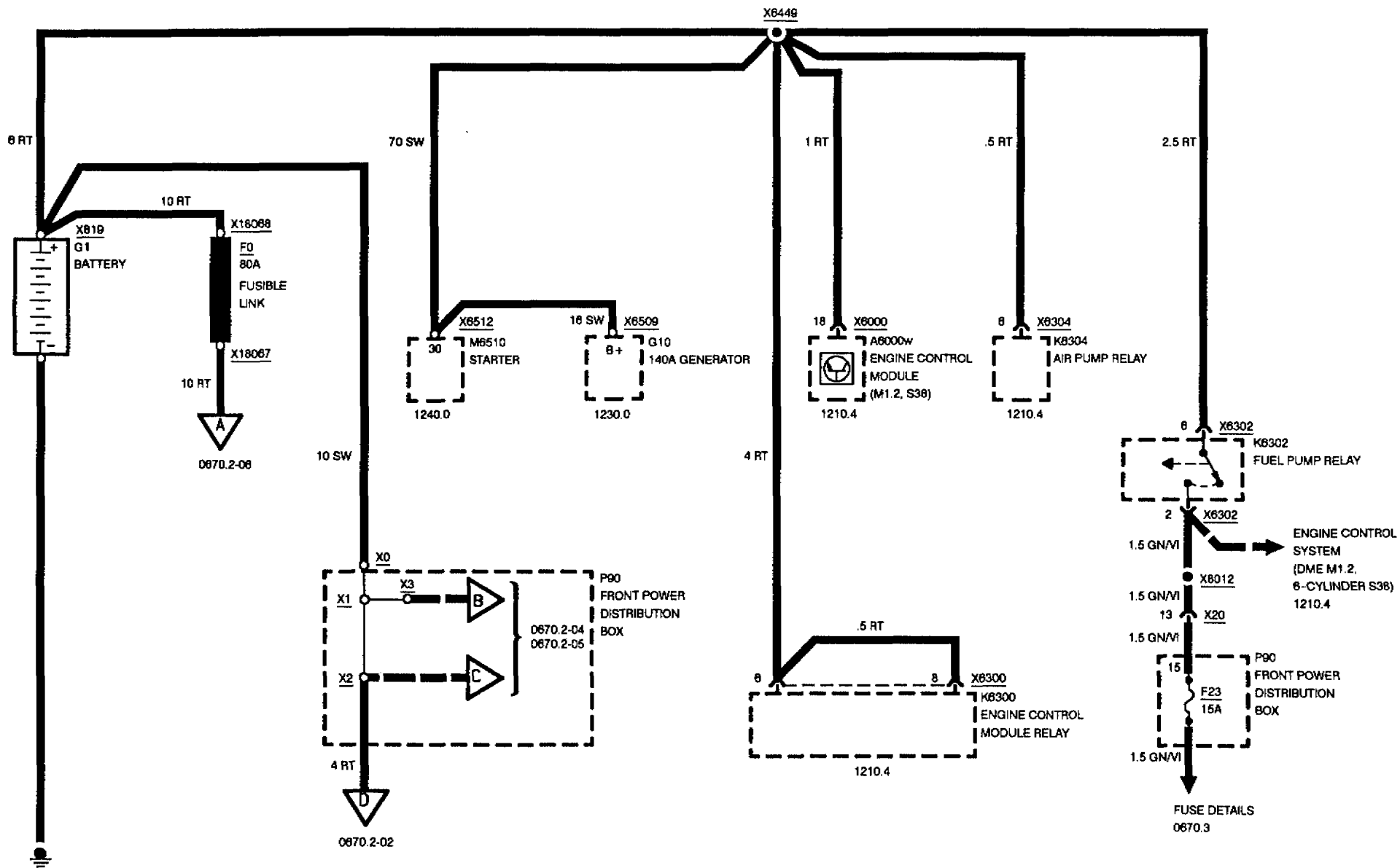
# FUSE CHART

## FUSES 30 TO 49

	FUSE NUMBER																			
	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
	7.5A	7.5A			20A		30A	20A				30A	30A	30A	30A		30A	30A		
6325.0 BRAKE LIGHTS																				
6330.0 ZKE INTERIOR LIGHTS CONTROL (IB)	●														●					
6332.0 INTERIOR ACCESSORIES																				
6350.0 CRASH CONTROL MODULE																				
6412.19 PARK VENTILATION WITH IHKR/F3																				
6424.0 REAR WINDOW DEFOGGER																	●			
6450.5 INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)																				
6454.0 AUXILIARY FAN																				
6510.1 RADIO/HIFI							●													
6510.2 RADIO PROVISIONS							●													
6561.0 CELLULAR TELEPHONE (PROVISIONS)		●																		
6571.0 CRUISE CONTROL (TEMPOMAT)																				
6575.2 ANTI-THEFT SYSTEM (ALPINE)																		●		
6581.0 ON-BOARD COMPUTER (BCIV)																				

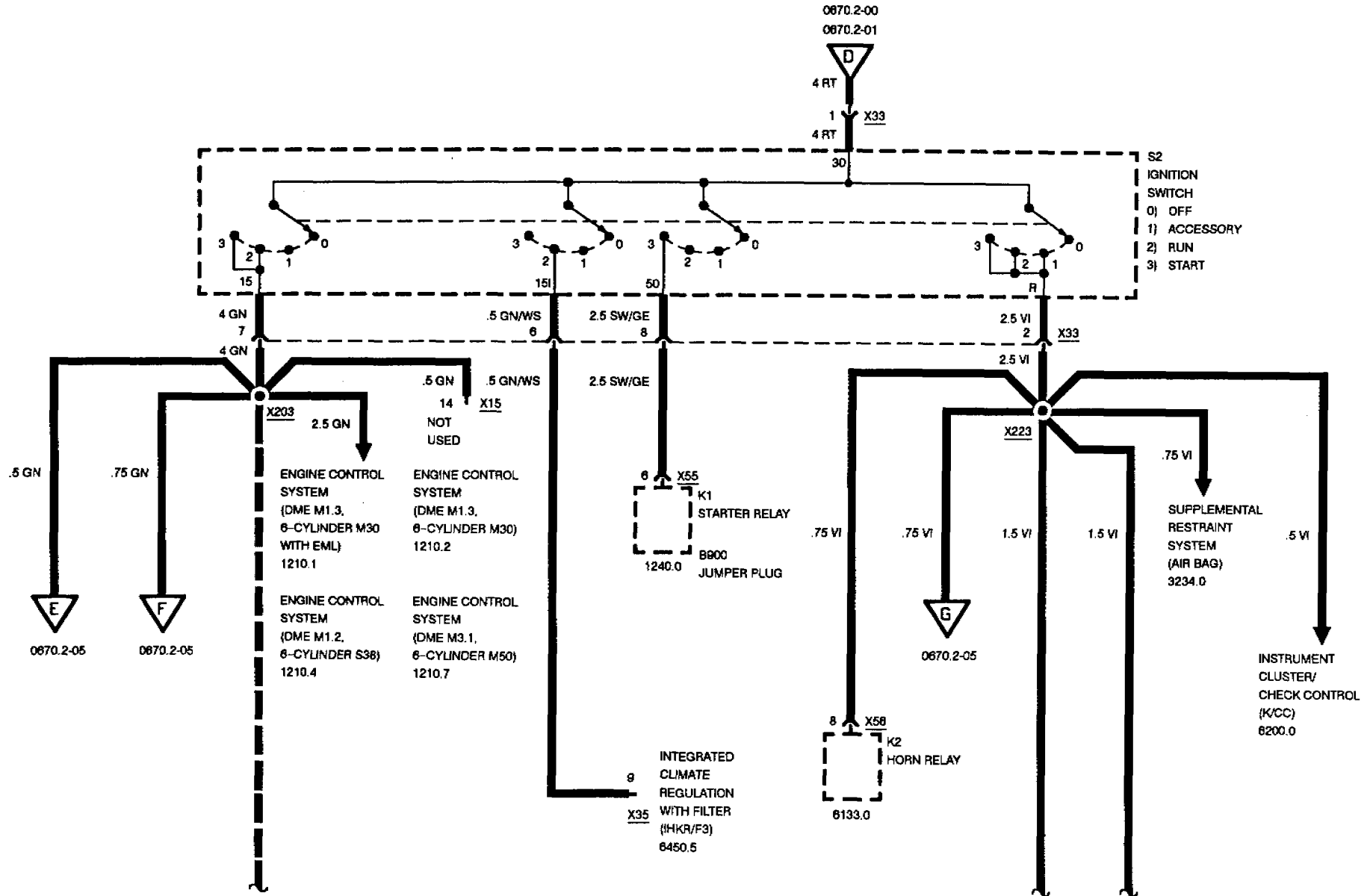


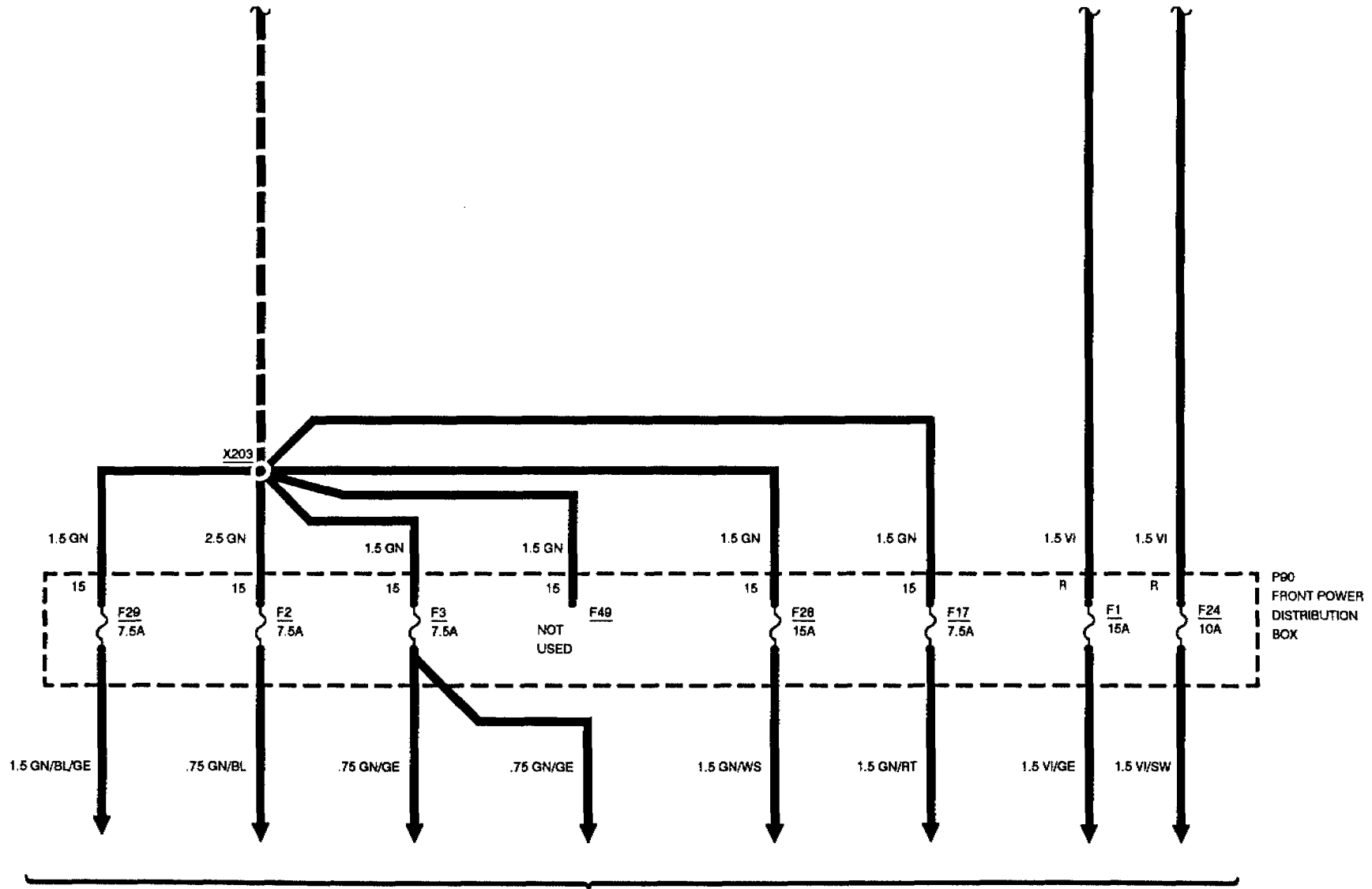






# POWER DISTRIBUTION FRONT POWER DISTRIBUTION BOX



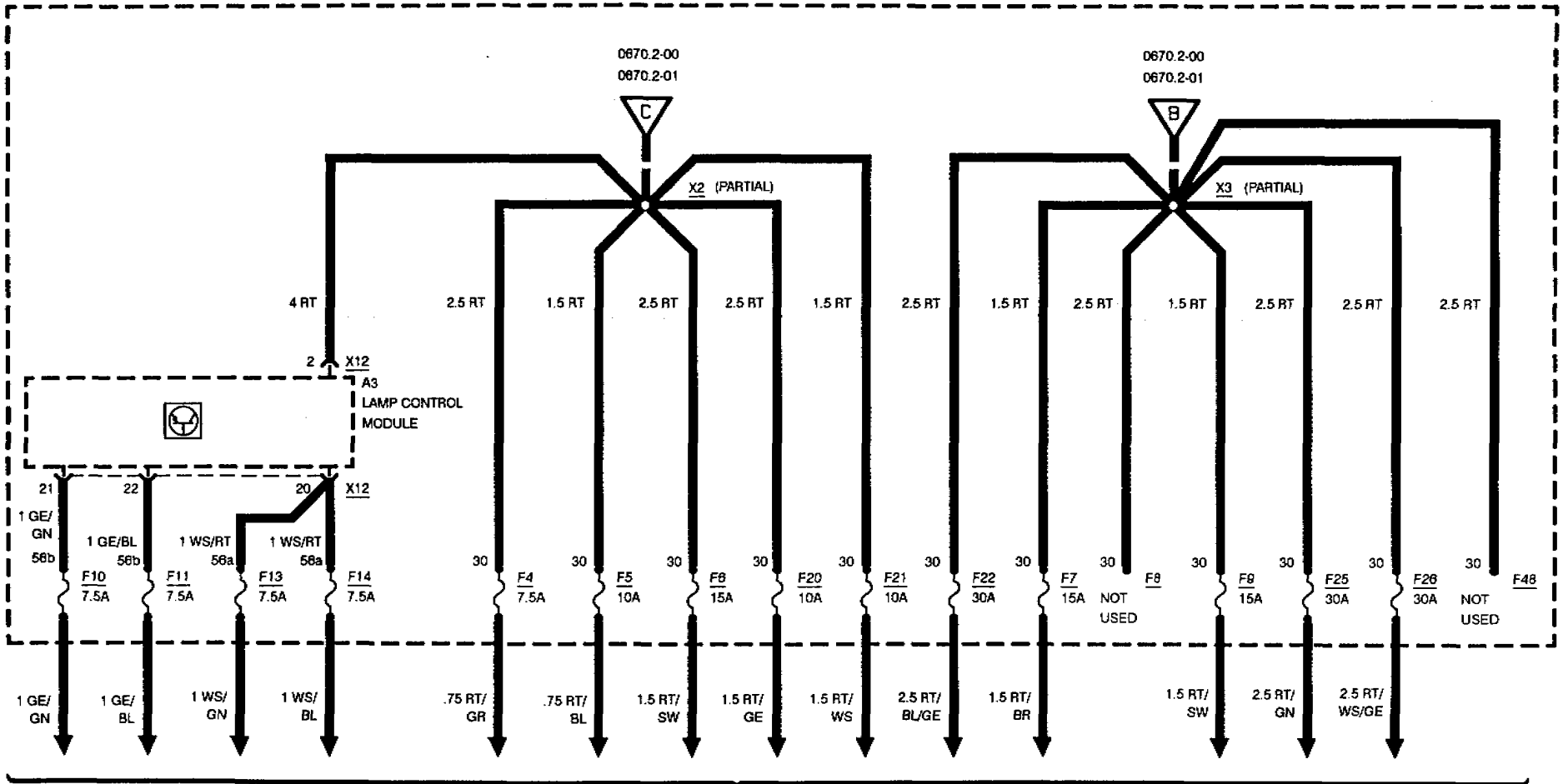


FUSE DETAILS  
0670.3



# POWER DISTRIBUTION FRONT POWER DISTRIBUTION BOX

P90  
FRONT POWER  
DISTRIBUTION  
BOX

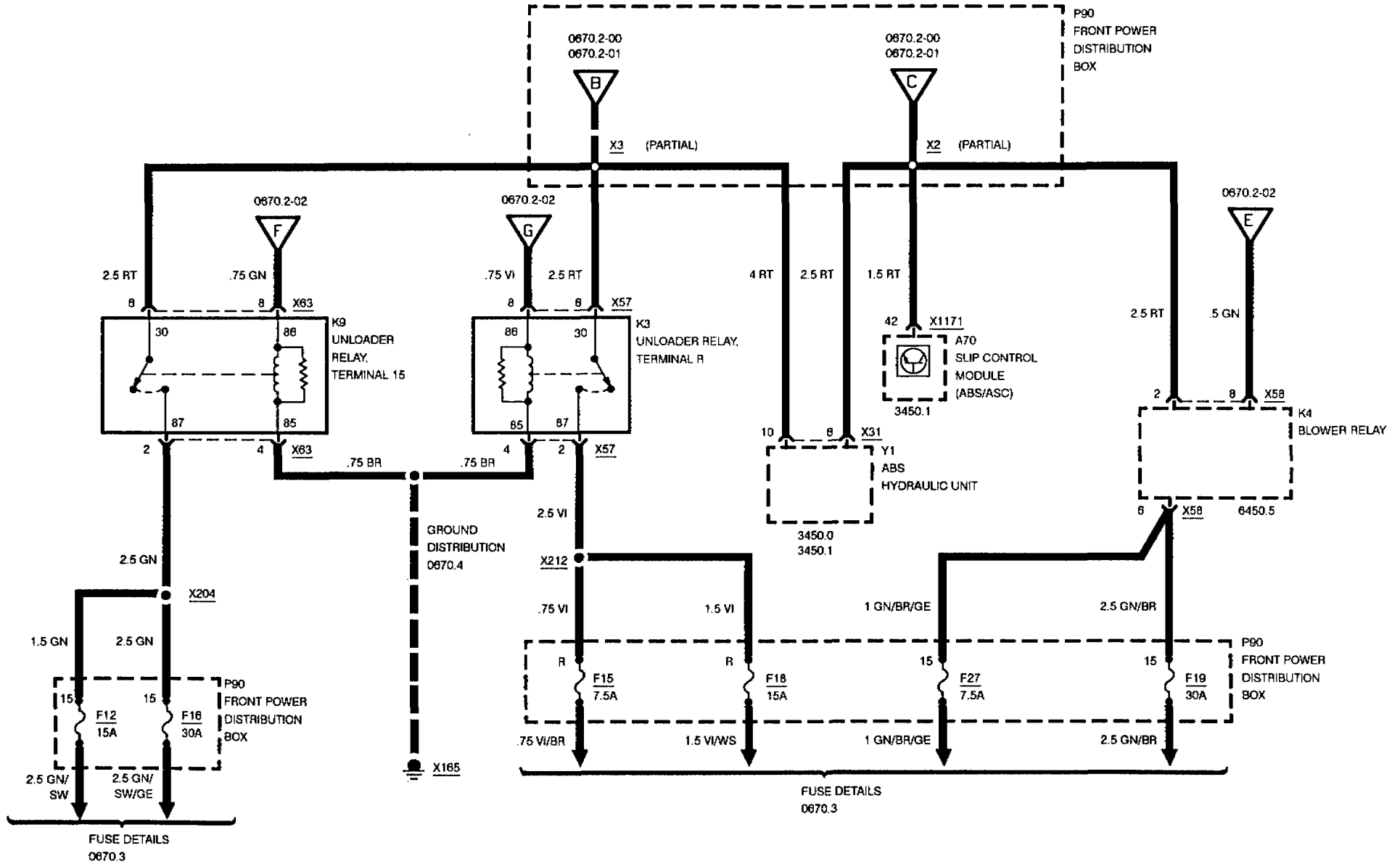


FUSE DETAILS  
0670.3



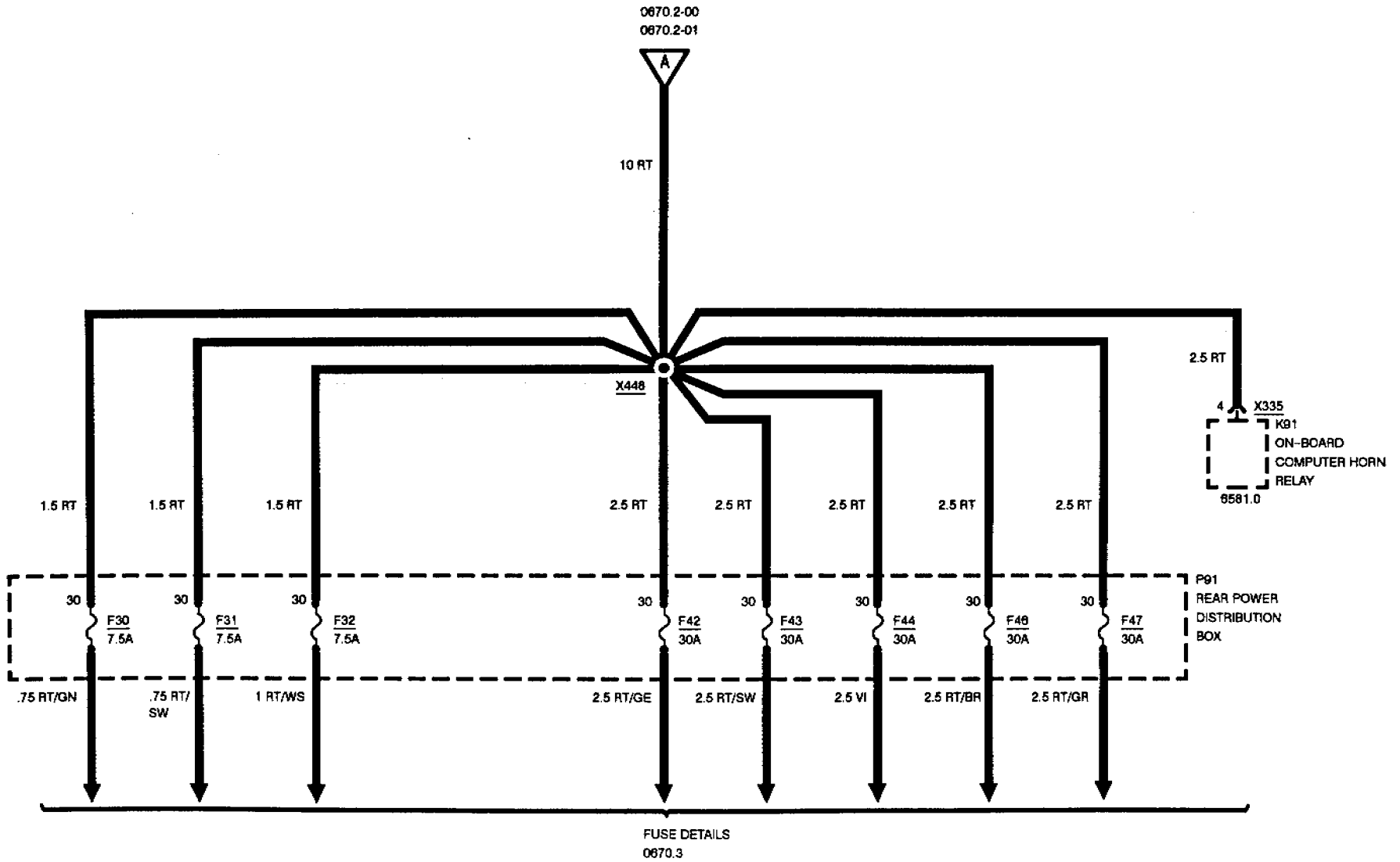
# POWER DISTRIBUTION

## FRONT POWER DISTRIBUTION BOX





# POWER DISTRIBUTION REAR POWER DISTRIBUTION BOX



BMW  
5

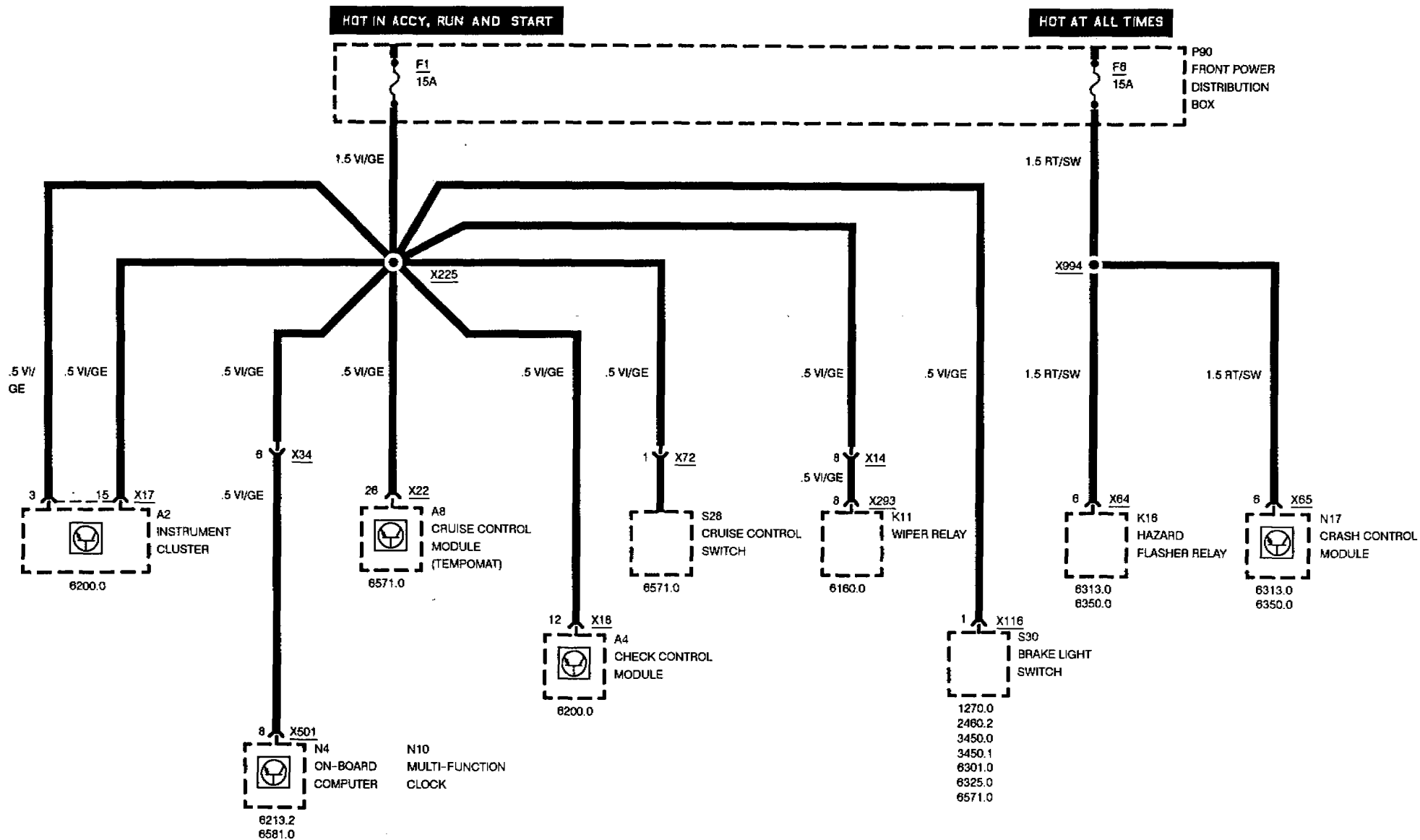
0670.3





# FUSE DETAILS

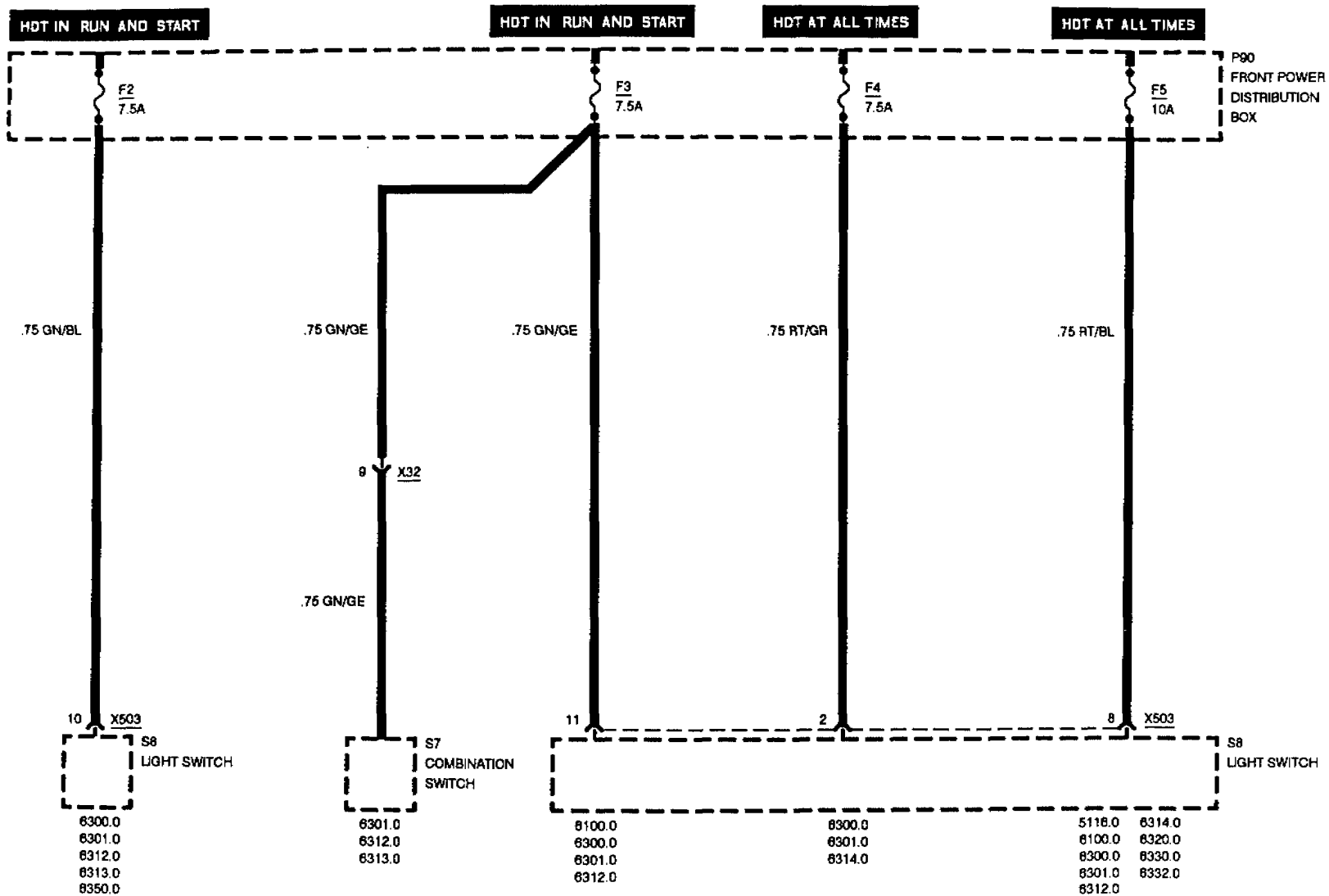
## FUSES 1 AND 6





# FUSE DETAILS

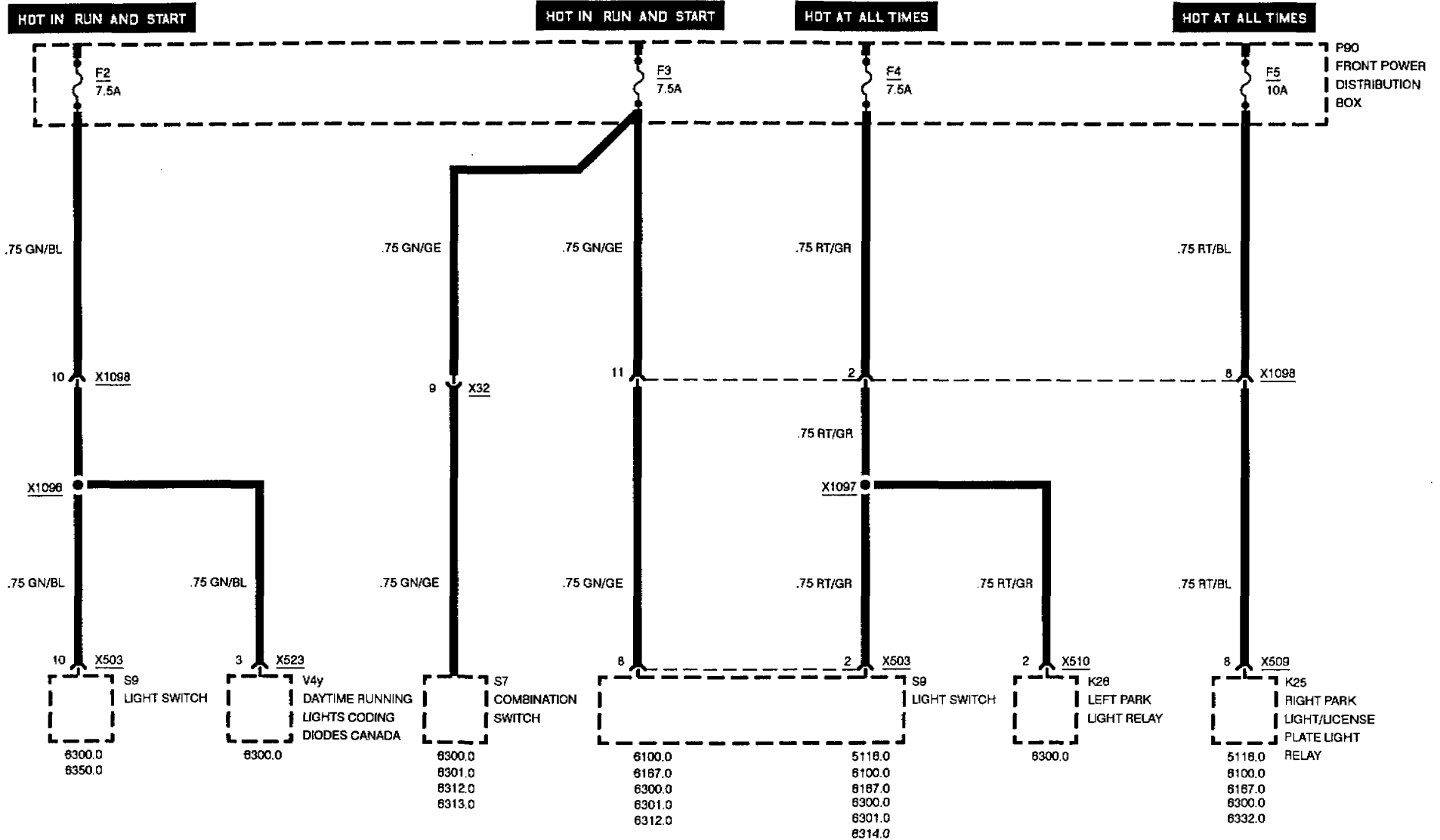
## FUSES 2, 3, 4, AND 5





# FUSE DETAILS

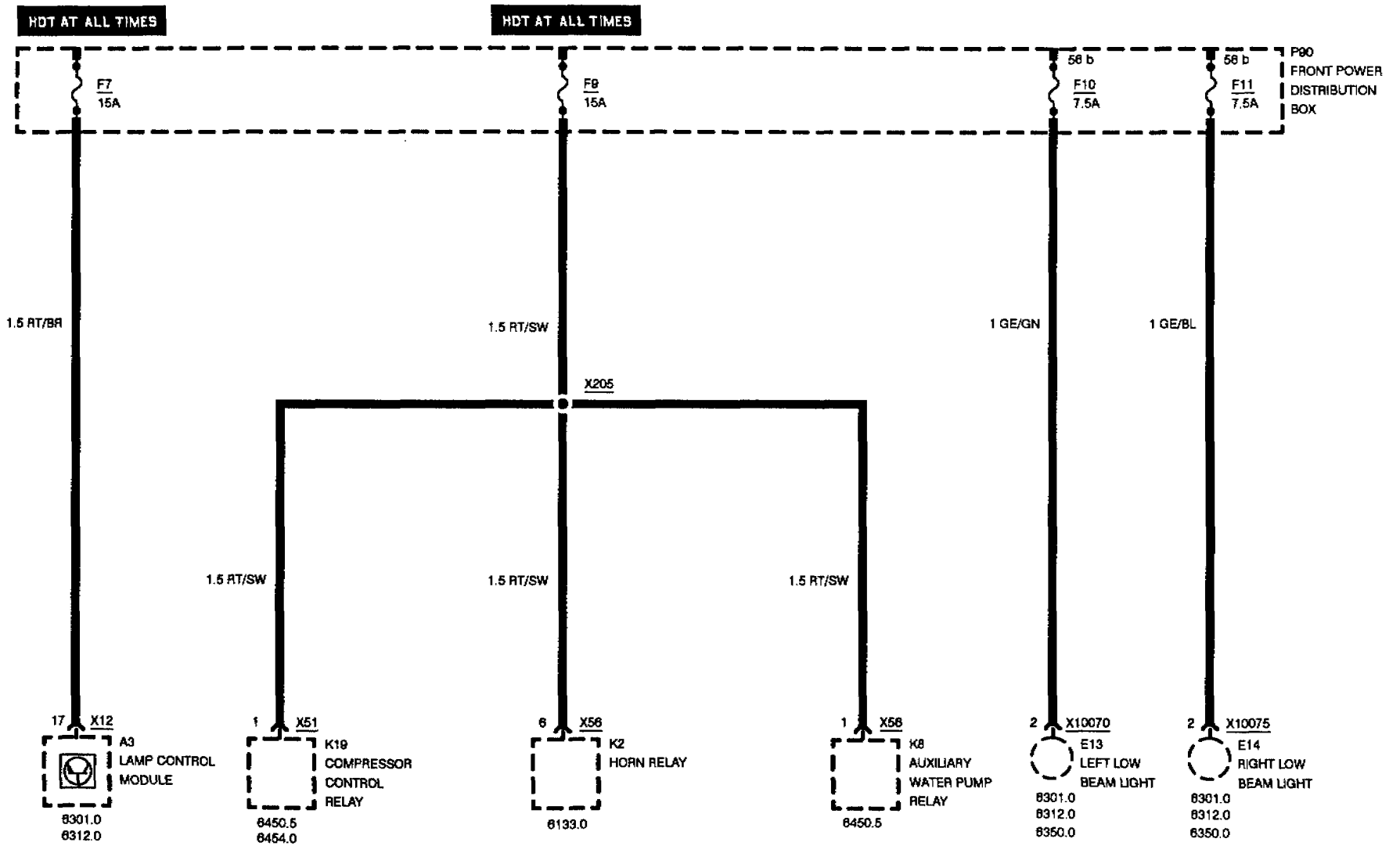
## FUSES 2, 3, 4, AND 5





# FUSE DETAILS

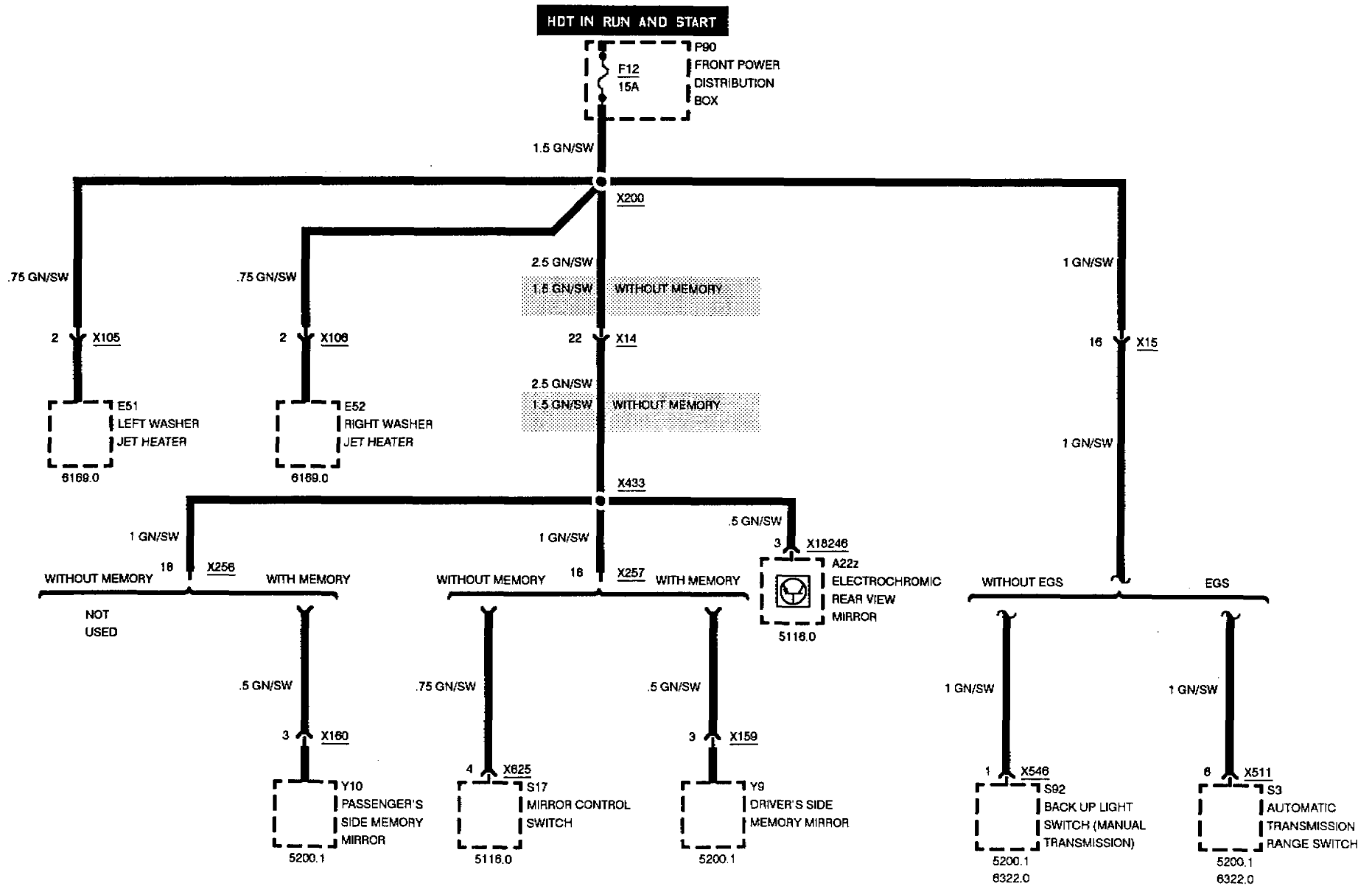
## FUSES 7, 9, 10, AND 11





# FUSE DETAILS

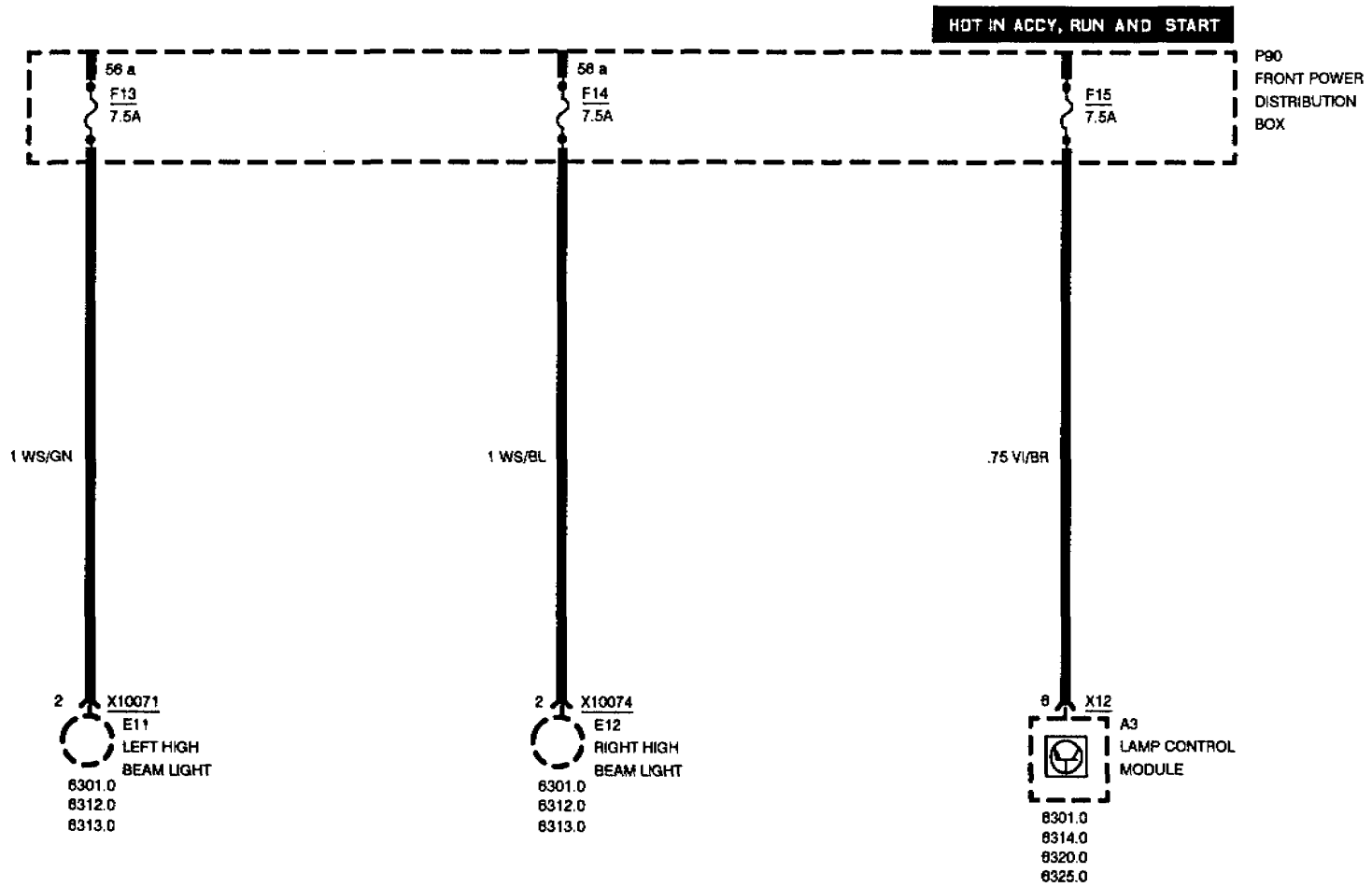
## FUSE 12





# FUSE DETAILS

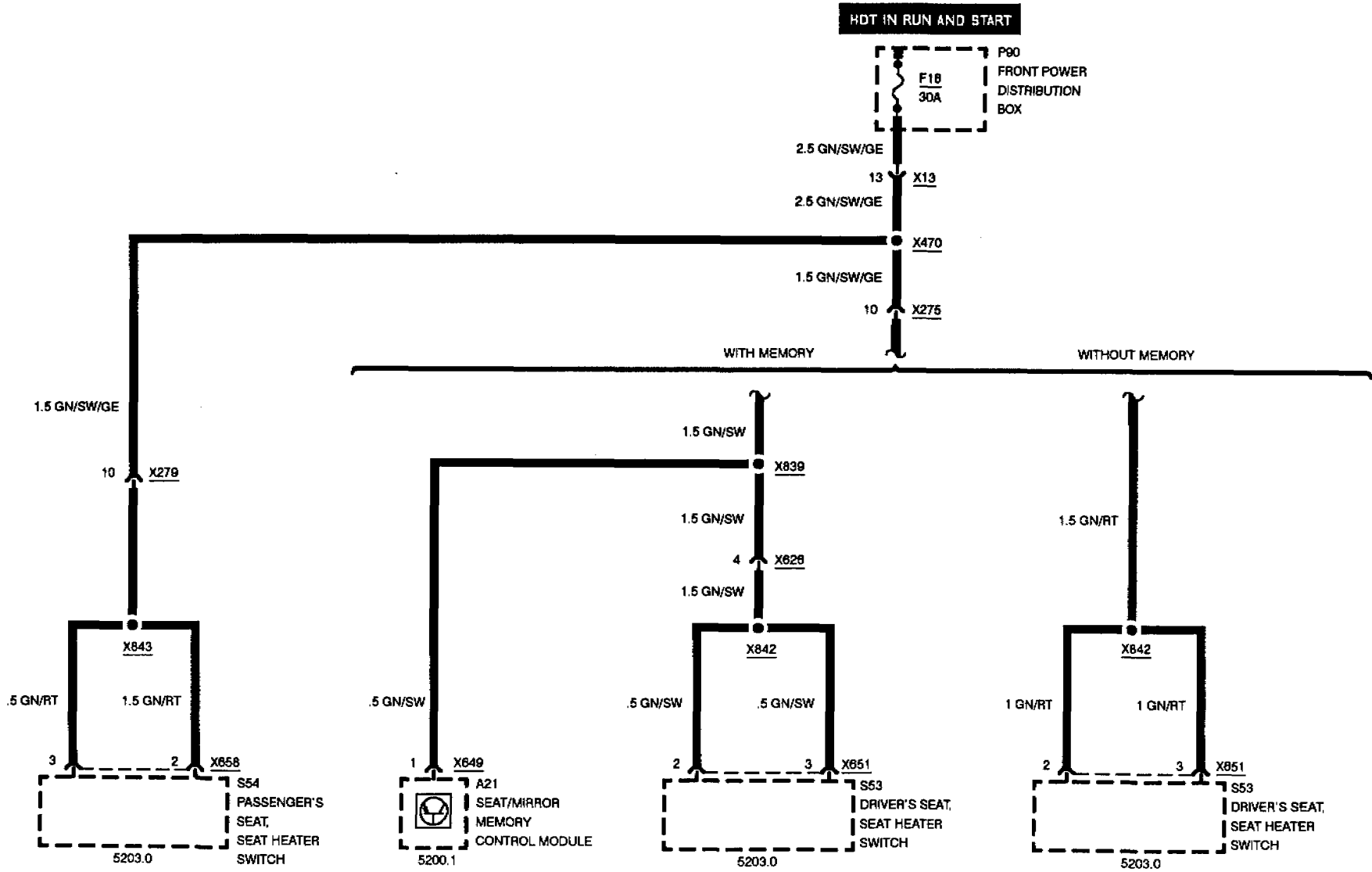
## FUSES 13, 14, AND 15





# FUSE DETAILS

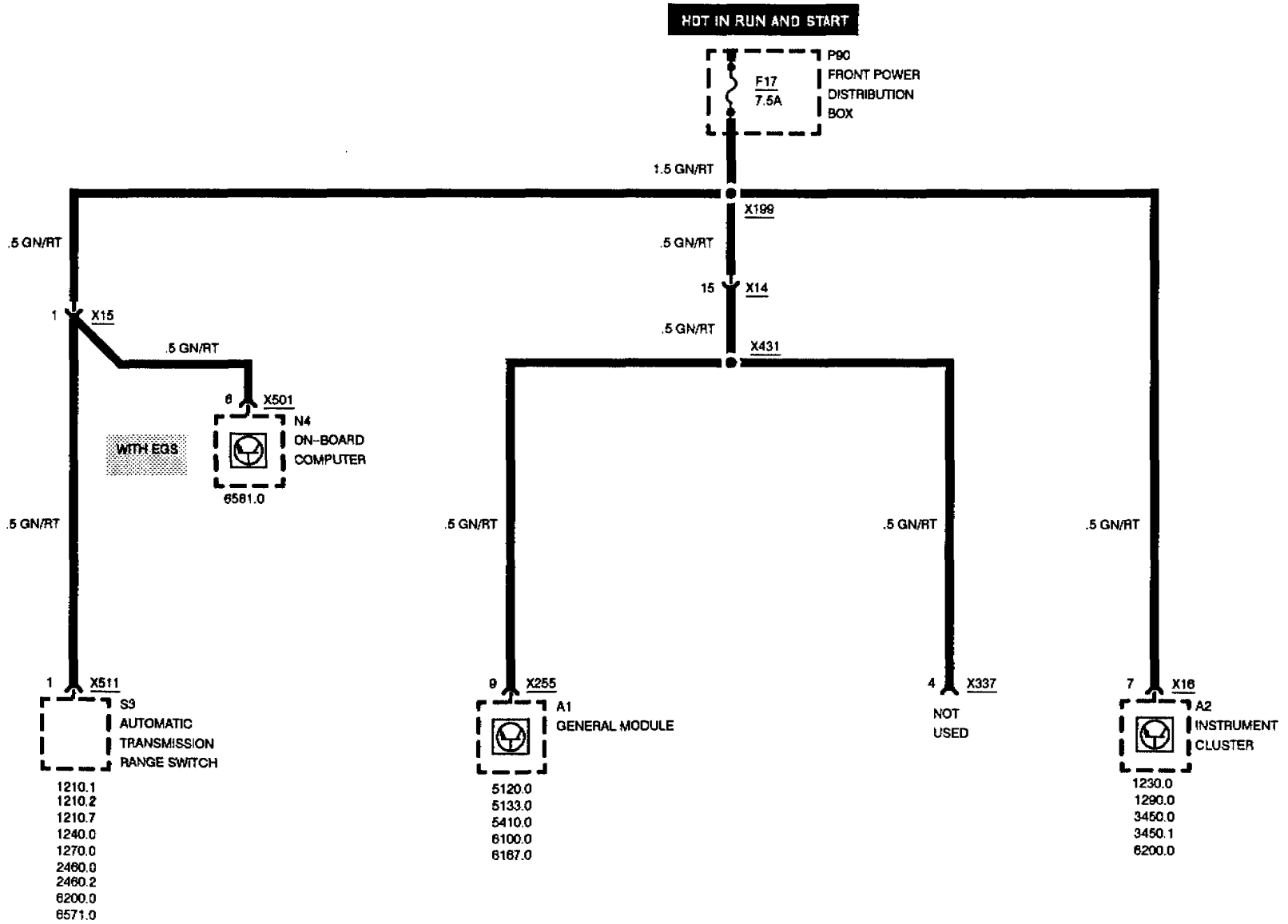
## FUSE 16





# FUSE DETAILS

## FUSE 17

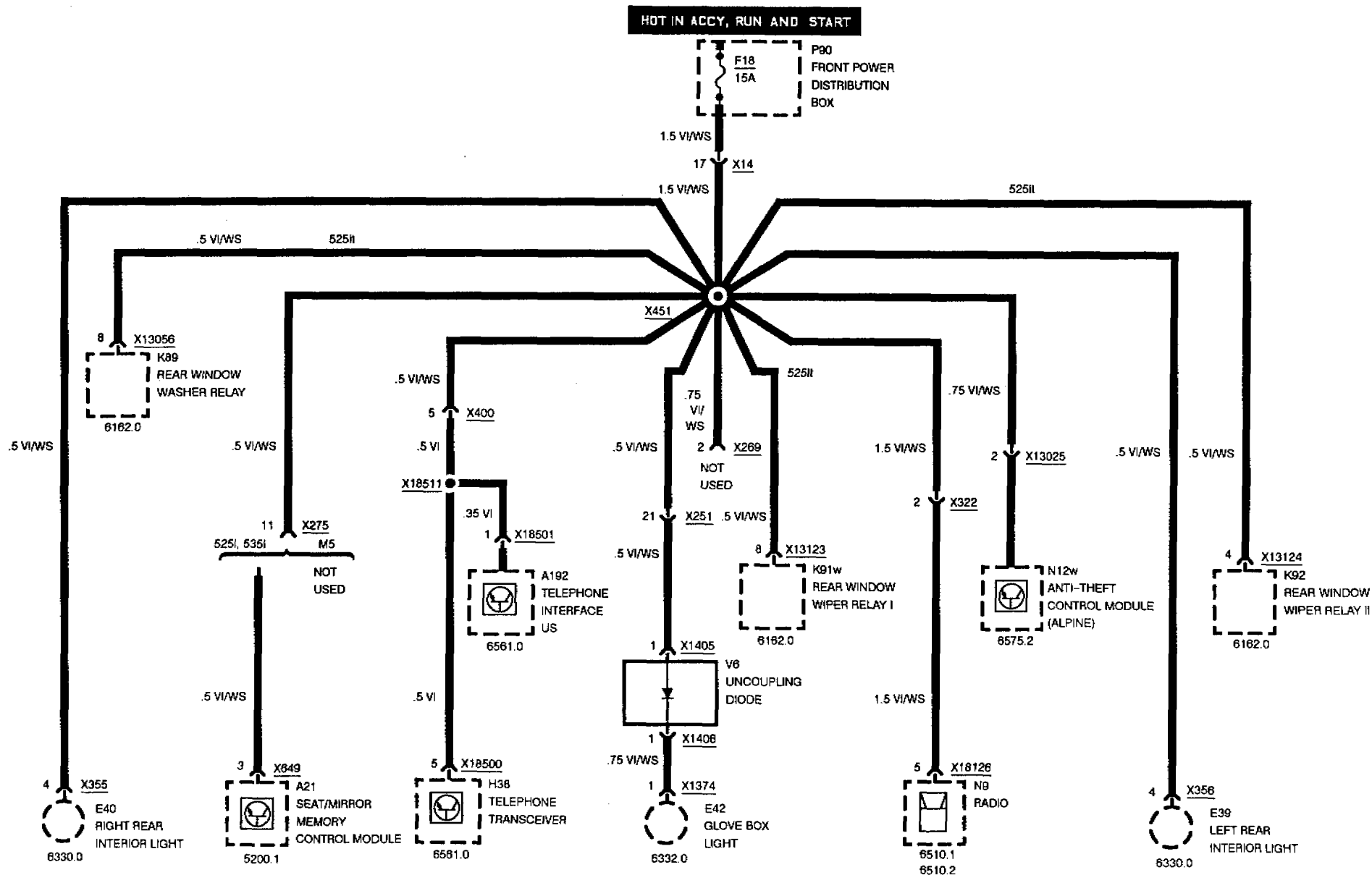






# FUSE DETAILS

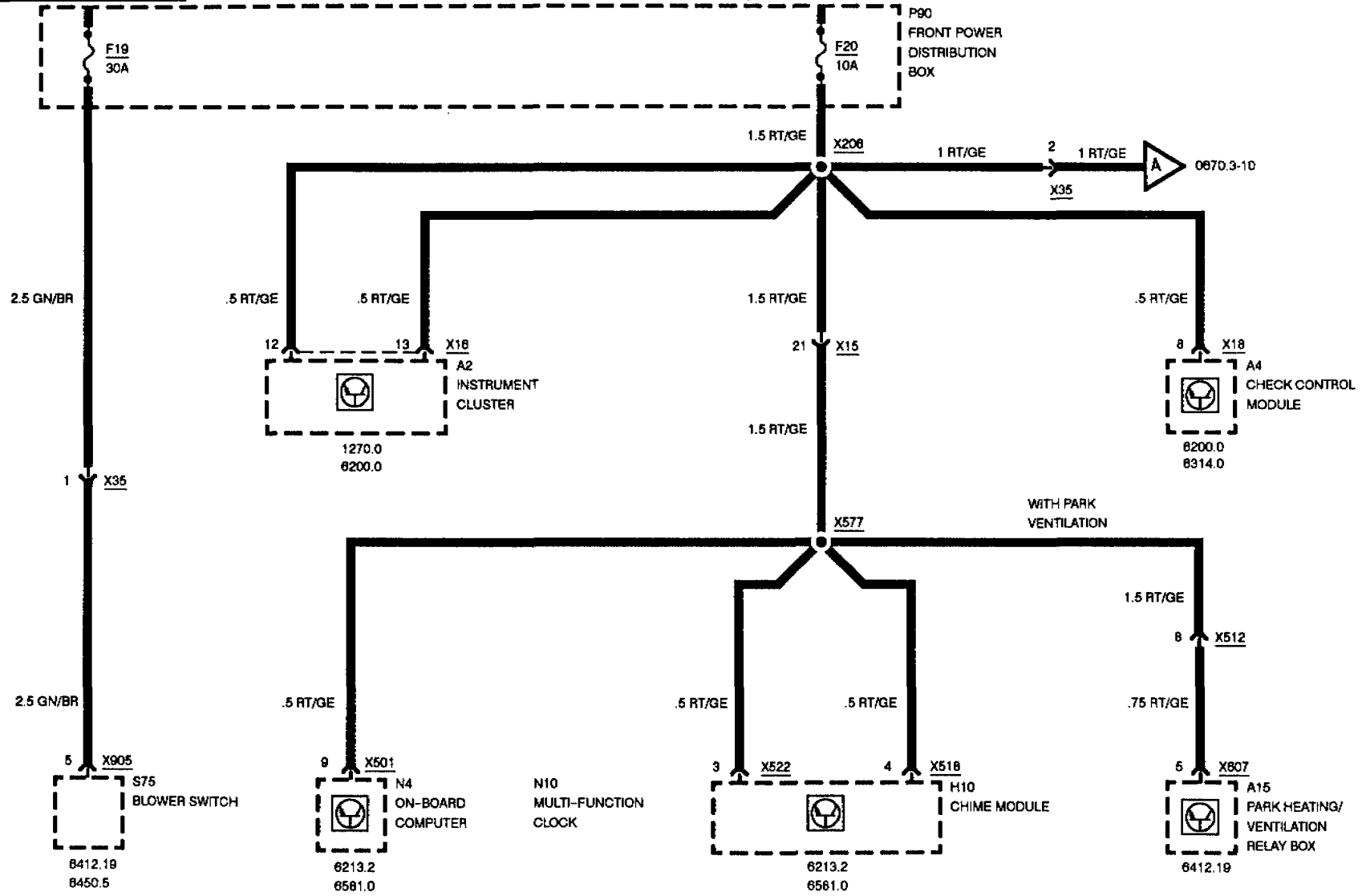
## FUSE 18



**BMW 5 FUSE DETAILS**  
**FUSES 19 AND 20**

HOT IN RUN AND START

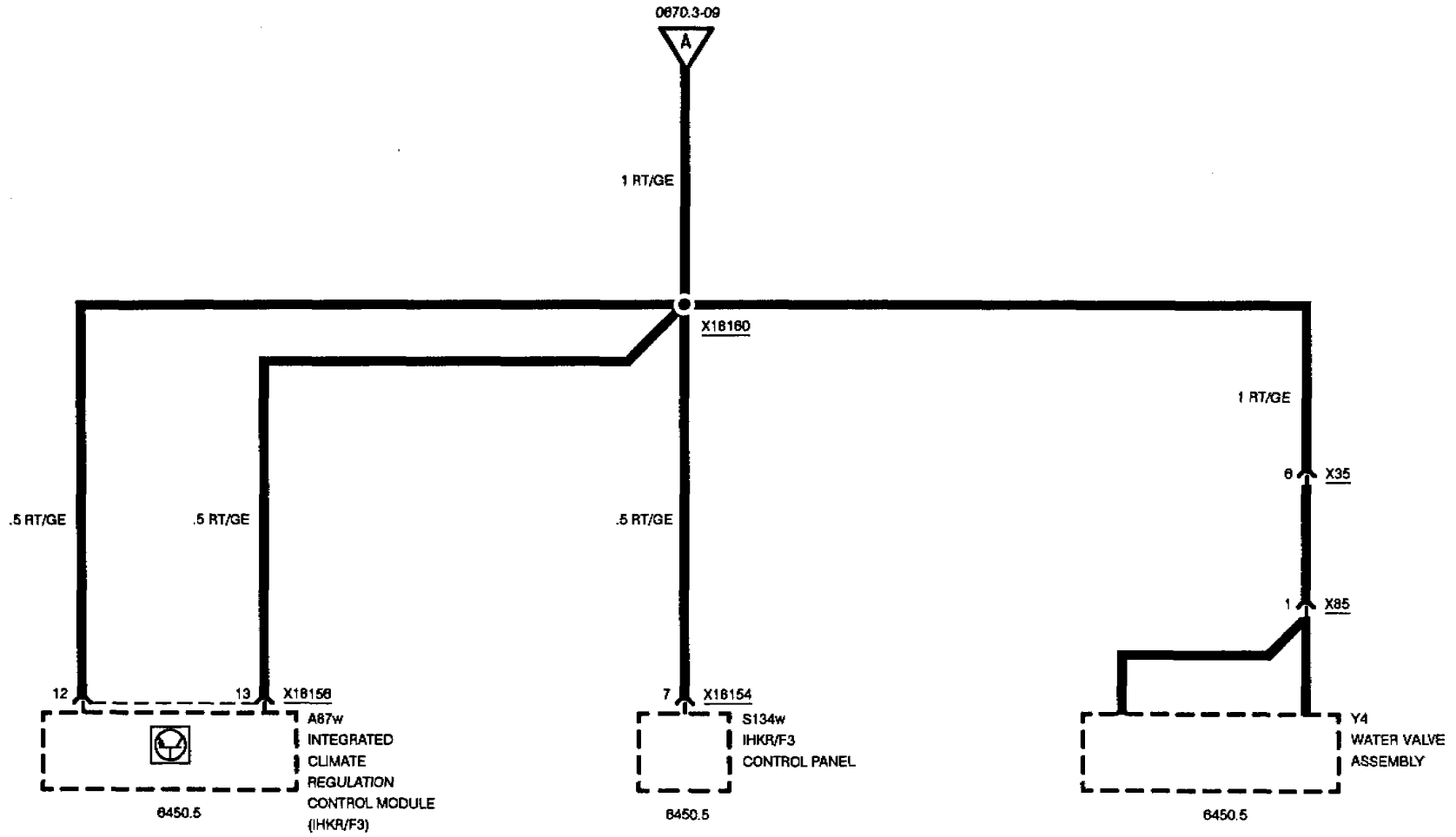
HDT AT ALL TIMES





# FUSE DETAILS

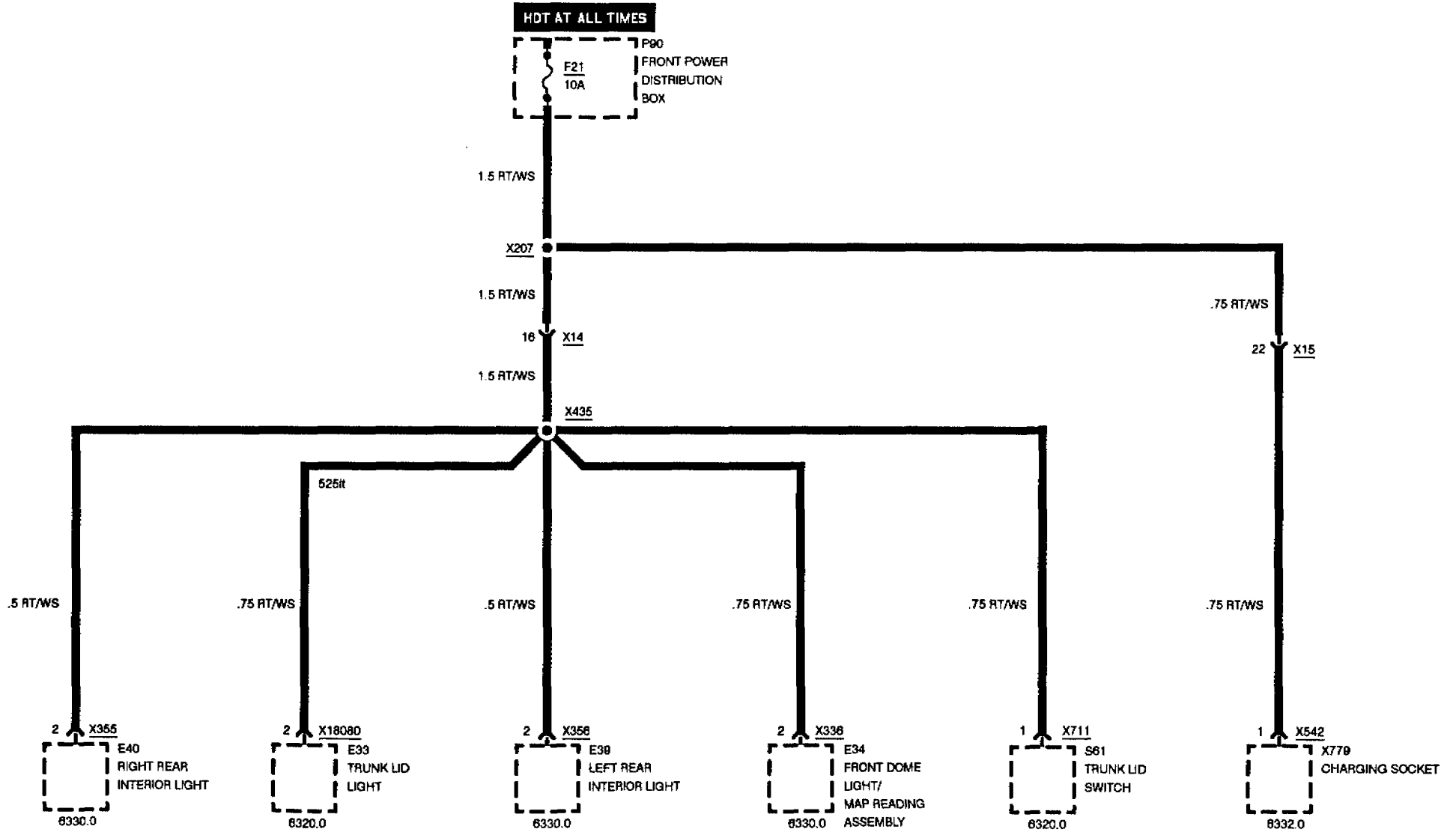
## FUSE 20





# FUSE DETAILS

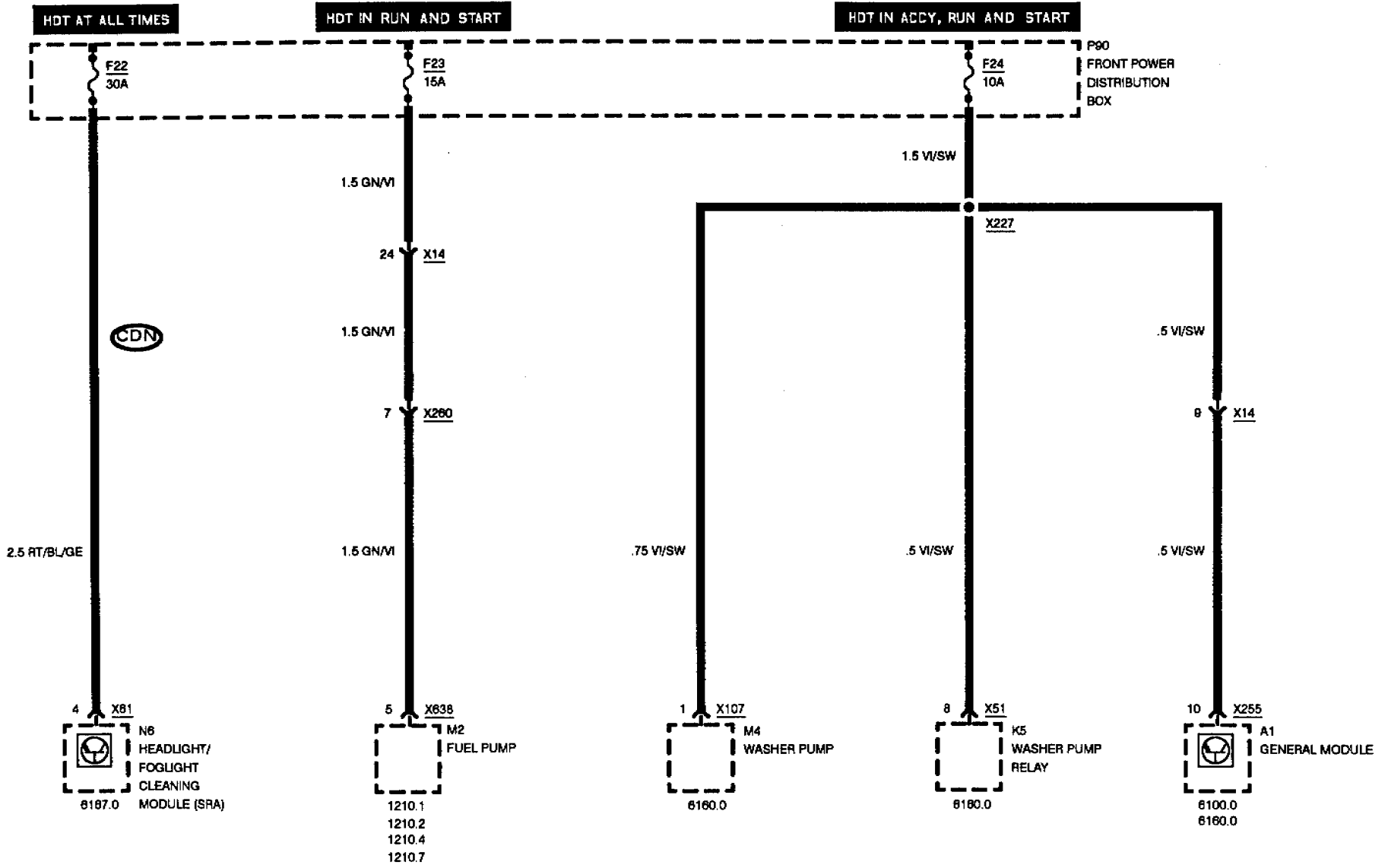
## FUSE 21





# FUSE DETAILS

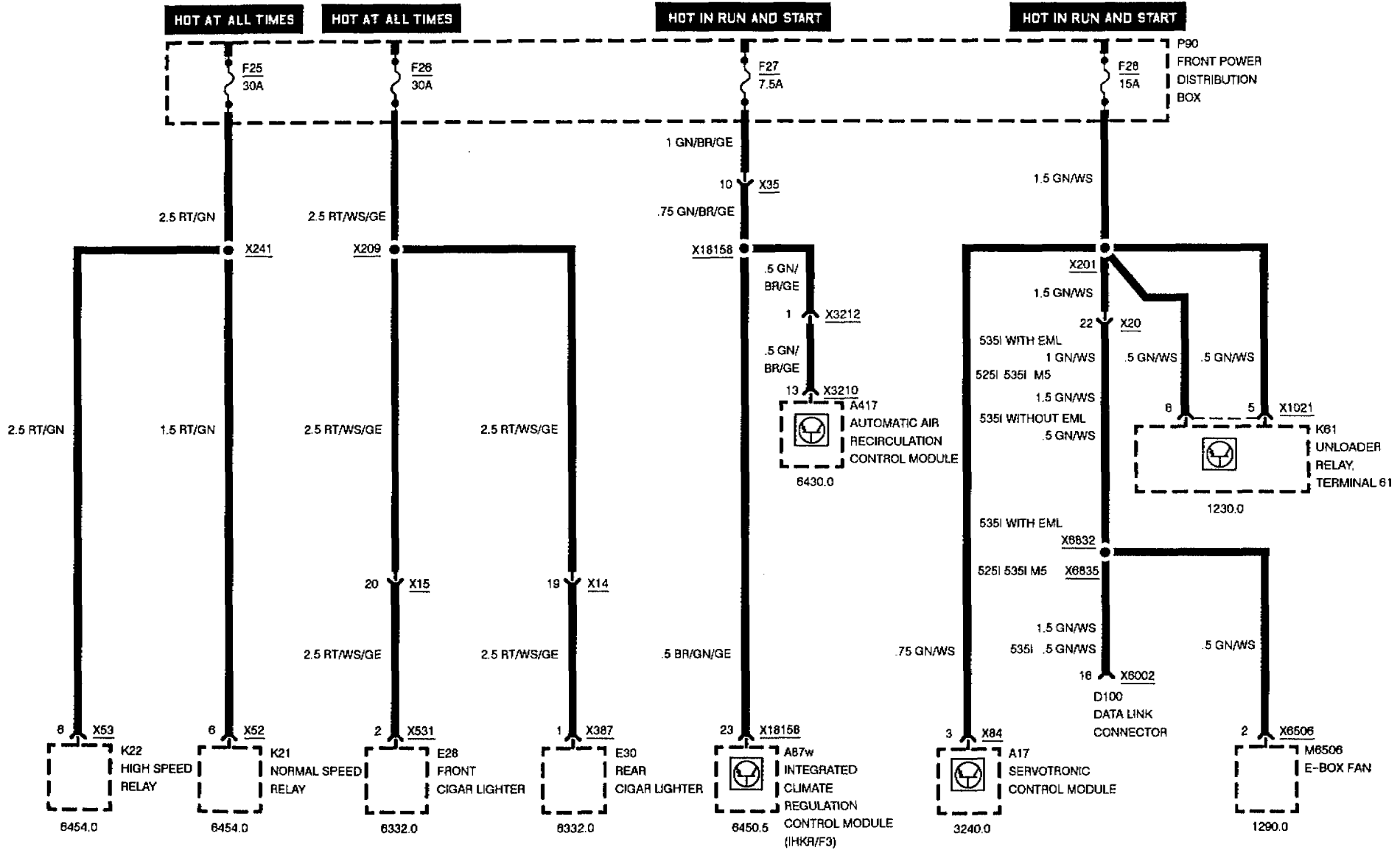
## FUSES 22, 23, AND 24





# FUSE DETAILS

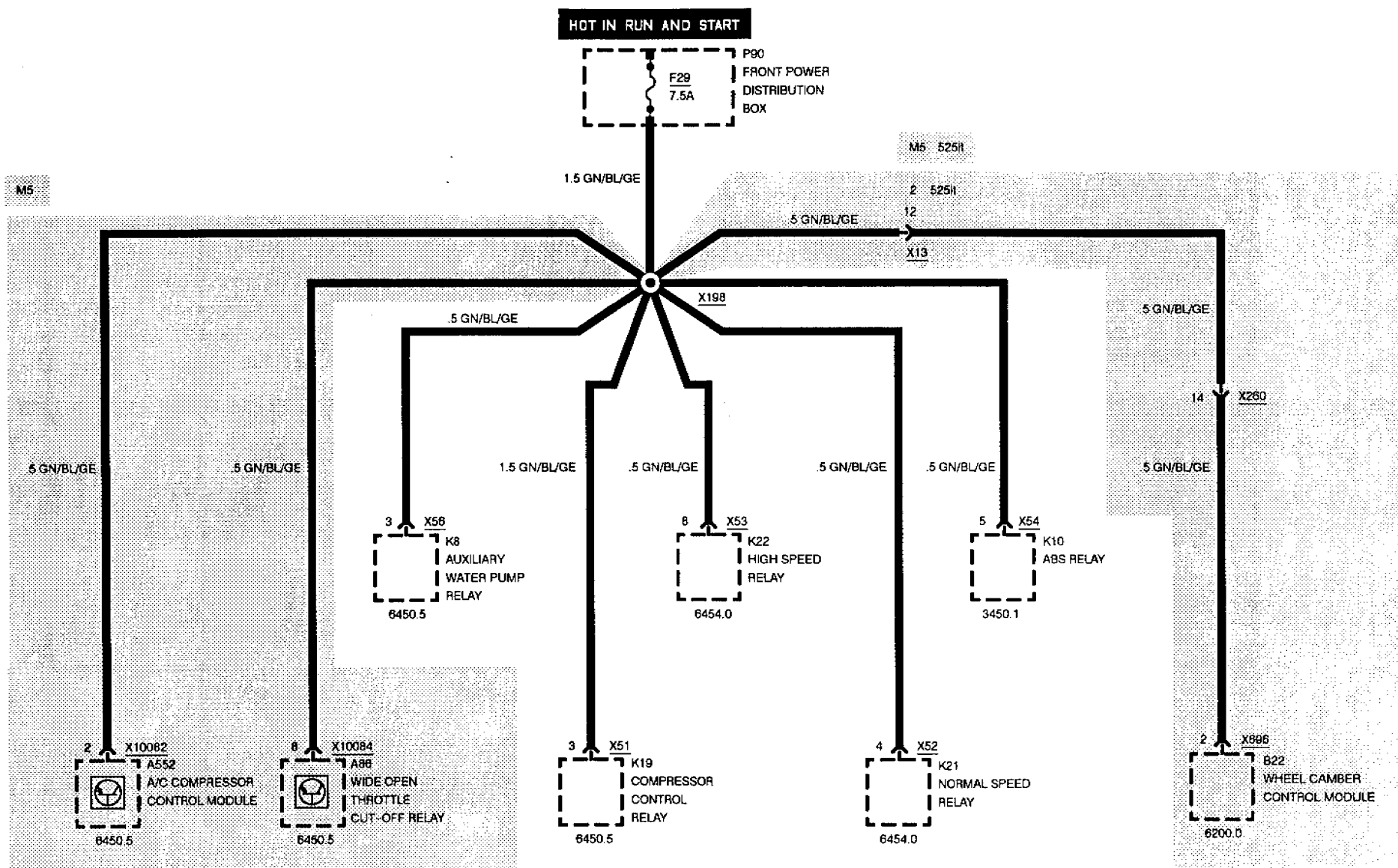
## FUSES 25, 26, 27, AND 28





# FUSE DETAILS

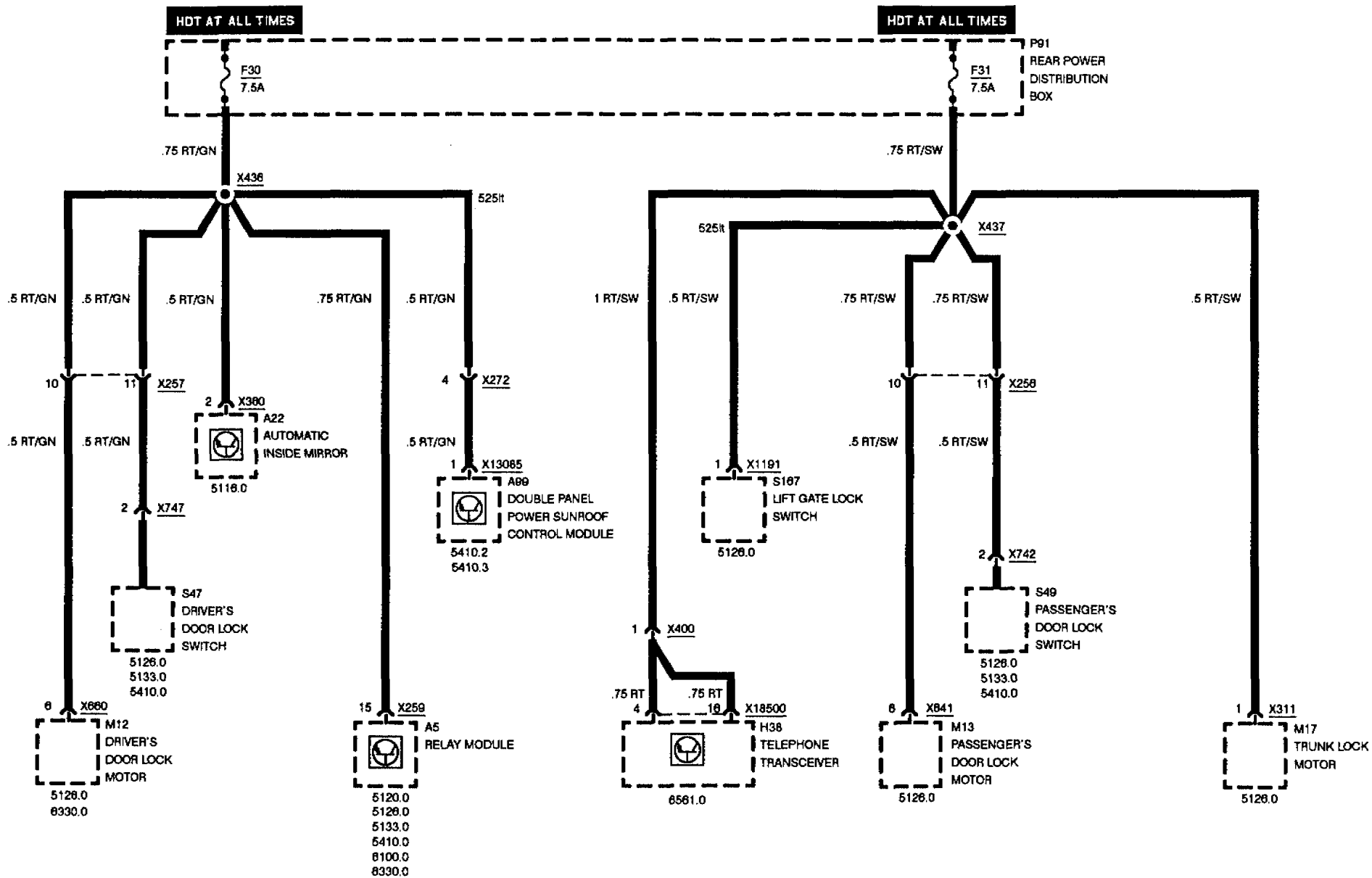
## FUSE 29





# FUSE DETAILS

## FUSES 30 AND 31

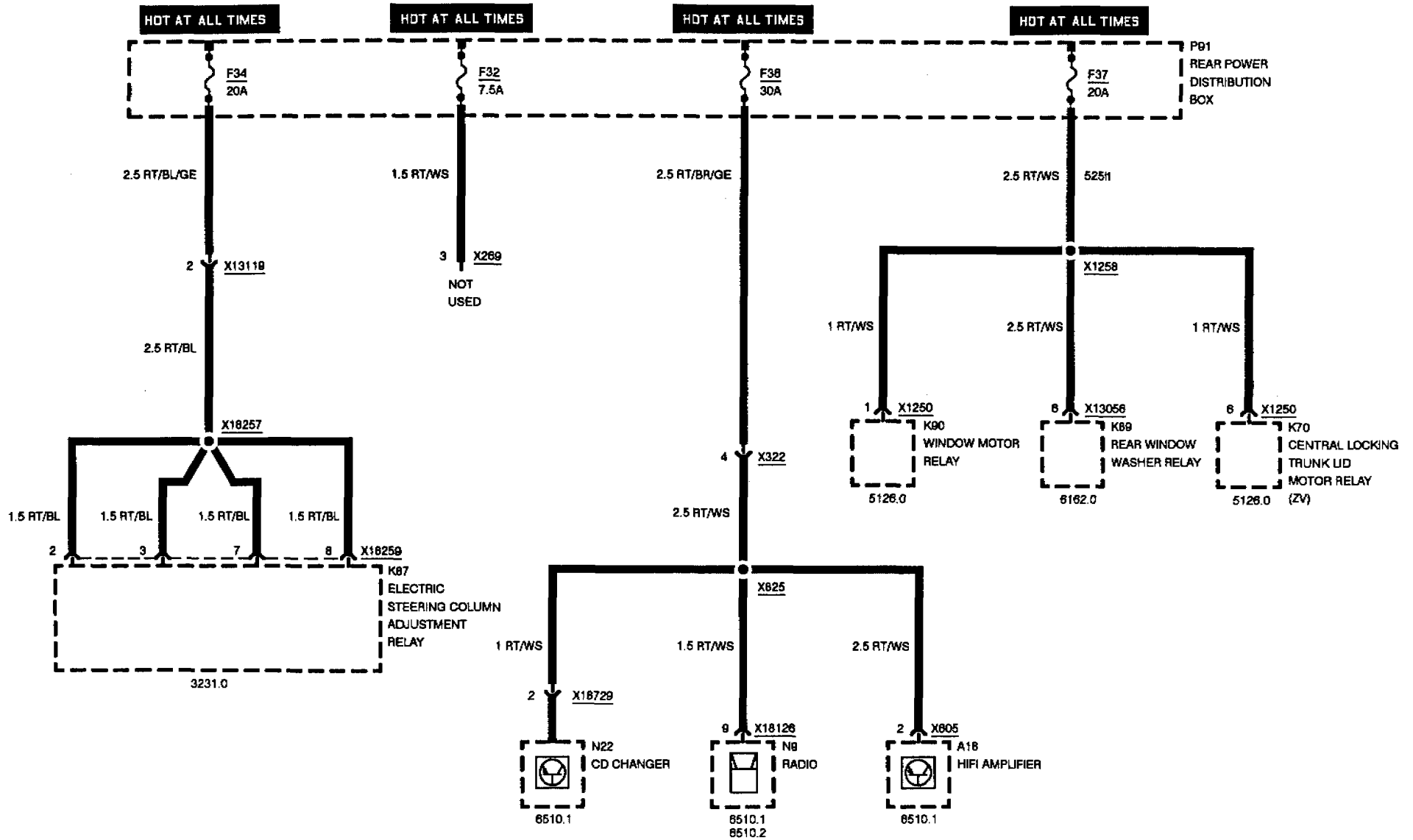






# FUSE DETAILS

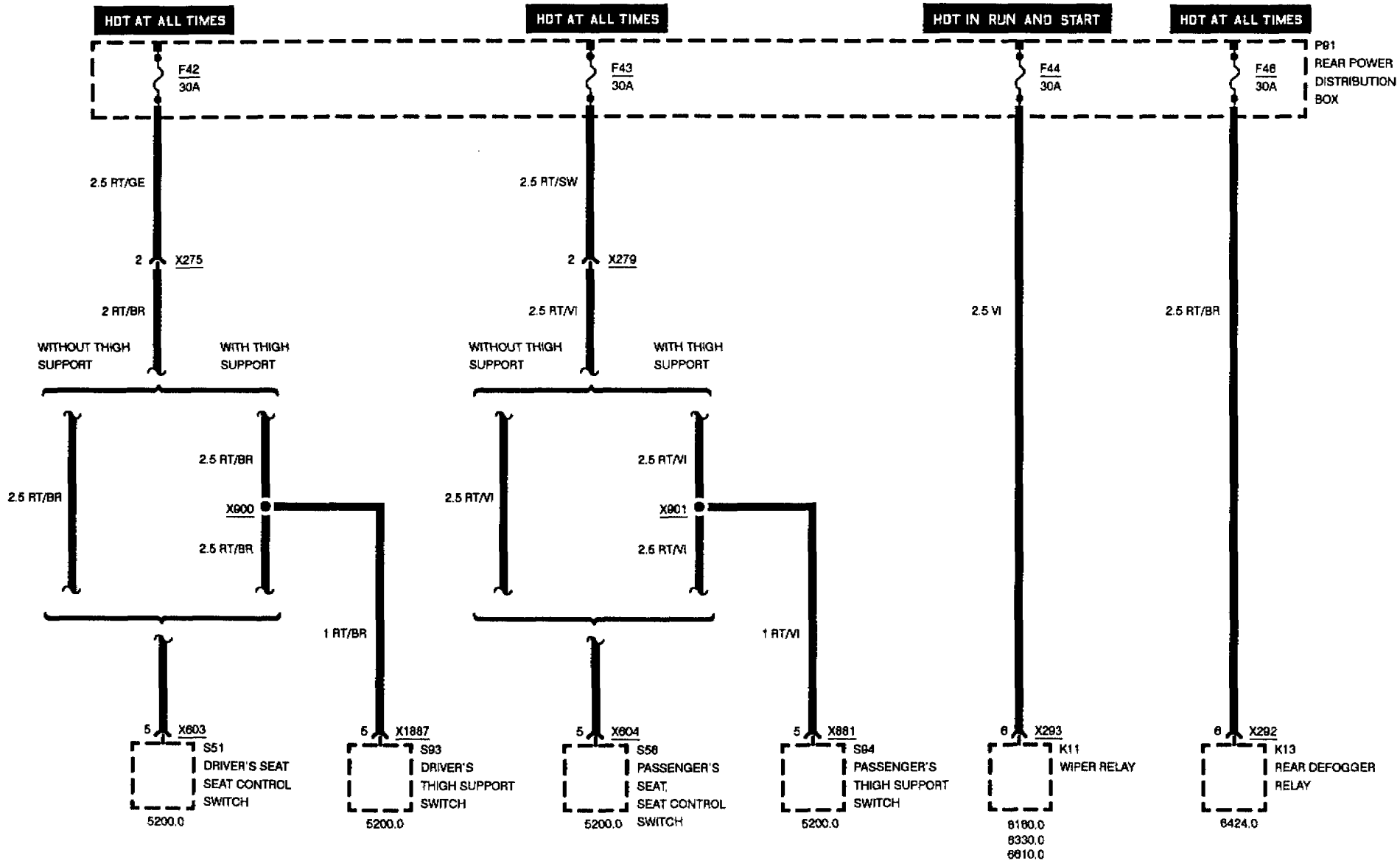
## FUSES 32, 34, 36, 37, AND 40





# FUSE DETAILS

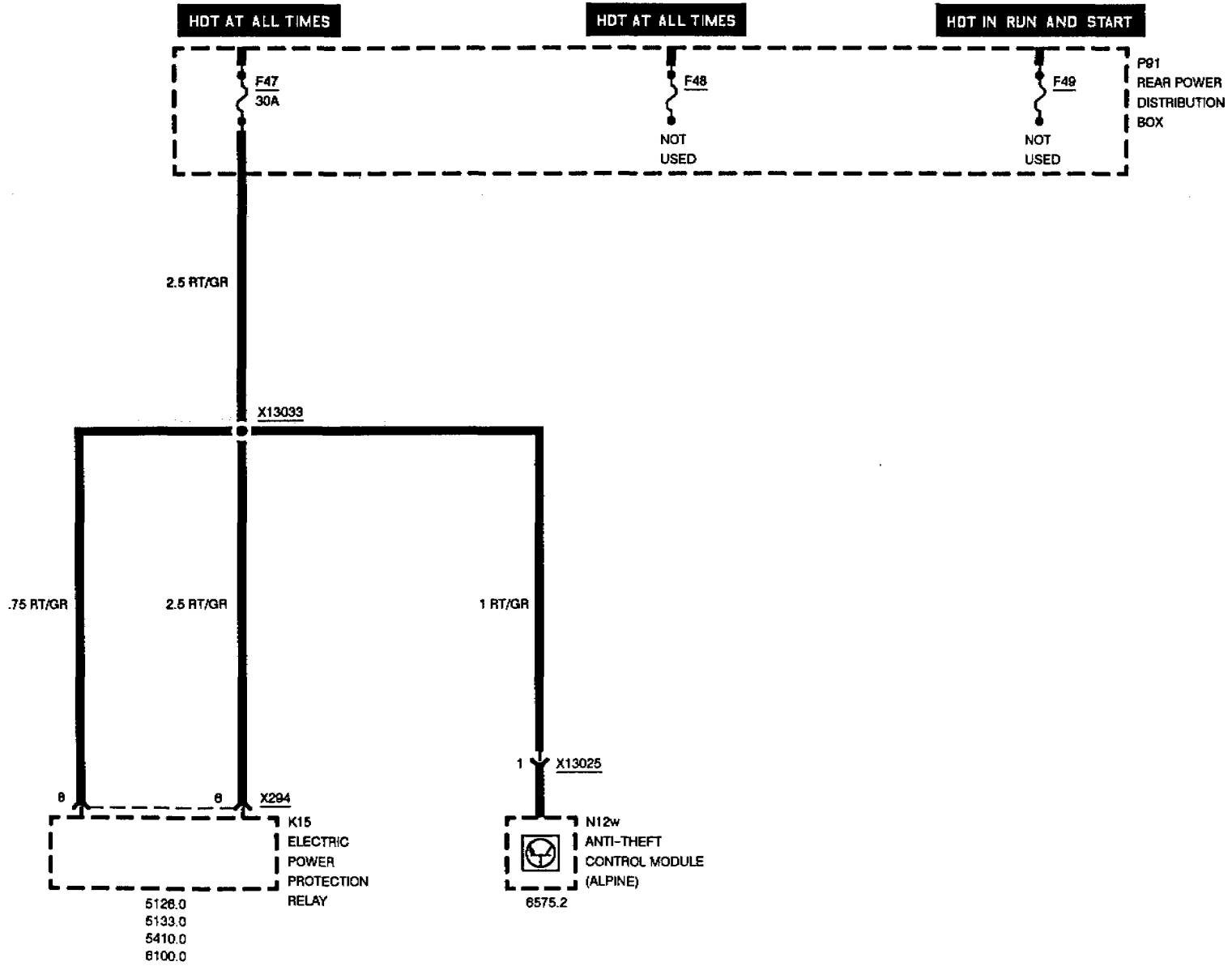
## FUSES 42, 43, 44, AND 46





# FUSE DETAILS

## FUSES 47, 48, AND 49



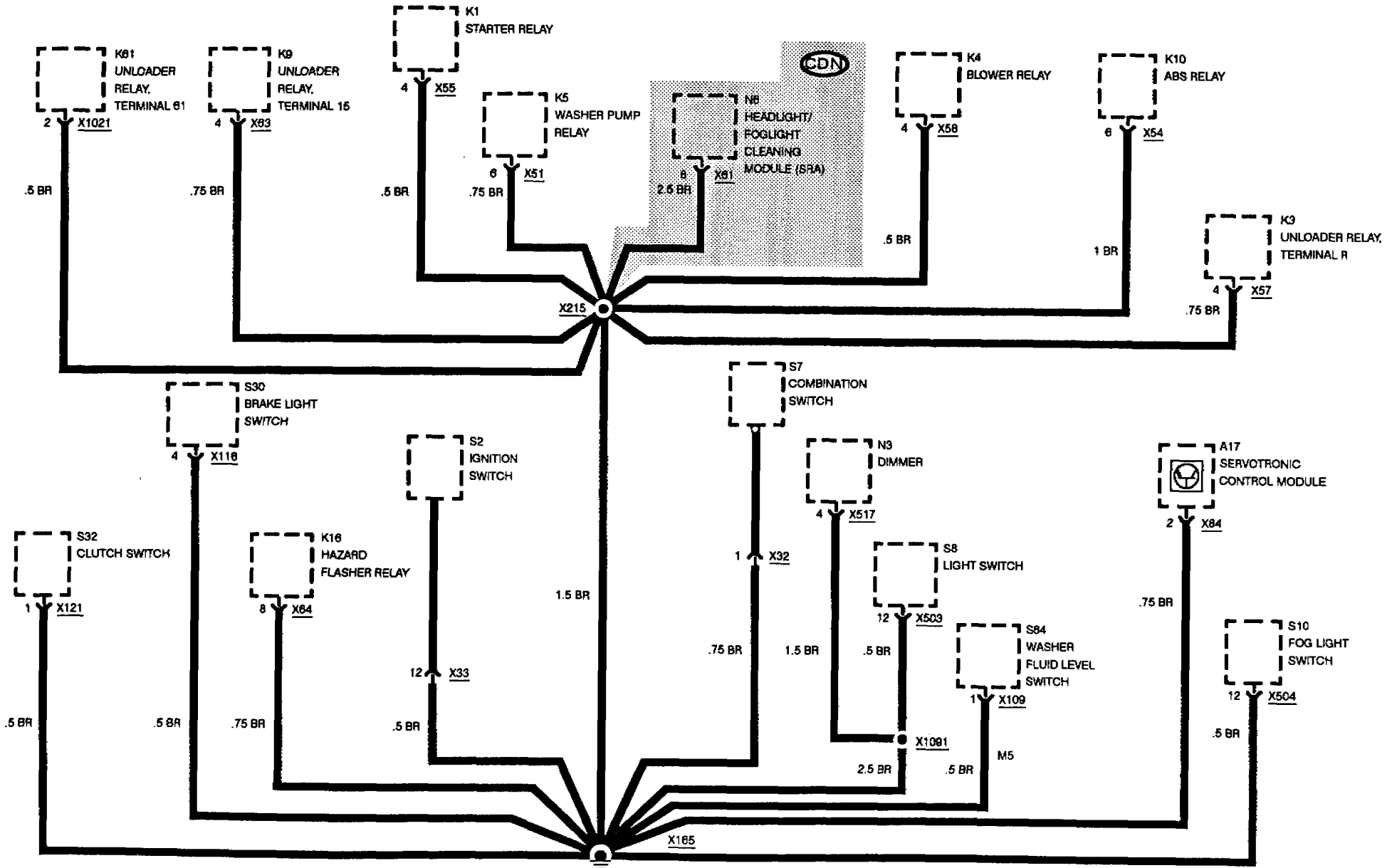
BMW  
5

0670.4



# GROUND DISTRIBUTION

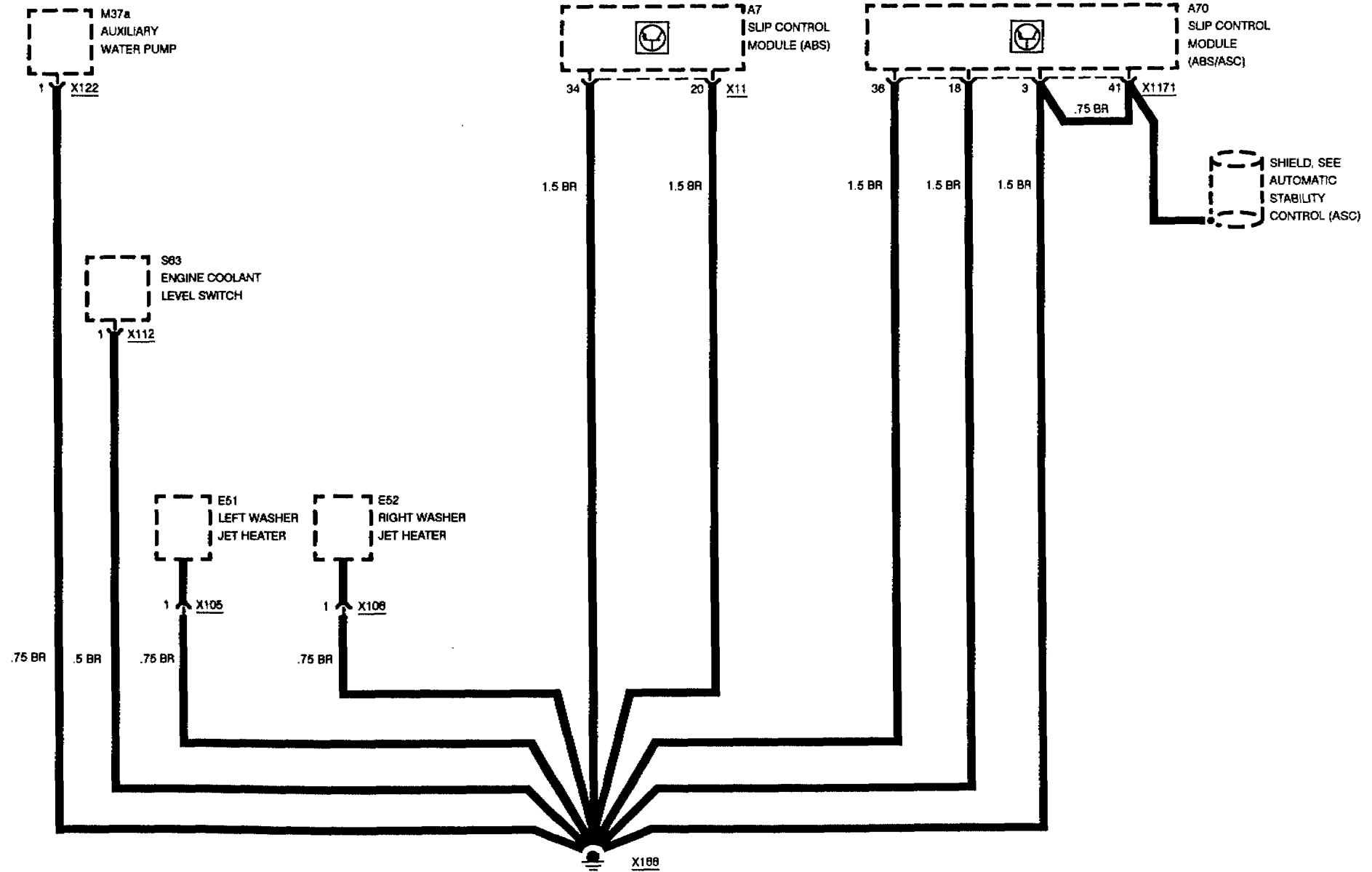
## GROUND X165





# GROUND DISTRIBUTION

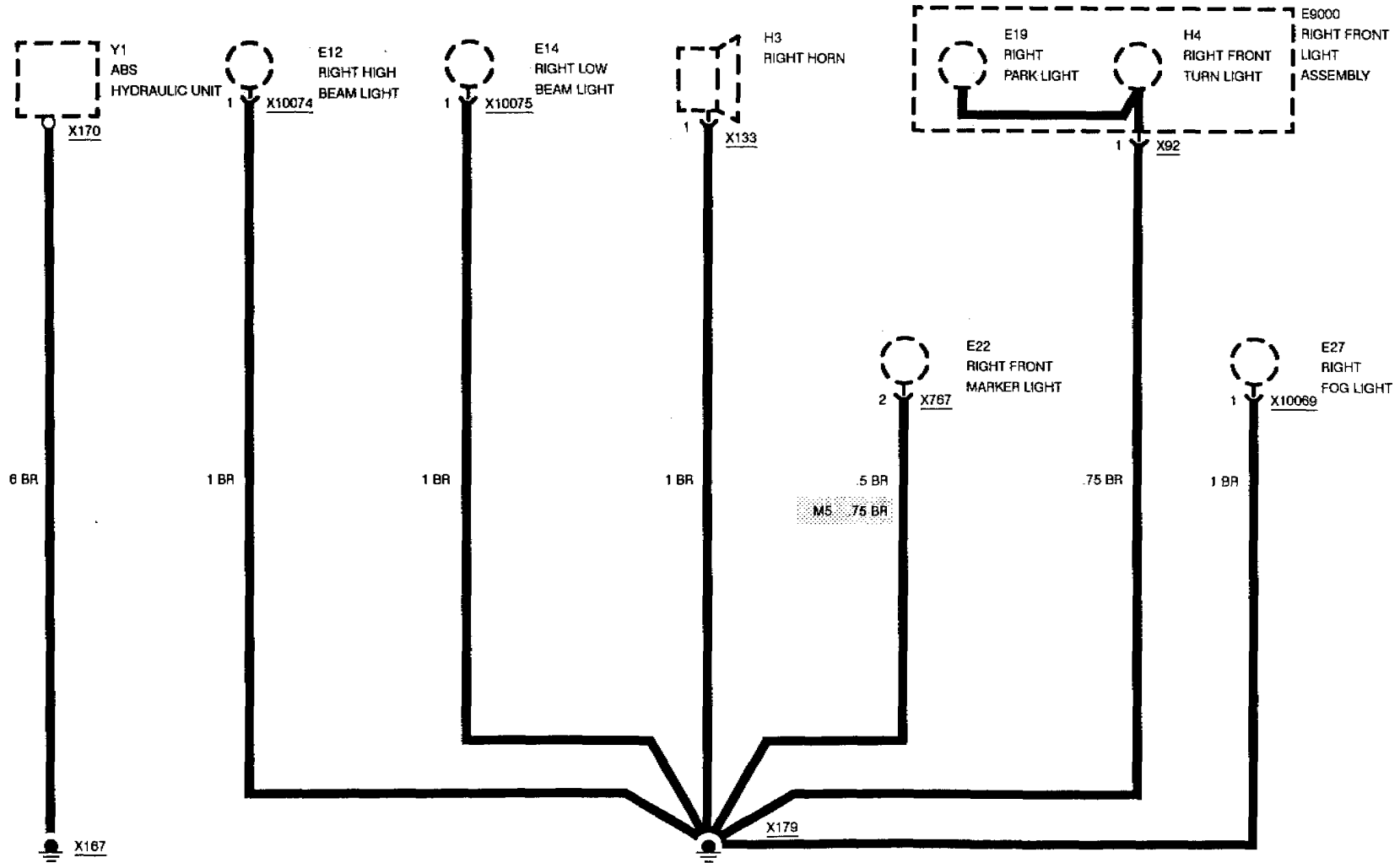
## GROUND X166





# GROUND DISTRIBUTION

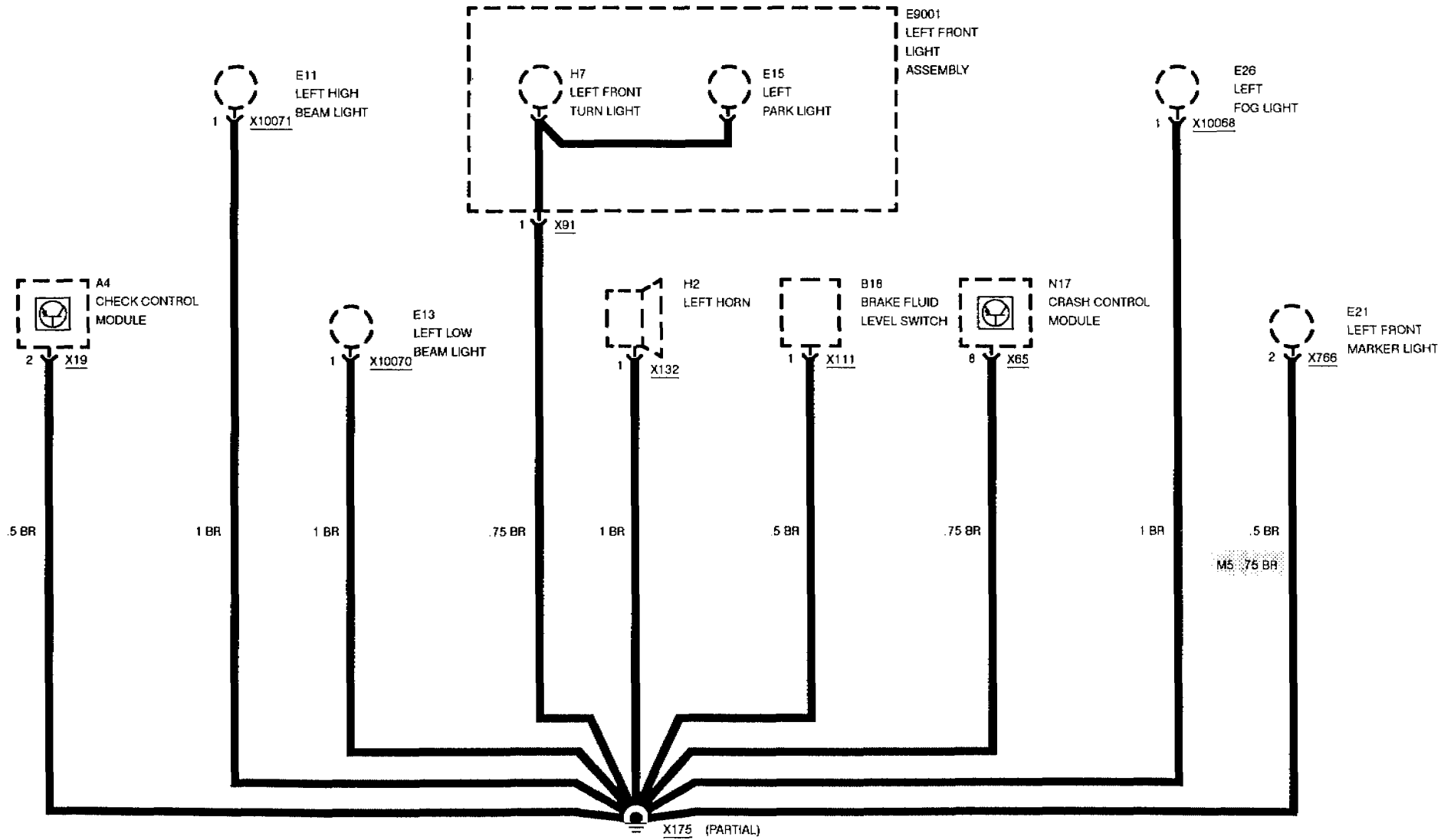
## GROUNDS X167 AND X179





# GROUND DISTRIBUTION

## GROUND X175

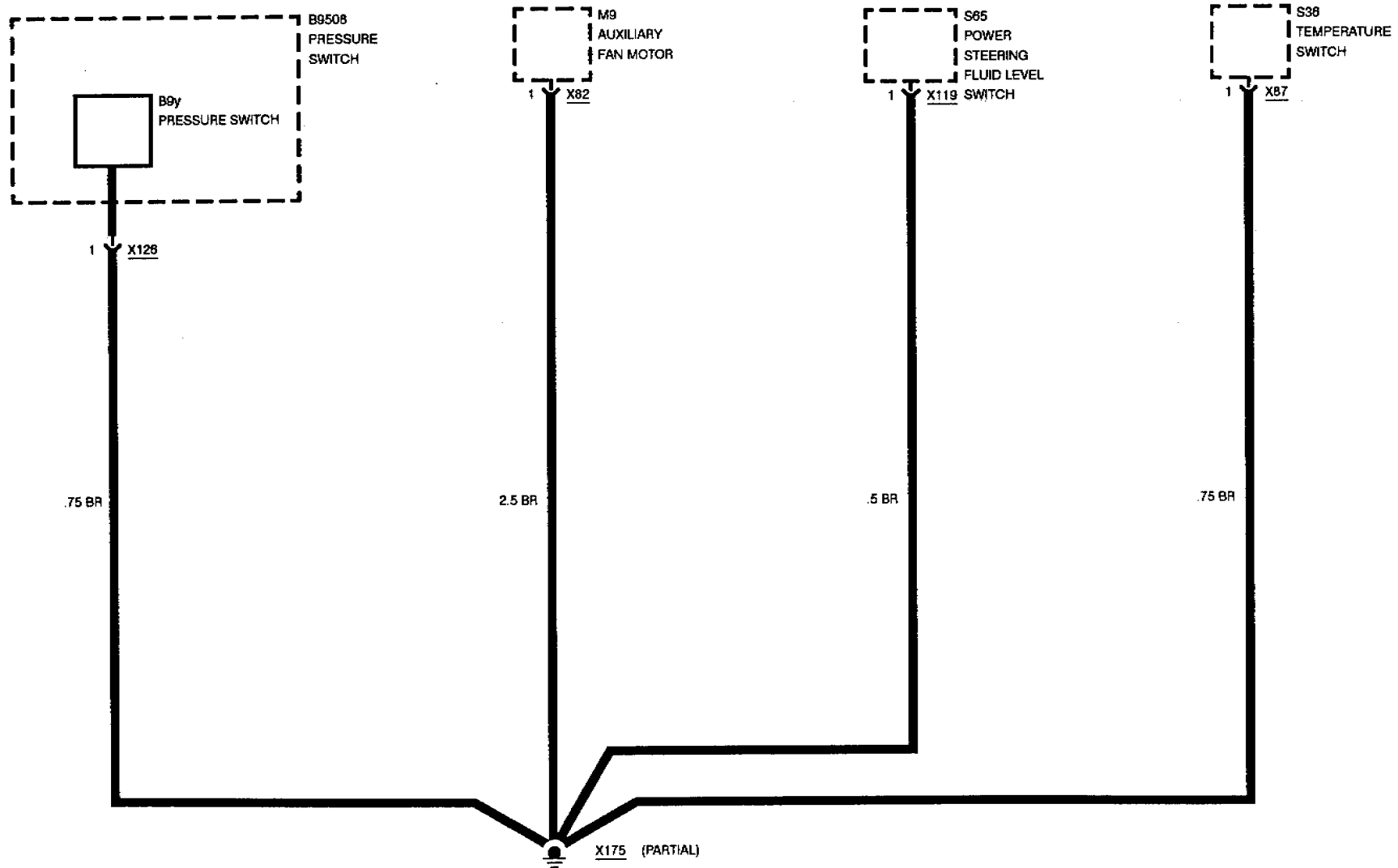






# GROUND DISTRIBUTION

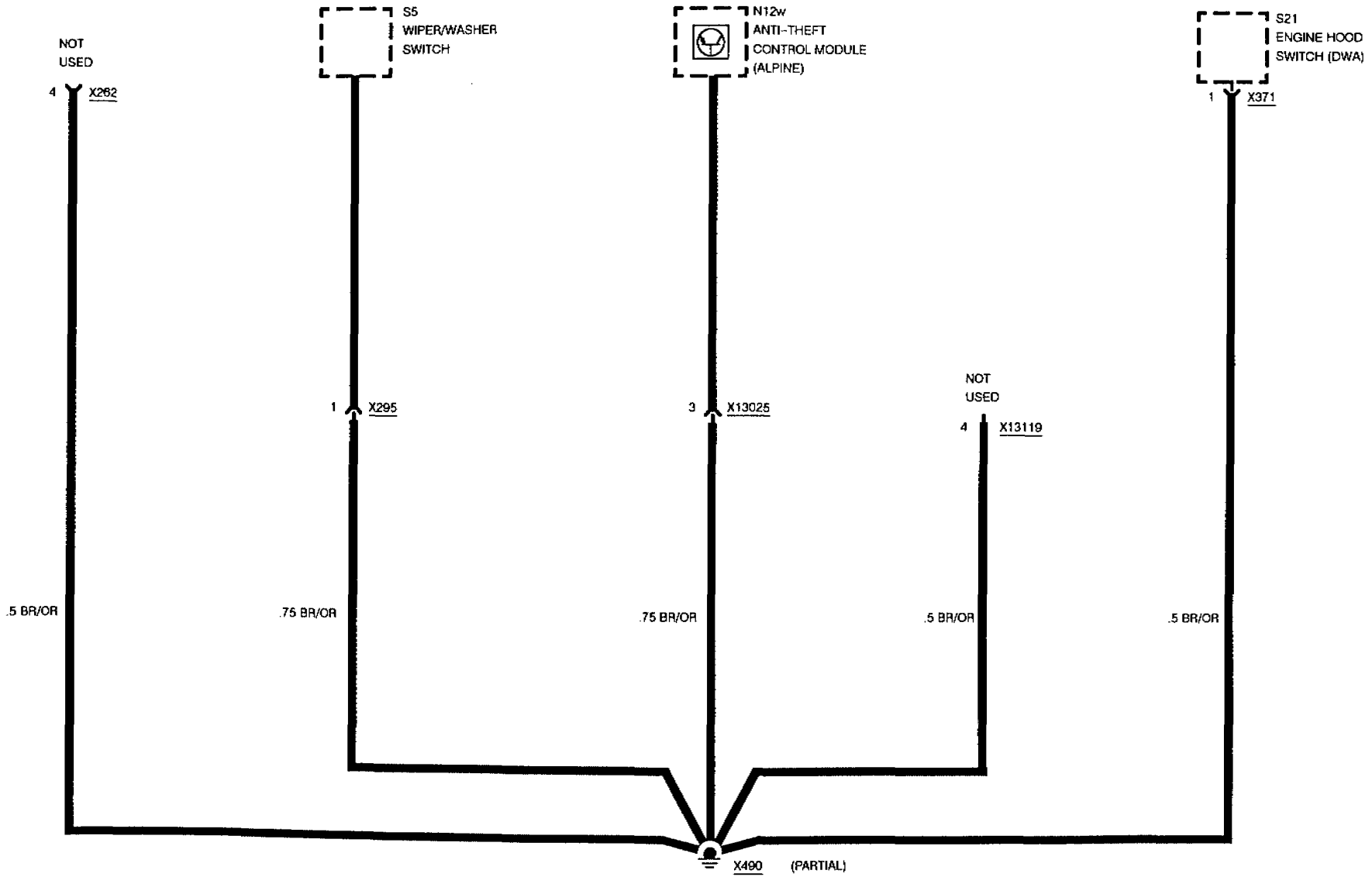
## GROUND X175





# GROUND DISTRIBUTION

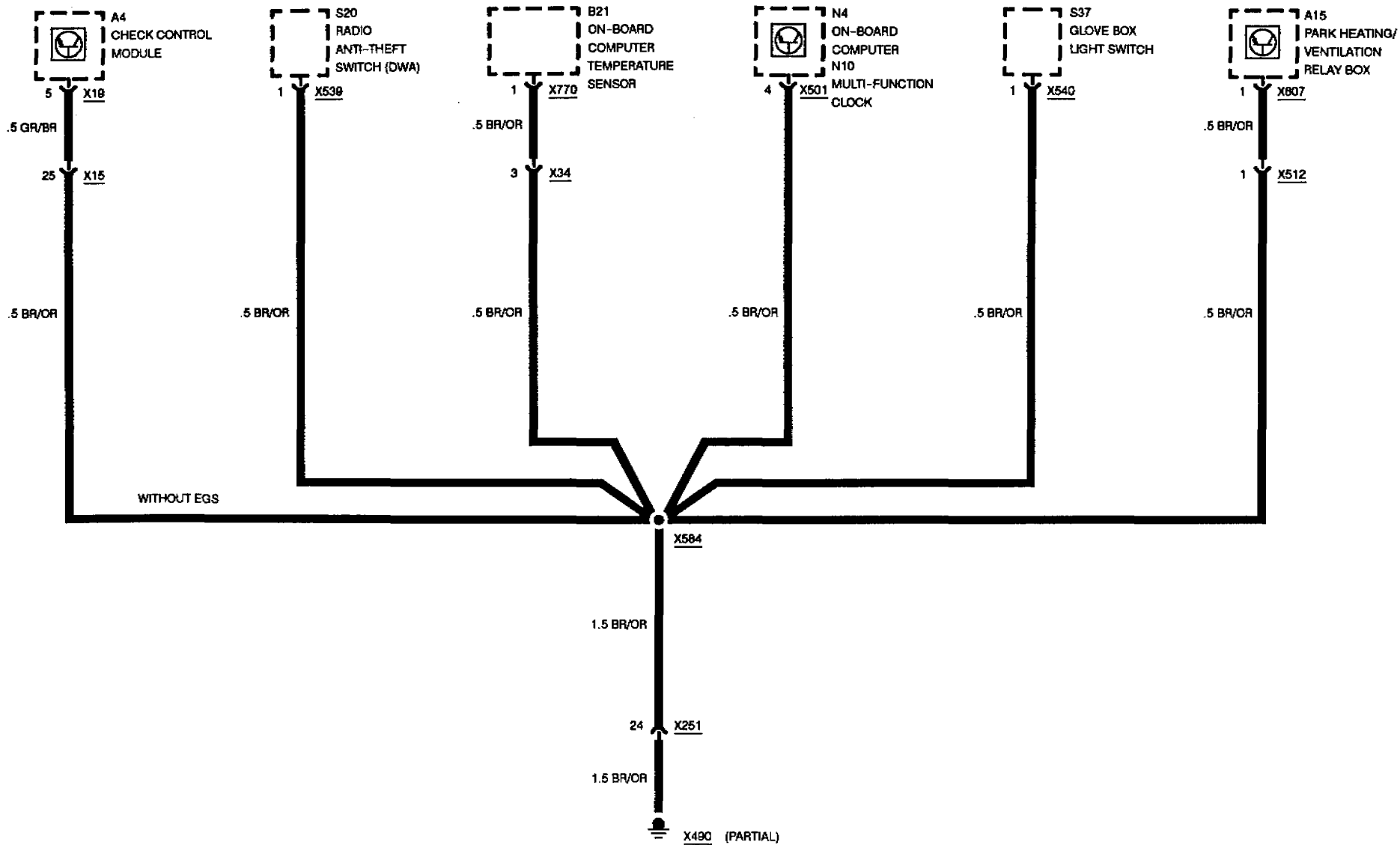
## GROUND X490





# GROUND DISTRIBUTION

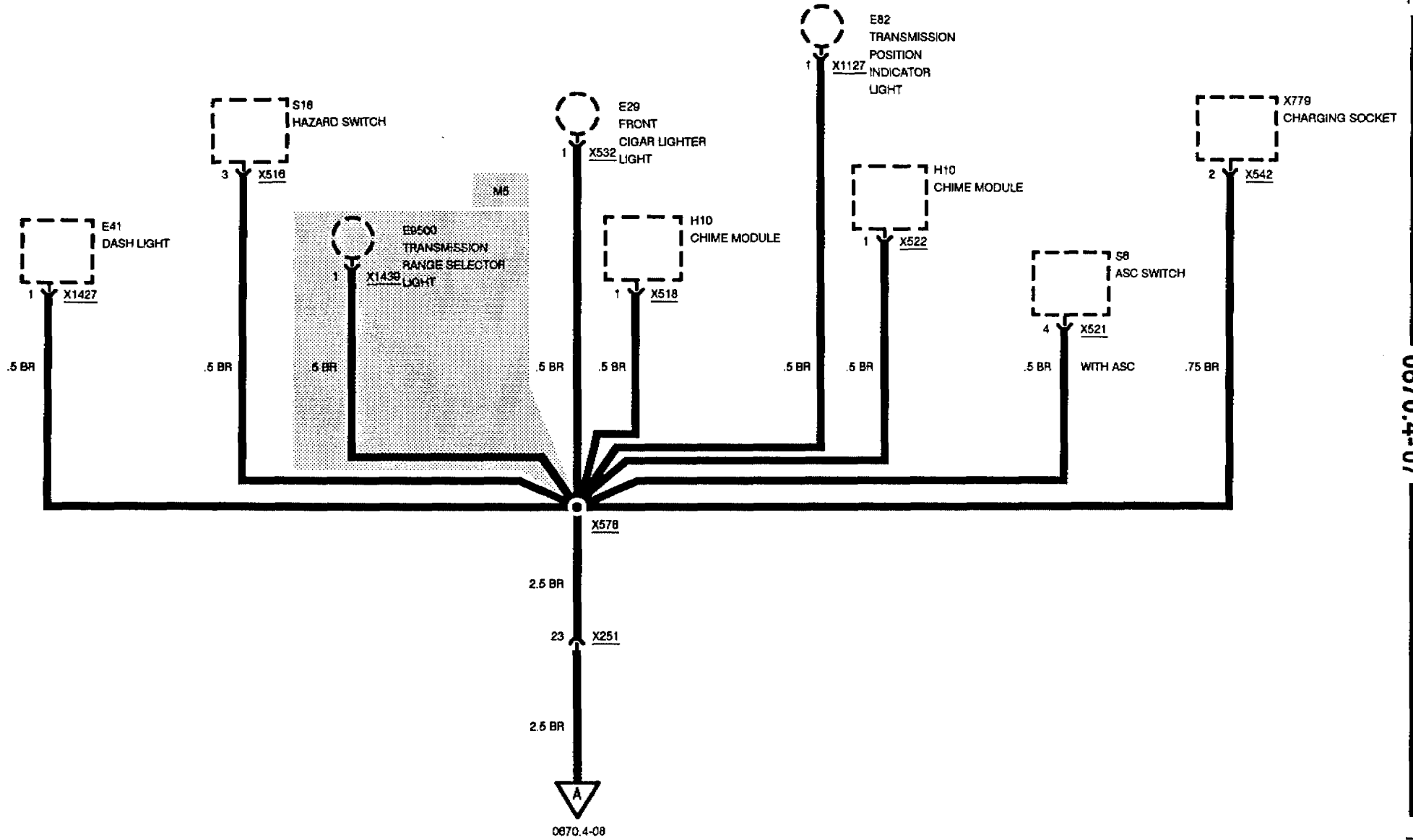
## GROUND X490





# GROUND DISTRIBUTION

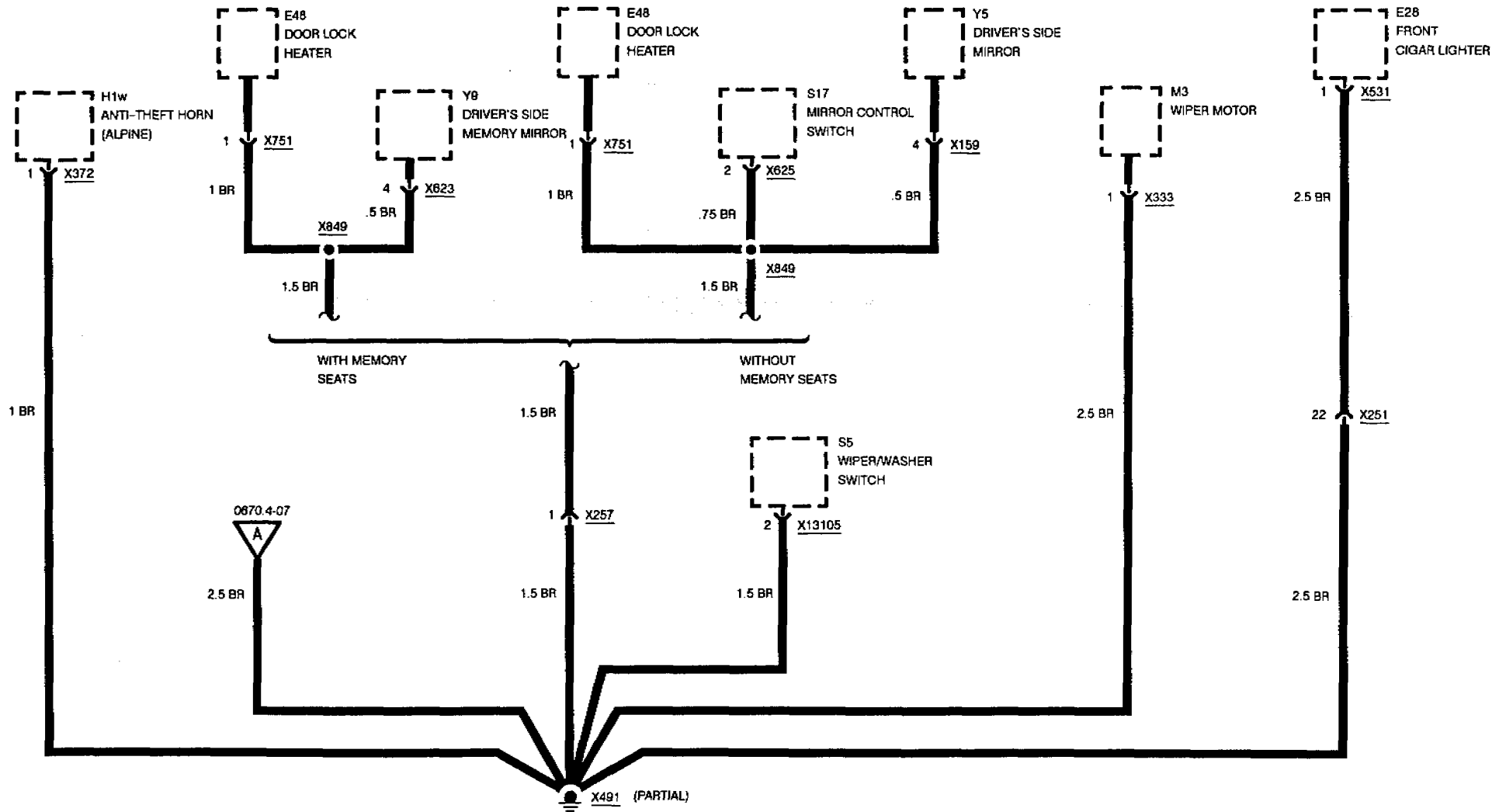
## GROUND X491





# GROUND DISTRIBUTION

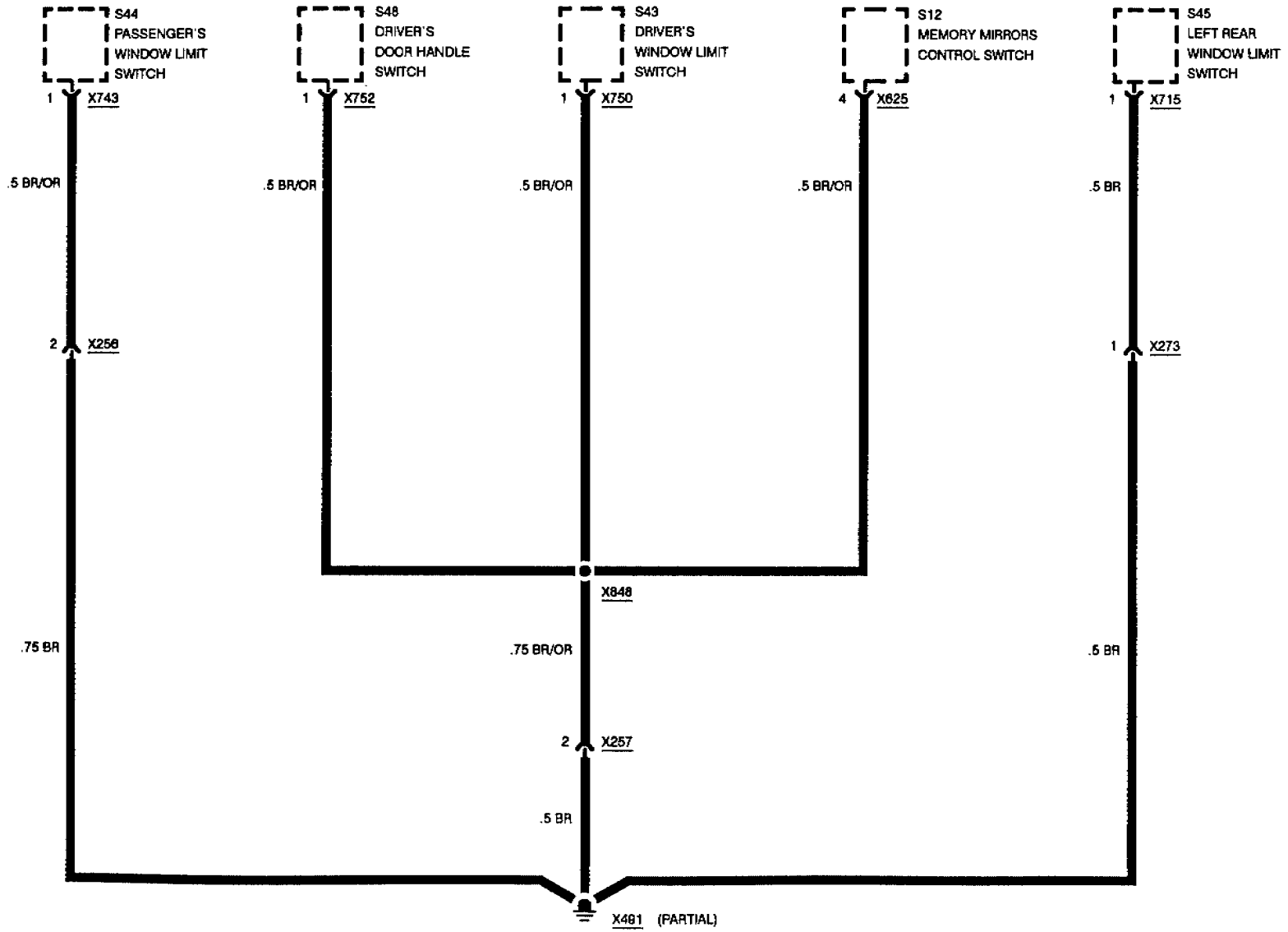
## GROUND X491





# GROUND DISTRIBUTION

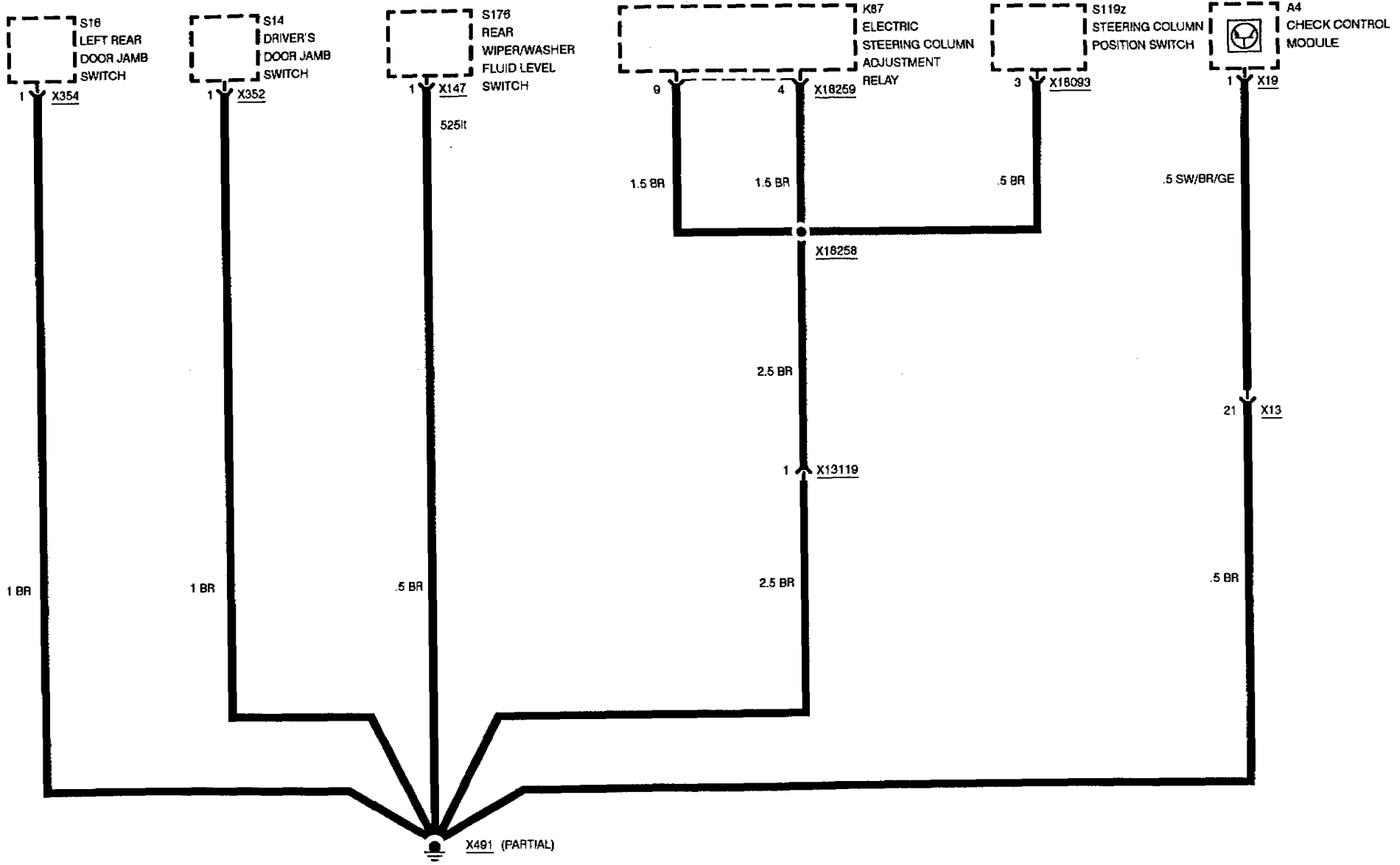
## GROUND X491





# GROUND DISTRIBUTION

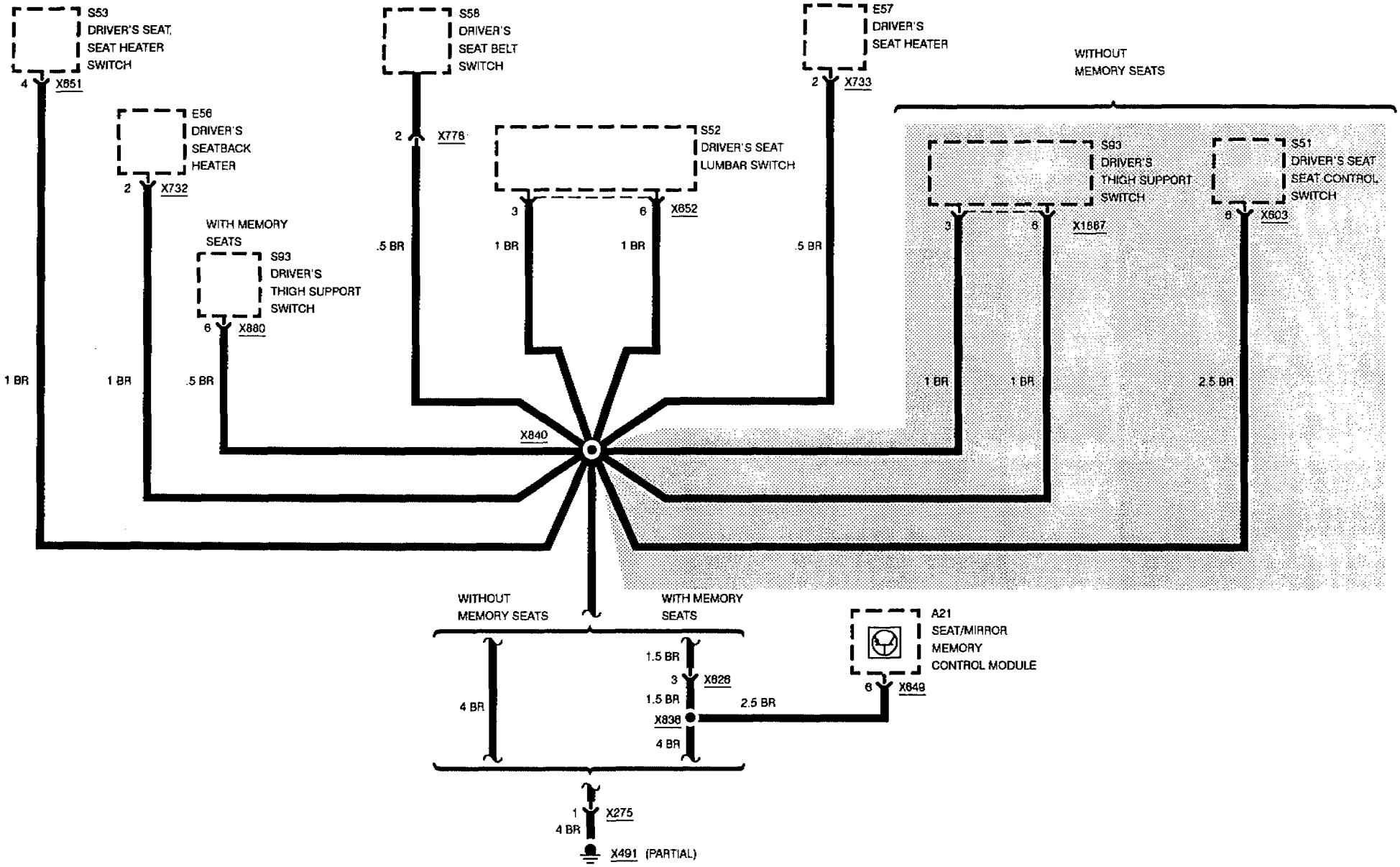
## GROUND X491





# GROUND DISTRIBUTION

## GROUND X491

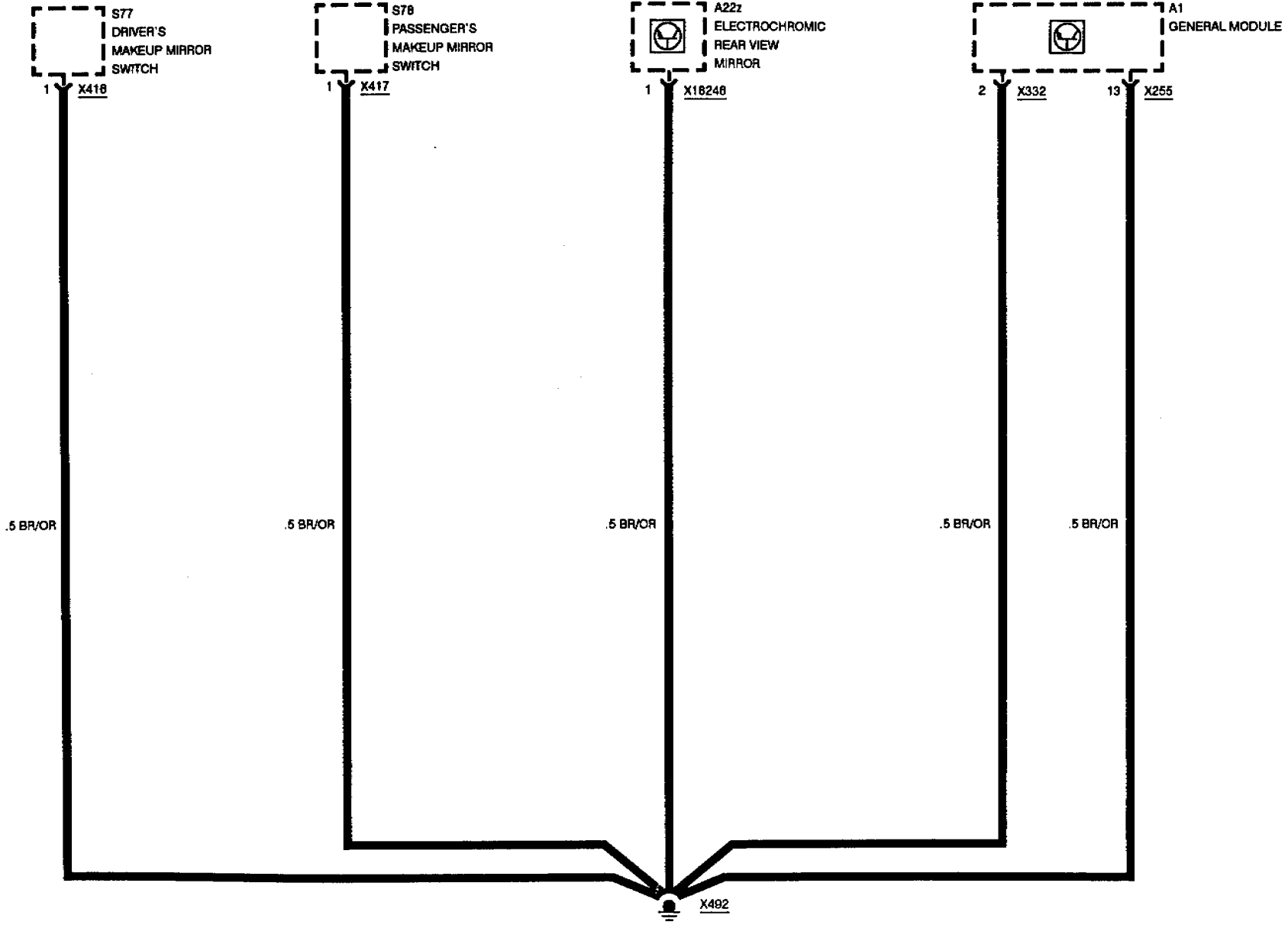






# GROUND DISTRIBUTION

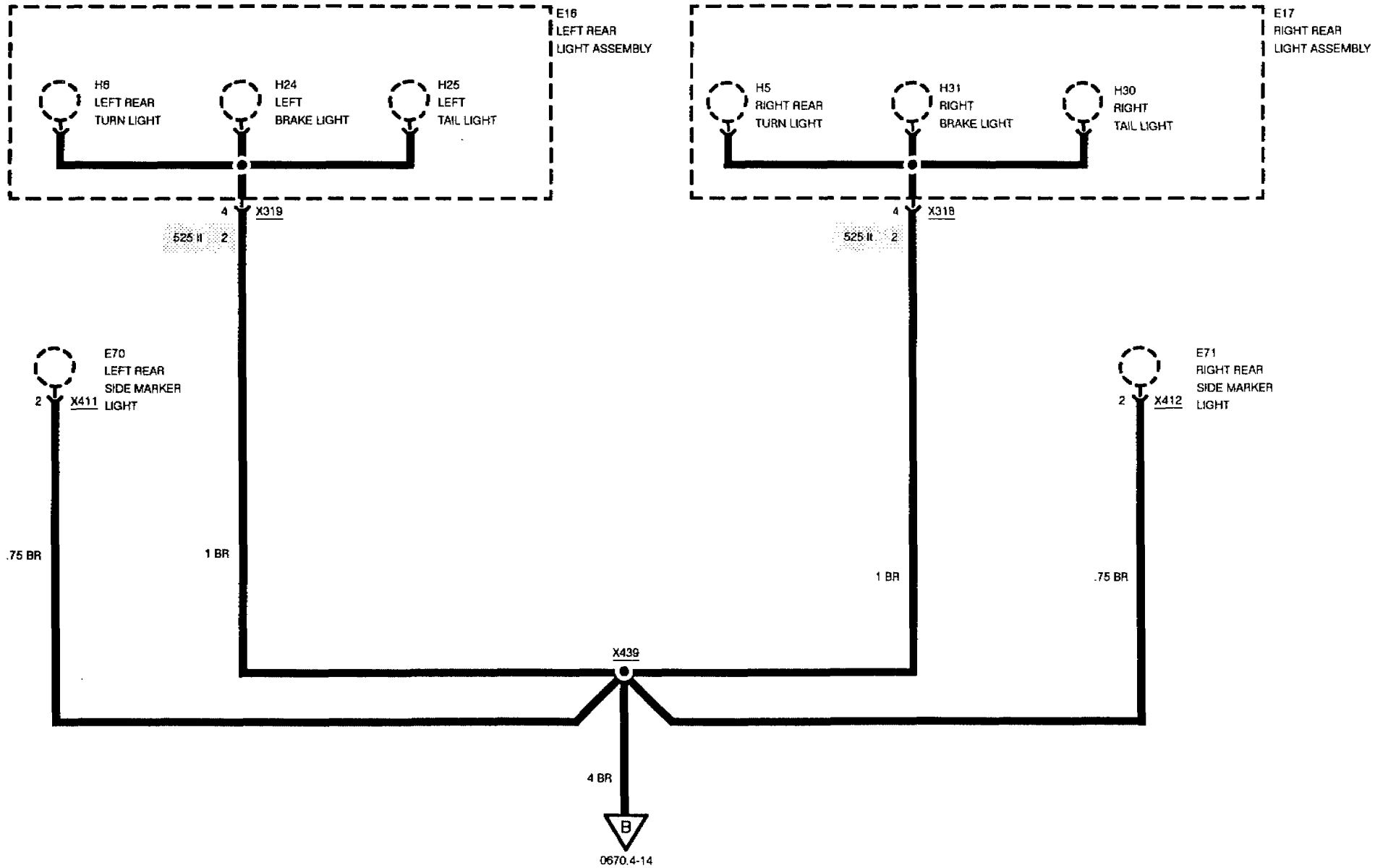
## GROUND X492





# GROUND DISTRIBUTION

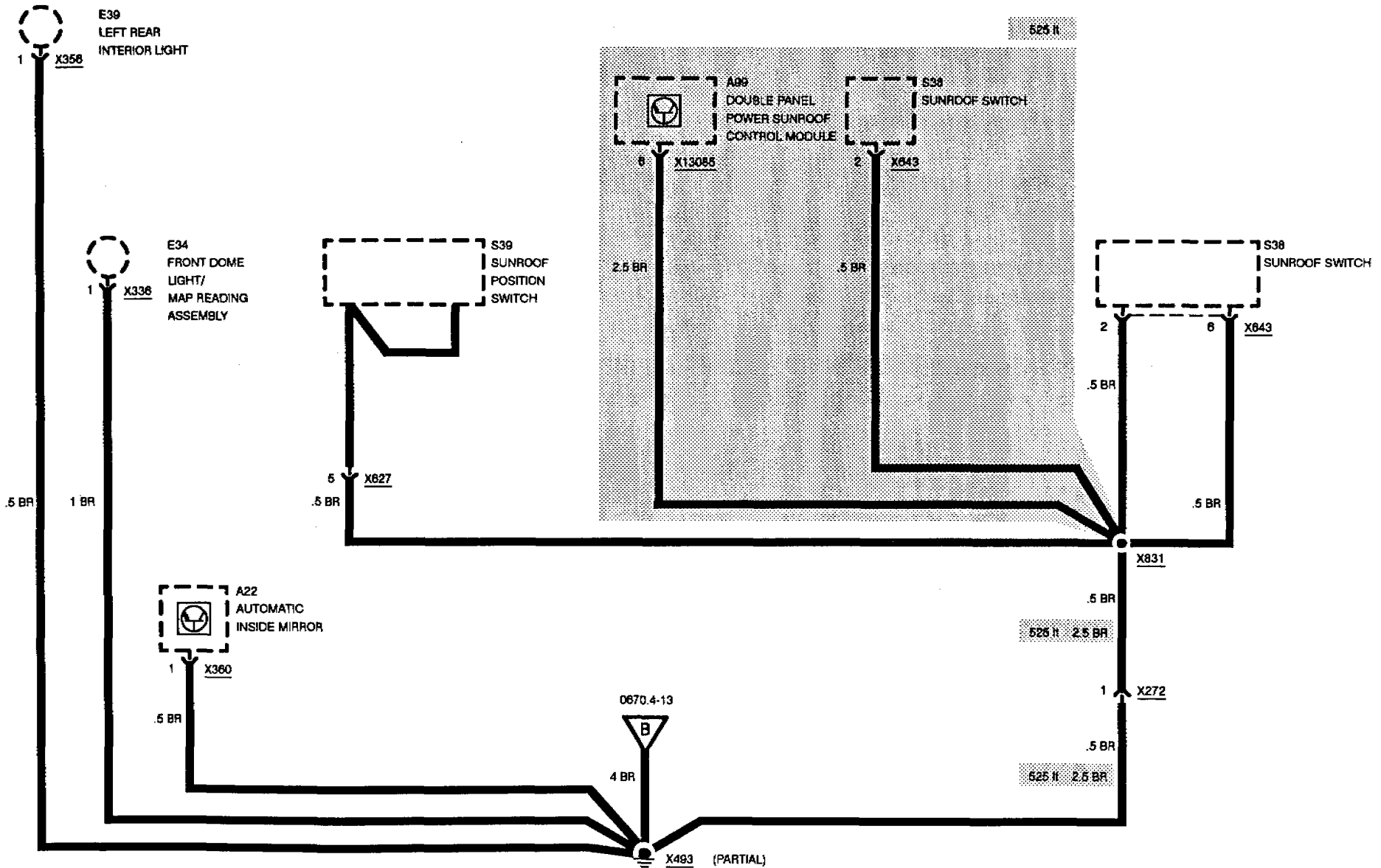
## GROUND X493





# GROUND DISTRIBUTION

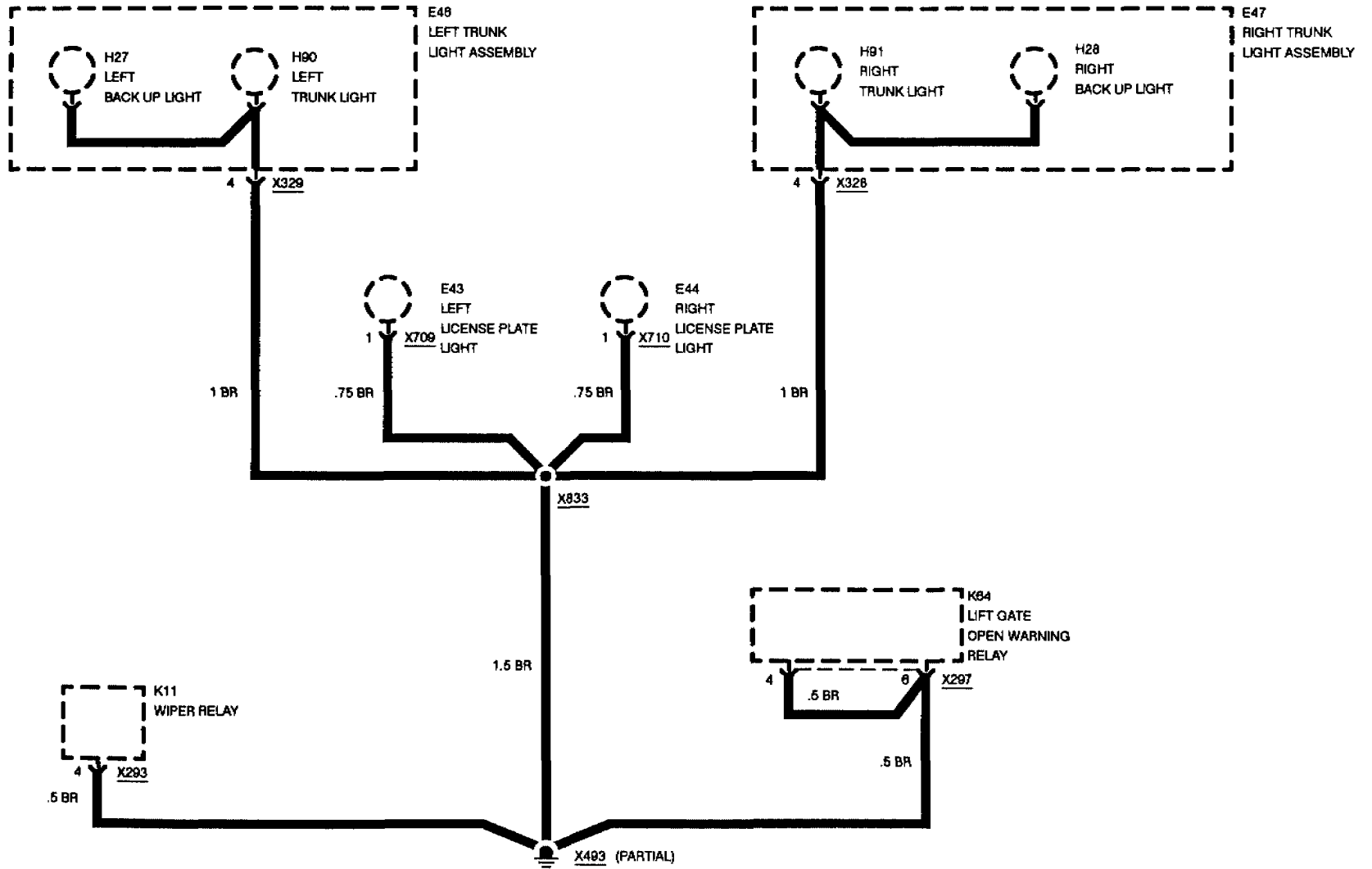
## GROUND X493





# GROUND DISTRIBUTION

## GROUND X493

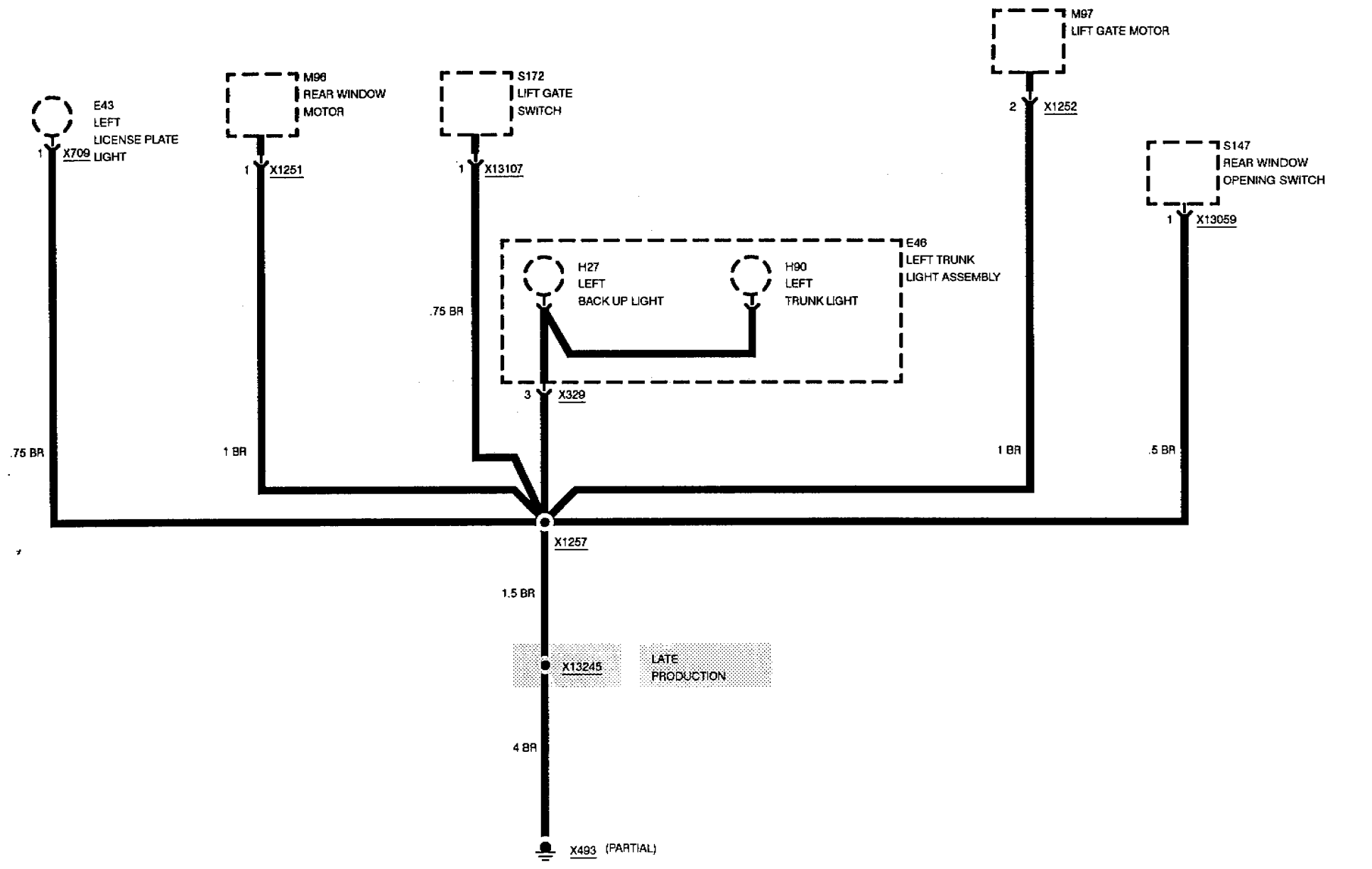




# GROUND DISTRIBUTION

## GROUND X493

525 it



1/1/92

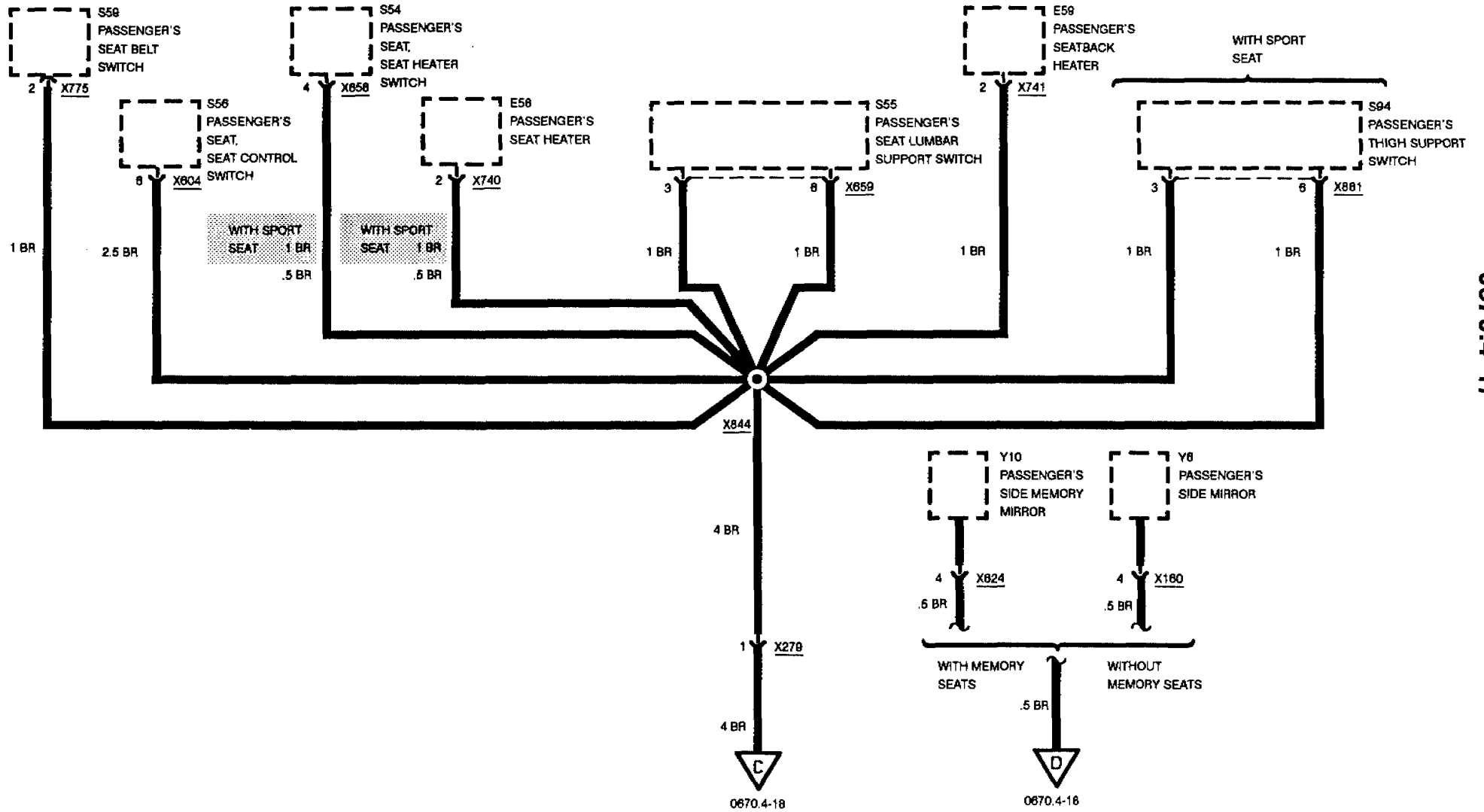
0670.4-16

1992



# GROUND DISTRIBUTION

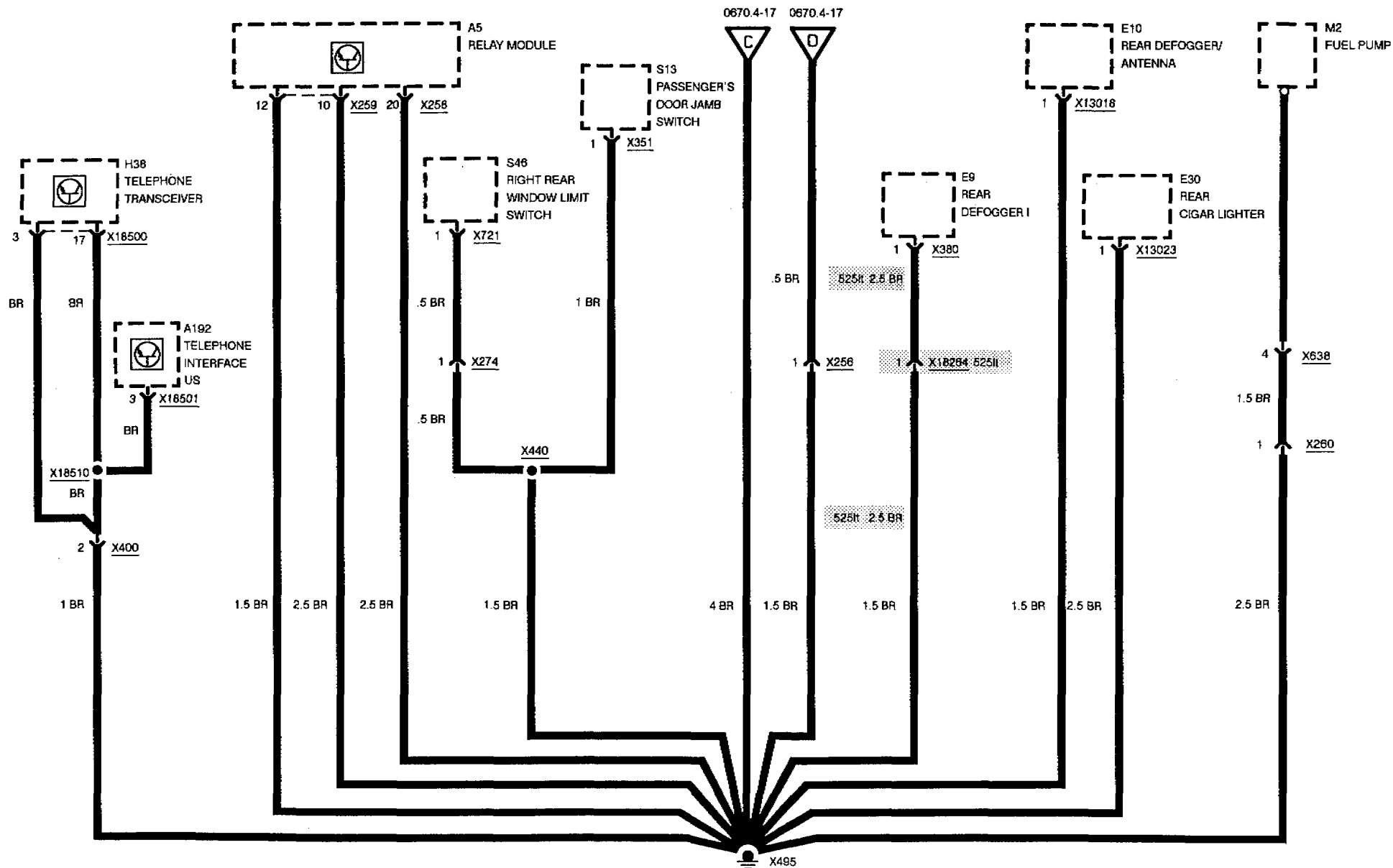
## GROUND X495





# GROUND DISTRIBUTION

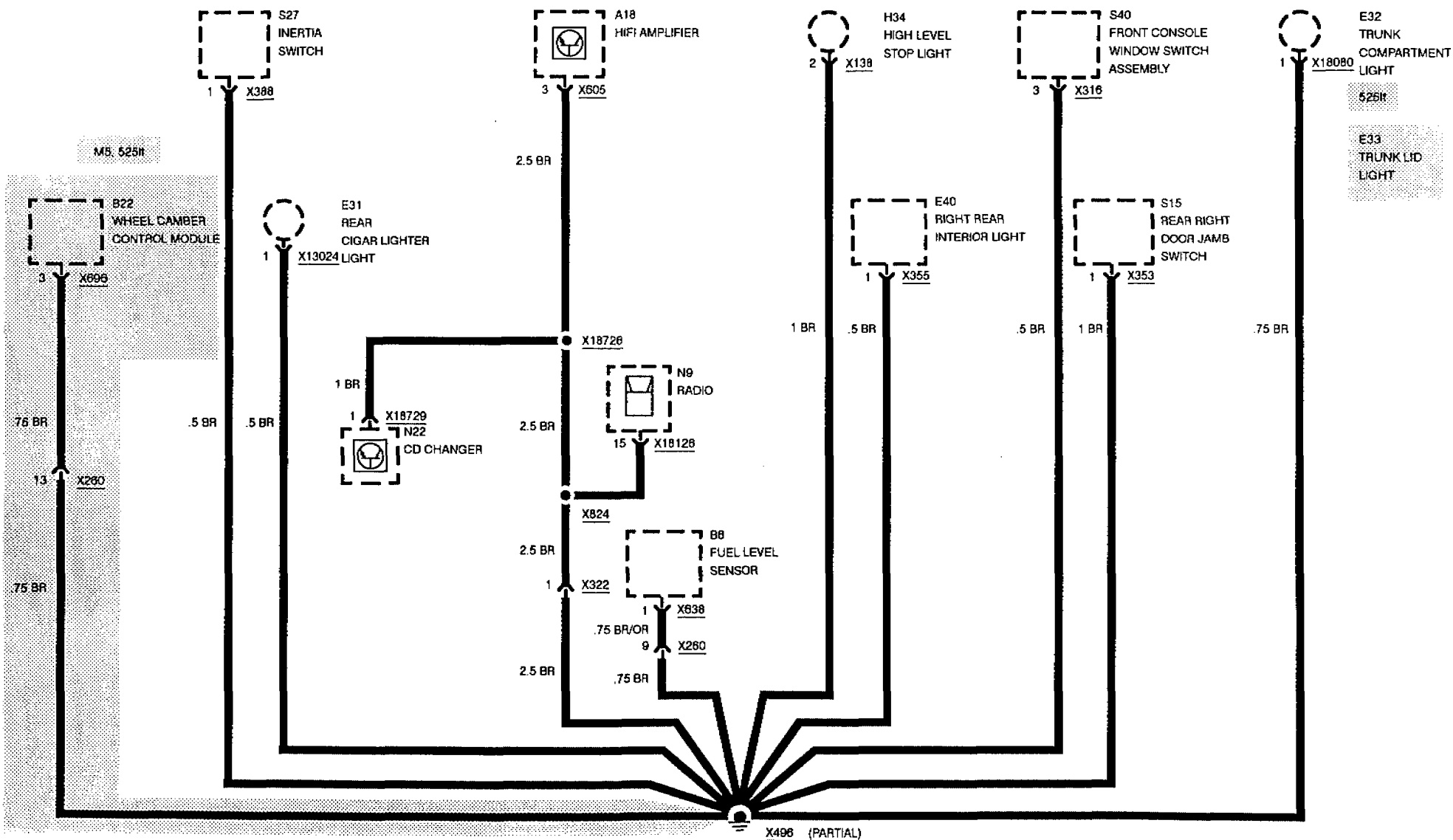
## GROUND X495





# GROUND DISTRIBUTION

## GROUND X496



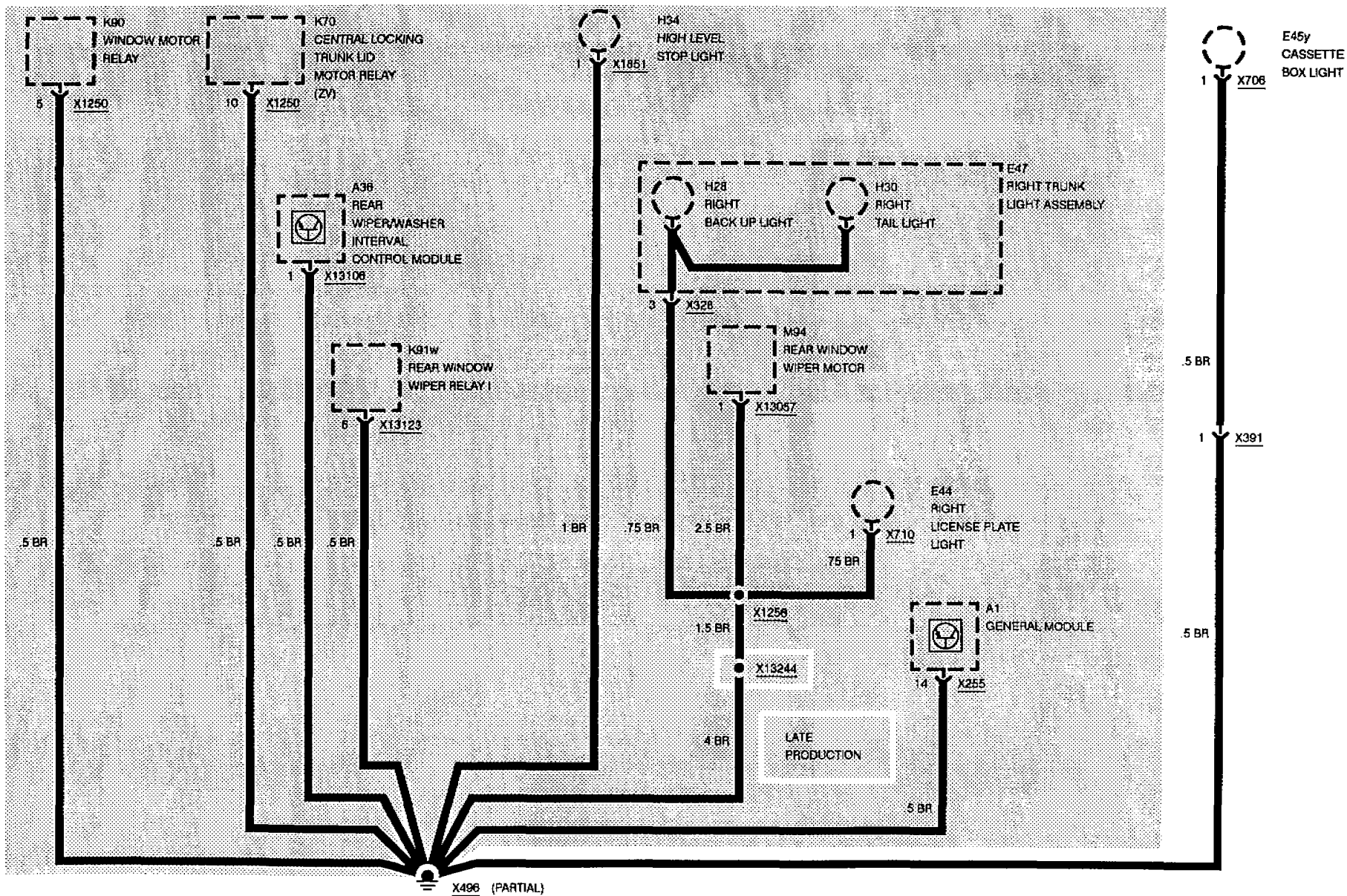




# GROUND DISTRIBUTION

## GROUND X496

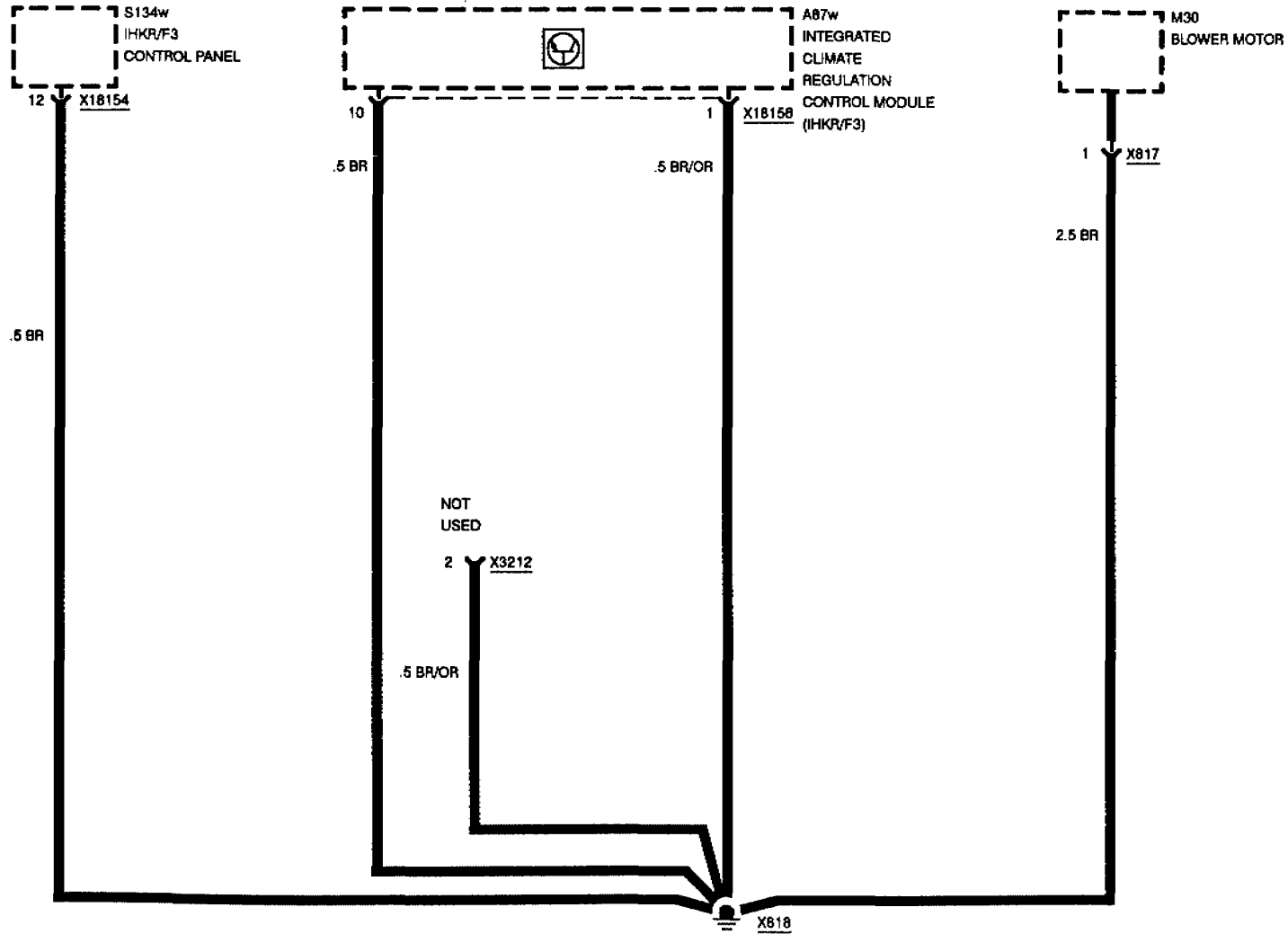
525ii





# GROUND DISTRIBUTION

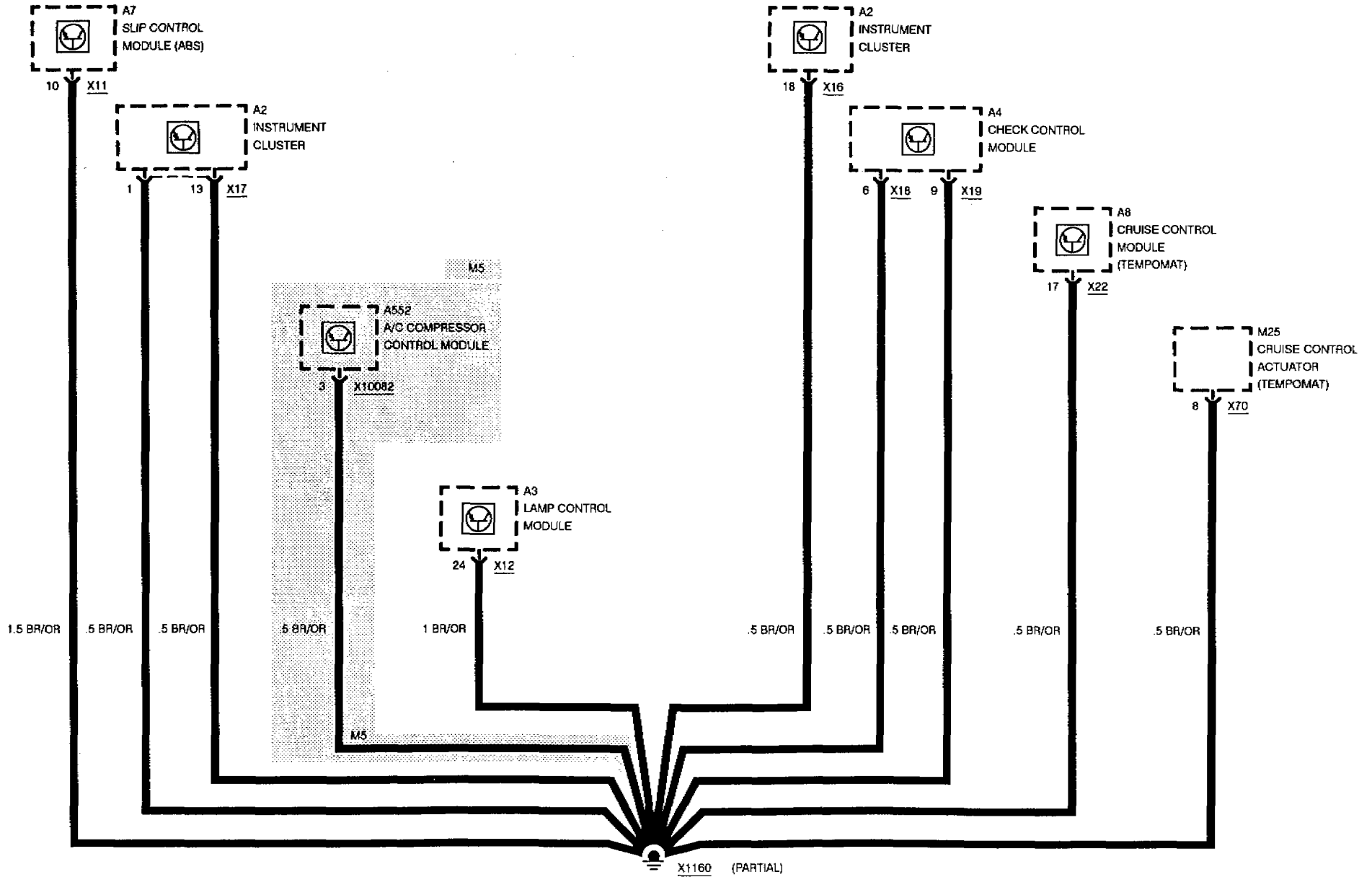
## GROUND X818





# GROUND DISTRIBUTION

## GROUND X1160

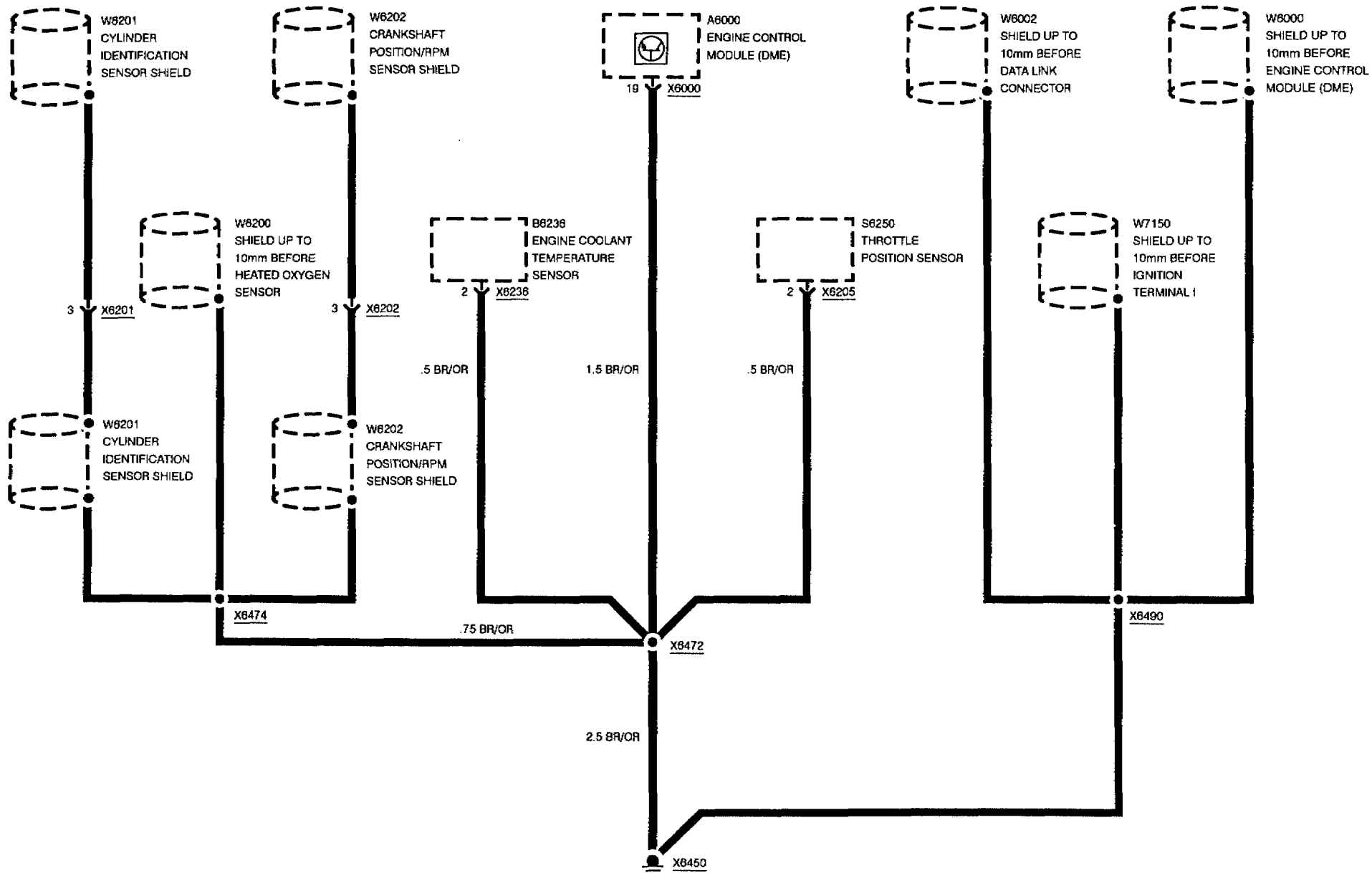




# GROUND DISTRIBUTION

535i

## GROUND X6450 WITHOUT EML

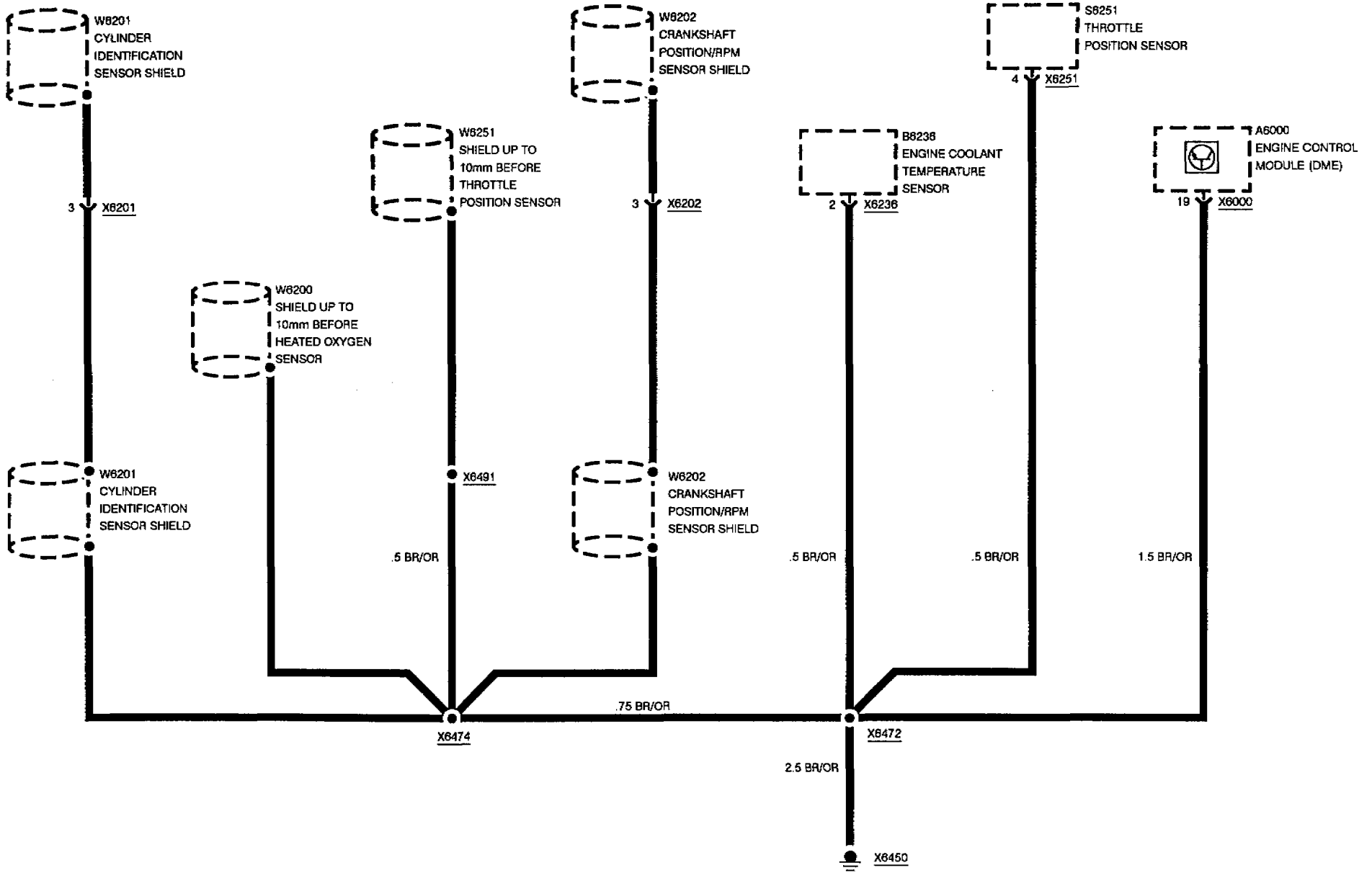




# GROUND DISTRIBUTION

535i

## GROUND X6450 WITHOUT EML, WITH EGS

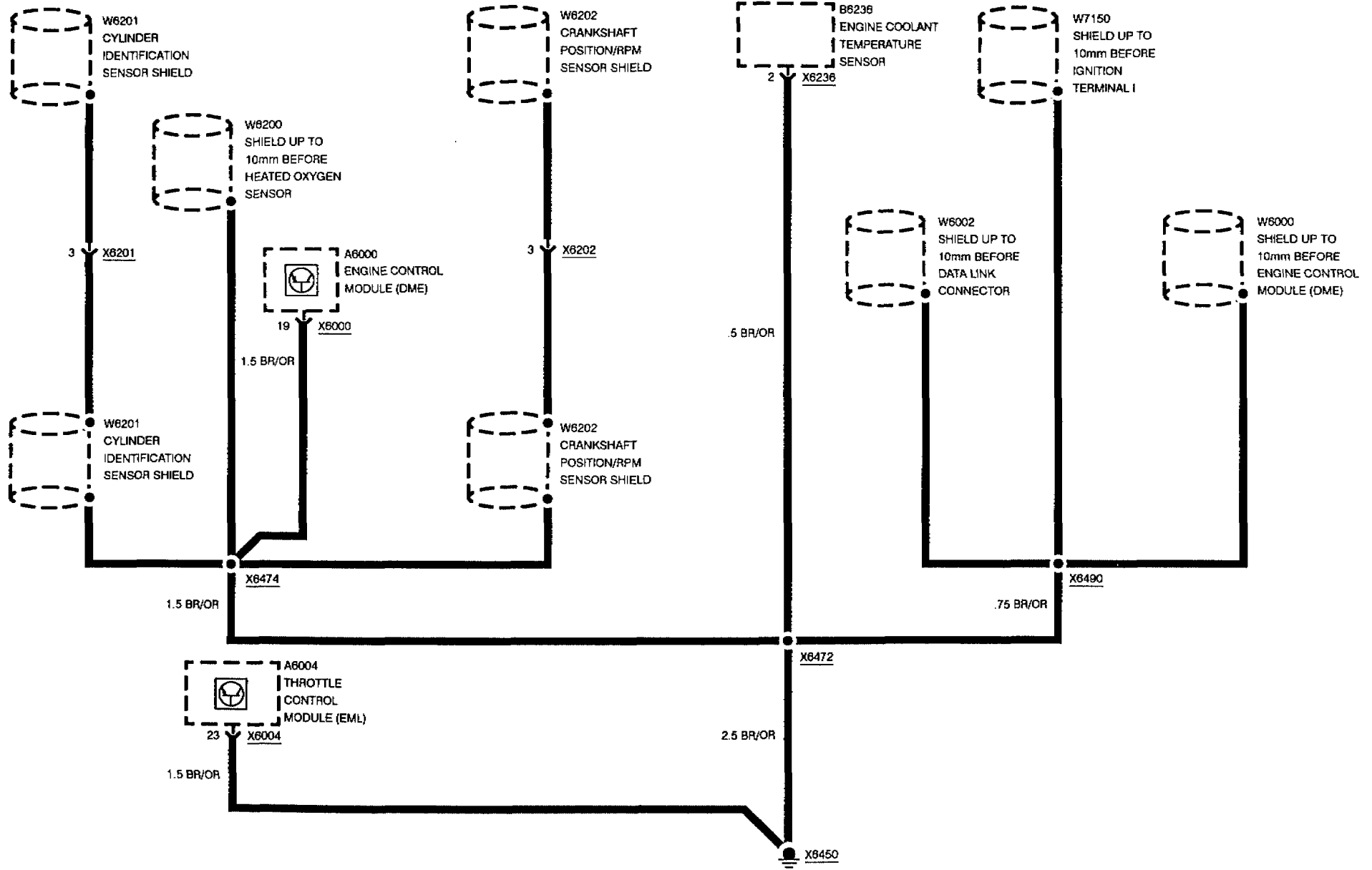




# GROUND DISTRIBUTION

535i

## GROUND X6450 WITH EML

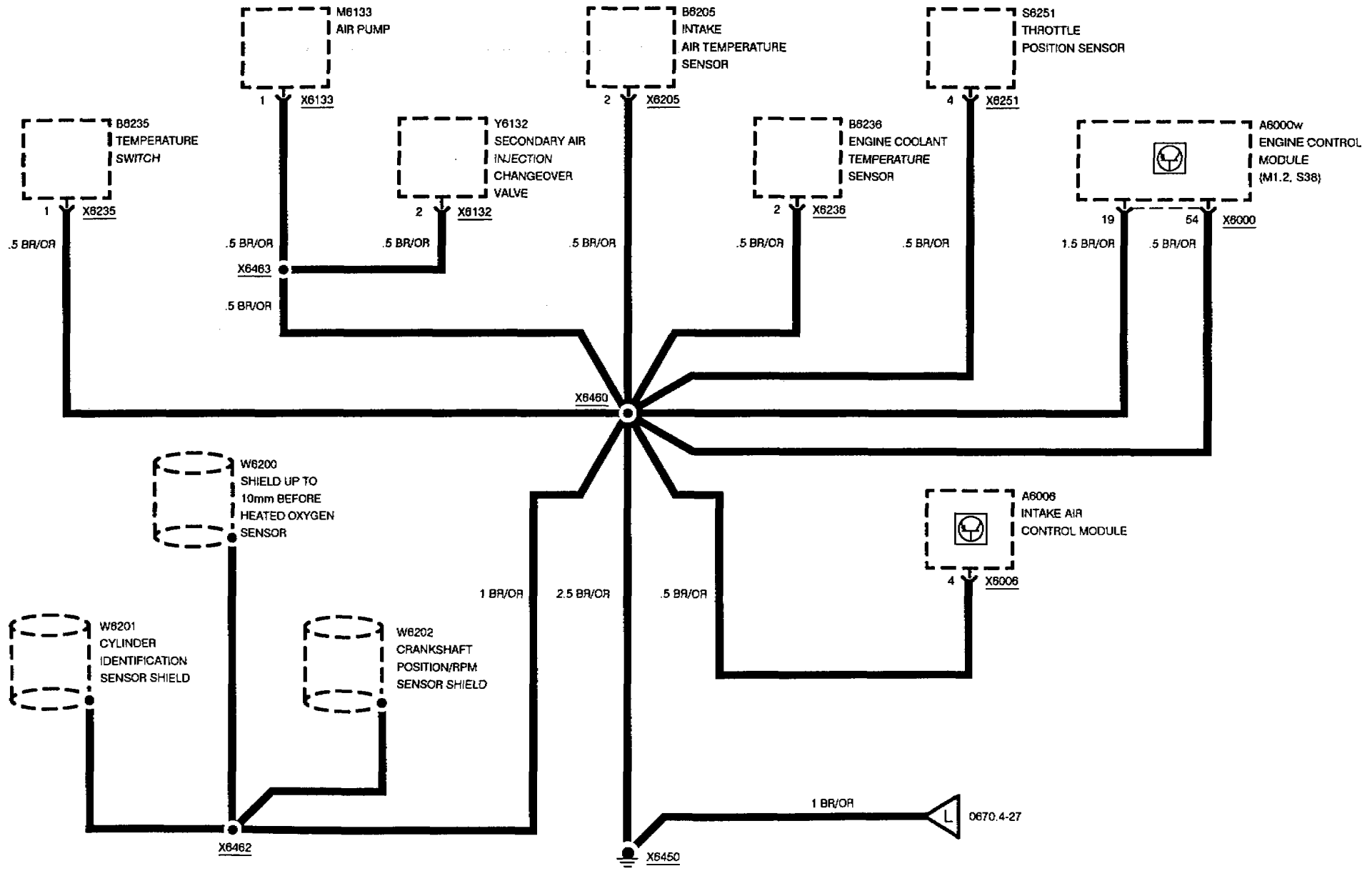




# GROUND DISTRIBUTION

M5

## GROUND X6450

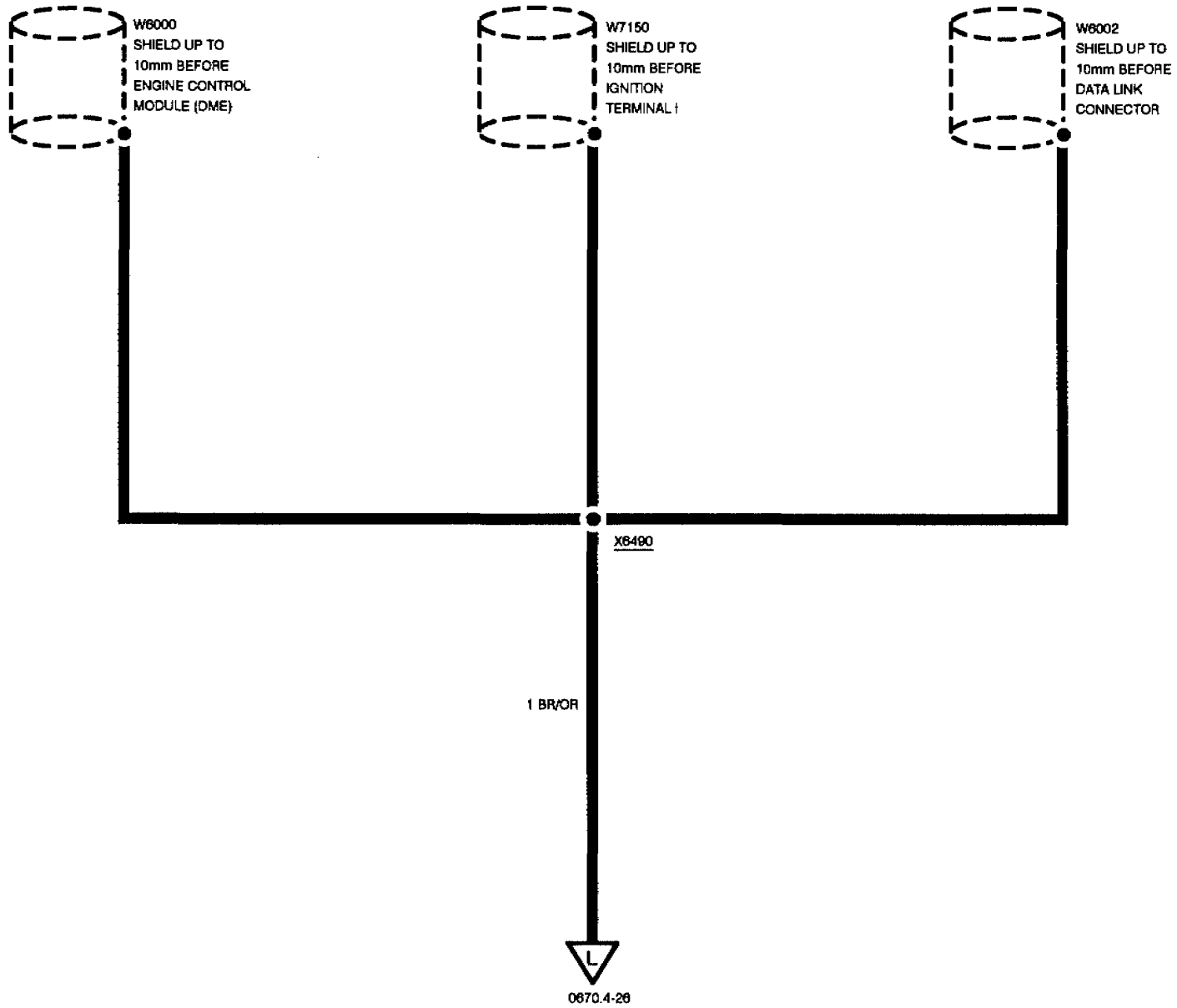




# GROUND DISTRIBUTION

## GROUND X6450

M5



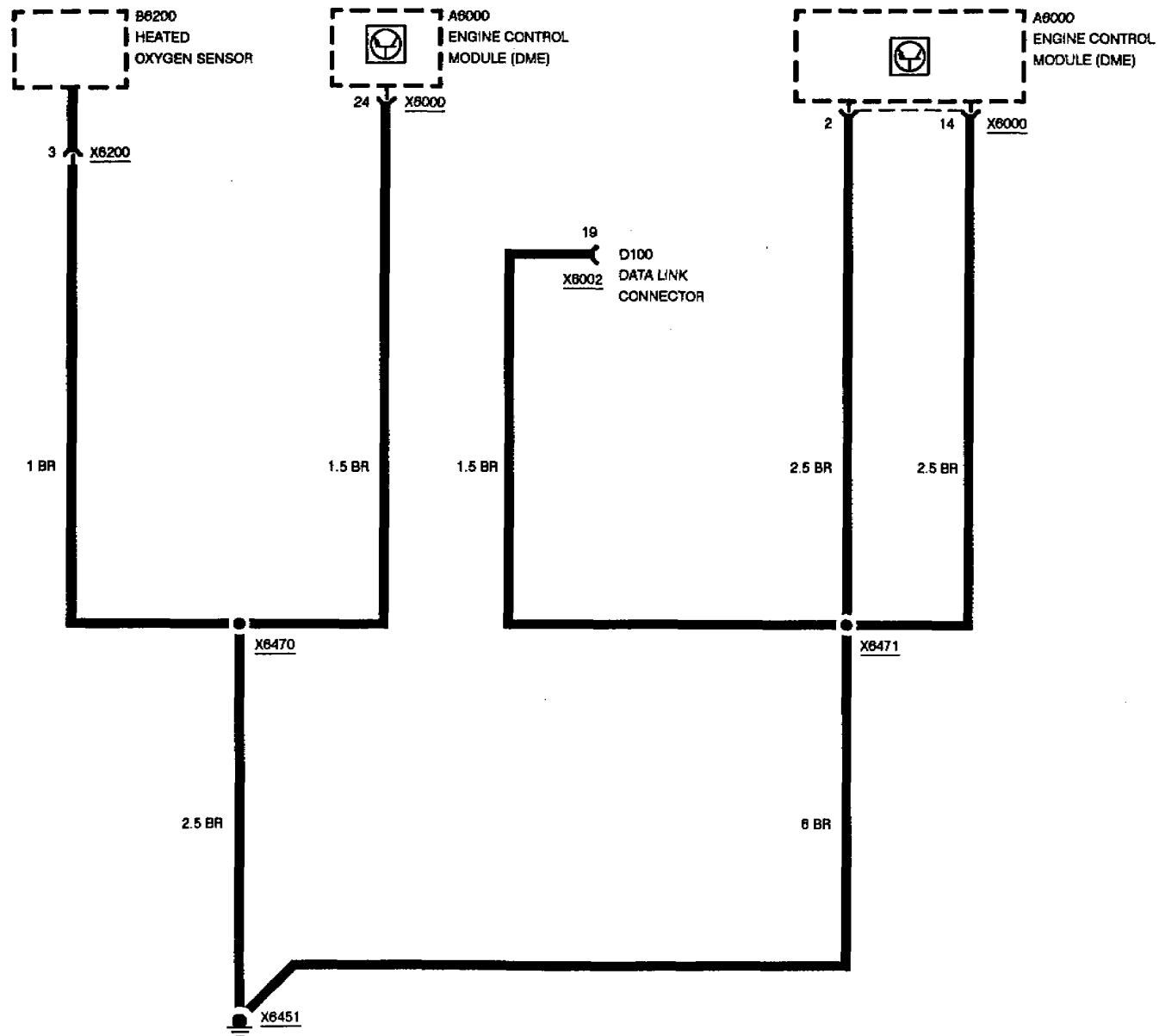




# GROUND DISTRIBUTION

## GROUND X6451 WITHOUT EML

535i

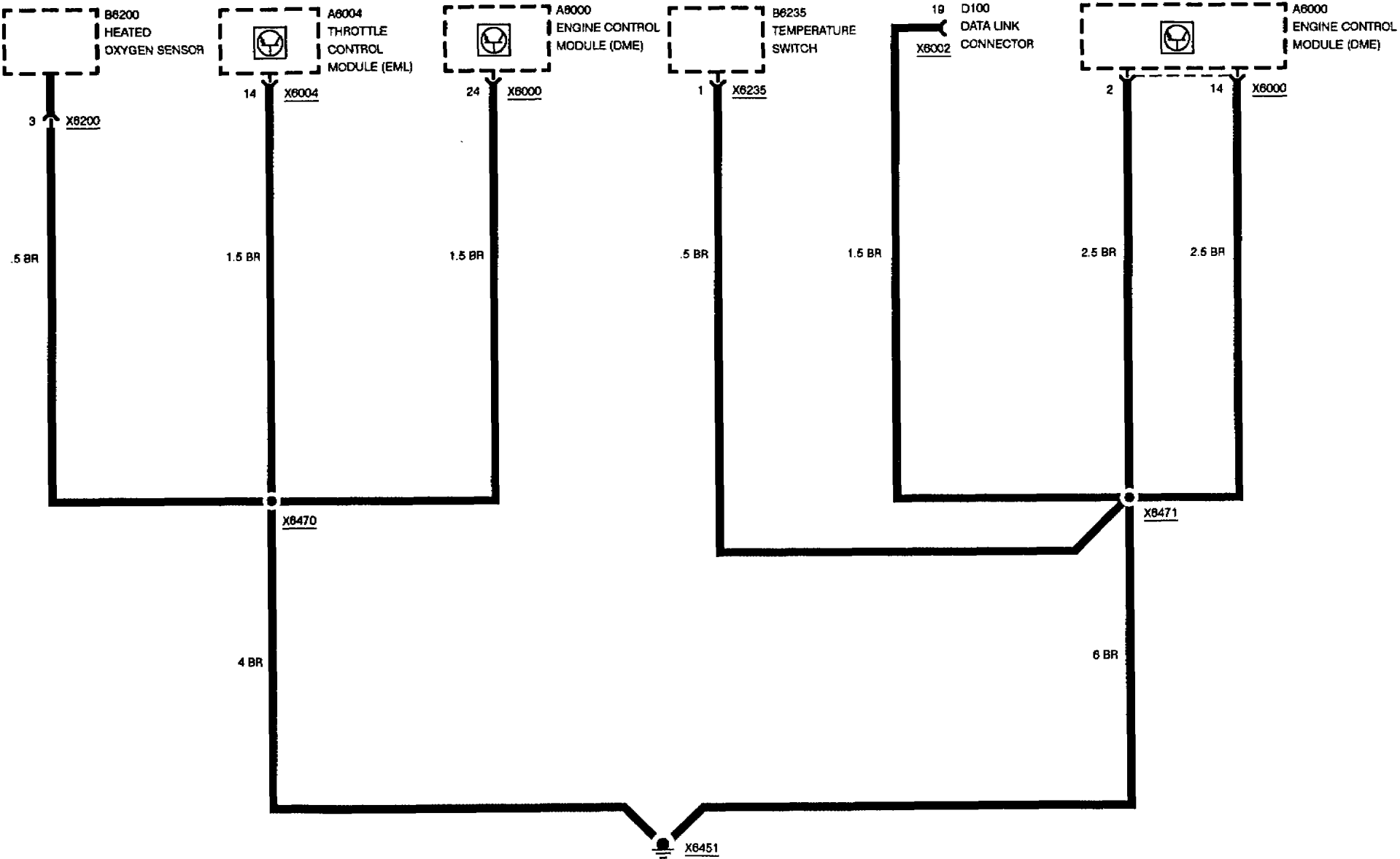


BMW  
5

# GROUND DISTRIBUTION

## GROUND X6451 WITH EML

535i

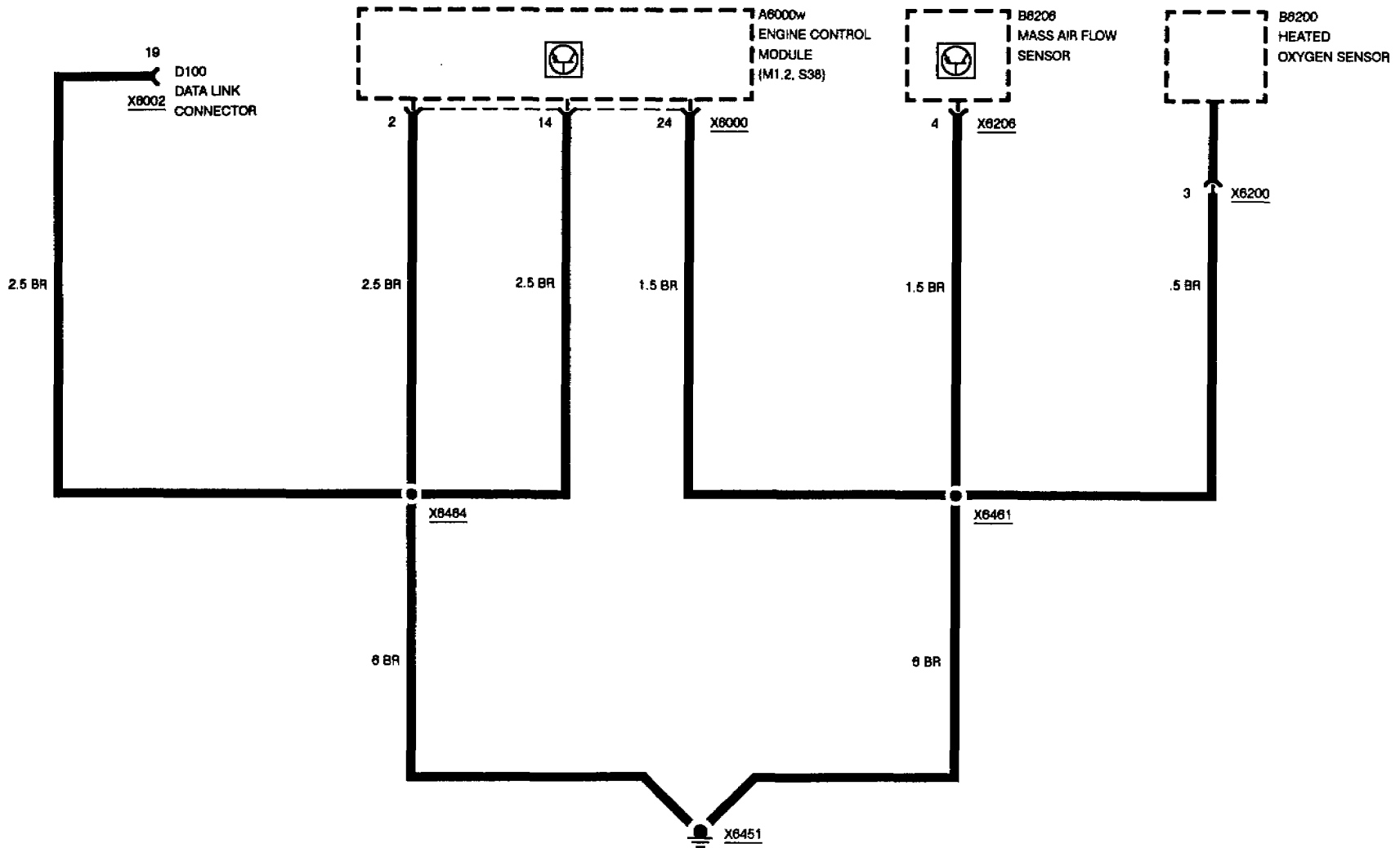




# GROUND DISTRIBUTION

## GROUND X6451

M5

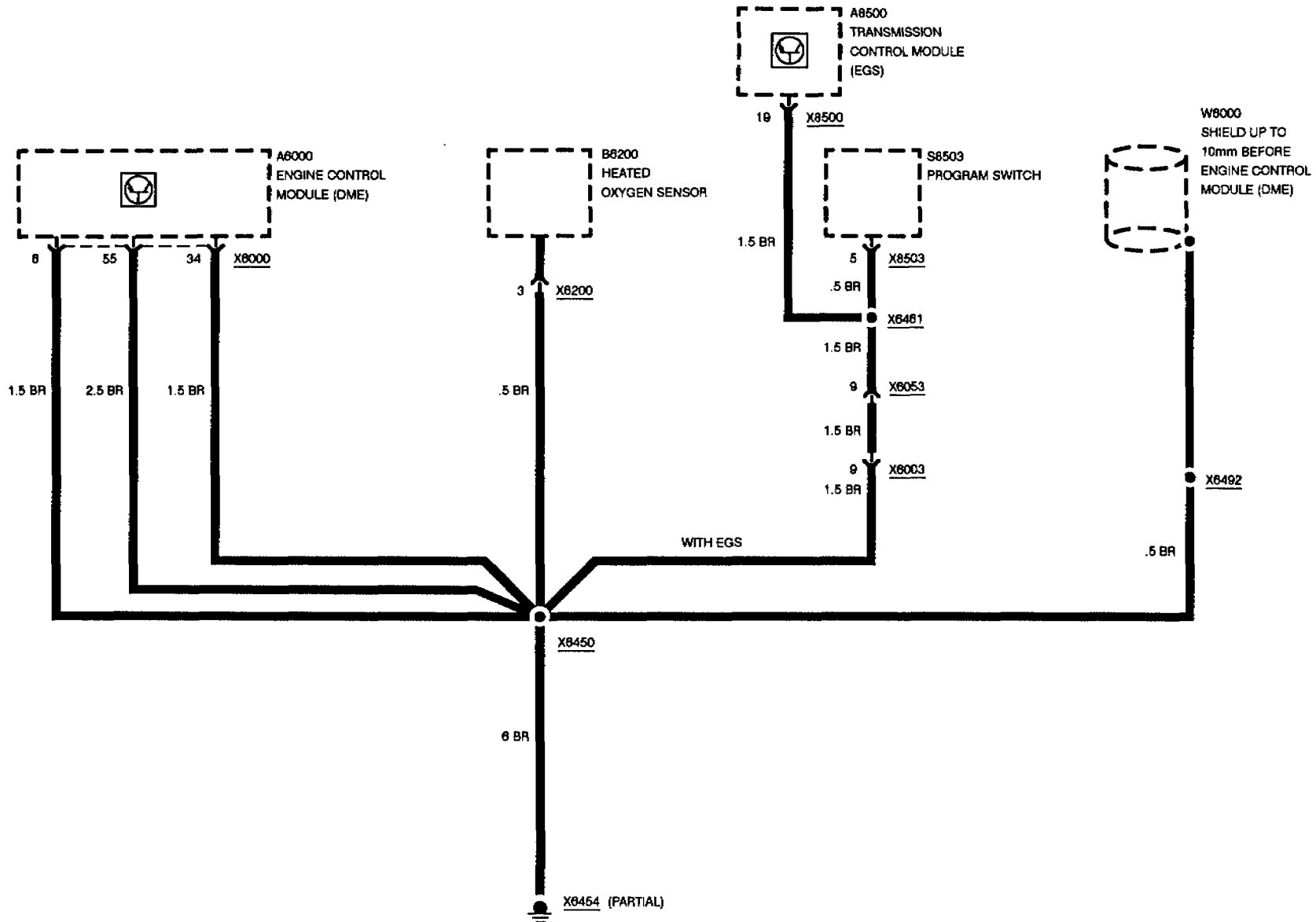




# GROUND DISTRIBUTION

## GROUND X6454

525i

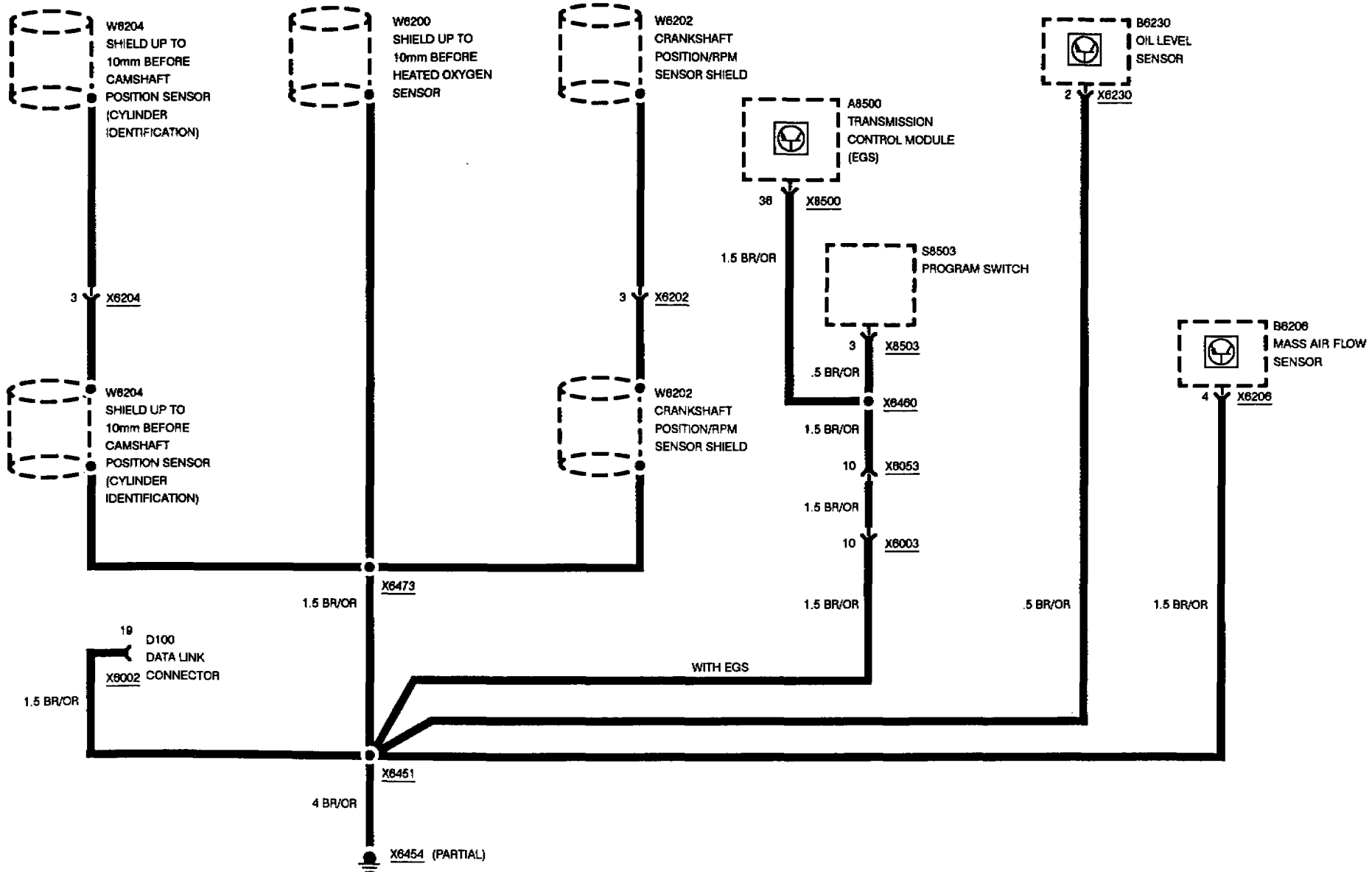




# GROUND DISTRIBUTION

525i

## GROUND X6454

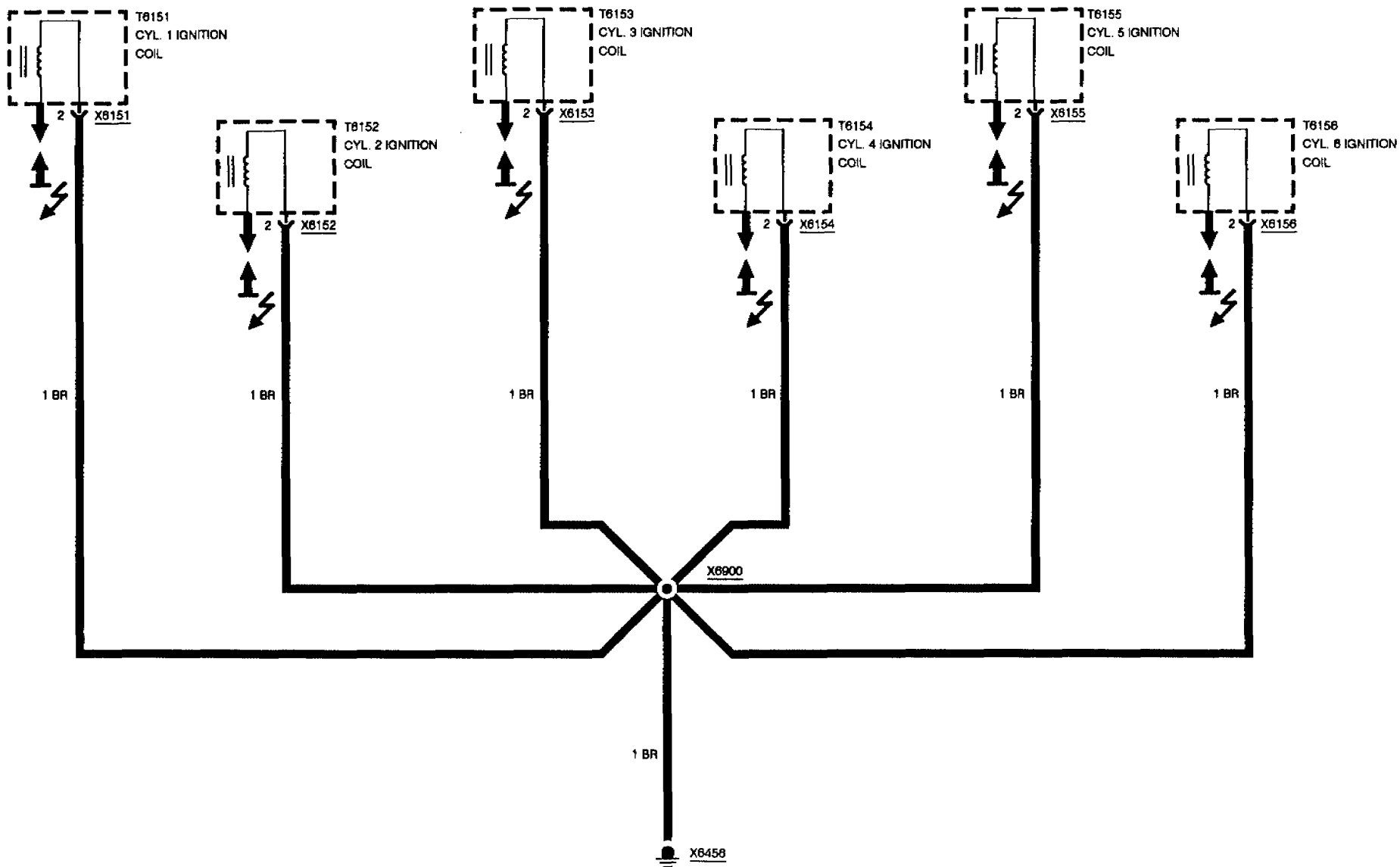




# GROUND DISTRIBUTION

525i

## GROUND X6456

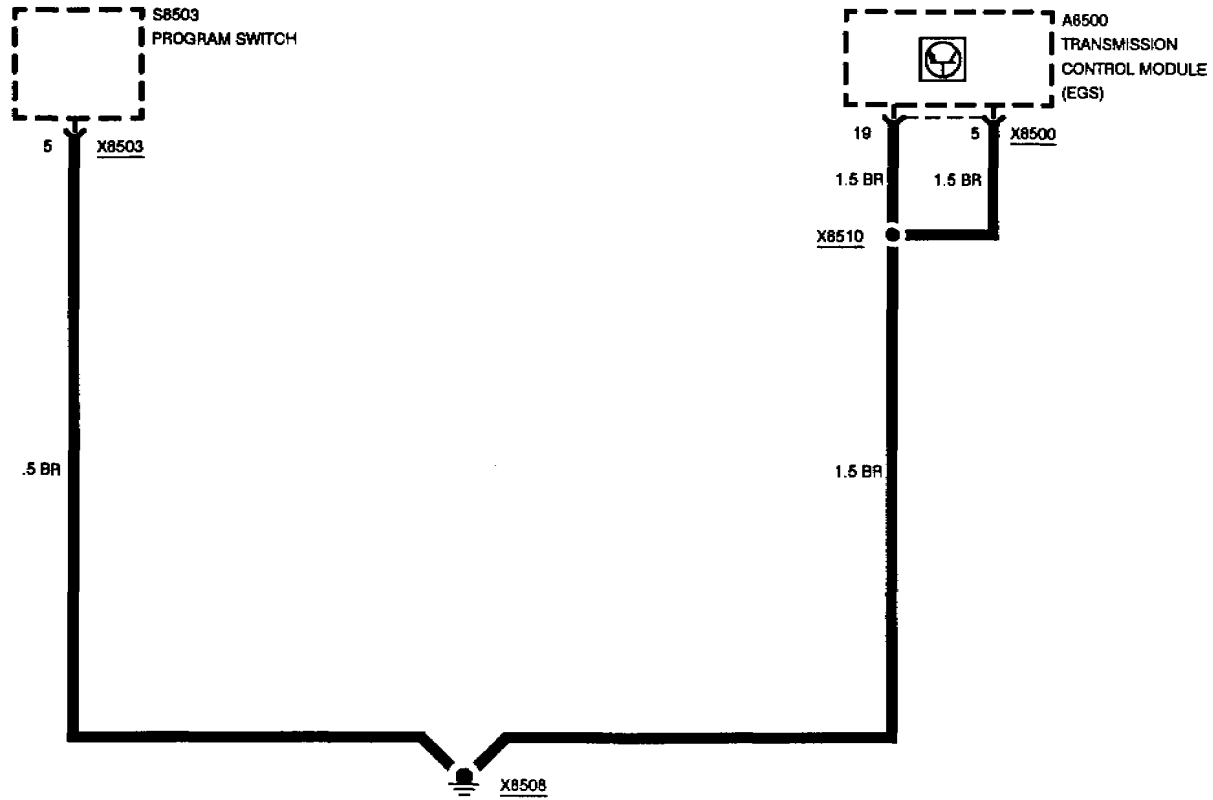




# GROUND DISTRIBUTION

## GROUND X8508

535i



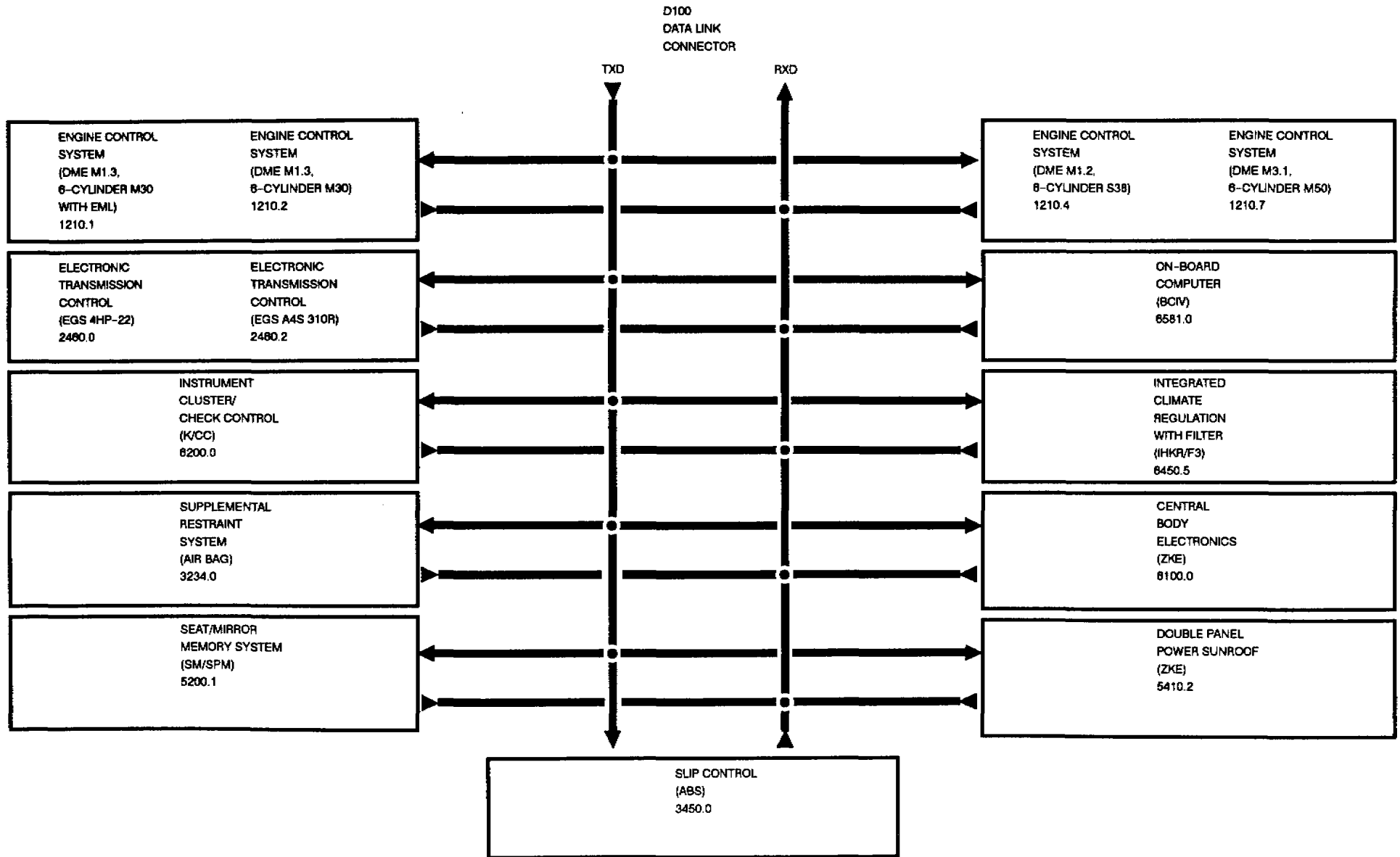
BMW  
**5**

0670.5





# DATA LINK BLOCK DIAGRAM

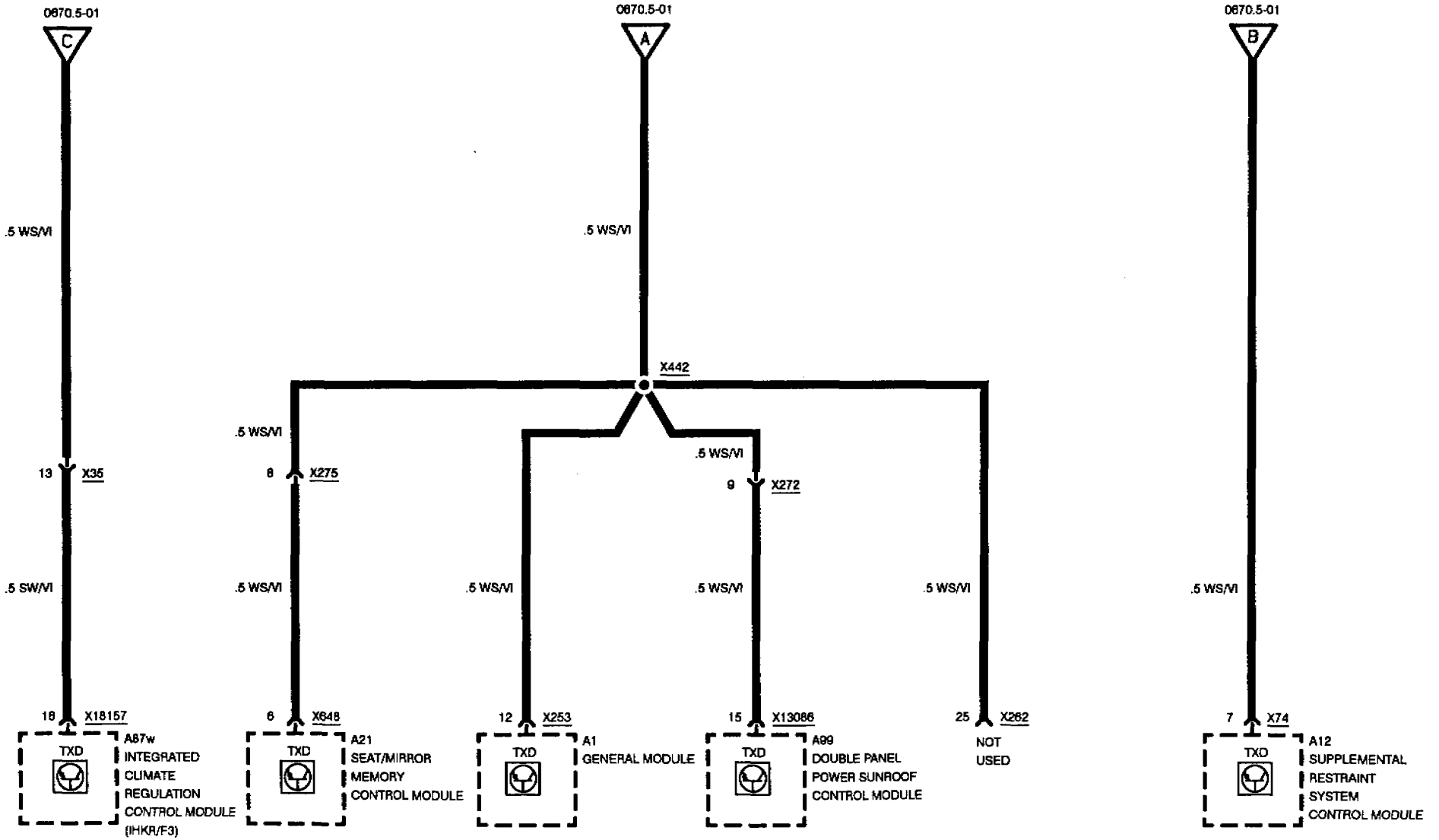




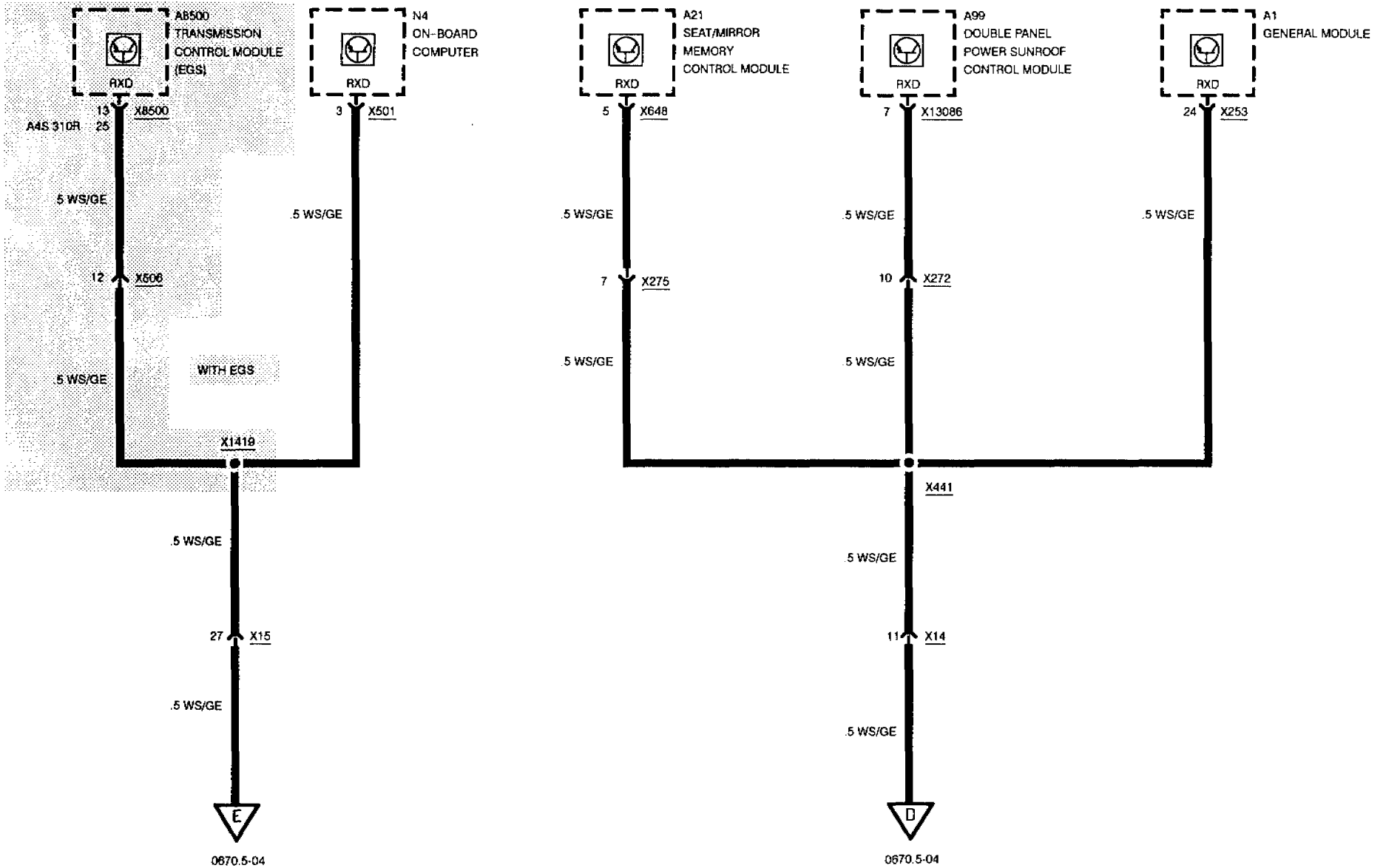


# DATA LINK

## TXD, PIN 20



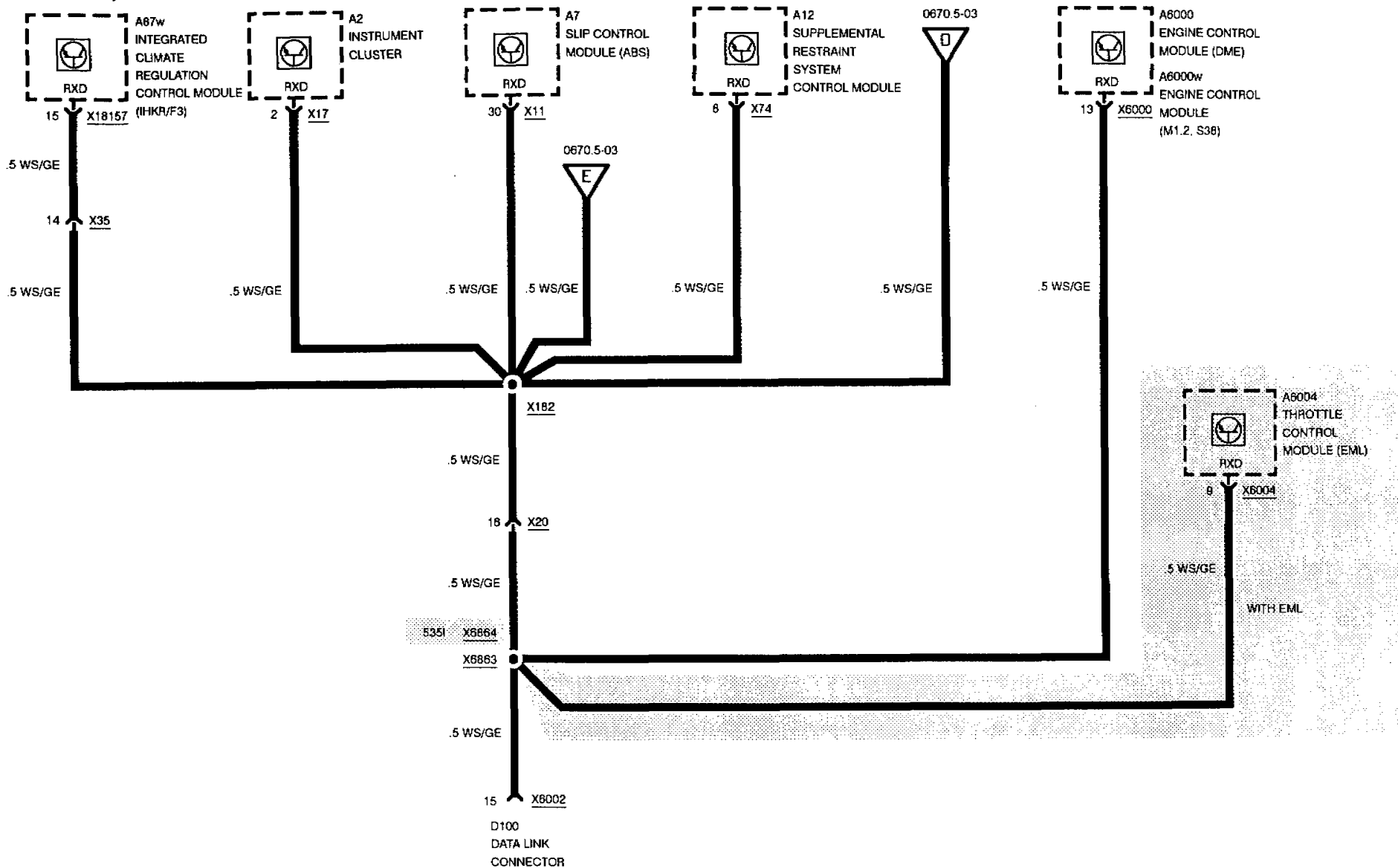
**BMW**  
**5** DATA LINK  
RXD, PIN 15





# DATA LINK

## RXD, PIN 15

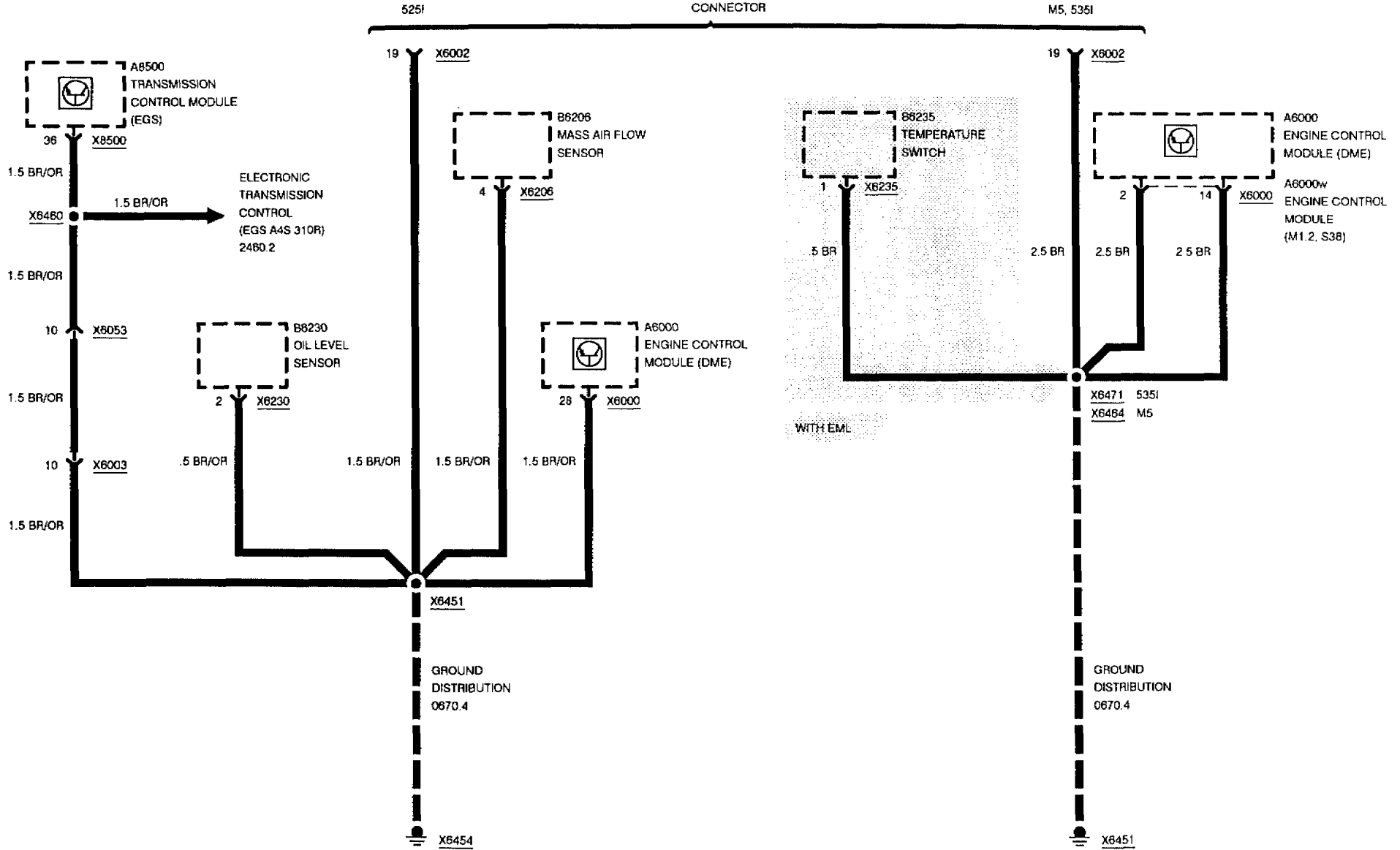




# DATA LINK

## DATA LINK CONNECTOR PIN 19

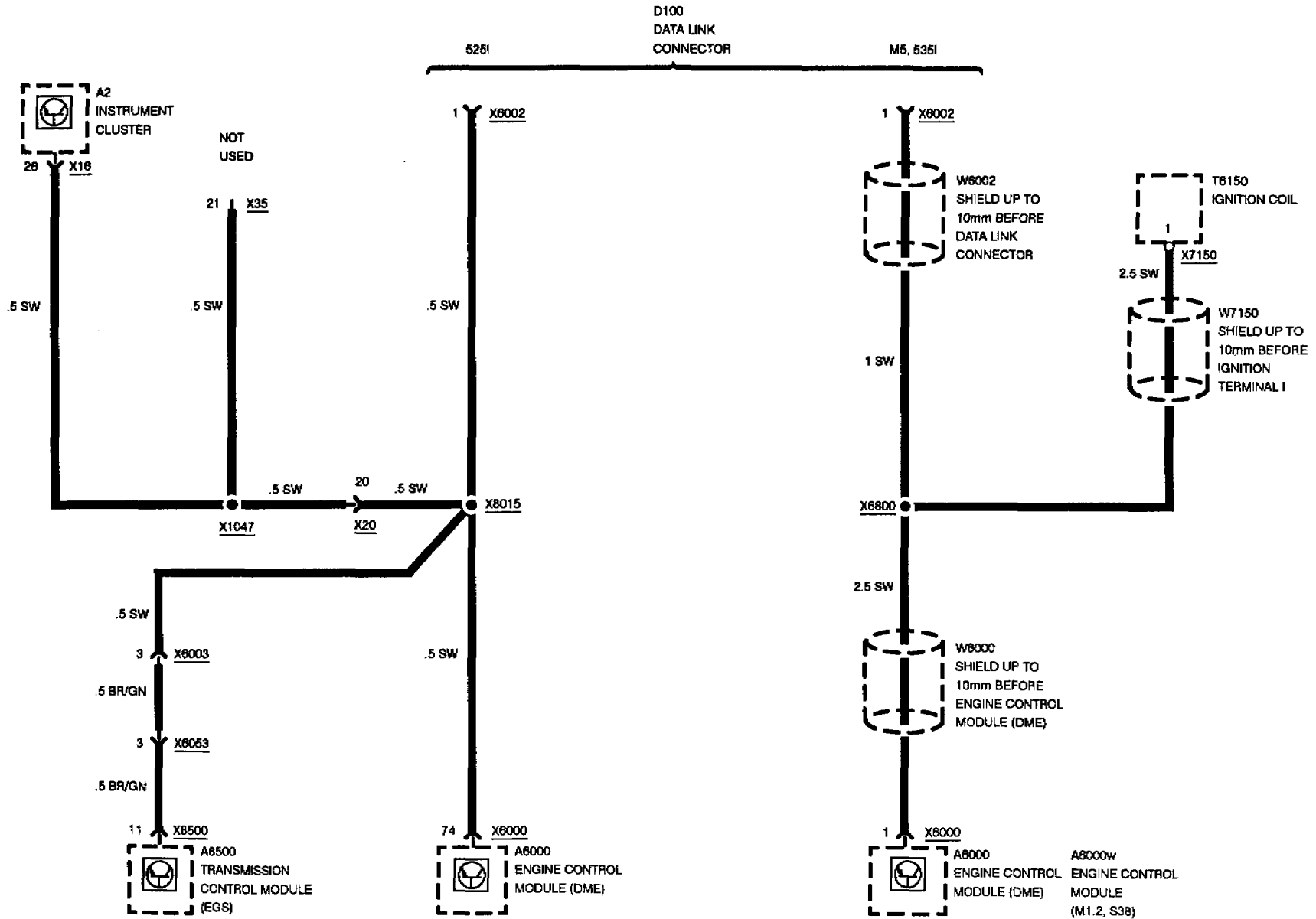
D100  
DATA LINK  
CONNECTOR





# DATA LINK

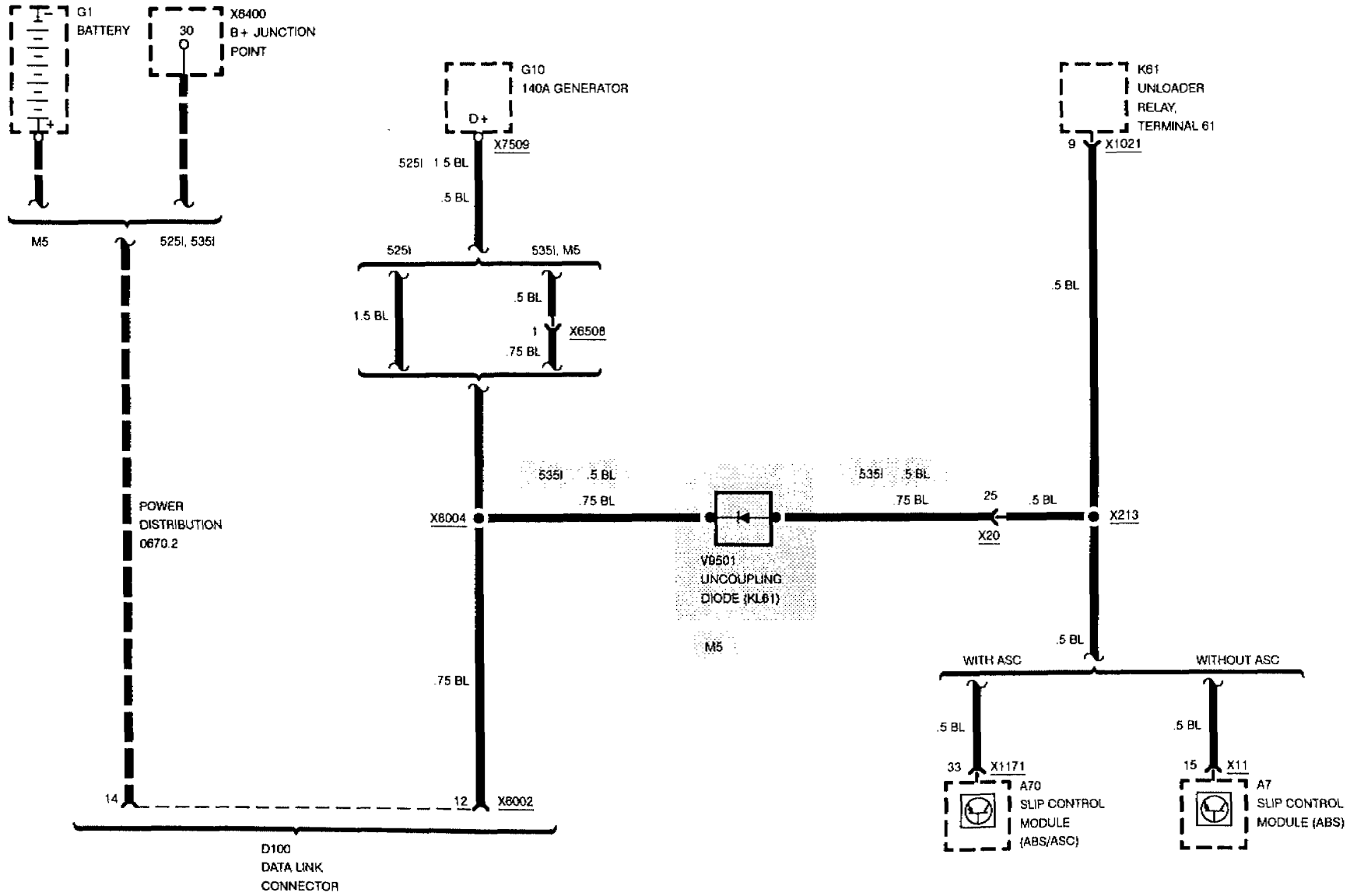
## DATA LINK CONNECTOR PIN 1





# DATA LINK

## DATA LINK PINS 12 AND 14

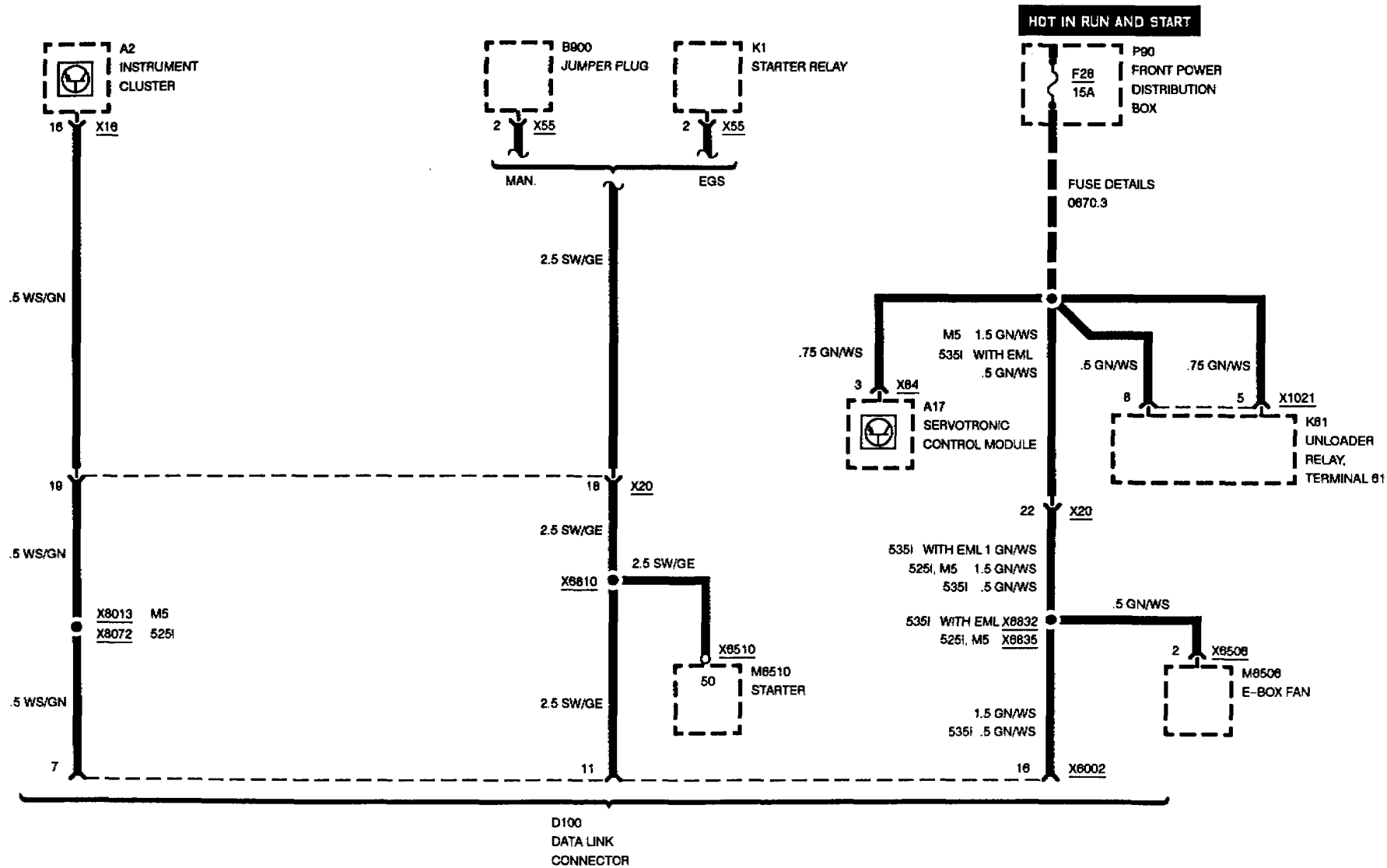






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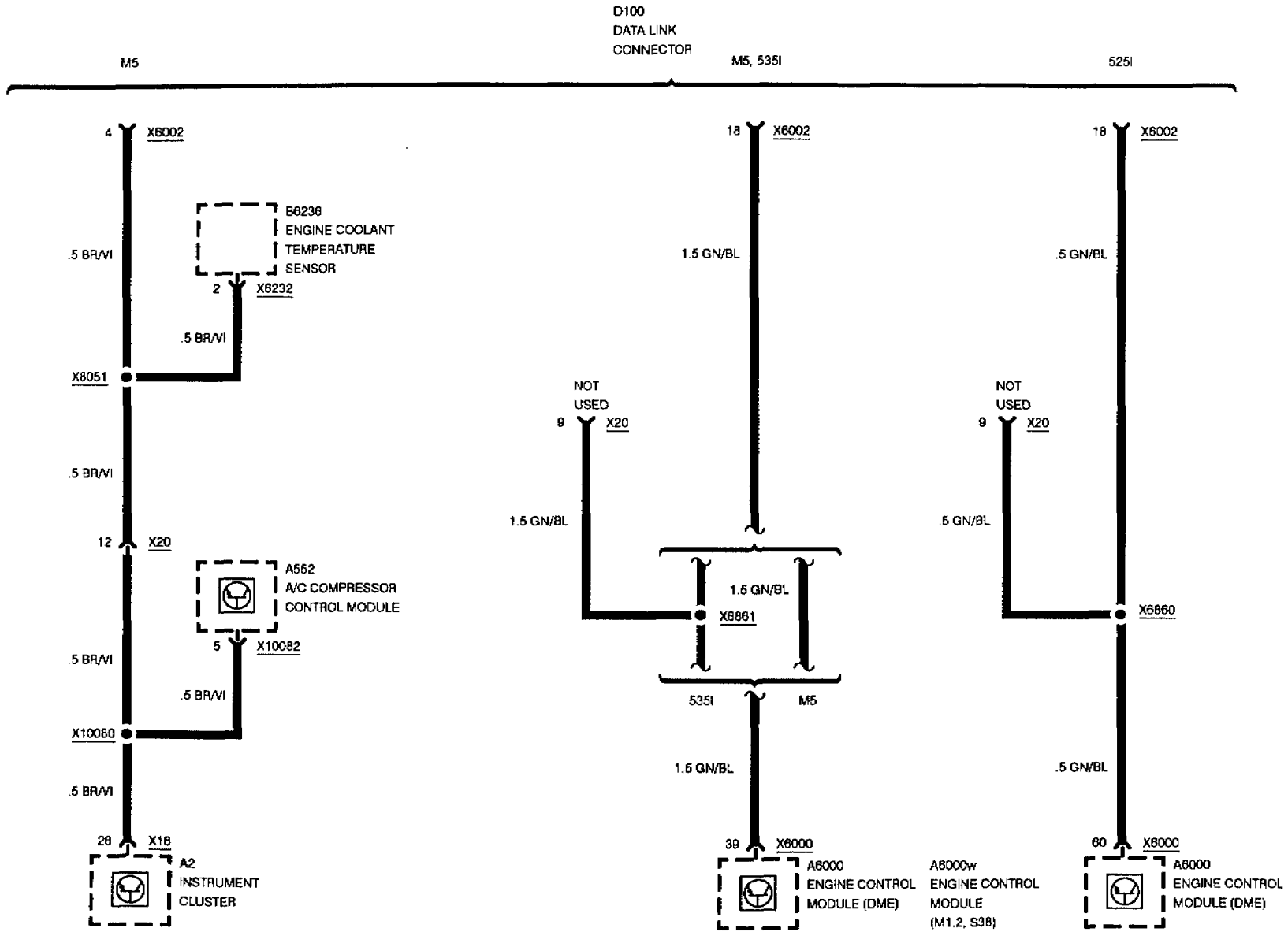
## DATA LINK CONNECTOR PINS 7, 11, AND 16





# DATA LINK

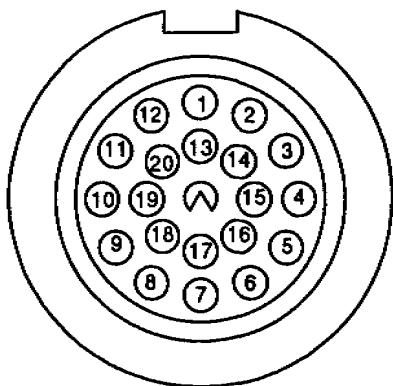
## DATA LINK CONNECTOR PINS 4 AND 18



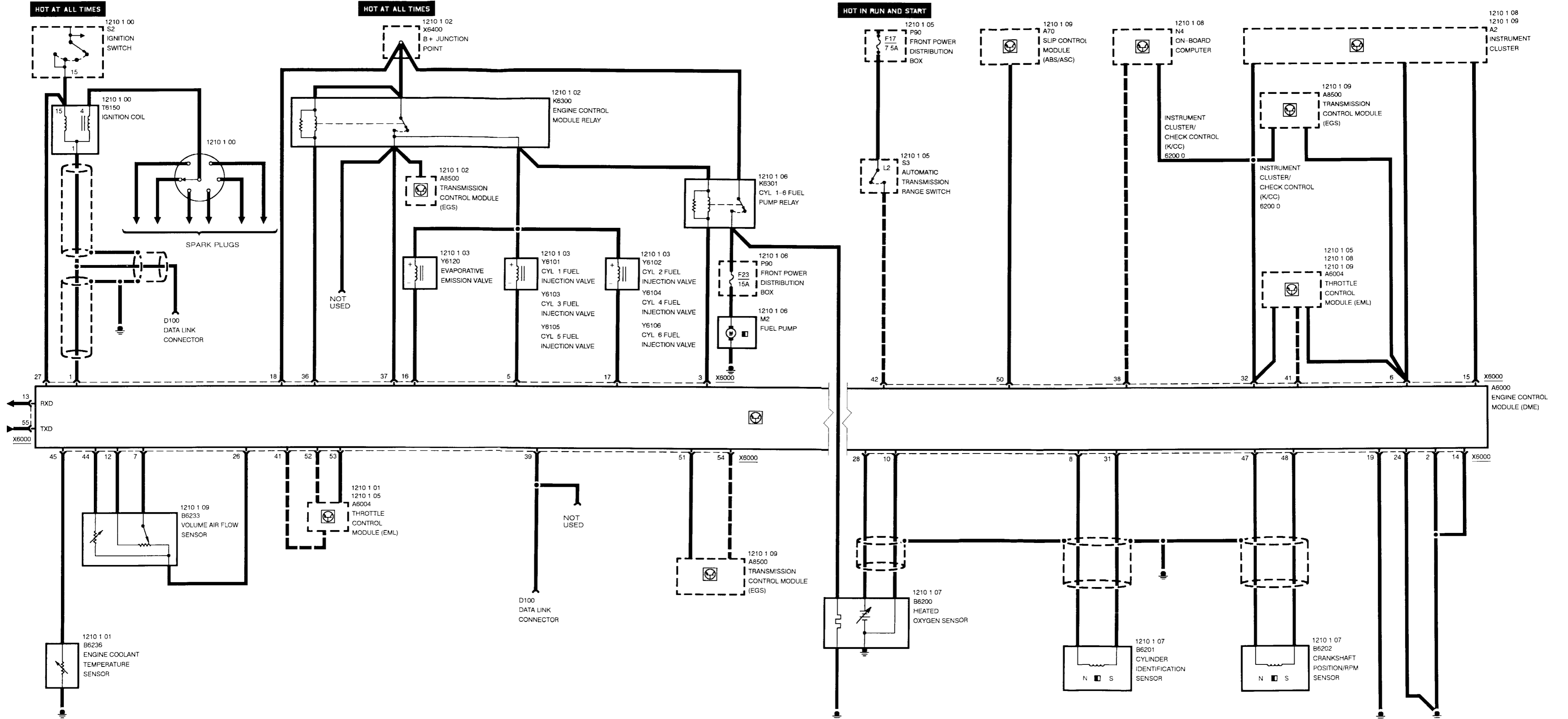


## DATA LINK

### DATA LINK CONNECTOR (X6002)

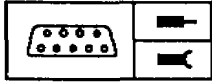


PIN NUMBER	TERMINAL NUMBER	TERMINAL DESCRIPTION	WIRE COLOR
1	1	IGNITION COIL	SW
2	-	NOT OCCUPIED	
3	-	NOT OCCUPIED	
4	FT	VOLTAGE: TEMPERATURE SENSOR	M5 BR/VI
5	-	NOT OCCUPIED	
6	-	NOT OCCUPIED	
7	SI	SERVICE INDICATOR REMINDER	WS/GN
8	-	NOT OCCUPIED	
9	-	NOT OCCUPIED	
10	-	NOT OCCUPIED	
11	50	VOLTAGE: IGNITION SWITCH IN START	SW/GE
12	61(D+)	GENERATOR CHARGE INDICATOR	BL
13	-	NOT OCCUPIED	
14	30	VOLTAGE: HOT AT ALL TIMES	RT
15	RXD	RECEIVE	WS/GE
16	15S	VOLTAGE: IGNITION SWITCH IN RUN	GN/WS
17	-	NOT OCCUPIED	
18	PGSP	ENGINE CONTROL (DME) PROGRAMMING LINE	GN/BL
19	31	GROUND	BR
20	TXD	TRANSMIT	WS/VI





# DIGITAL ENGINE ELECTRONICS (DME 1.3, 6-CYLINDER M30 WITH EML)



## Pin Assignments

### X6000

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Ignition terminal	Ignition coil	Primary signal	Oscilloscope	Engine test, test step 05
2	M	Ground	Ground point	Ground		
3	A	EKP relay and TR signal (crankshaft reference)	EKP relay and electronic transmission control unit	Ground with superimposed signal	ON	Can only be measured when crankshaft rotating
4		Not used				
5	A	Evaporative valve	Evaporative valve	Pulsed ground	CLOSED/OPEN	Perform component activation, ground = > closed
6	A	Engine speed signal	Instrument cluster	Square wave signal		One signal per ignition
7	E	Air flow meter signal	Air flow meter	0...5 V	Load signal ms	See status monitoring
8	E	Cylinder identification sensor (ignition)	Cylinder identification sensor (connection B)		ON/OFF	See status monitoring
9		Not used				
10	M	Ground, oxygen sensor	Oxygen sensor	Ground		
11		Not used				
12	A	Voltage supply, air flow meter	Air flow meter	- 5 V		
13	E	RxD diagnostic data line	Diagnostic connector	> 10 V		When cover of diagnostic connector closed



## DIGITAL ENGINE ELECTRONICS (DME 1.3, 6-CYLINDER M30 WITH EML)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
14	M	Ground injection valves	Ground point	Ground		
15	A	Indicator "Check engine"	Instrument cluster	Ground		Comes on if emission related error code is stored, and comes on during starting
16	A	Injection valves cyl. (1 + 3 + 5)	Injection valve	Pulsed ground	Injection time $t_i$	Ground = > injector valves open, see component activation
17	A	Injection valves cyl. (2 + 4 + 6)	Injection valve	Pulsed ground	Injection time $t_i$	Ground = > injector valves open, see component activation
18	E	Hot at all times	Terminal 30	> 10 V		
19	M	Ground for electronics and sensor shields	Ground point	Ground		
20		Not used				
21		Not used				
22		Not used				
23		Not used				
24	M	Ground, remaining output stages (except for ignition and injection valves)	Ground point	Ground		
25		Not used				
26	M	Ground, air flow meter	Air flow meter	Ground		
27	E	Ignition terminal 15	Ignition switch	> 10 V		
28	E	Oxygen sensor signal	Oxygen sensor	Pulsating voltage up to approx. 1 V	Voltage value	Can only be measured with the engine running at operating temperature



## DIGITAL ENGINE ELECTRONICS (DME 1.3, 6-CYLINDER M30 WITH EML)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
29		Not used				
30		Not used				
31	E	Cylinder identification sensor (ignition)	Cylinder identification sensor (connection A)		ON/OFF	See status monitoring
32	A	ti Measuring signal (KVA signal)	Instrument cluster	Square wave signal	Multimeter function pulse duration	Oscilloscope
33		Not used				
34		Not used				
35		Not used				
36	A	DME main relay	DME main relay terminal 85	Ground	ON	Diagnosis not possible if not fitted, connect jumper at relay terminal 30 and 87
37	E	U-Batt from DME main relay	Main relay terminal 87	U-Batt	Voltage value	Perform status monitoring. Diagnosis not possible if signal not applied. Connect jumper terminal 30 and 87 on relay
38	E	Drive away protection	On-board computer	> 10 V		
39	E	Programming voltage	Diagnostic connector			Only activated for control unit programming
40		Not used				
41	E	Auxiliary fan signal	EML control unit	12 V	ON/OFF	
42	E	Drive range P/N	Transmission selector lever switch	Ground	ON	When position P/N
43		Not used				
44	E	Intake air temperature	Air quantity meter	0...5 V	°C	Temperature dependent



## DIGITAL ENGINE ELECTRONICS (DME 1.3, 6-CYLINDER M30 WITH EML)

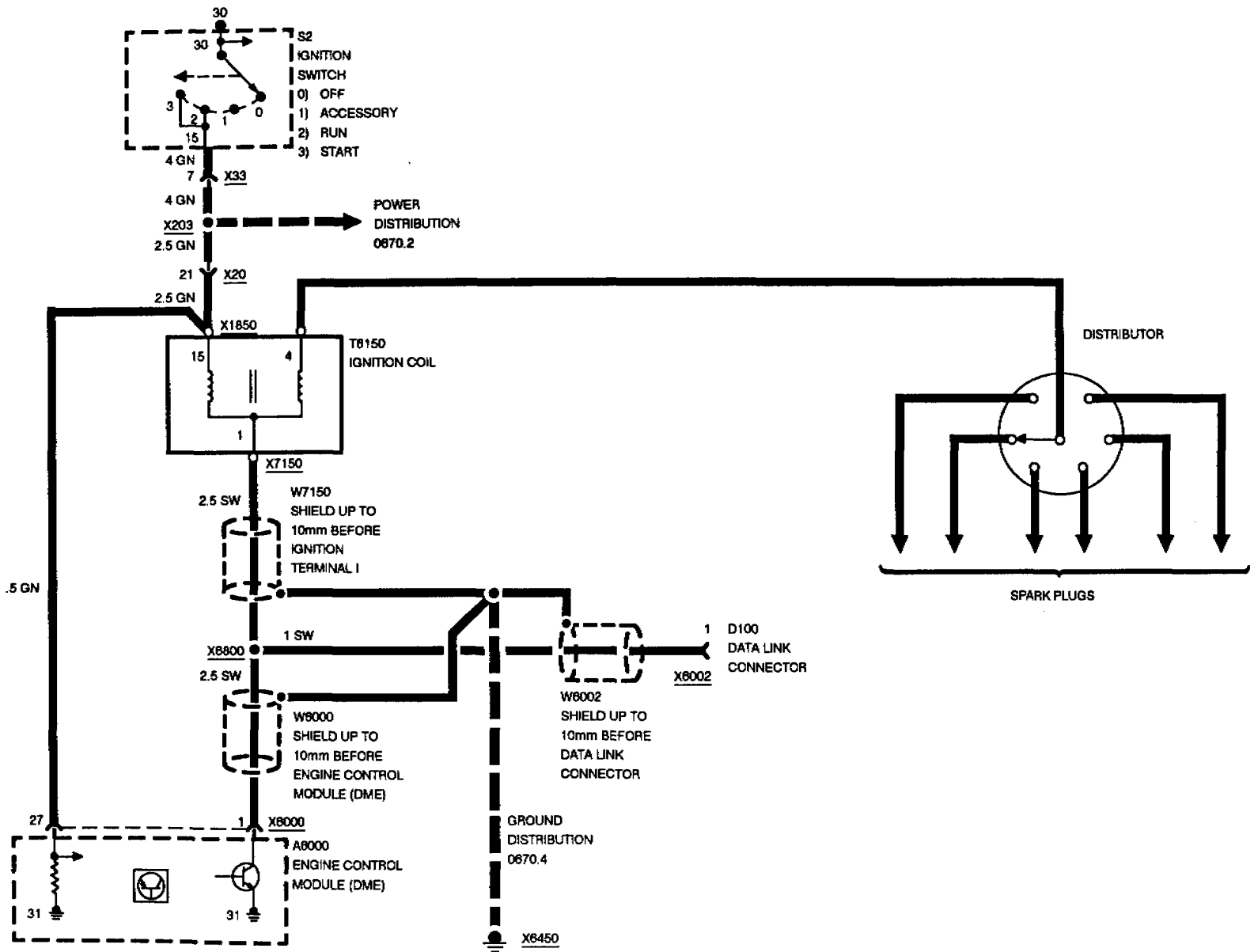
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
45	E	Engine coolant temp.	Engine coolant temp. sensor	0...5 V	°C	Temperature dependent
46		Not used				
47	E	Inductive pulse generator (connection A)	Pulse generator engine speed, crankshaft position	A/C voltage	Engine speed	Between Pins 47 and 48 (can only be measured with crankshaft rotating)
48	E	Inductive pulse generator (connection B)	Pulse generator engine speed, crankshaft position	A/C voltage	Engine speed	Status monitoring at or above starting rpm
49		Not used				
50	E	Torque cutout signal	ABS/ASC control unit			
51	E	Ignition timing intervention	Electronic transmission control unit	Ground	ON	Only active during gear shift
52	E	Idle signal	EML control unit	Ground	ON	See status monitoring on set idle speed
53	E	Full load signal VL	EML control unit	Ground	ON	At full load (kick-down)
54	E	Torque converter clutch WK	Electronic transmission control unit EGS	Ground	ON (with engine running)	When WK engaged, see status monitoring
55	E/A	TxD diagnostic data line	Diagnostic connector	Ground		When cover of diagnostic connector closed





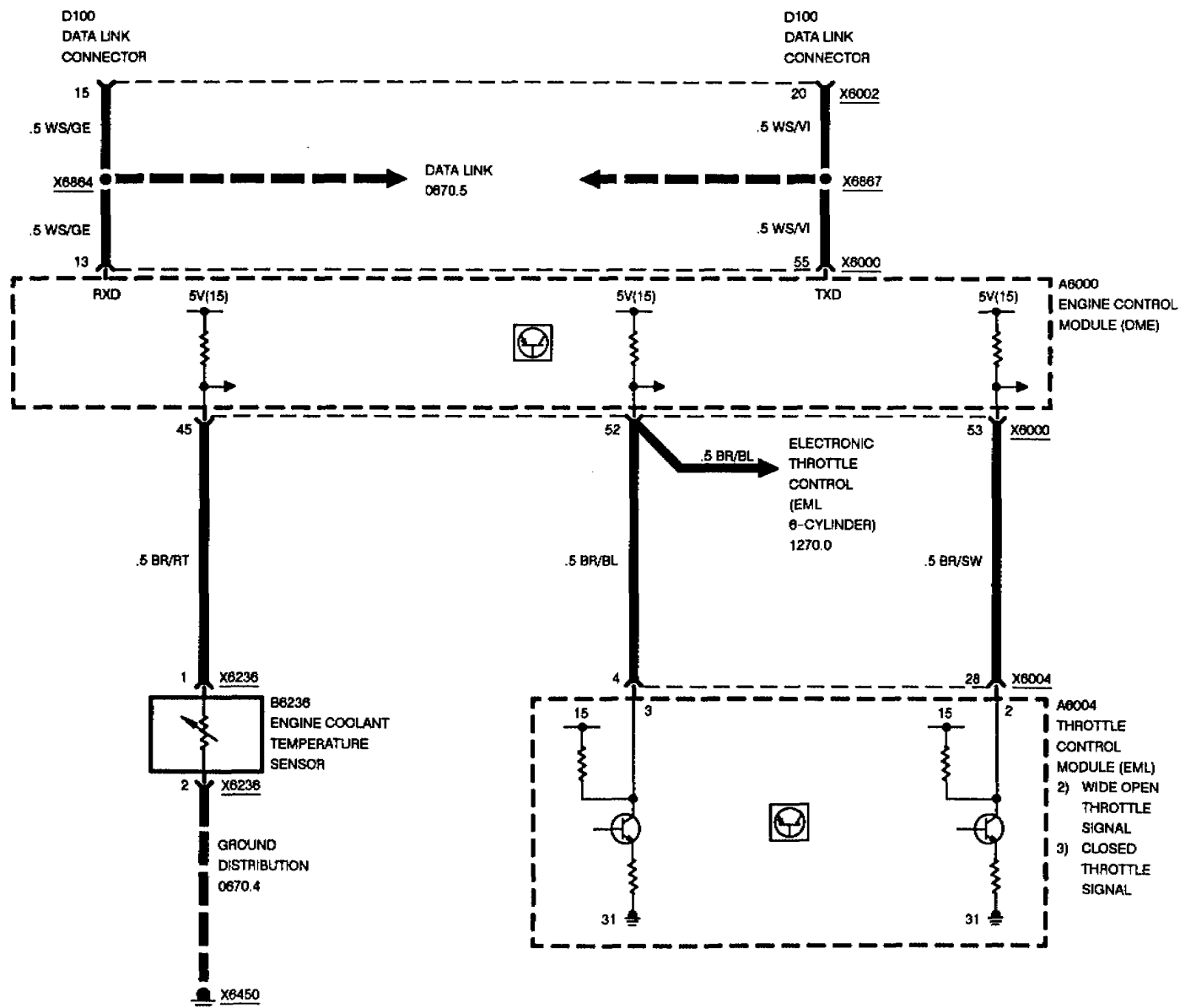


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)



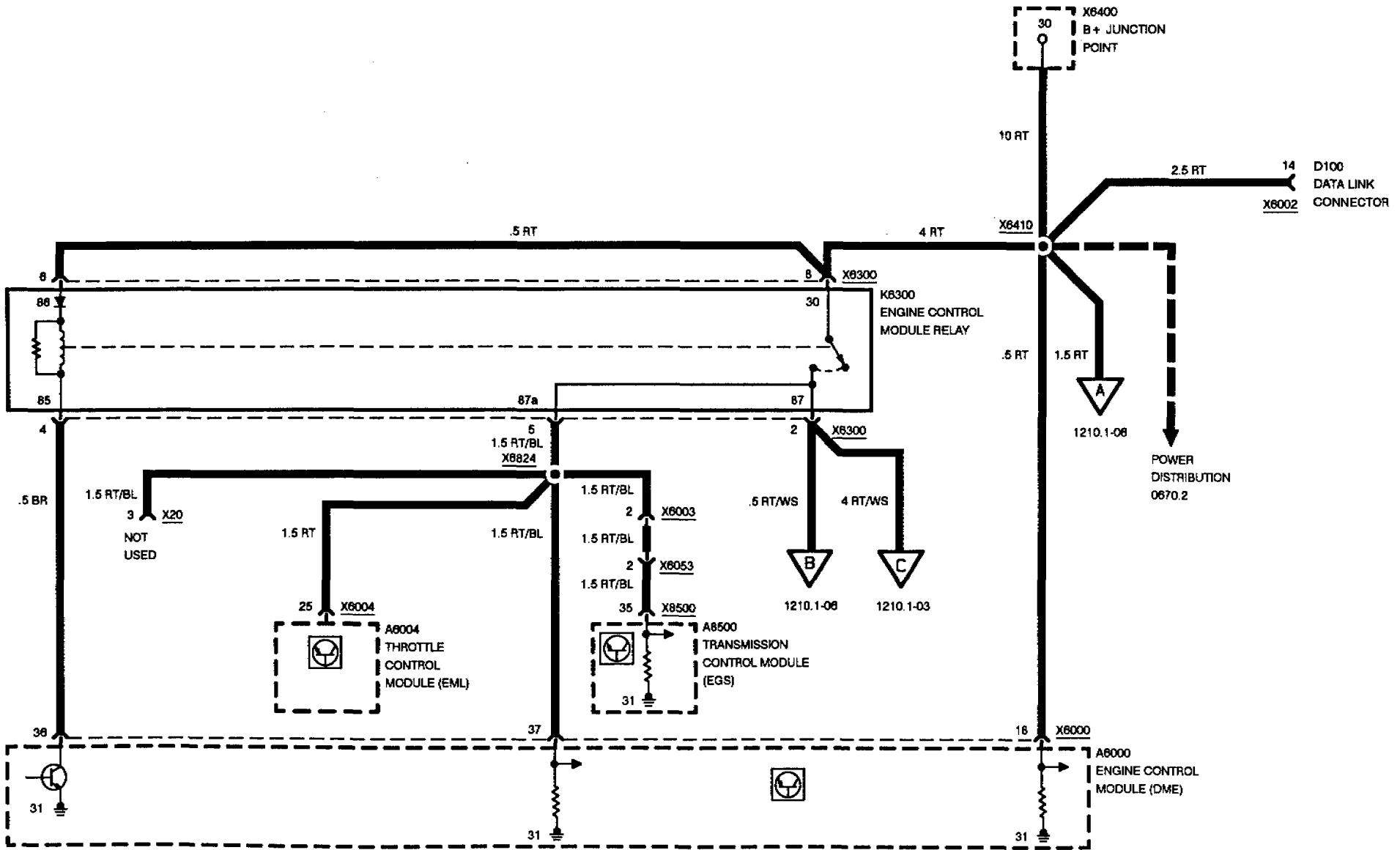


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)



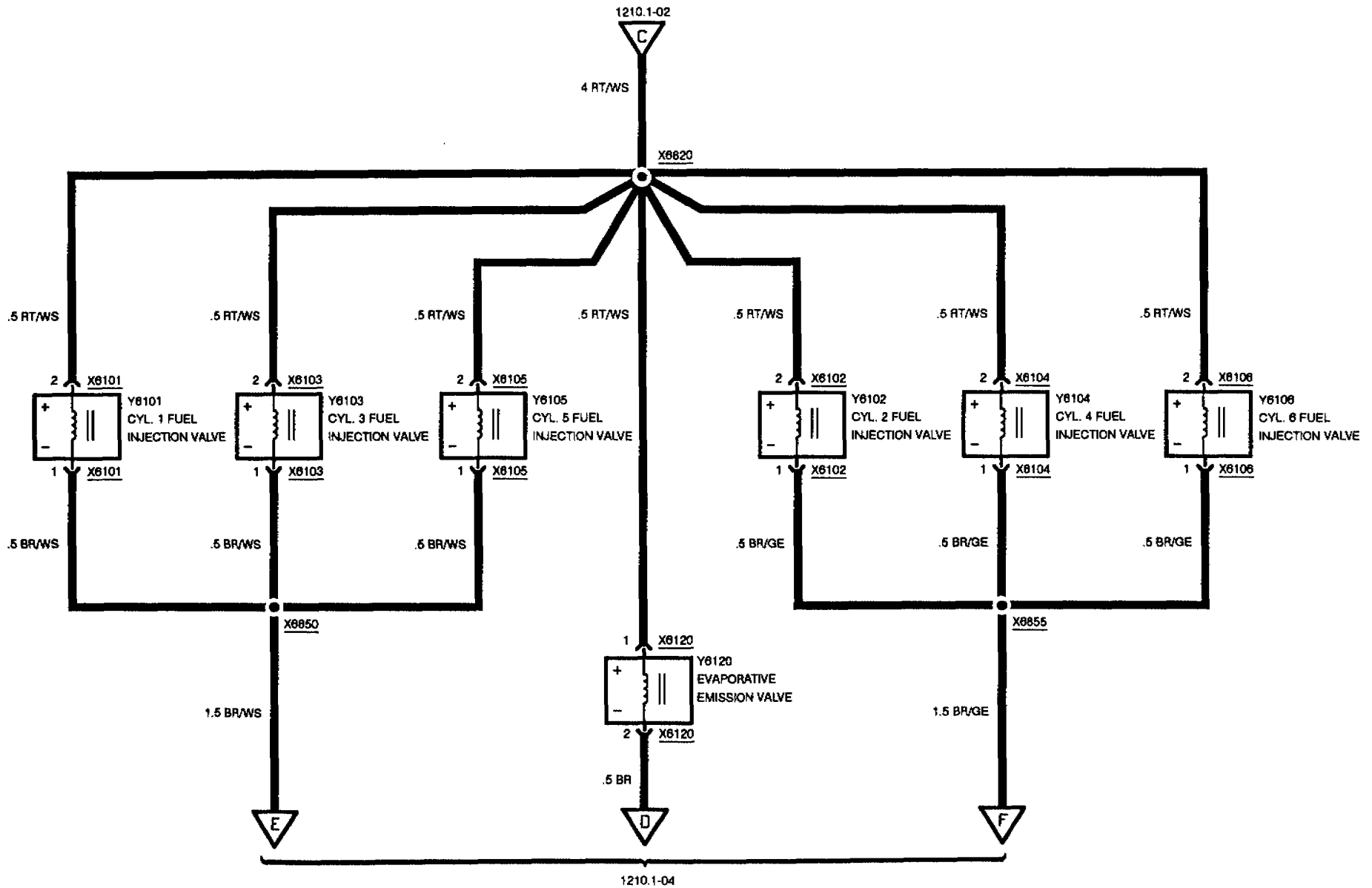


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)



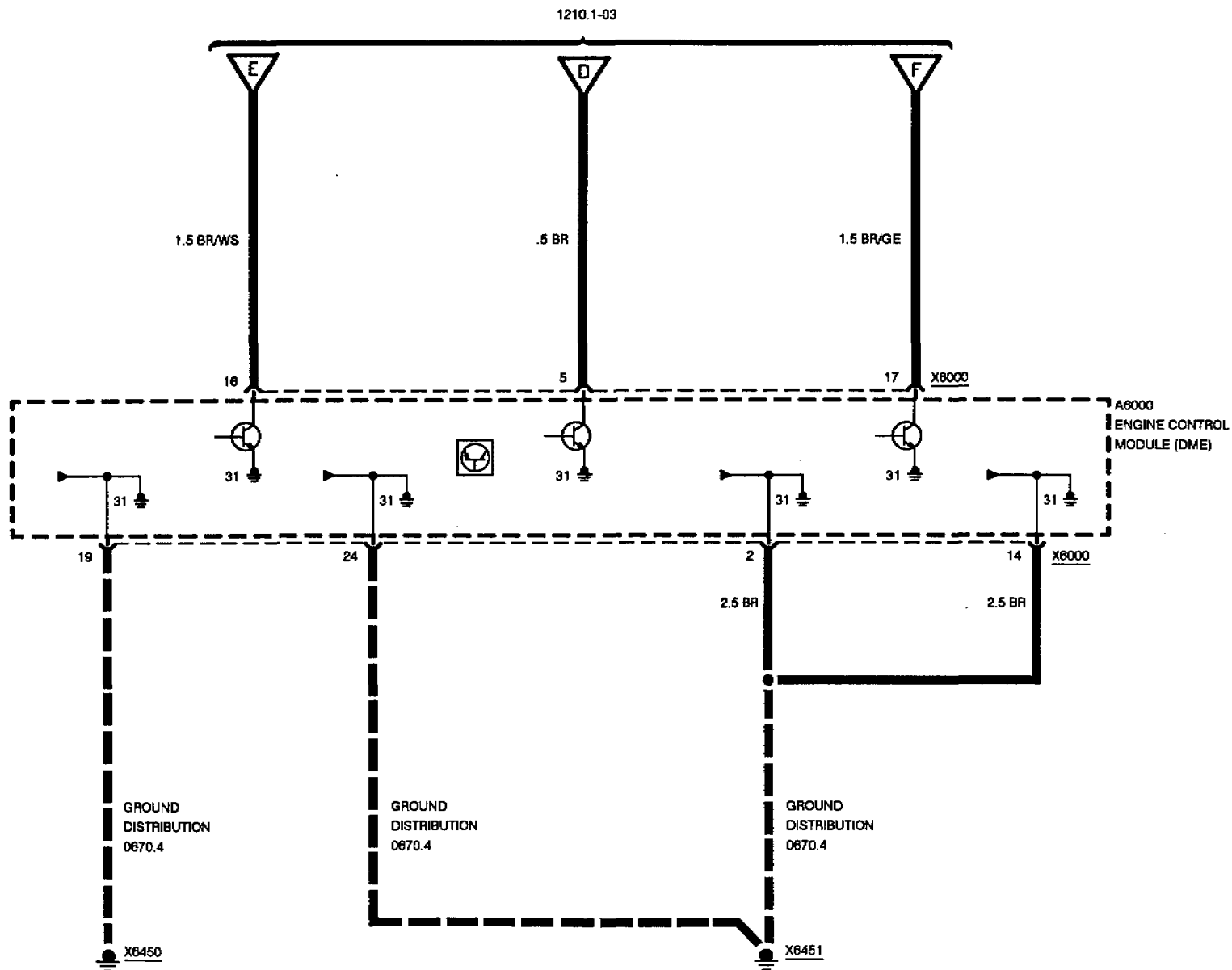


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML) FUEL INJECTION VALVES



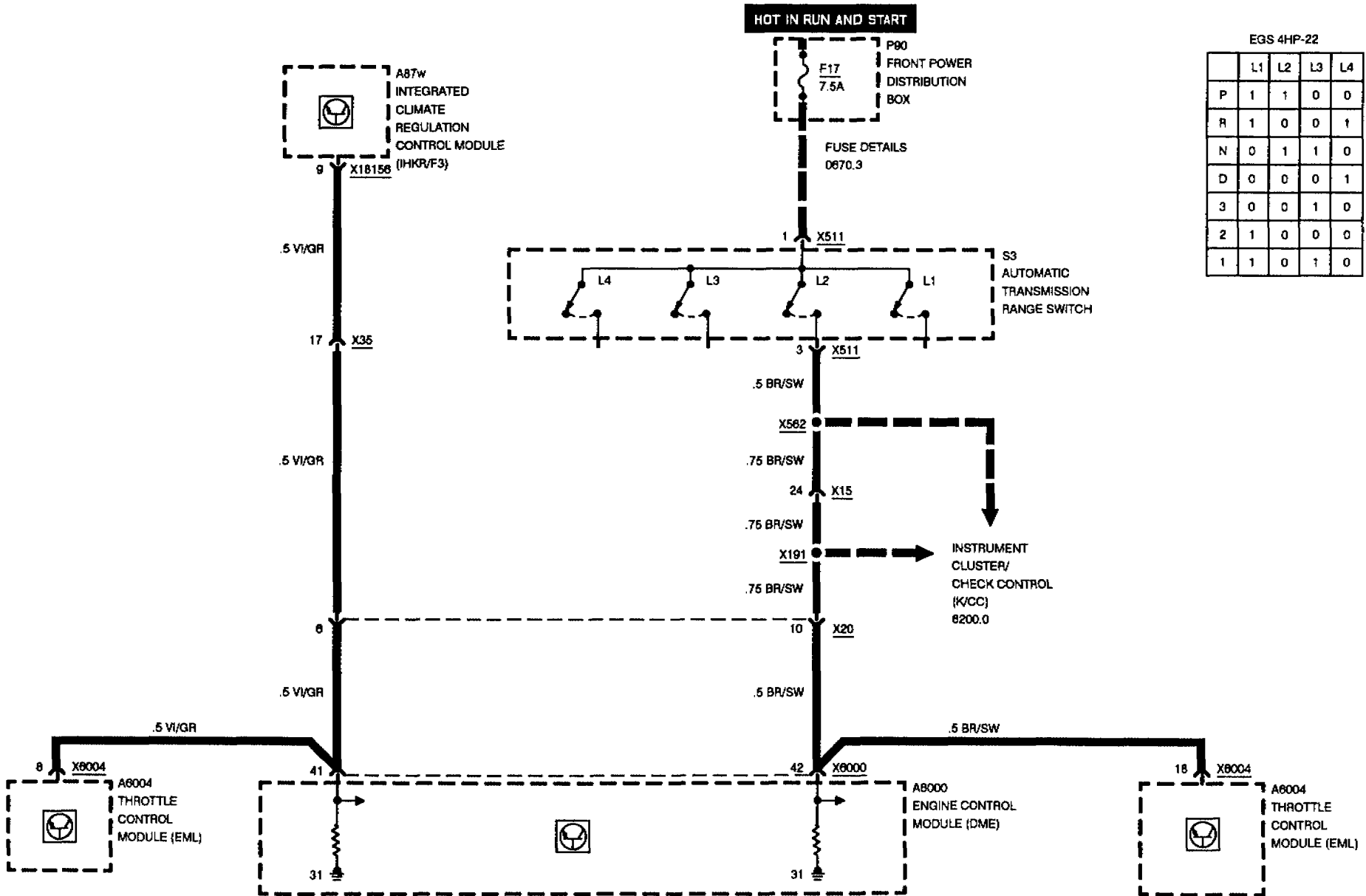


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)



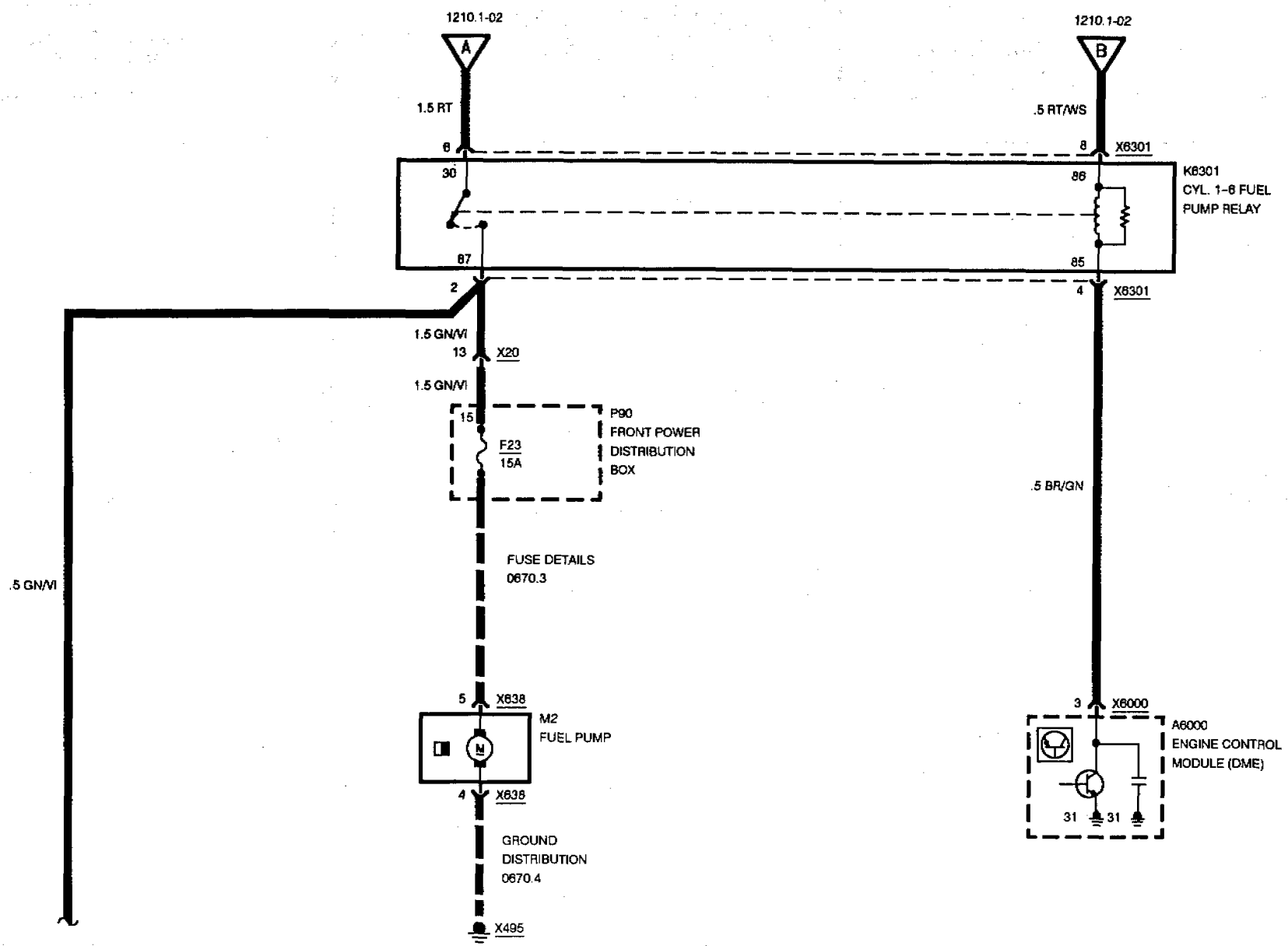


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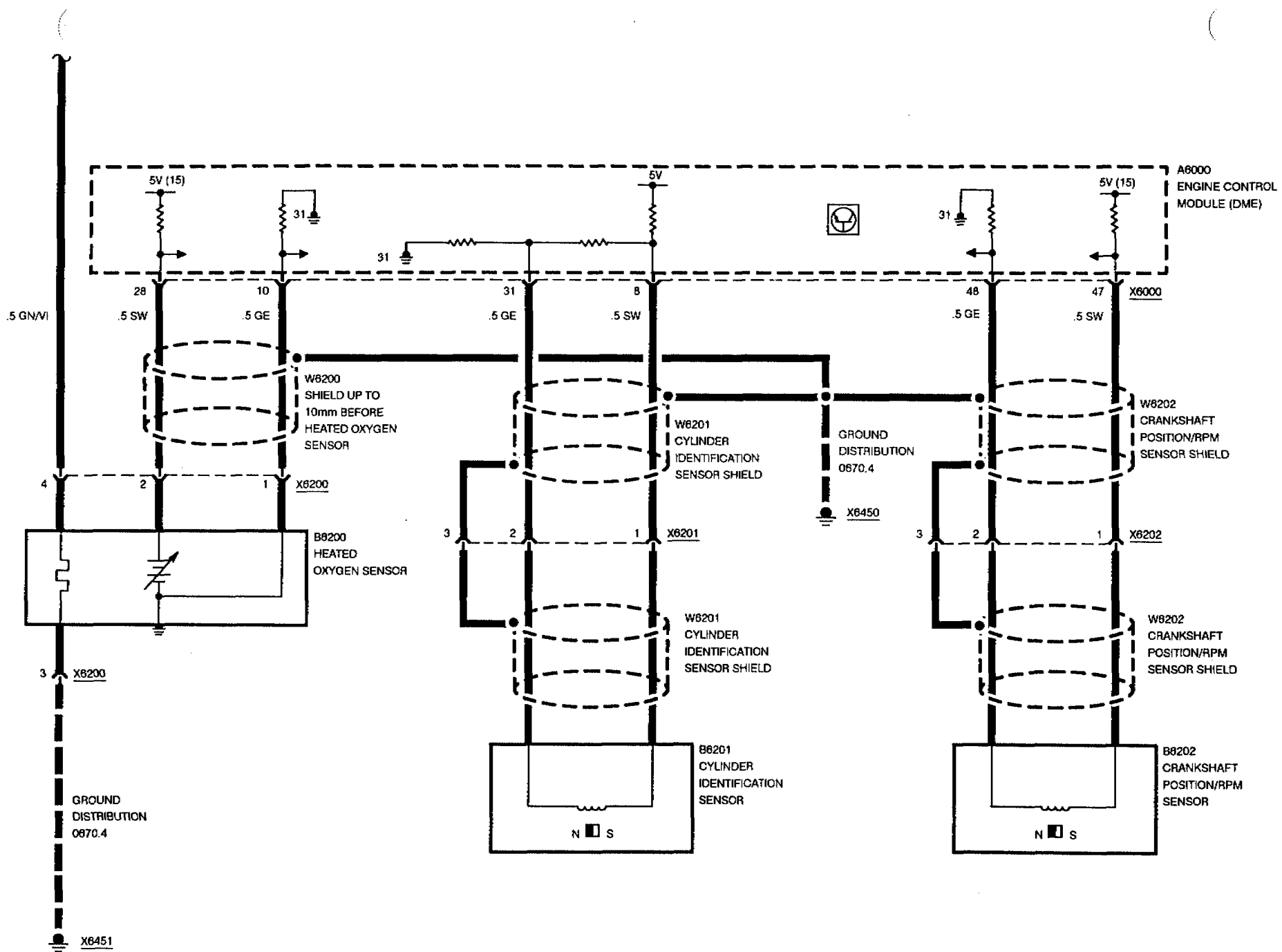




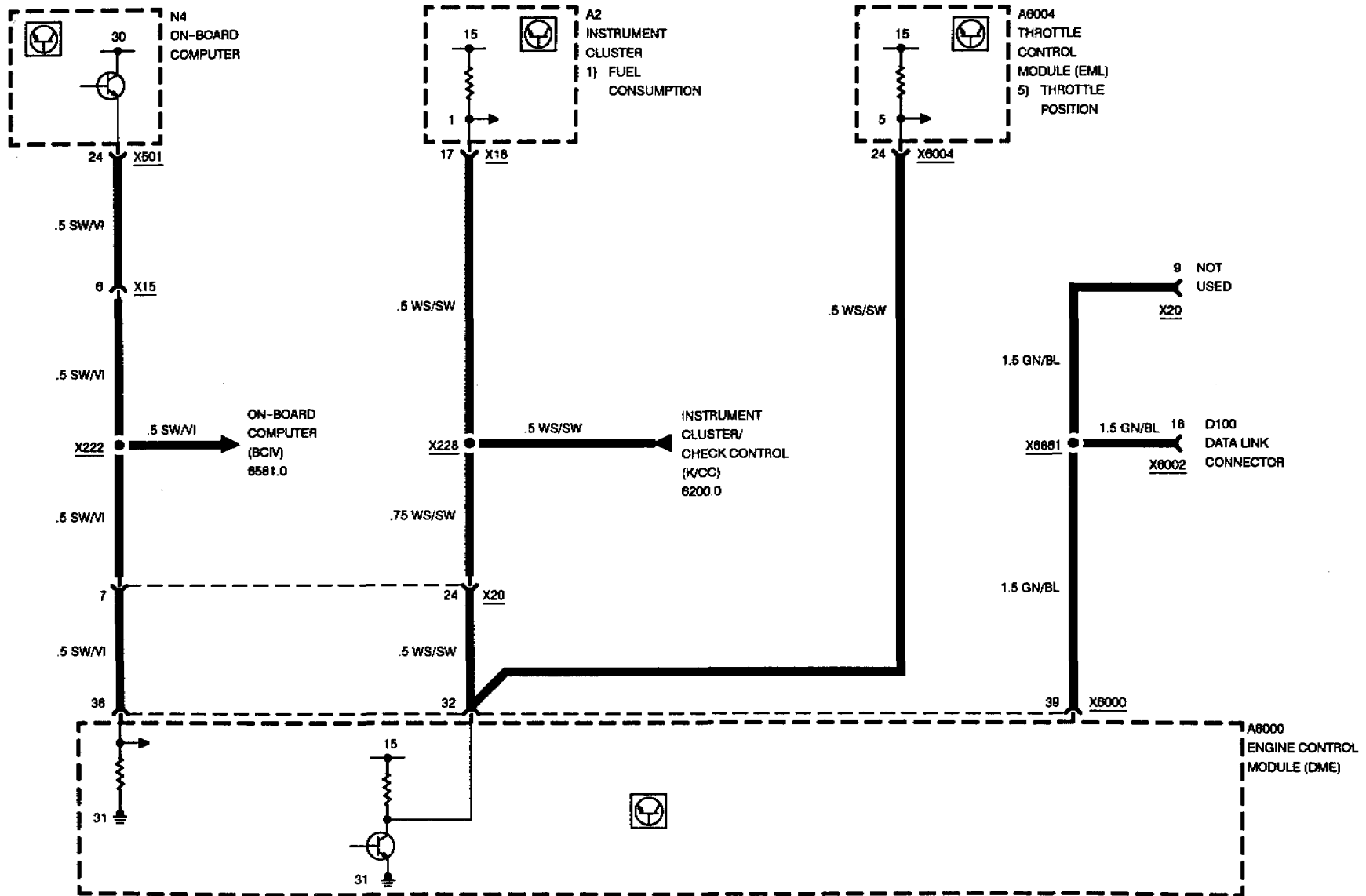
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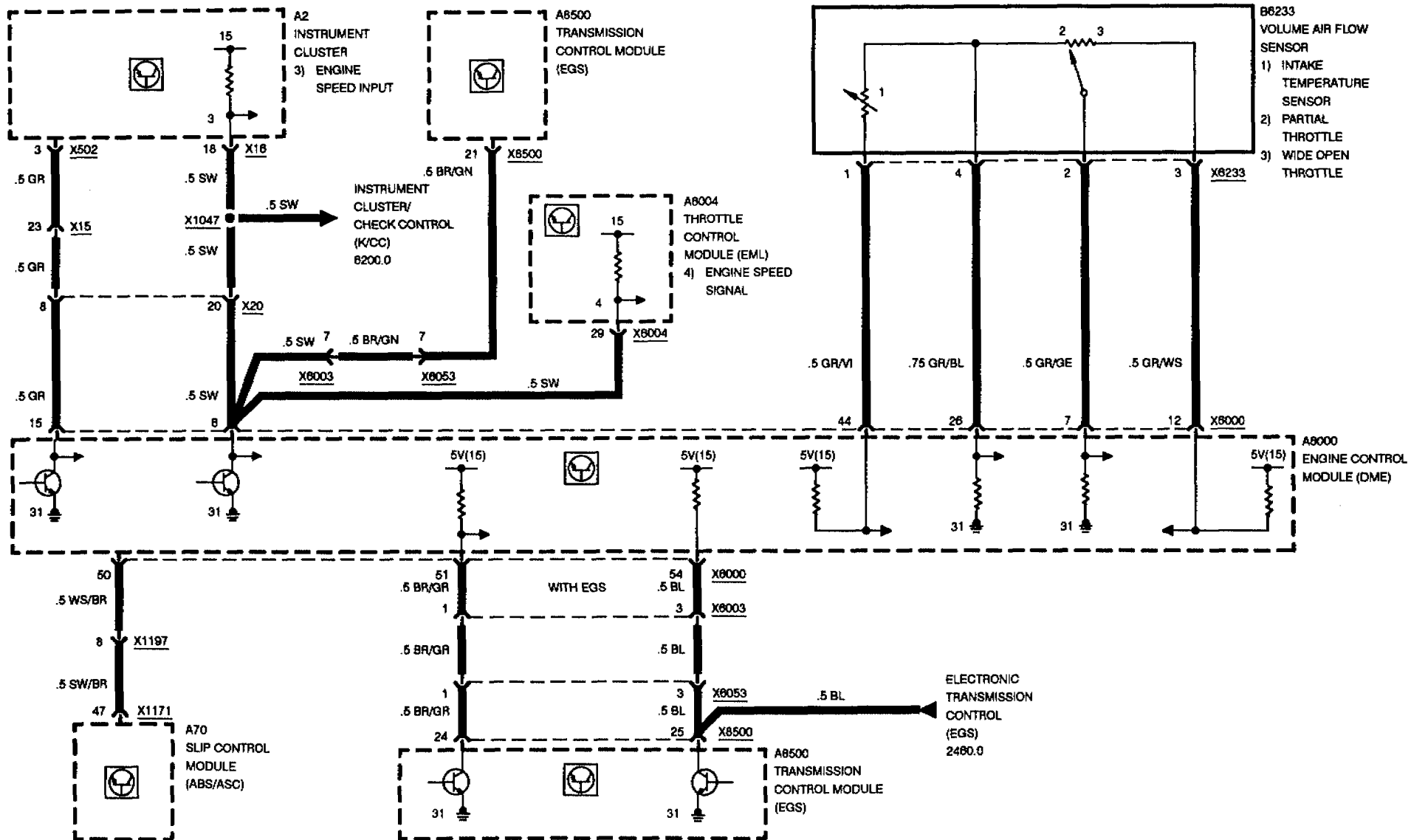




# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)

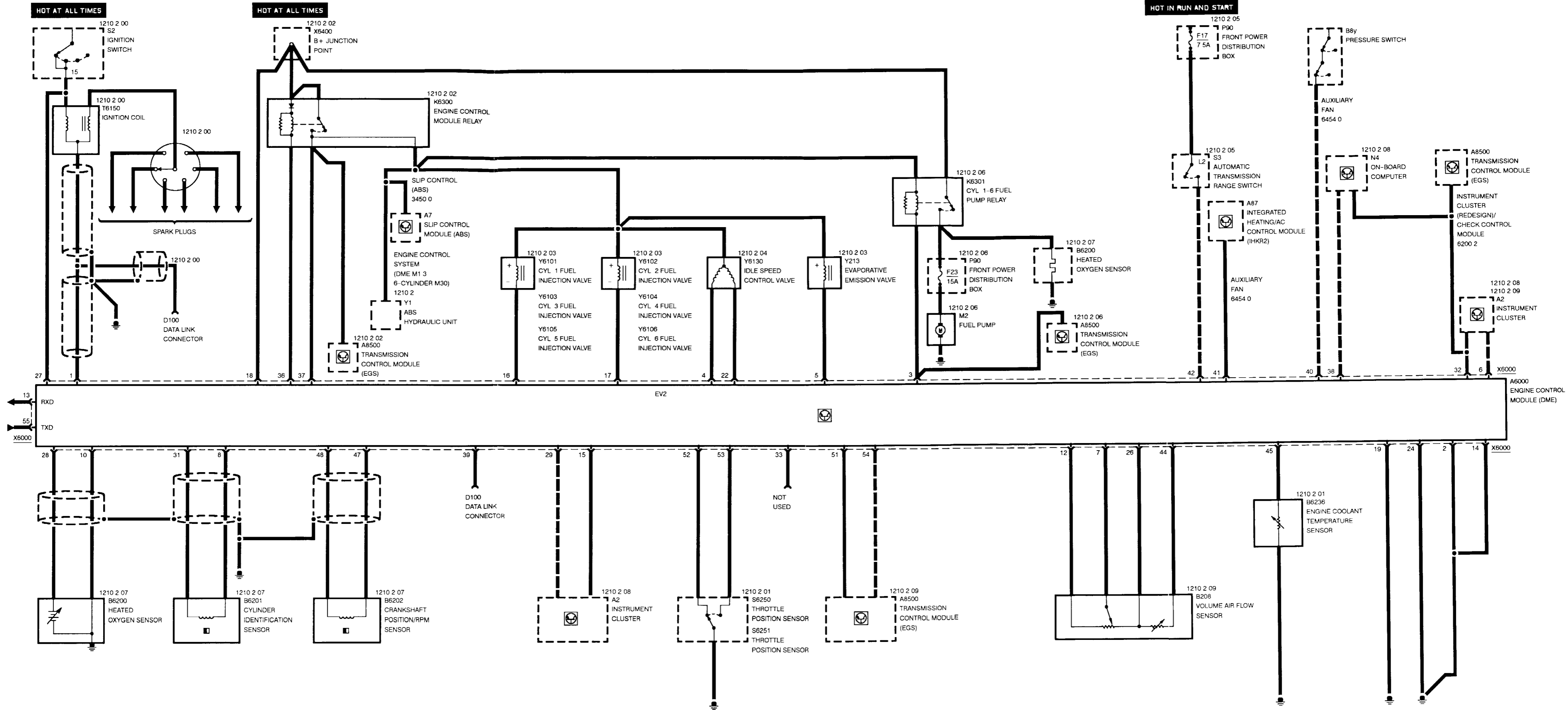


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30 WITH EML)



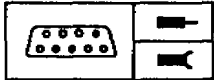
BMW  
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1210.1-10





# DIGITAL ENGINE ELECTRONICS (DME M1.3, 6-CYLINDER M30)



## Pin Assignments

### X6000

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Ignition terminal	Ignition coil	Primary signal	Oscilloscope	Engine test, test step 05
2	M	Ground	Ground point	Ground		
3	A	EKP relay and TR signal (crankshaft reference)	EKP relay and electronic transmission control unit	Ground with superimposed signal	ON	Can only be measured when crankshaft rotating
4	A	Idle speed actuator	Idle speed actuator	Pulsed ground		Component activation
5	A	Evaporative valve	Evaporative valve	Pulsed ground	CLOSED/OPEN	Perform component activation, ground = > closed
6	A	Engine speed signal	Instrument cluster	Square wave signal		One signal per Ignition
7	E	Air flow meter signal	Air flow meter	0...5 V	Load signal ms	See status monitoring
8	E	Cylinder identification sensor (Ignition)	Cylinder identification sensor (connection B)		ON/OFF	See status monitoring
9		Not used				
10	M	Ground oxygen sensor	Oxygen sensor	Ground		
11		Not used				
12	A	Voltage supply, air flow meter	Air flow meter	- 5 V		
13	E	RxD diagnostic data line	Diagnostic socket	> 10 V		When cover of diagnostic connector closed



## DIGITAL ENGINE ELECTRONICS (DME M1.3, 6-CYLINDER M30)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
14	M	Ground, injection valves	Ground point	Ground		
15	A	Indicator "Check engine"	Instrument cluster	Ground		Comes on if emission related error code is stored, and comes on during starting
16	A	Injection valves cyl. (1 + 3 + 5)	Injection valve	Pulsed ground	Injection time ti	Ground = > injector valves open, see component activation
17	A	Injection valves cyl. (2 + 4 + 6)	Injection valve	Pulsed ground	Injection time ti	Ground = > injector valves open, see component activation
18	E	Hot at all times	Terminal 30	> 10 V		
19	M	Ground for electronics and shielding the sensors	Ground point	Ground		
20		Not used				
21		Not used				
22	A	Idle speed actuator	Idle speed actuator	Pulsed ground		See component activation
23		Not used				
24	M	Ground, remaining output stages (except for ignition and injection valves)	Ground point	Ground		
25		Not used				
26	M	Ground, air flow meter	Air flow meter	Ground		
27	E	Ignition terminal 15	Ignition switch	> 10 V		
28	E	Oxygen sensor signal	Oxygen sensor	Pulsating voltage up to approx. 1 V	Voltage value	Can only be measured with the engine running at operating temperature



## DIGITAL ENGINE ELECTRONICS (DME M1.3, 6-CYLINDER M30)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
29	E	Vehicle speed sensor	Instrument cluster	Square wave signal	km/h	
30		Not used				
31	E	Cylinder Identification sensor (ignition)	Cylinder identification sensor (connection A)		ON/OFF	See status monitoring
32	A	ti Measuring signal (KVA signal)	Instrument cluster	Square wave signal	Multimeter function pulse duration	
33		Not used				
34		Not used				
35		Not used				
36	A	DME main relay	DME main relay terminal 85	Ground	ON	Diagnosis not possible if not fitted, connect jumper at relay terminal 30 and 87
37	E	U-Batt from DME main relay	Main relay terminal 87	U-Batt	Voltage value	Perform status monitoring. Diagnosis not possible if signal not applied. Connect jumper terminal 30 and 87 on relay
38	E	Drive away protection	On-board computer	> 10 V		
39	E	Programming voltage	Diagnostic connector			Only activated for control unit programming
40	E	A/C compressor signal	Pressure switch, compressor relay		ON/OFF	
41	E	Auxiliary fan signal	IHKR control unit	12 V	ON/OFF	
42	E	Drive range P/N	Transmission selector lever switch	Ground	ON	When position P/N
43		Not used				





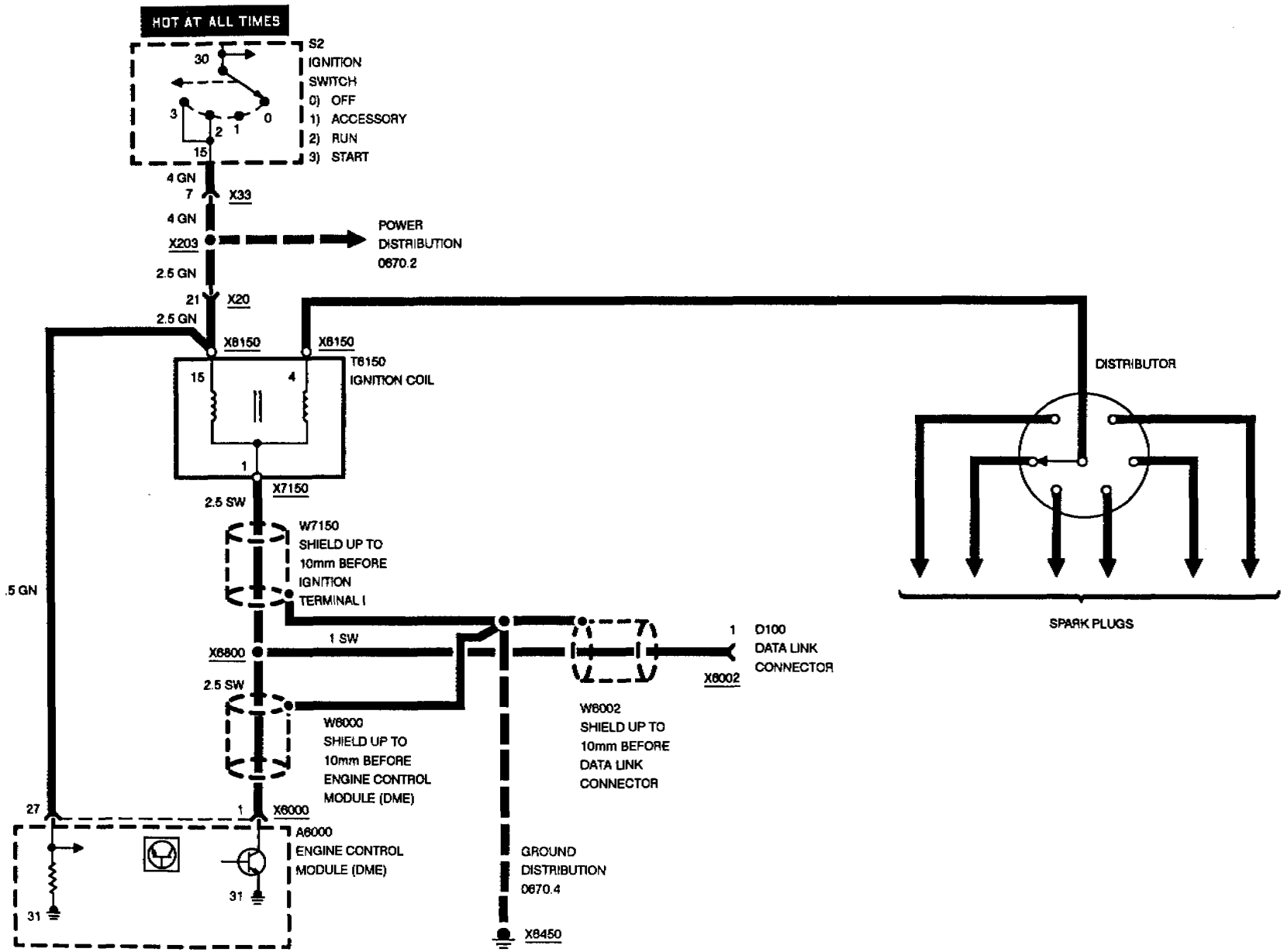
## DIGITAL ENGINE ELECTRONICS (DME M1.3, 6-CYLINDER M30)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
44	E	Intake air temperature	Air flow meter	0...5 V	°C	Temperature dependent
45	E	Engine coolant temperature	Engine coolant temperature sensor	0...5 V	°C	Temperature dependent
46		Not used				
47	E	Inductive pulse generator (connection A)	Pulse generator engine speed, crankshaft position	A/C voltage	Engine speed	Between Pins 47 and 48 (can only be measured with crankshaft rotation)
48	E	Inductive pulse generator (connection A)	Pulse generator engine speed, crankshaft position	A/C voltage	Engine speed	Status monitoring at or above starting rpm
49		Not used				
50		Not used				
51	E	Ignition timing intervention	Electronic transmission control unit (EGS)	Ground	ON	Only active during gear shift
52	E	Idle signal	Throttle switch	Ground	ON	See status monitoring on set idle speed
53	E	Full load signal VL	Throttle switch	Ground	ON	At full load (kick-down)
54	E	Torque converter clutch WK	Electronic transmission control unit (EGS)	Ground	ON (with engine running)	When WK engaged, see status monitoring
55	E/A	TxD diagnostic data line	Diagnostic socket	Ground		When cover of diagnostic connector closed

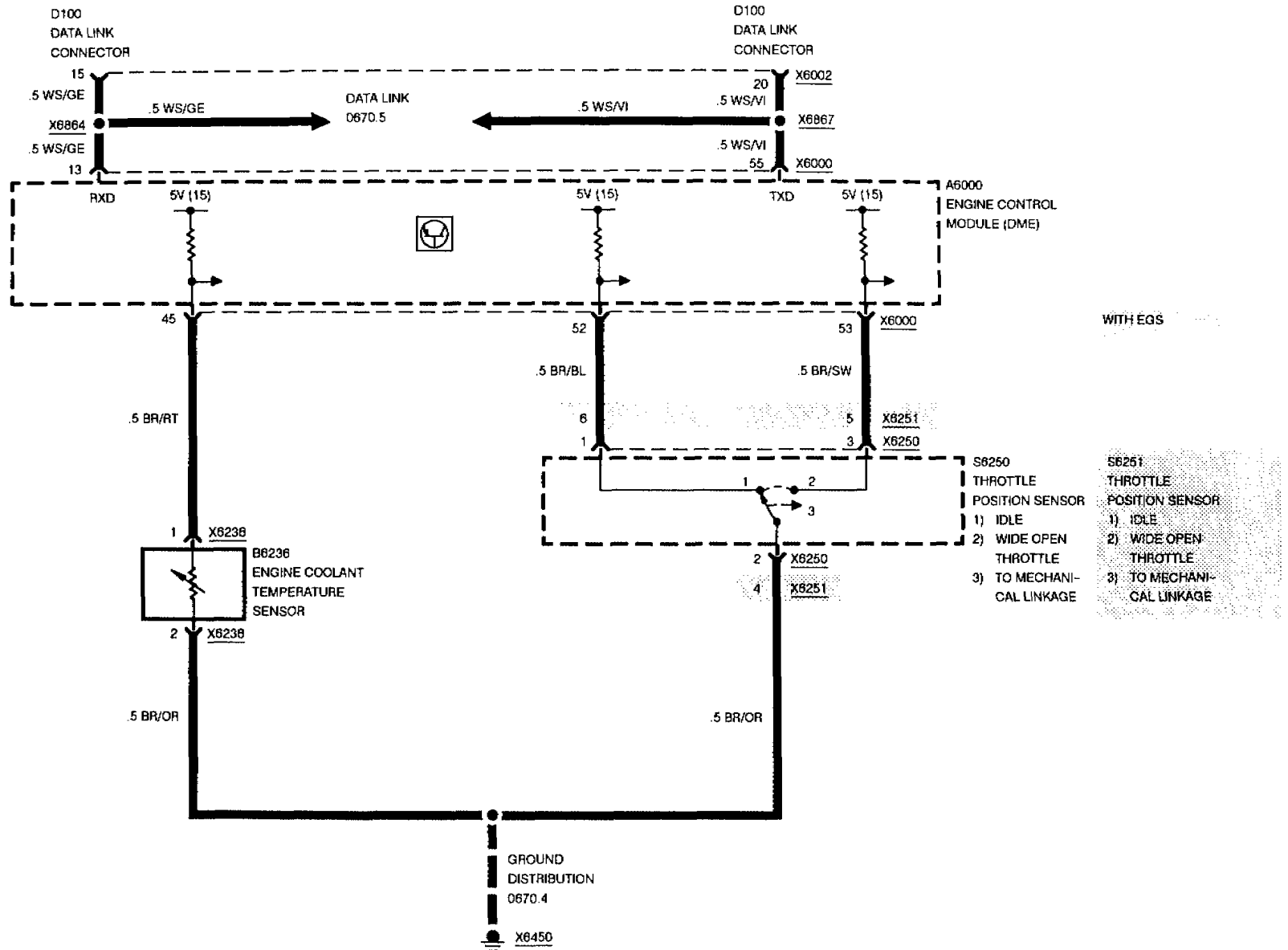
BMW  
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1210.2

# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)

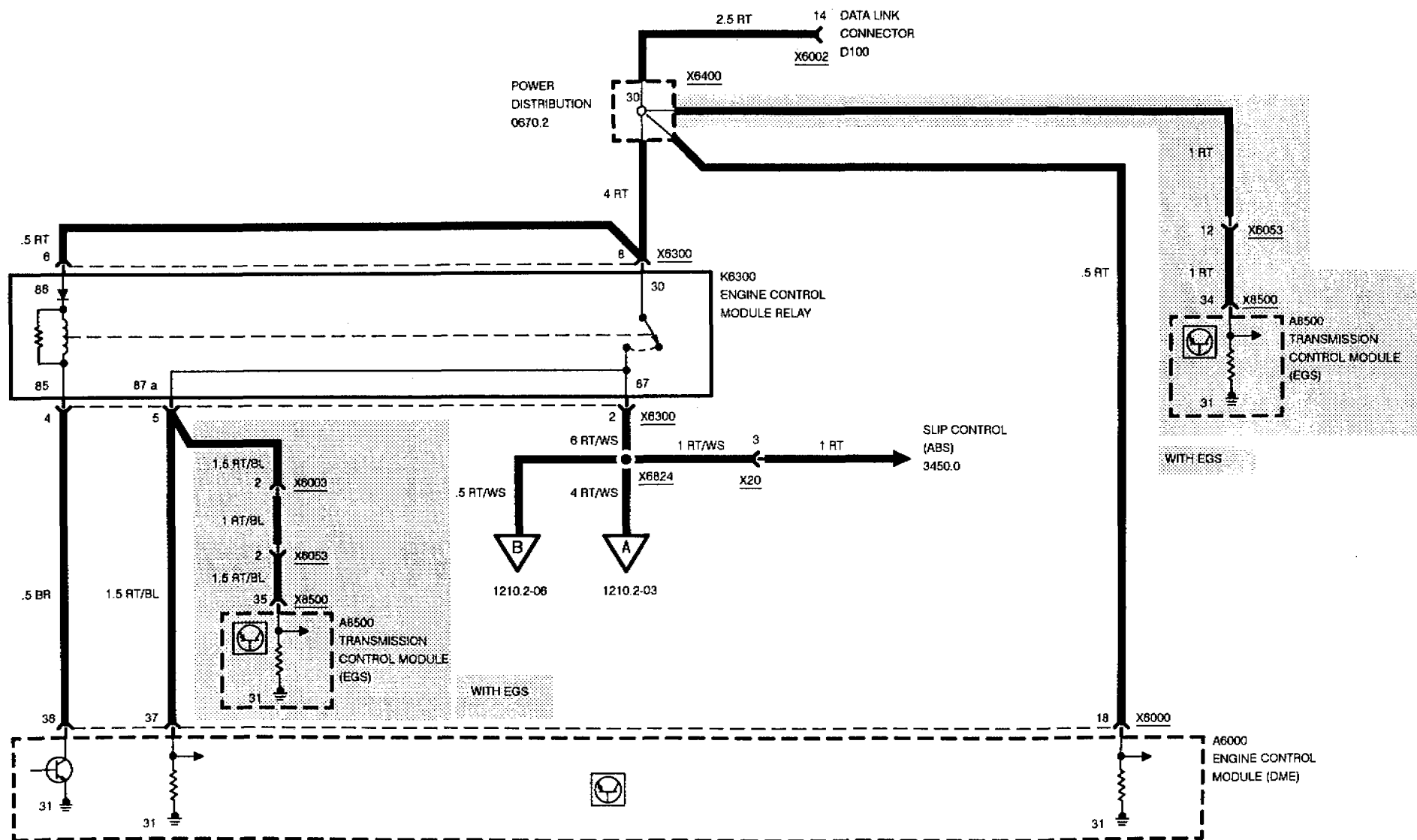


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)





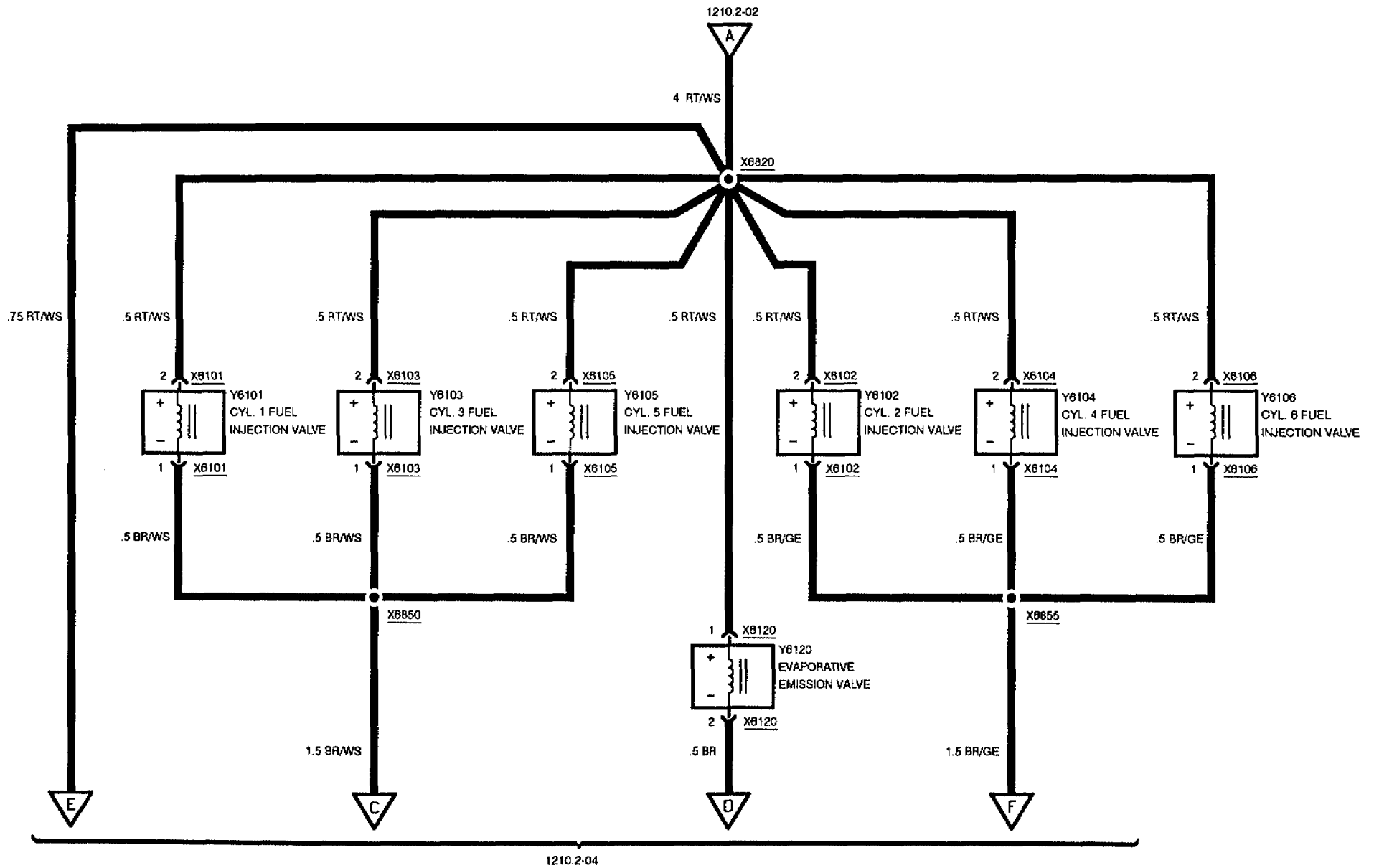
# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)





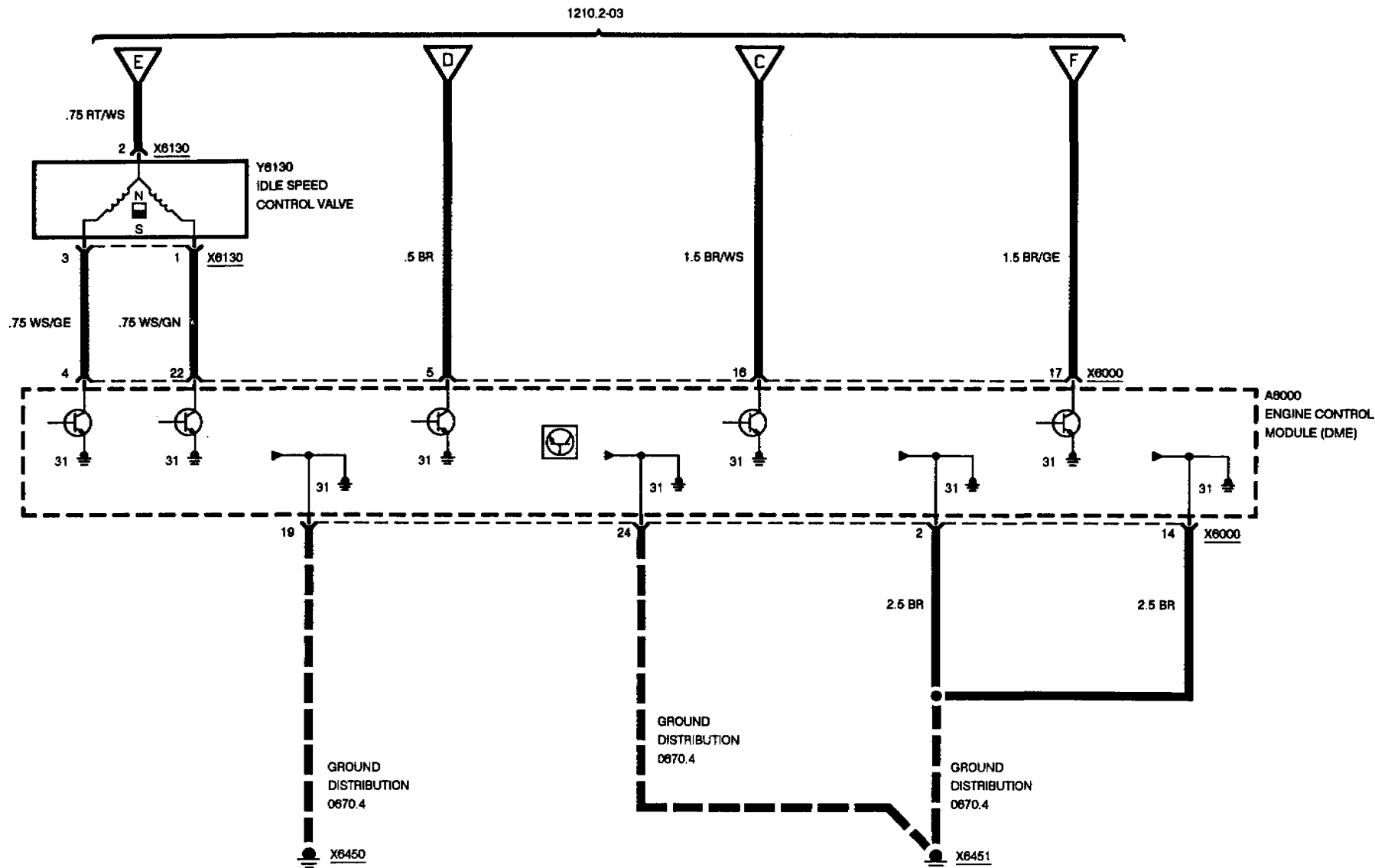
# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)

## FUEL INJECTION VALVES



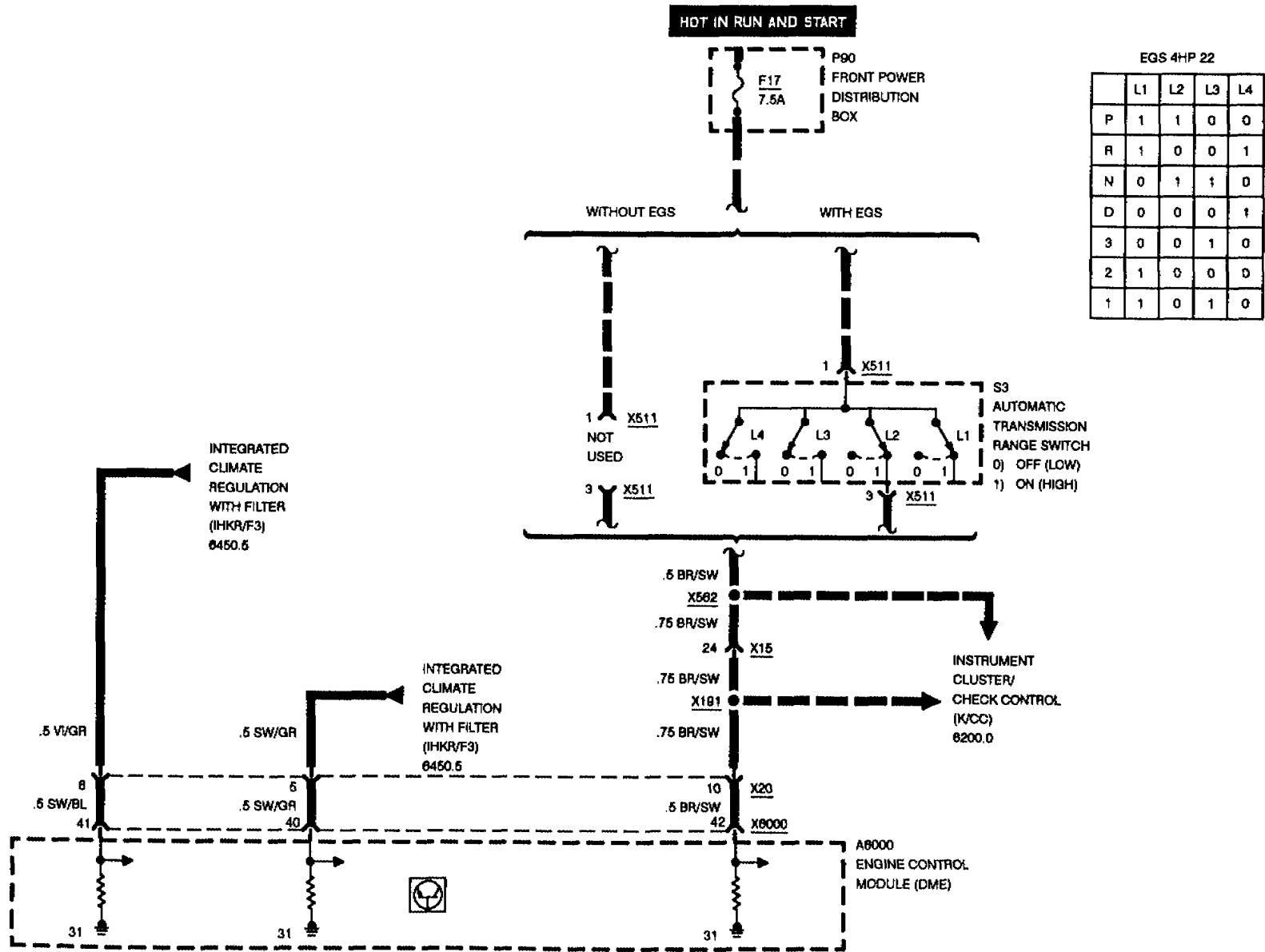


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)





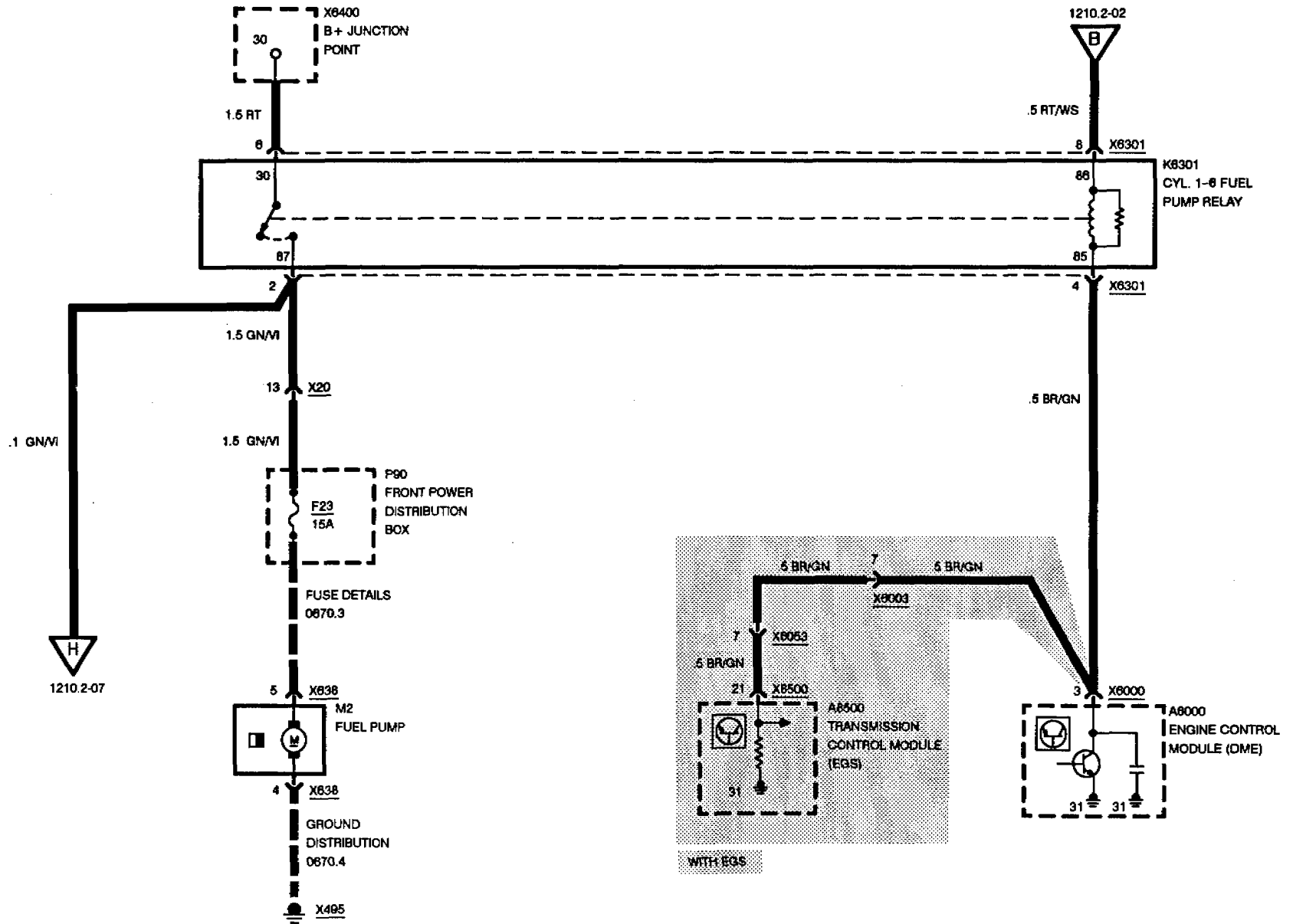
# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)



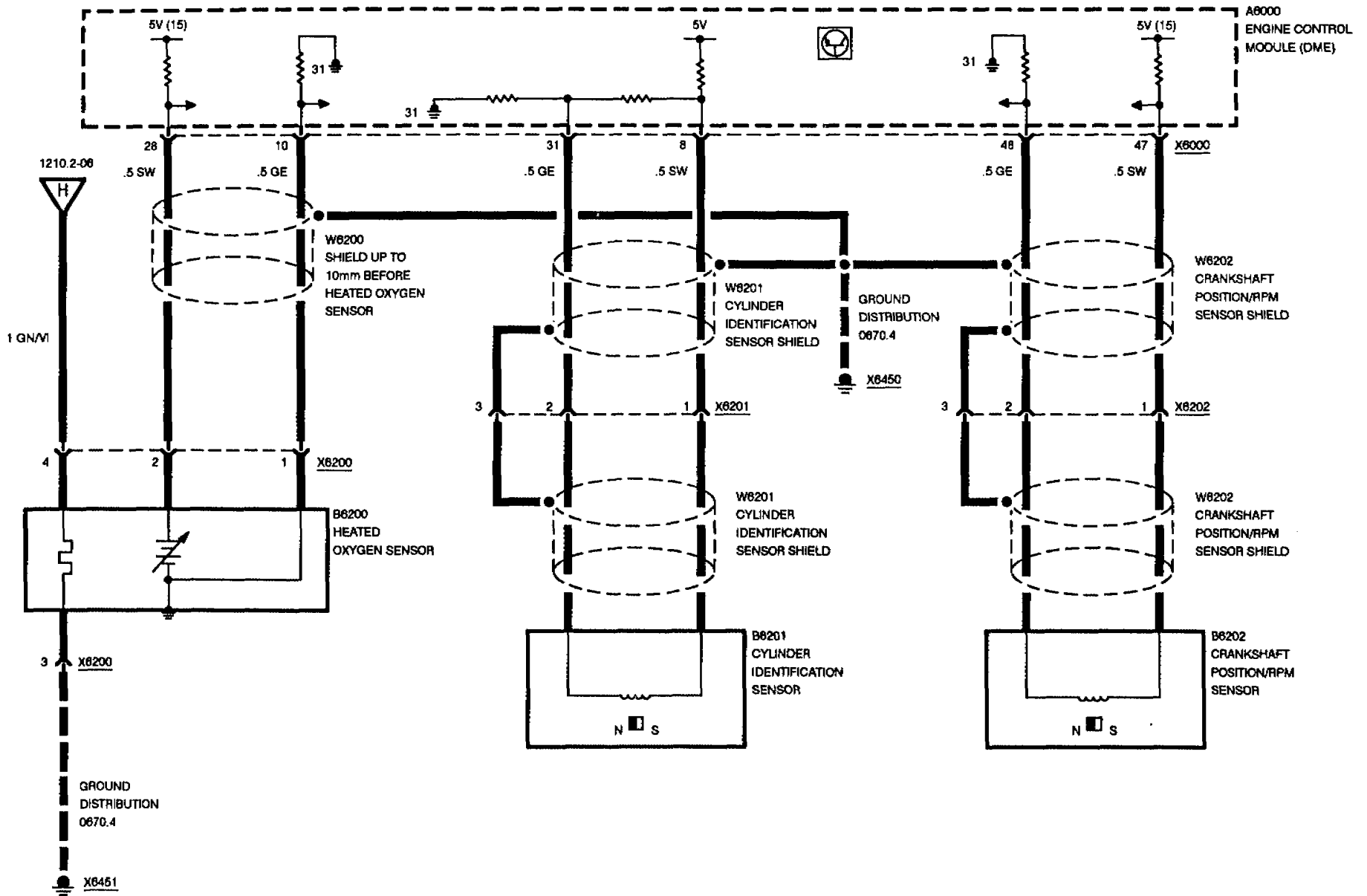




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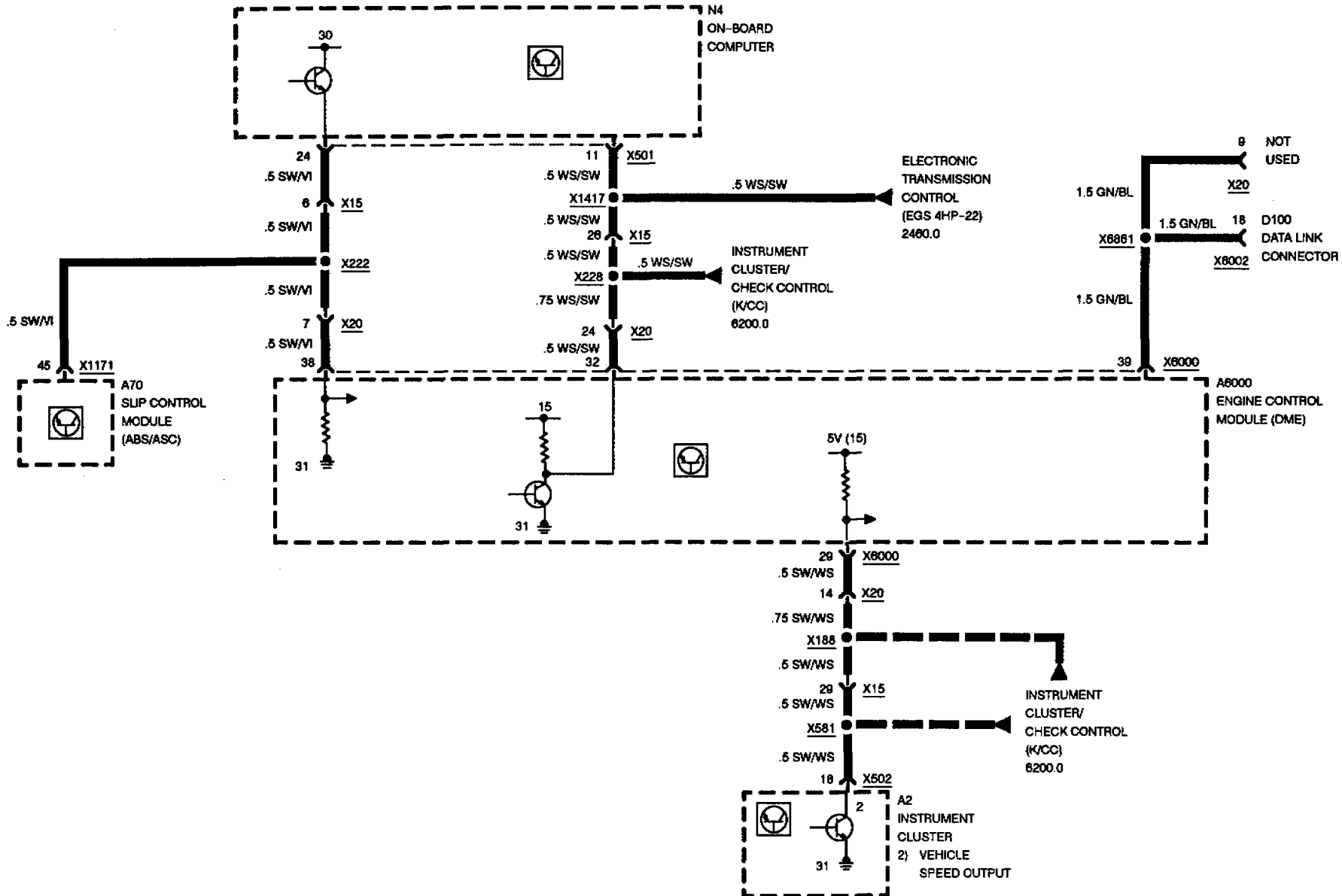


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)

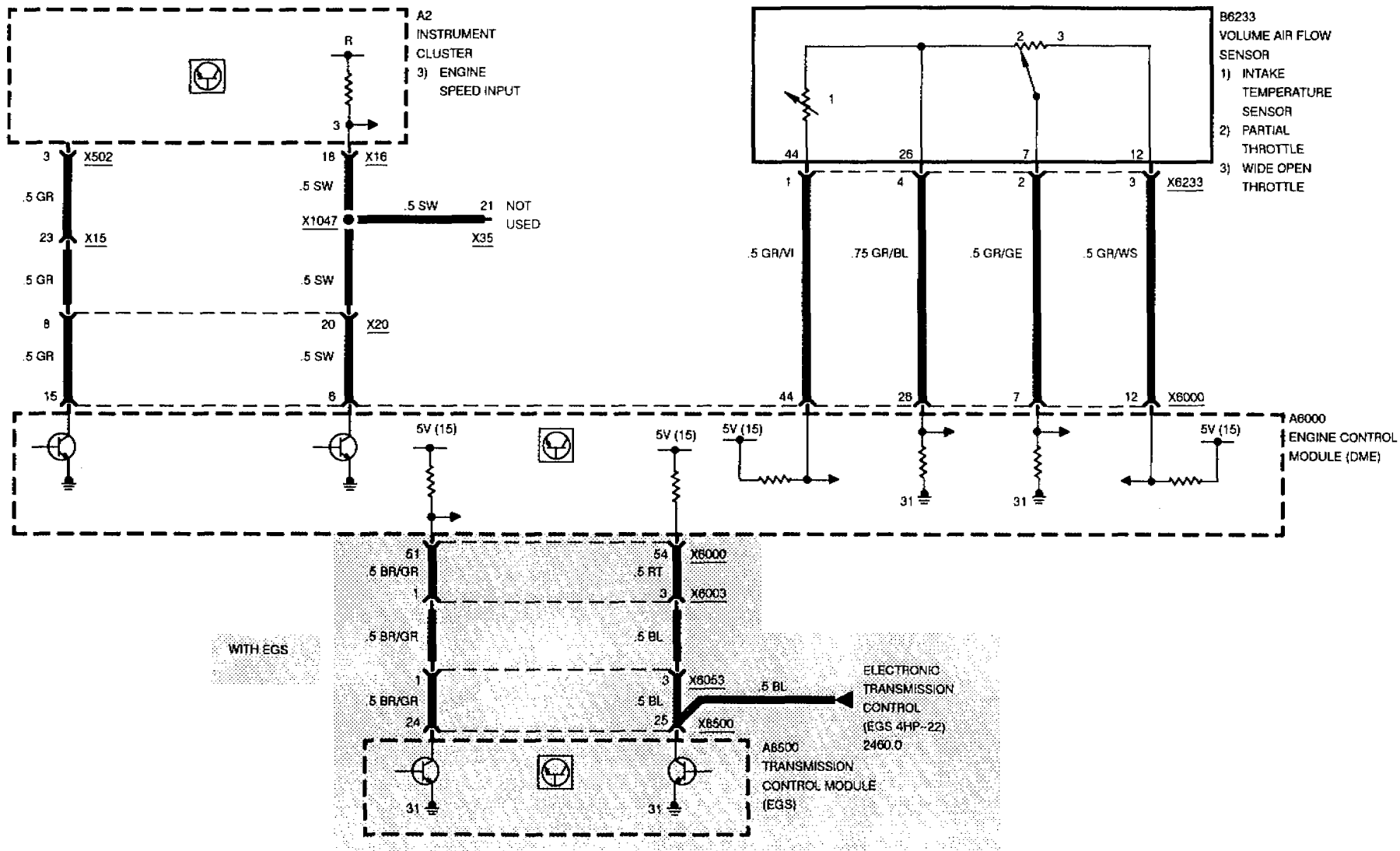




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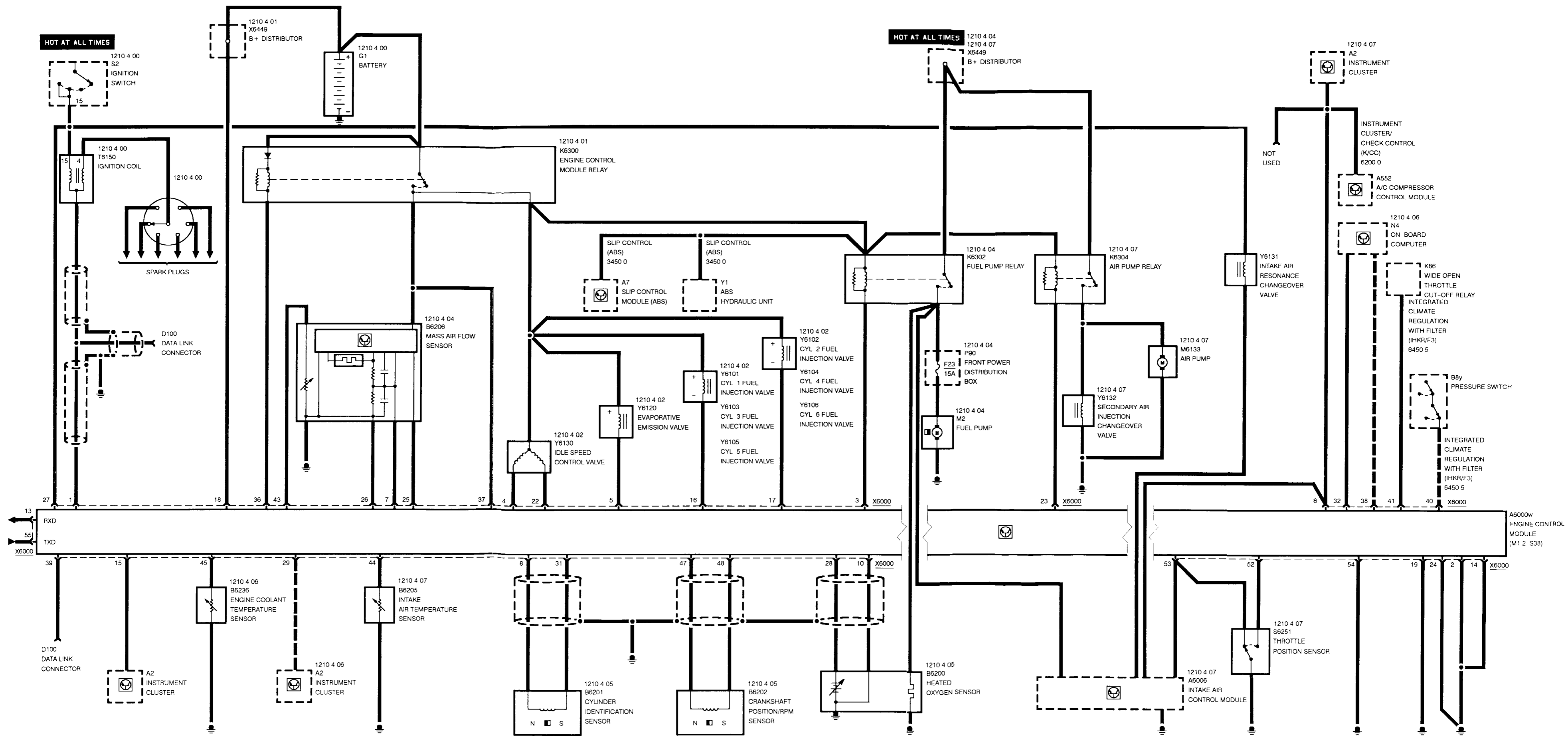


# ENGINE CONTROL SYSTEM (DME M1.3, 6-CYLINDER M30)



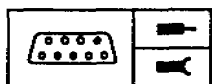
BMW  
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1210.2-10





# DIGITAL ENGINE ELECTRONICS (DME 1.2, 6-CYLINDER S38)



## Pin Assignments

### X6000

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Ignition terminal	Ignition coil	Primary signal	Oscilloscope	Engine test, test step 05
2	M	Ground	Ground point	Ground		
3	A	EKP relay and TR signal (crankshaft reference)	EKP relay and electronic transmission control unit	Ground with superimposed signal	ON	Can only be measured when crankshaft rotating
4	A	Idle speed actuator	Idle speed actuator	Pulsed ground		Component activation
5	A	Evaporative valve	Evaporative valve	Pulsed ground	CLOSED/OPEN	Perform component activation, ground = > closed
6	A	Engine speed signal	Instrument cluster	Square wave signal		One signal per Ignition
7	E	Air flow meter signal	Air mass meter	0...5 V	Load signal ms	See status monitoring
8	E	Cylinder identification sensor (ignition)	Cylinder identification sensor (connection B)		ON/OFF	See status monitoring
9		Not used				
10	M	Ground, oxygen sensor	Oxygen sensor	Ground		
11		Not used				
12		Not used				
13	E	RxD diagnostic data line	Diagnostic socket	> 10 V		When cover of diagnostic connector closed



## DIGITAL ENGINE ELECTRONICS (DME 1.2, 6-CYLINDER S38)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
14	M	Ground, injection valves	Ground point	Ground		
15	A	Indicator "Check engine"	Instrument cluster	Ground		Comes on if emission related error code is stored, and comes on during starting
16	A	Injection valves cyl. (1 + 3 + 5)	Injection valve	Pulsed ground	Injection time ti	Ground = > injector valves open, see component activation
17	A	Injection valves cyl. (2 + 4 + 6)	Injection valve	Pulsed ground	Injection time ti	Ground = > injector valves open, see component activation
18	E	Hot at all times	Terminal 30	> 10 V		
19	M	Ground for electronics and sensor shields	Ground point	Ground		
20		Not used				
21		Not used				
22	A	Idle speed actuator	Idle speed actuator	Pulsed ground		See component activation
23	A	Air pump relay signal	Air pump relay	Ground		Ground = > Air pump on
24	M	Ground remaining output stages (except for ignition and injection valves)	Ground point	Ground		
25	A	Preheating	Air mass meter	Voltage plus for - 0,5 second		Signal stops 4 seconds after engine stops
26	M	Ground air flow meter	Air mass meter	Ground		
27	E	Ignition terminal 15	Ignition switch	> 10 V		





## DIGITAL ENGINE ELECTRONICS (DME 1.2, 6-CYLINDER S38)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
28	E	Oxygen sensor signal	Oxygen sensor	Pulsating voltage up to approx. 1 V	Voltage value	Can only be measured with the engine running at operating temperature
29	E	Vehicle speed sensor	Instrument cluster	Square wave signal	km/h	
30		Not used				
31	E	Cylinder Identification sensor (ignition)	Cylinder Identification sensor (connection A)		ON/OFF	See status monitoring
32	A	ti Measuring signal (KVA signal)	Instrument cluster	Square wave signal	Multimeter function pulse duration	Oscilloscope
33		Not used				
34		Not used				
35		Not used				
36	A	DME main relay	DME main relay terminal 85	Ground	ON	Diagnosis not possible if not fitted, connect jumper at relay terminal 30 and 87
37	E	U-Batt from DME main relay	Main relay terminal 87	U-Batt	Voltage value	Perform status monitoring. Diagnosis not possible if signal not applied. Connect jumper terminal 30 and 87 on relay
38	E	Drive away protection	On-board computer	> 10 V		
39	E	Programming voltage	Diagnostic connector			Only activated for control unit programming
40	E	A/C compressor signal	Pressure switch, compressor relay		ON/OFF	
41	E	Auxiliary fan signal	Full load cutoff relay	12 V	ON/OFF	

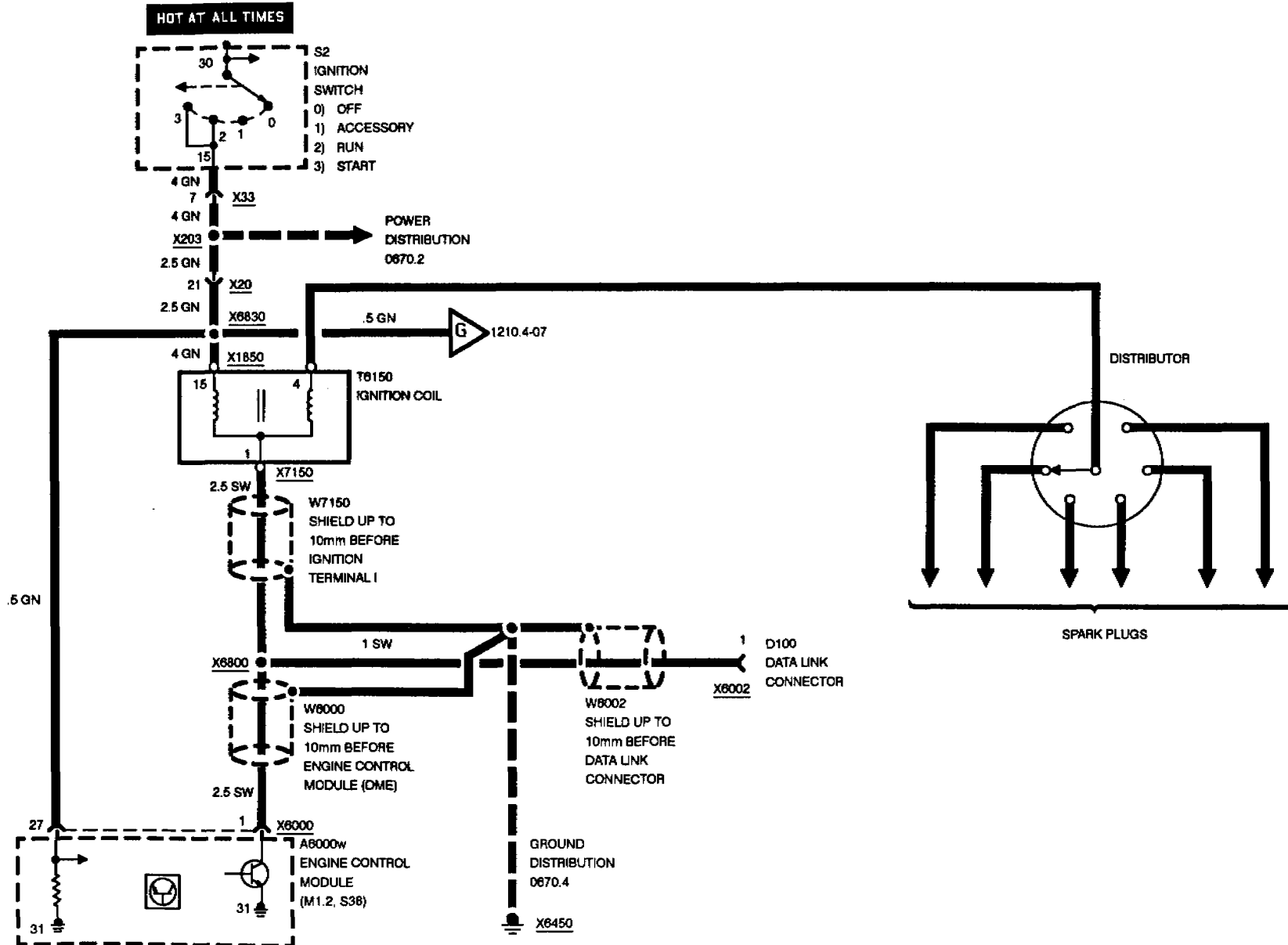


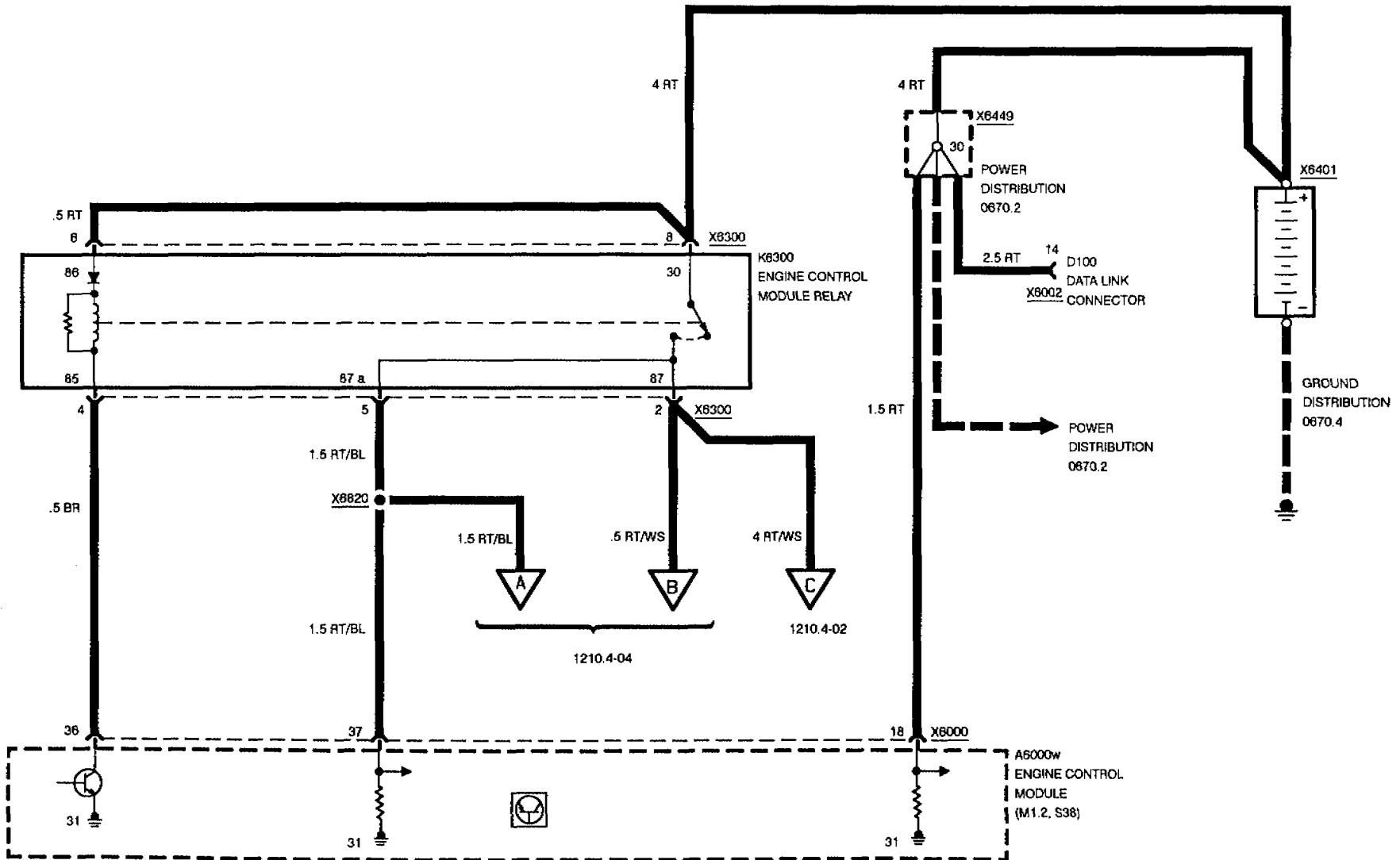
## DIGITAL ENGINE ELECTRONICS (DME 1.2, 6-CYLINDER S38)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
42		Not used				
43	E	Idle CO potentiometer	Air mass meter	0...5 V	Voltage value	
44	E	Intake air temperature	Intake air temperature sensor	0...5 V	°C	Temperature dependent
45	E	Coolant temperature	Coolant temperature sensor	0...5 V	°C	Temperature dependent
46		Not used				
47	E	Inductive pulse generator (connection A)	Pulse generator, engine speed/crankshaft position	A/C voltage	Engine speed	Between Pins 47 and 48 (can only be measured with crankshaft rotation)
48	E	Inductive pulse generator (connection B)	Pulse generator, engine speed/crankshaft position	A/C voltage	Engine speed	Status monitoring at or above starting rpm
49		Not used				
50		Not used				
51		Not used				
52	E	Idle signal	Throttle switch	Ground	ON	See status monitoring on set idle speed
53	E	Full load signal VL	Throttle switch	Ground	ON	At full load (kick-down)
54	E	Coding signal	Fuel coding connector	Ground		
55	E/A	TxD diagnostic data line	Diagnostic socket	Ground		When cover of diagnostic connector closed

BMW  
5

1210.4

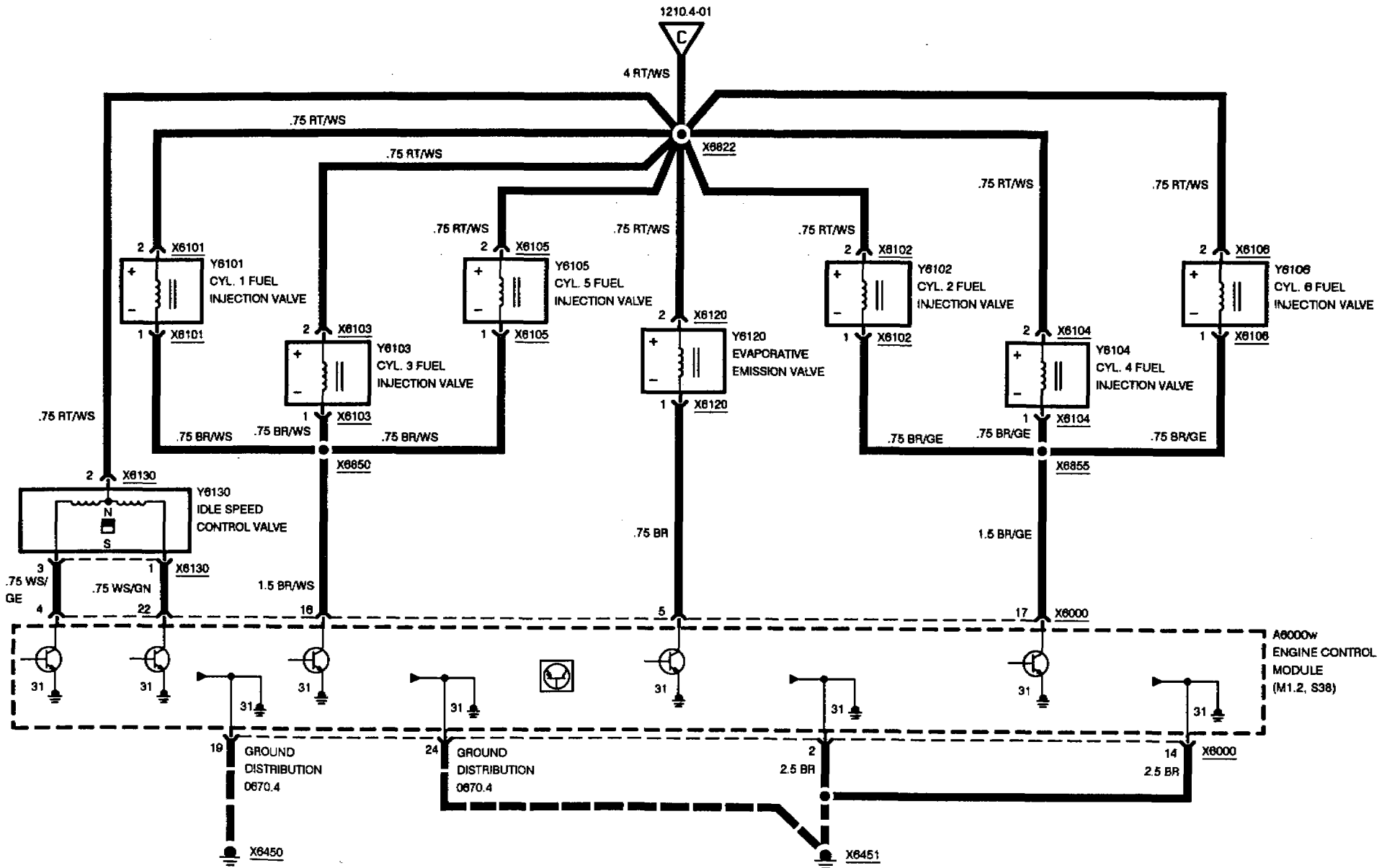






# ENGINE CONTROL SYSTEM (DME M1.2, 6-CYLINDER S38)

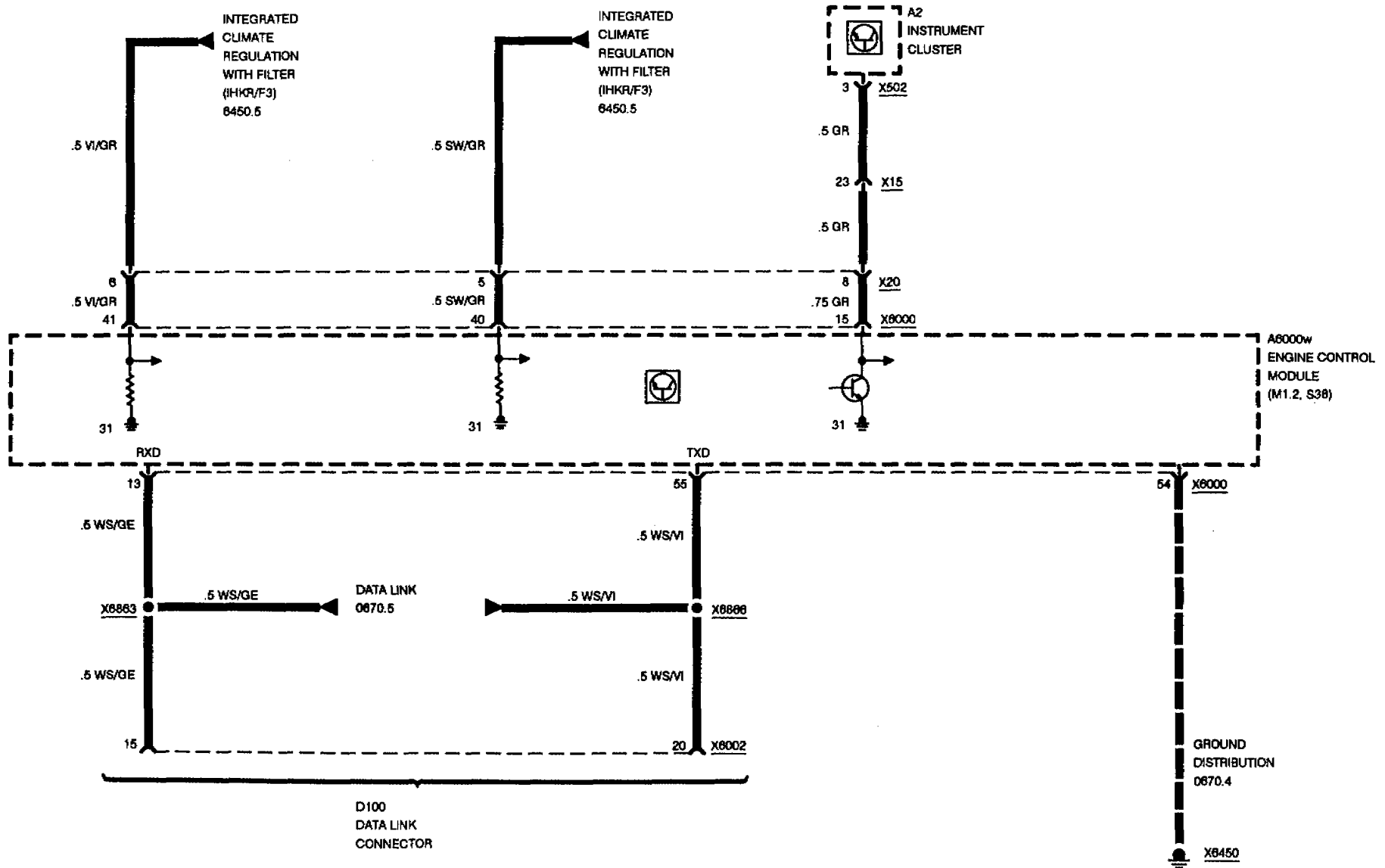
M5





# ENGINE CONTROL SYSTEM (DME M1.2, 6-CYLINDER S38)

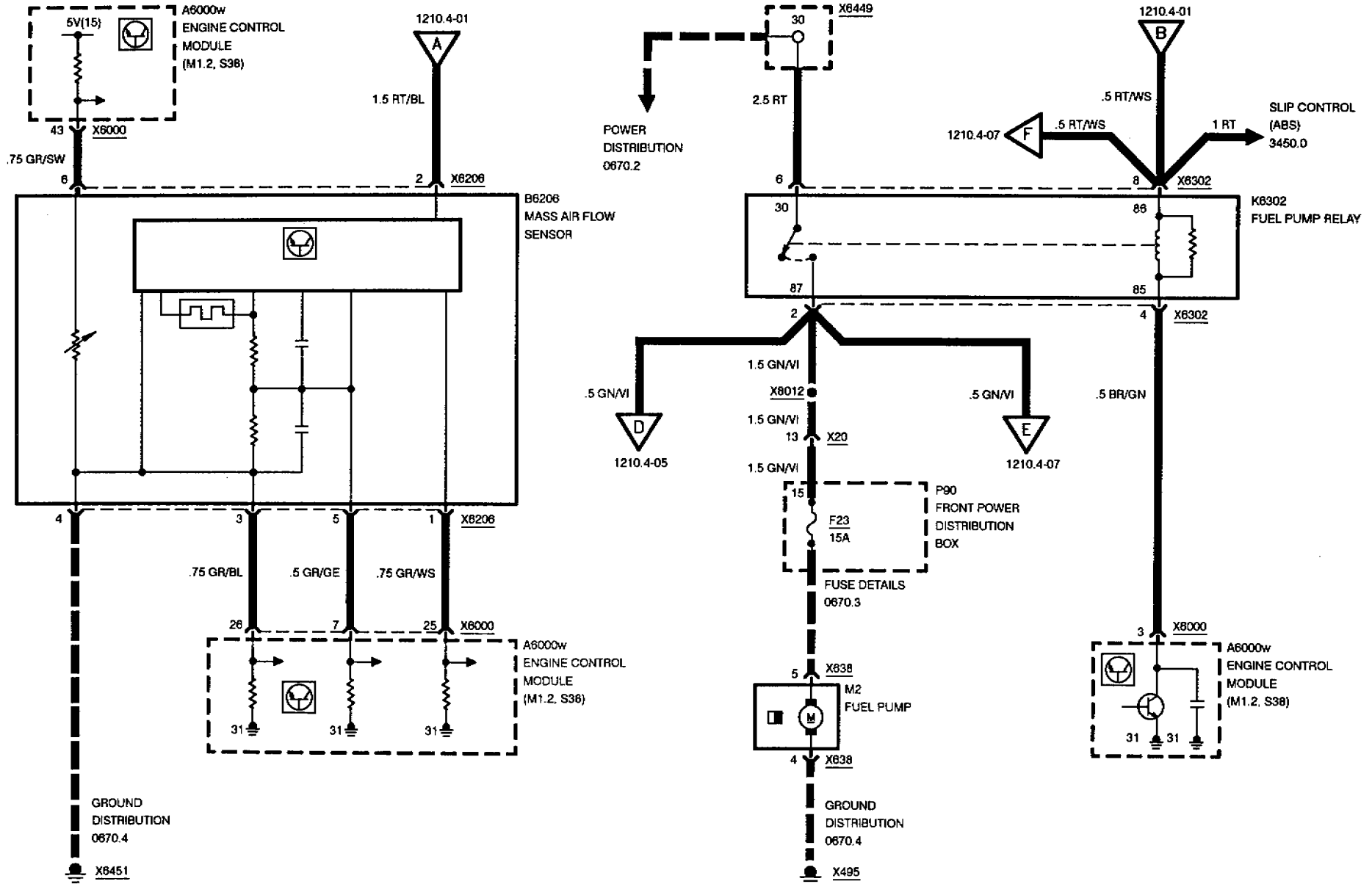
M5



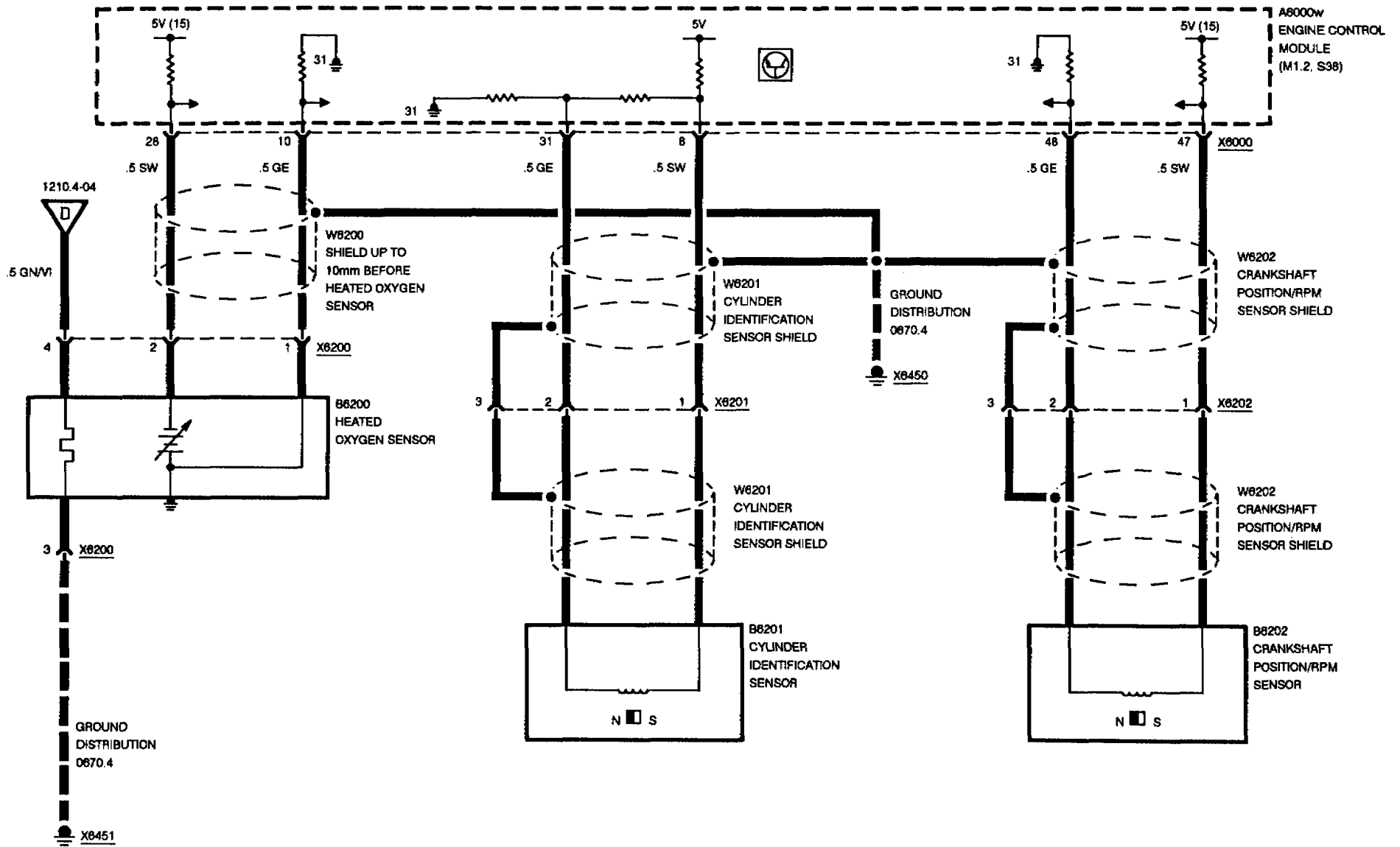
11/92

1210.4-03

1992



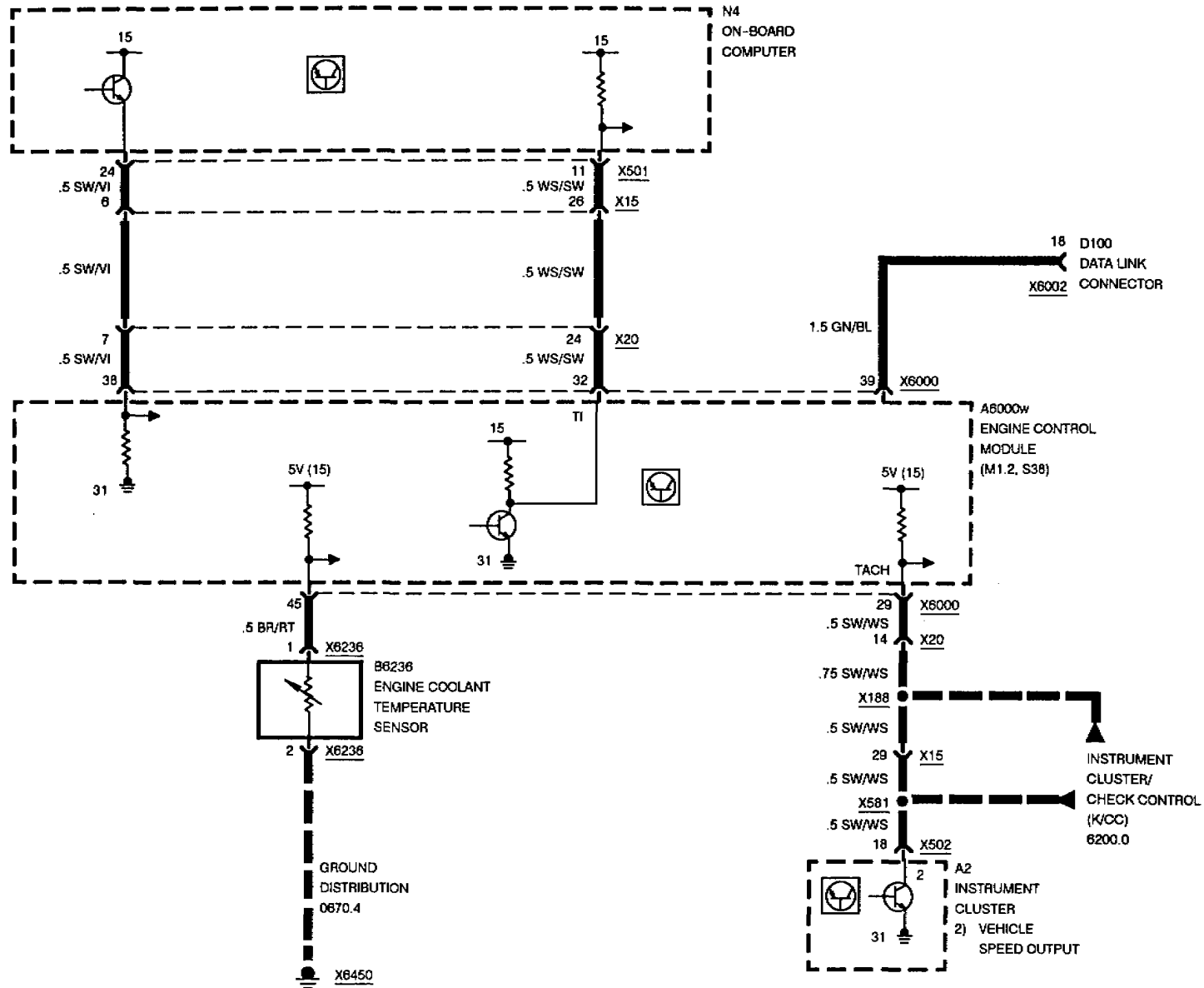


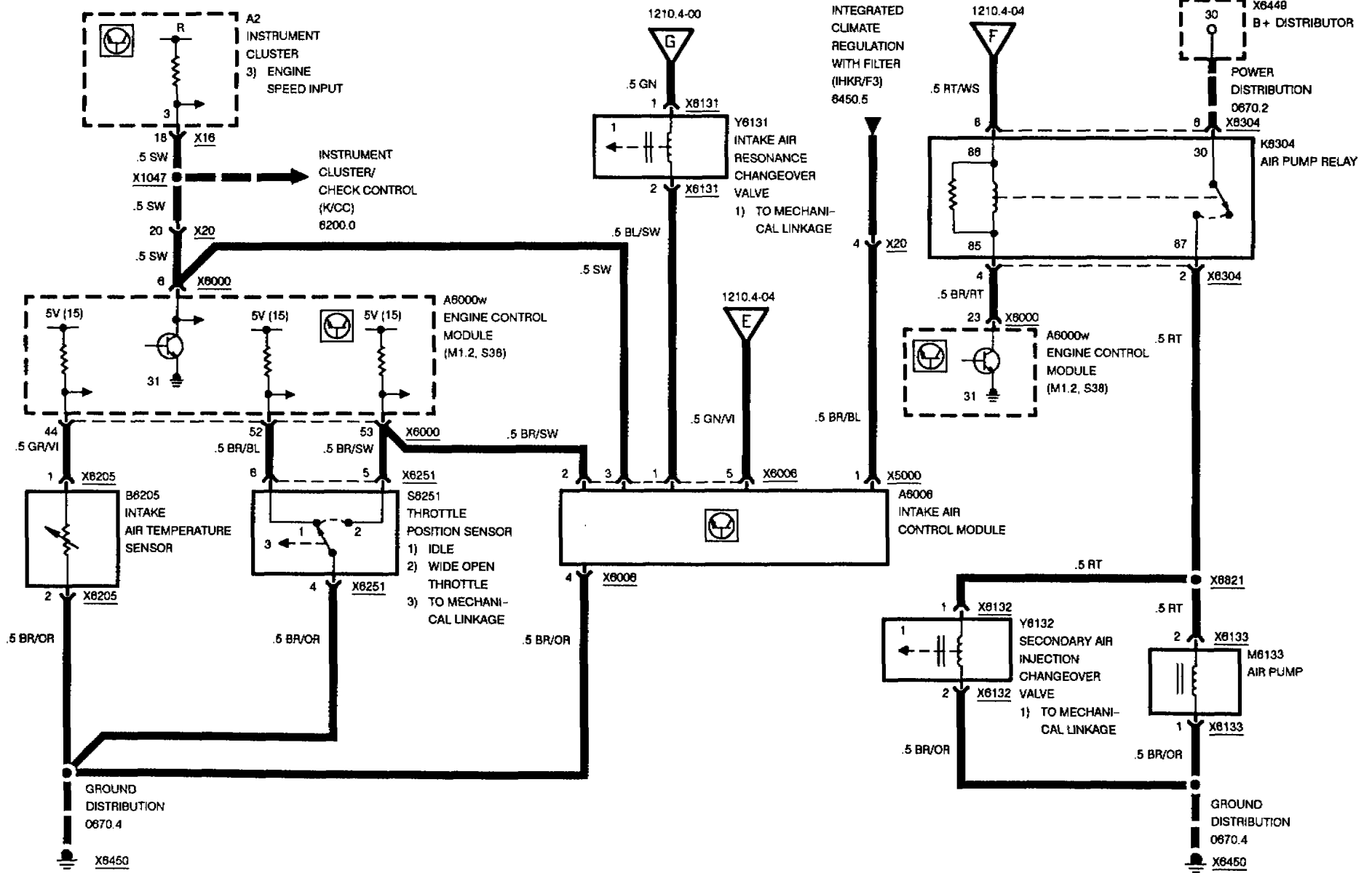




# ENGINE CONTROL SYSTEM (DME M1.2, 6-CYLINDER S38)

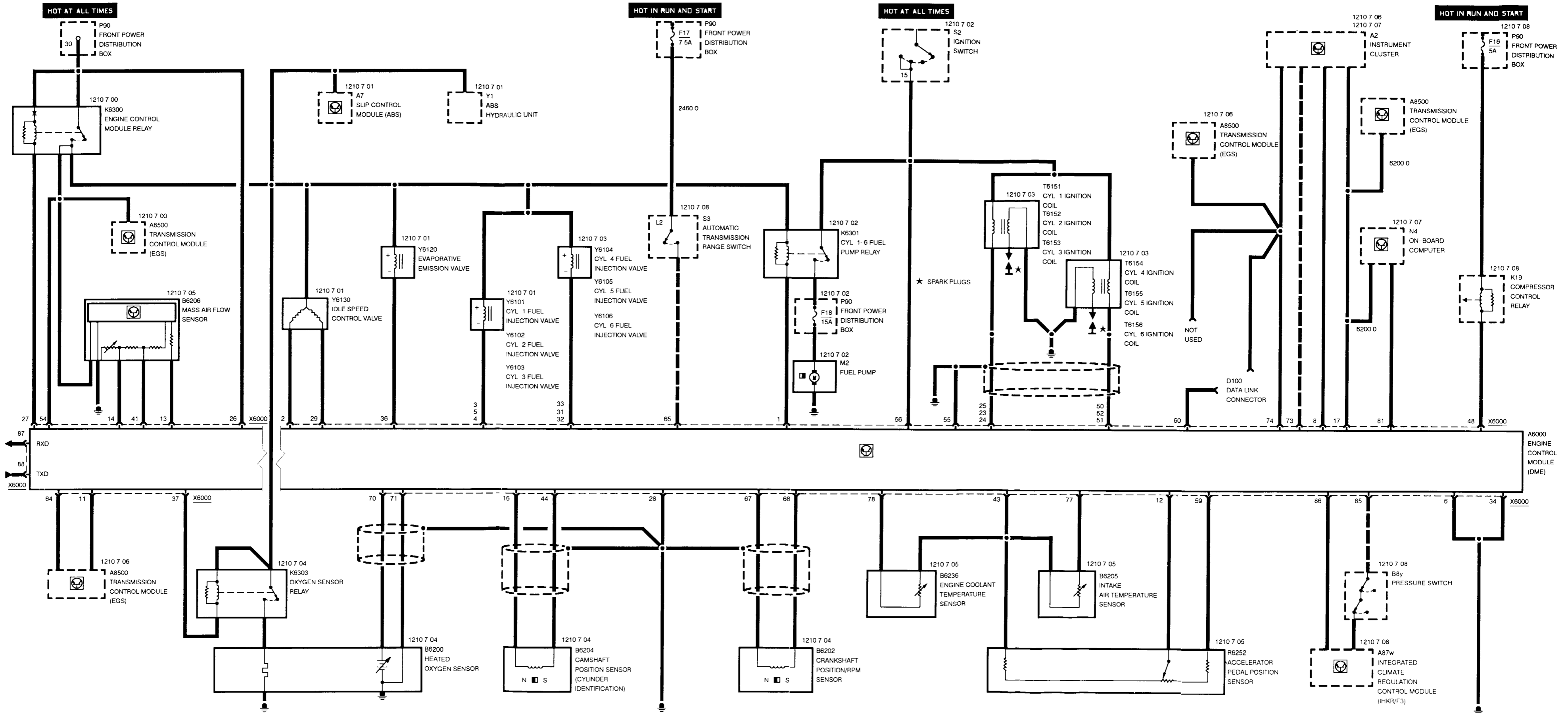
M5





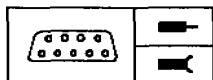
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5

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# DIGITAL ENGINE ELECTRONICS (DME M3.1, 6-CYLINDER M50)



## Pin Assignments

### X6000

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	EKP relay and TR signal (crankshaft reference)	EKP relay and EGS control unit torque converter clutch	Ground with su- per imposed en- gine speed signal	ON	Can only be measured with crankshaft rotating (the EKP relay does not switch if the TR signal is not applied)
2	A	Idle speed actuator	Idle speed actuator	Pulsed ground		See status monitoring
3	A	Injection valve cyl. 1	Injection valve (EV) 1	Pulsed ground	Injection time ti	Ground = > injector valve open, see component acti- vation
4	A	Injection valve cyl. 3	Injection valve (EV) 3	Pulsed ground	Injection time ti	Ground = > injector valve open, see component acti- vation
5	A	Injection valve cyl. 2	Injection valve (EV) 2	Pulsed ground	Injection time ti	Ground = > injector valve open, see component acti- vation
6	M	Ground, EV output stages	Ground point	Ground		
7		Not used				
8	A	Defect lamp (US only)	Instrument cluster	Ground		Comes on if emission related error code is stored, and comes on during starting
9		Not used				



## DIGITAL ENGINE ELECTRONICS (DME M3.1, 6-CYLINDER M50)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
10		Not used				
11	A	Throttle valve position	EGS control unit	Pulsedwidth modulated	Voltage value	Depends on throttle valve position, oscilloscope
12	E	Throttle valve potentiometer	Throttle valve potentiometer	0.4-4.2V	Voltage value	Depends on throttle valve position
13	A	Preheating	Air mass meter	Voltage increase for approx. 0.5 sec		Signal stops 4 sec after engine stop
14	M	Ground, air mass meter	Air mass meter	Ground		
15		Not used				
16	E	Cylinder reference signal (ignition)	Cylinder reference sensor (connection B)	A/C voltage	Oscilloscope	One signal per camshaft revolution
17	A	ti measuring signal (KVA signal, fuel consumption signal)	Instrument cluster	Square wave signal	Multimeter function Pulse duration	Oscilloscope
18		Not used				
19		Not used				
20		Not used				
21		Not used				
22		Not used				
25	A	Ignition terminal 1	Ignition coil 2	Primary signal	Oscilloscope	Engine test, test step 05
25	A	Ignition terminal 1	Ignition coil 3	Primary signal	Oscilloscope	Engine test, test step 05
25	A	Ignition terminal 1	Ignition coil 1	Primary signal	Oscilloscope	Engine test, test step 05
26	E	Steady voltage, terminal 30	B + terminal point	> 10 V		Diagnosis not possible if not fitted



## DIGITAL ENGINE ELECTRONICS (DME M3.1, 6-CYLINDER M50)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
27	A	DME main relay	DME main relay terminal 85	Ground	ON	Diagnosis not possible if not fitted - connect jumper at relay terminal 30 and 87
28	M	Ground for electronics and shielding the sensors	Ground point	Ground		
29	A	Idle speed actuator	Idle speed actuator	Pulsed ground		Component activation
30		Not used				
31	A	Injection valve cyl. 5	Injection valve	Pulsed ground	Injection time ti	Ground => Injector valves open, see component activation
32	A	Injection valve cyl. 6	Injection valve	Pulsed ground	Injection time ti	Ground => Injector valves open, see component activation
33	A	Injection valve cyl. 4	Injection valve	Pulsed ground	Injection time ti	Ground => Injector valves open, see component activation
34	M	Ground, remaining output stages (except for ignition and EV)	Ground point	Ground		
35		Not used				
36	A	Fuel evaporation control valve	TE valve	Pulsed ground	CLOSED/OPEN	Perform component activation, ground => closed
37	A	Oxygen sensor heating	Oxygen sensor relay	Ground	ON	Ground => Heating activated
38		Not used				
39		Not used				
40		Not used				
41	E	Signal air mass meter	Hot wire air mass meter	0...5 V	Load signal in ms	See status monitoring





## DIGITAL ENGINE ELECTRONICS (DME M3.1, 6-CYLINDER M50)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
42		Not used				
43	M	Ground for sensors	Temperature sensor	Ground		
44	E	Cylinder reference signal (ignition)	Cylinder reference sensor (connection A)	A/C voltage	Oscilloscope	One signal per camshaft revolution
45		Not used				
46		Not used				
47		Not used				
48	A	A/C compressor control	Compressor control relay	Ground		Ground => Compressor OFF
49		Not used				
50	A	Ignition terminal 1	Ignition coil 4	Primary signal	Oscilloscope	Engine test, test step 05
51	A	Ignition terminal 1	Ignition coil 6	Primary signal	Oscilloscope	Engine test, test step 05
52	A	Ignition terminal 1	Ignition coil 5	Primary signal	Oscilloscope	Engine test, test step 05
53		Not used				
54	E	> 10 V from DME main relay	Main relay terminal 87	> 10 V	Voltage value	Perform status monitoring. Diagnosis not possible if signal not applied - connect jumper terminal 30 and 87 on relay
55	M	Ground, ignition	Ground point	Ground		
56	E	Ignition terminal 15	Ignition switch	> 10 V		
57		Not used				
58		Not used				
59	A	Component voltage	Throttle potentiometer	5 V		
60	E	Programming voltage	Diagnostic connector			Only activated for control unit programming



## DIGITAL ENGINE ELECTRONICS (DME M3.1, 6-CYLINDER M50)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
61		Not used				
62		Not used				
63		Not used				
64	E	Ignition timing intervention	EGS control unit	Ground	ON	Only active during gearshift
65	E	Drive range P/N switch	Transmission selector lever	Ground	ON	When position P/N
66		Not used				
67	E	Inductive pulse generator (connection B)	Pulse generator Engine speed/position	A/C voltage	Engine speed	Between Pins 67 and 68 (can only be measured with crankshaft rotating)
68	E	Inductive pulse generator (connection A)	Pulse generator Engine speed/position	A/C voltage	Engine speed	Between Pins 67 and 68 (can only be measured with crankshaft rotating)
69		Not used				
70	E	Oxygen sensor signal	Oxygen sensor	Pulsating voltage up to approx. 1 V	Voltage value	Can only be measured with engine running at operating temperature
71	M	Ground oxygen sensor	Oxygen sensor	Ground		
72		Not used				
73	E	Road speed signal	Instrument cluster	Square wave signal	km/h	Status monitoring
74		Engine speed signal TD	Instrument cluster	Square wave signal		One signal per ignition
75		Not used				
76		Not used				
77	E	Intake air temperature	Intake air temperature sensor	0...5 V	°C	Temperature-dependent



## DIGITAL ENGINE ELECTRONICS (DME M3.1, 6-CYLINDER M50)

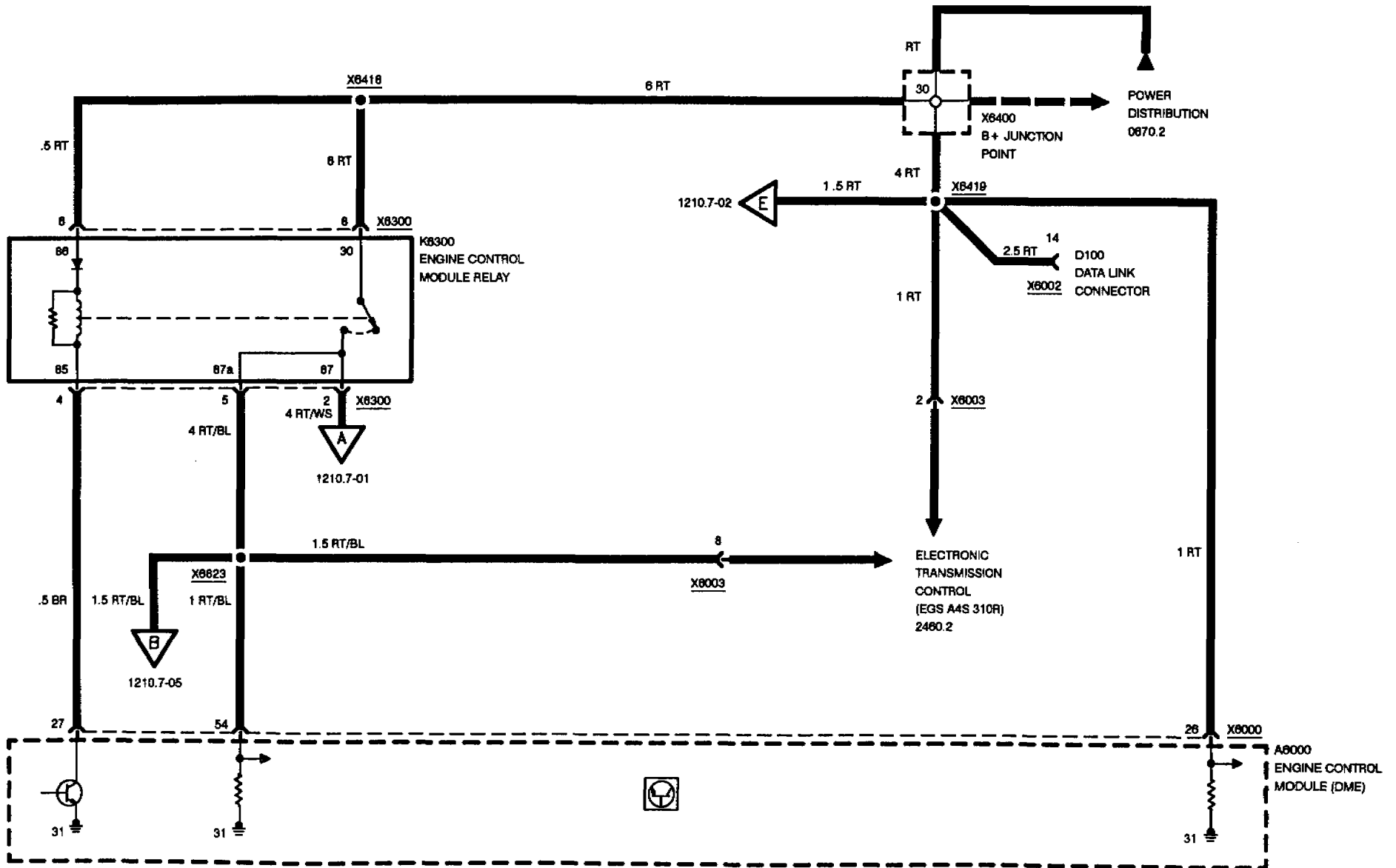
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
78	E	Engine temperature	Engine temperature sensor	0...5 V	°C	Temperature-dependent
79		Not used				
80		Not used				
81	E	Drive-away protection	On-board computer	> 10 V		
82		Not used				
83		Not used				
84		Not used				
85	E	Pressure signal	Pressure switch			
86	E	Compressor signal	IHKR control unit			
87	E	RxD diagnostic data line	Diagnostic connector	> 10 V		When cover of diagnostic connector closed
88	E/A	TxD diagnostic data line	Diagnostic connector	Ground		When cover of diagnostic connector closed

BMW  
5

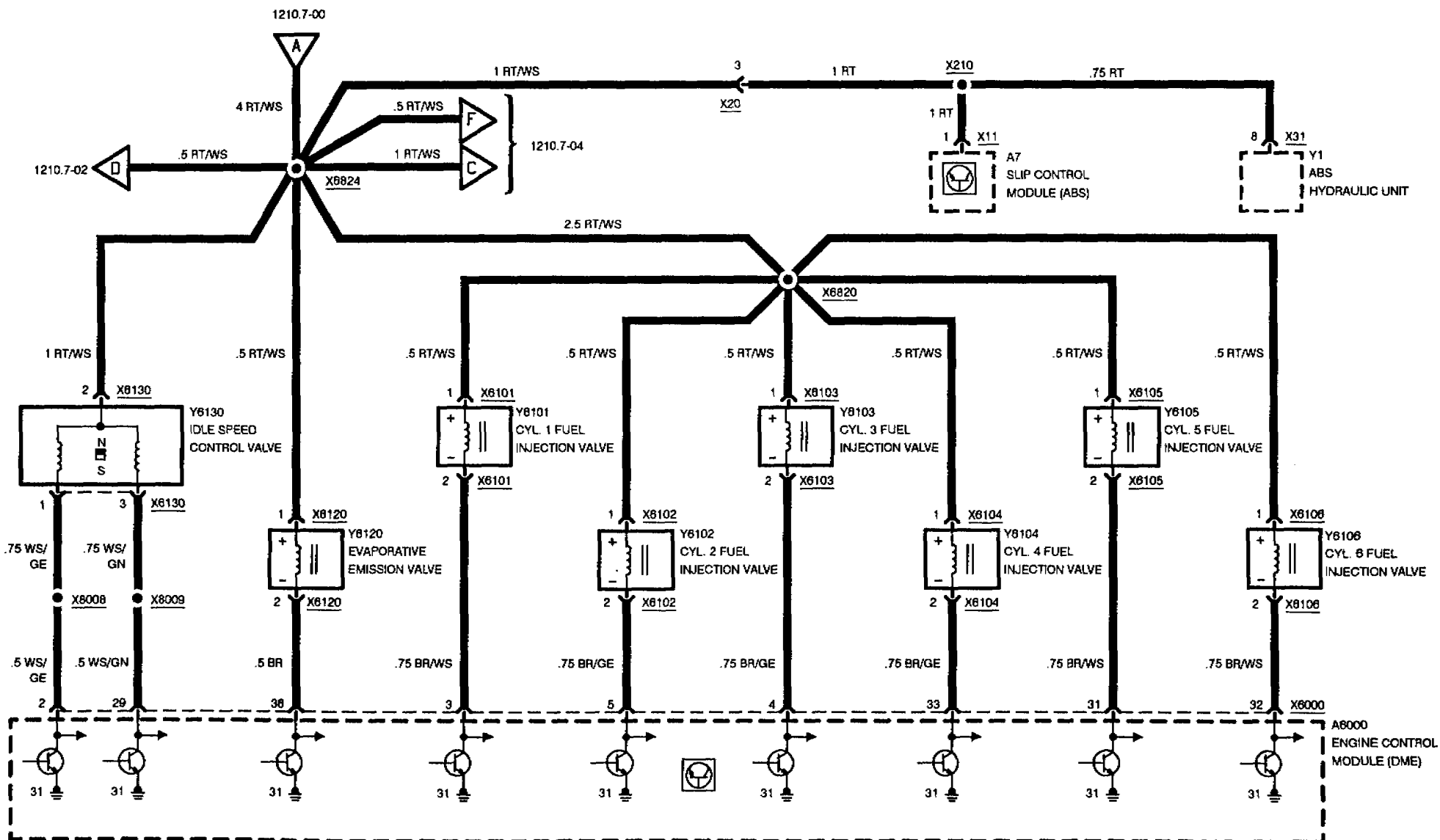
1210.7



# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50) POWER

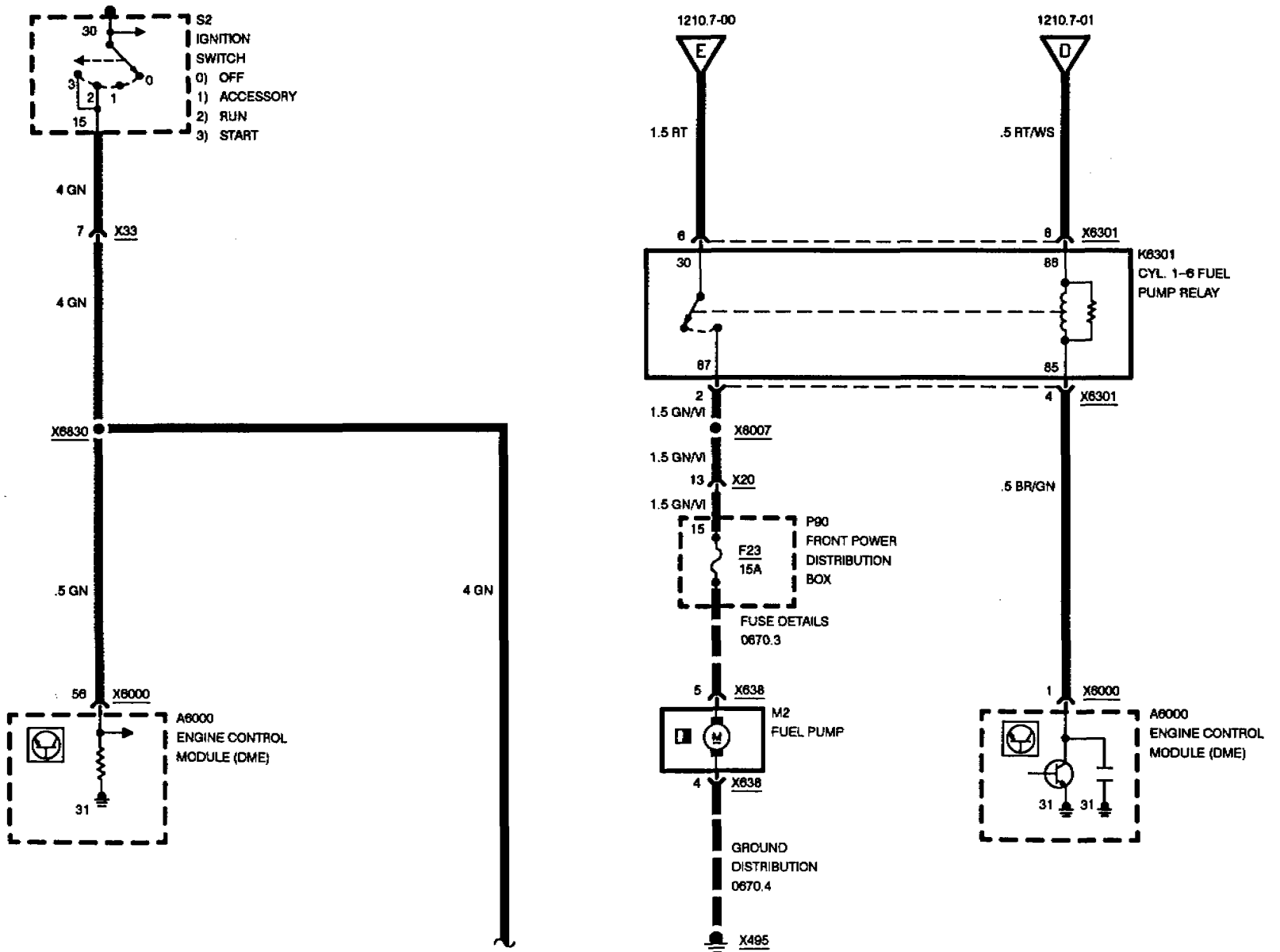


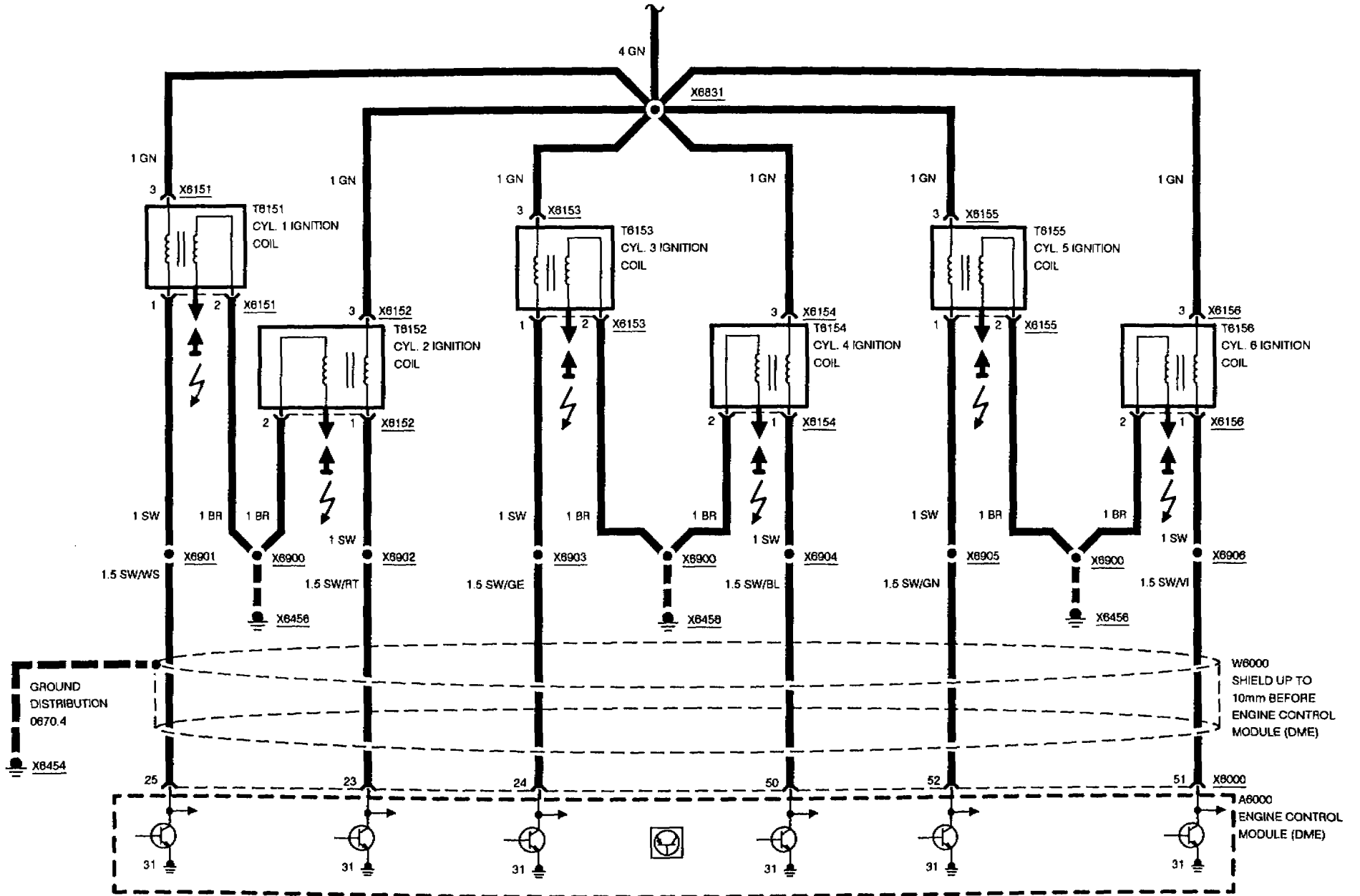
# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)





# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)

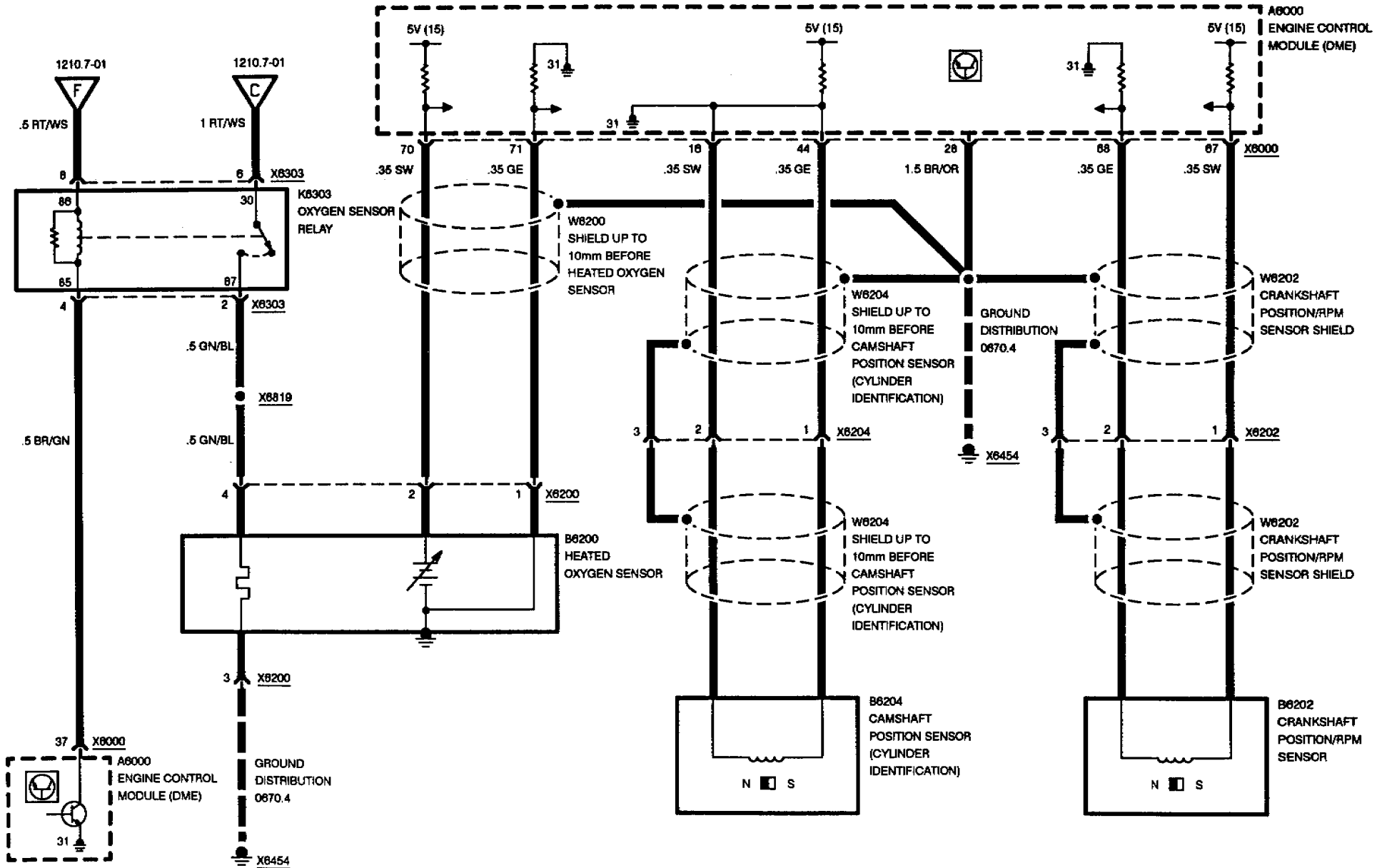




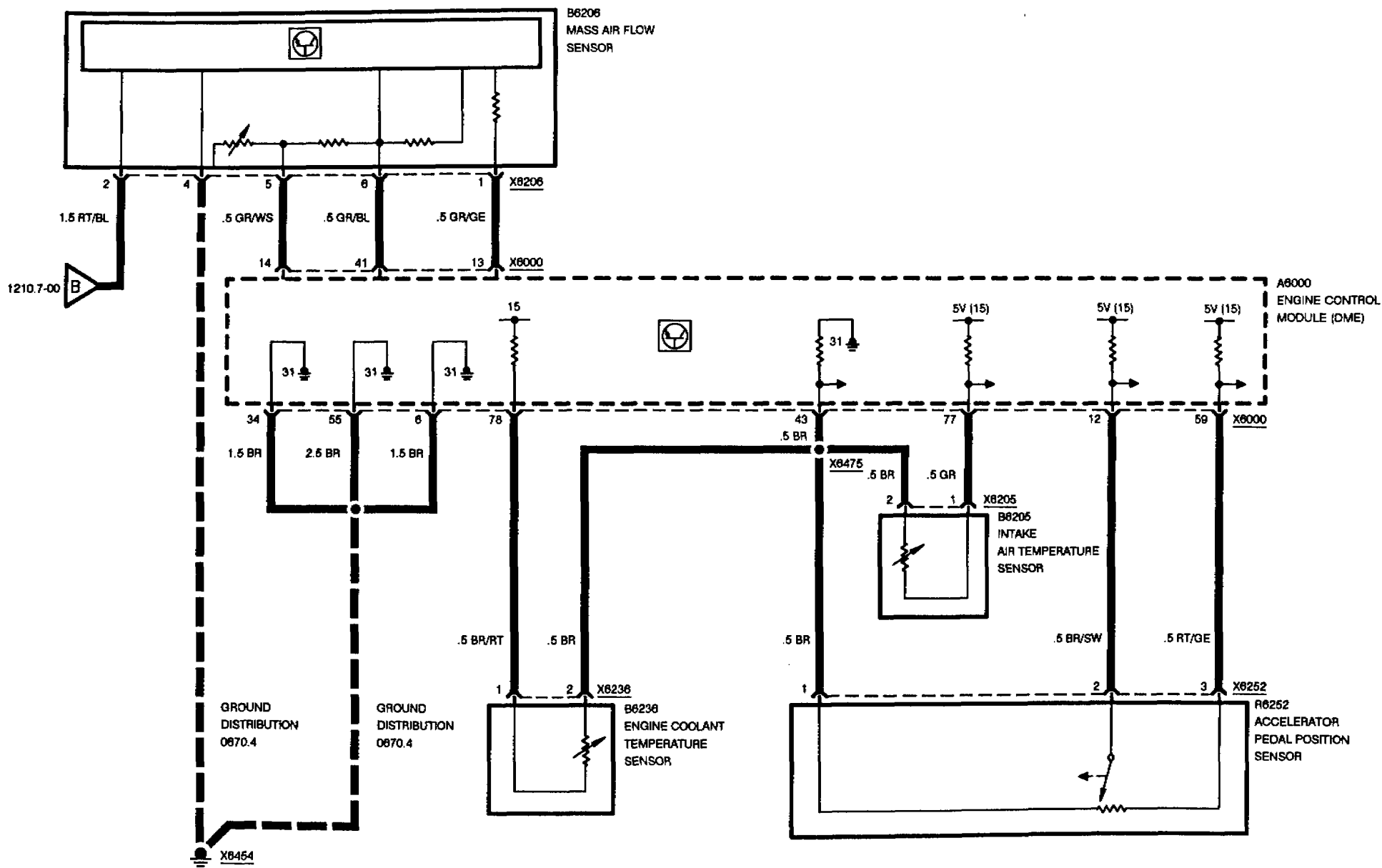




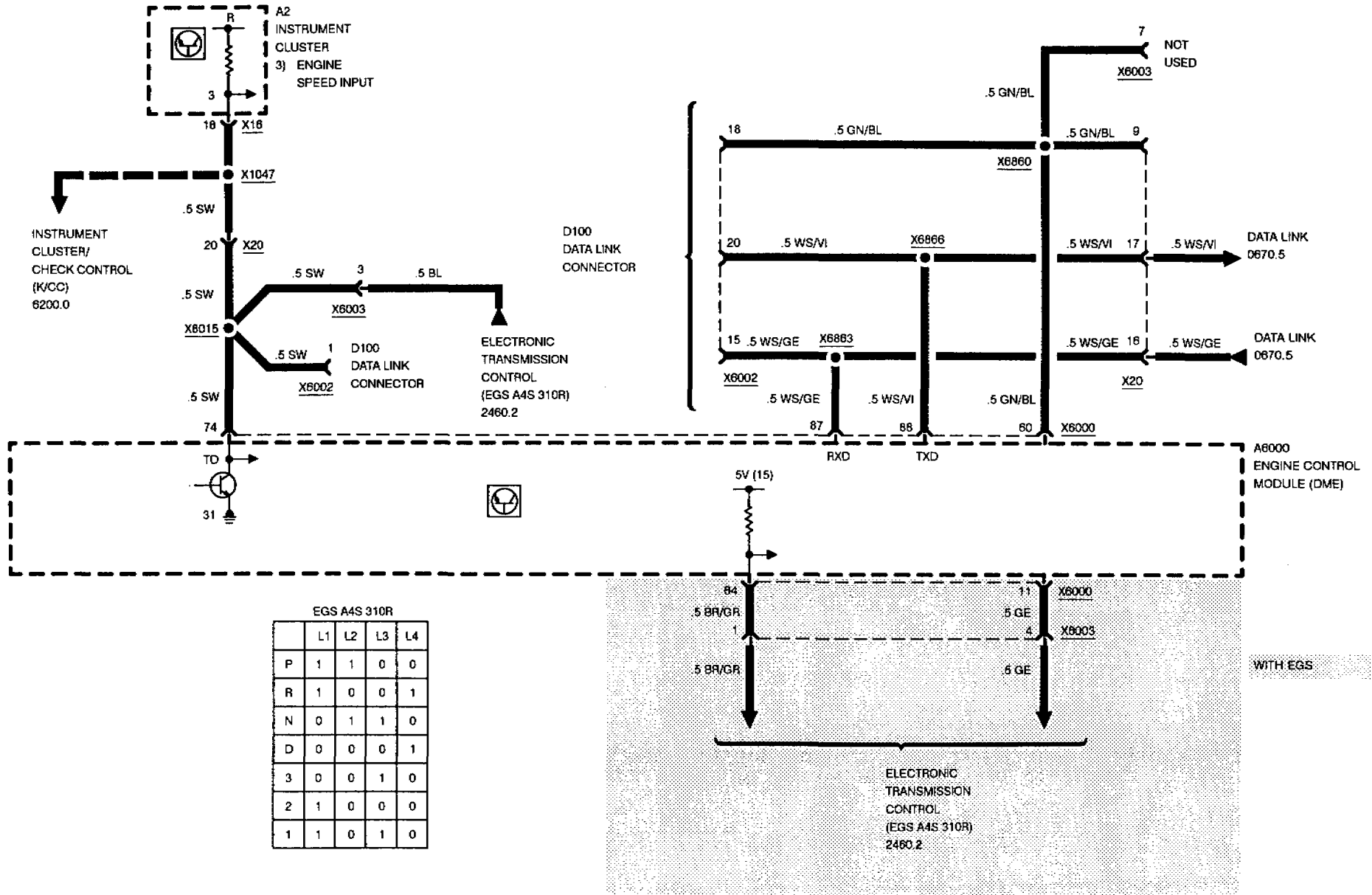
# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)



# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)

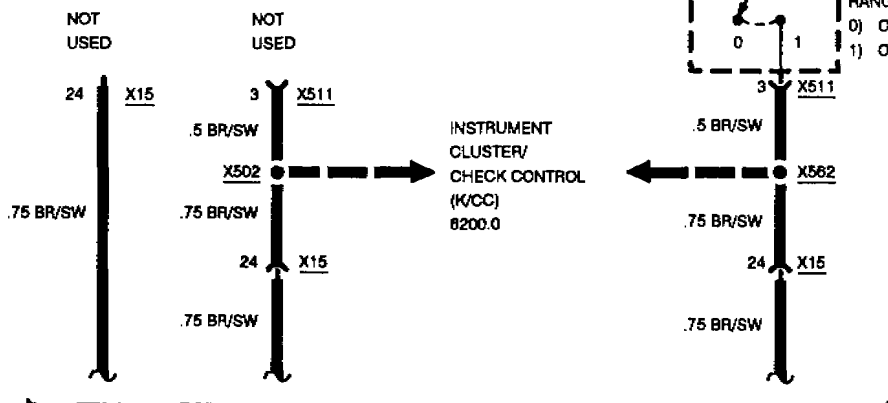
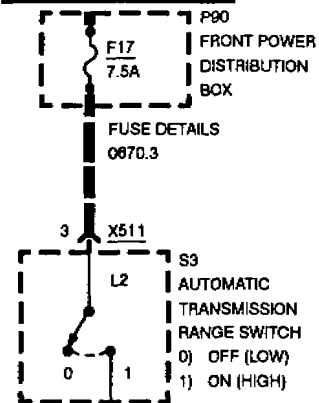


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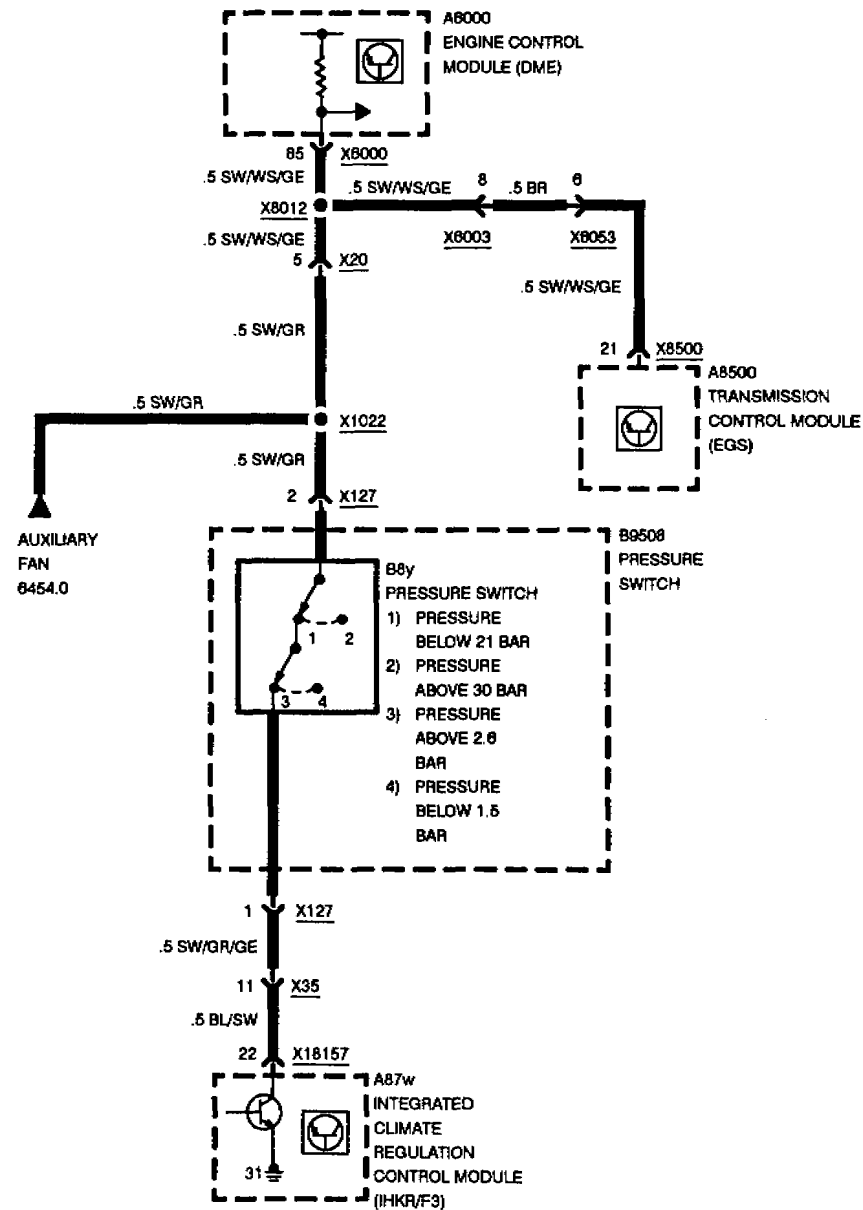
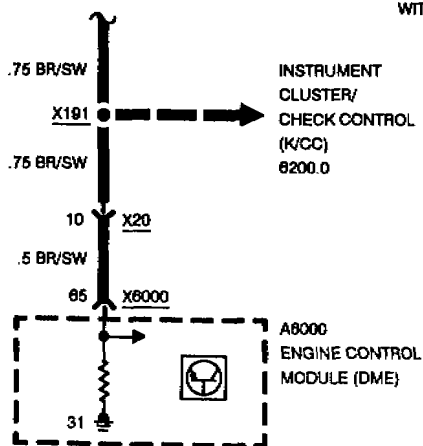


# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)

**HOT IN RUN AND START**

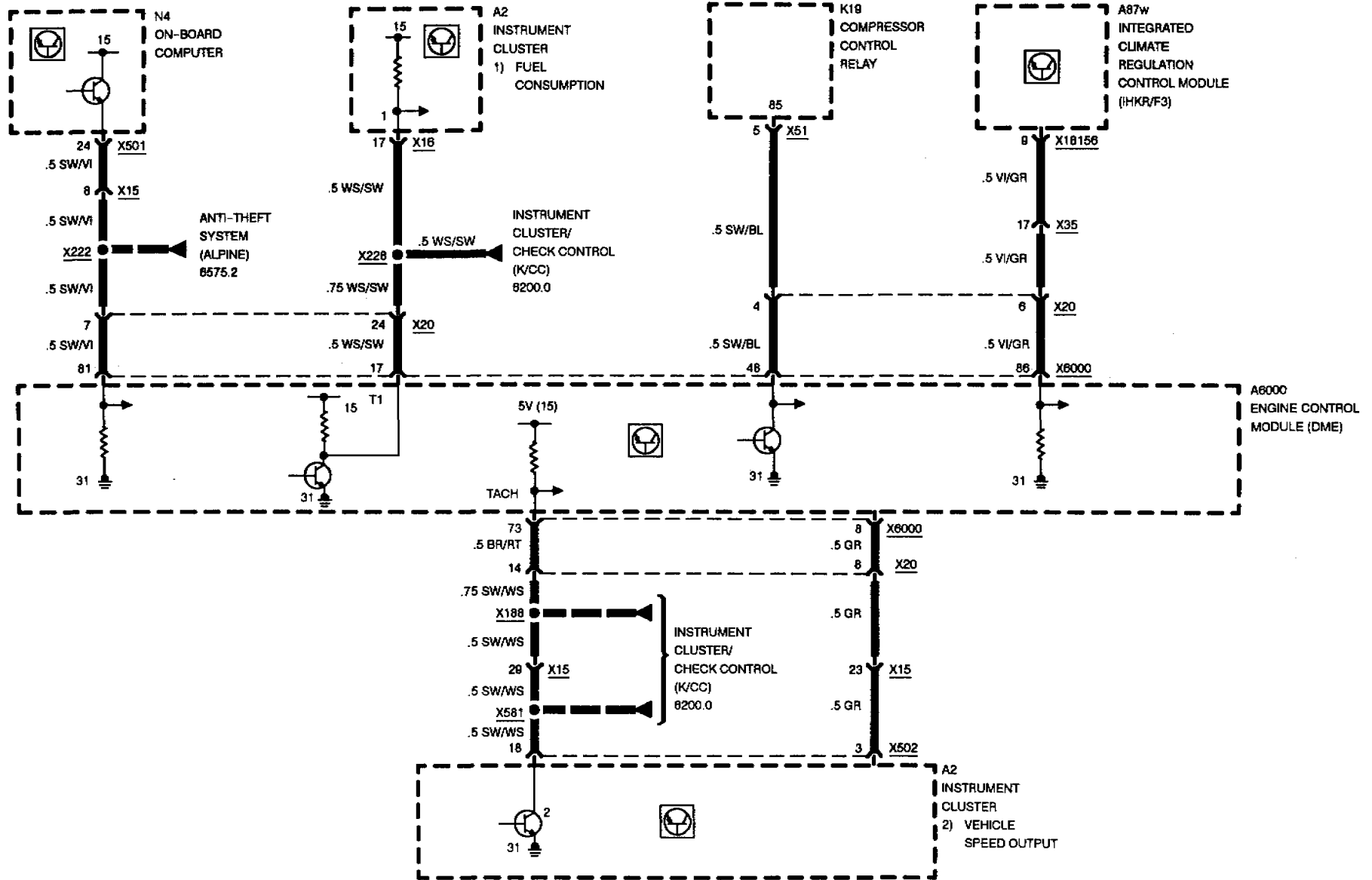


WITHOUT EGS      WITHOUT EGS      WITH EGS  
WITHOUT BC      WITH BC





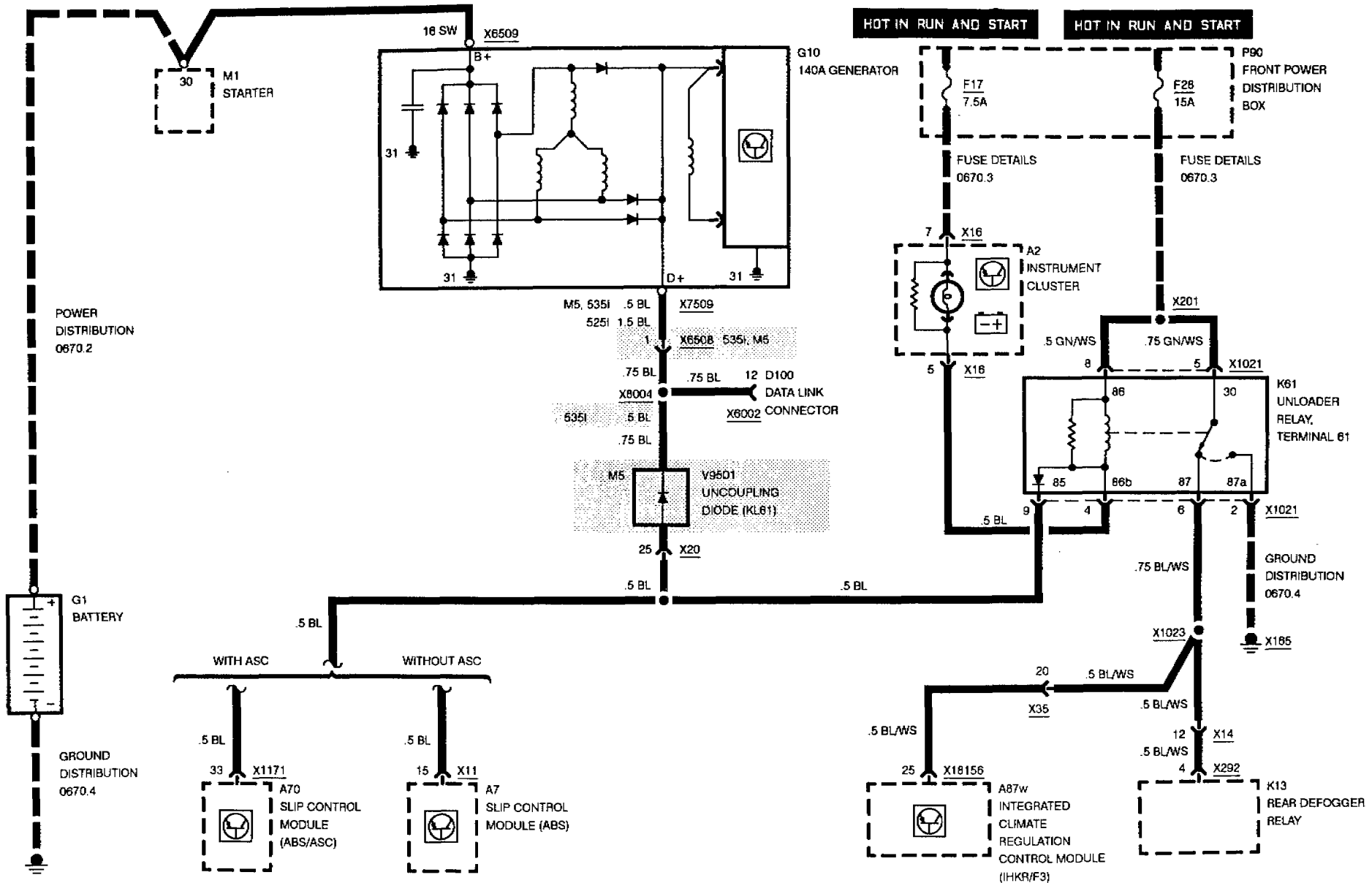
# ENGINE CONTROL SYSTEM (DME M3.1, 6-CYLINDER M50)



BMW  
5

1230.0

# CHARGING SYSTEM



BMW  
5

1240.0





# START

HOT IN RUN AND START

F17  
7.5A

FUSE DETAILS  
0670.3

30

X2

POWER  
DISTRIBUTION  
0670.2

P90  
FRONT POWER  
DISTRIBUTION  
BOX

4 RT

1

X33

4 RT

2.5 SW/GE

8

X33

2.5 SW/GE



525i,  
535i WITHOUT EGS

525i,  
535i WITH EGS

1 X511  
NOT  
USED

1 X511

NOT  
USED

3 X511

3 X511

S3  
AUTOMATIC  
TRANSMISSION  
RANGE SWITCH  
0) OFF (LOW)  
1) ON (HIGH)

S2  
IGNITION  
SWITCH  
0) OFF  
1) ACCESSORY  
2) RUN  
3) START

EGS 4HP 22  
EGS A4S 310R

	L1	L2	L3	L4
P	1	1	0	0
R	1	0	0	1
N	0	1	1	0
D	0	0	0	1
3	0	0	1	0
2	1	0	0	0
1	1	0	1	0

.5 BR/SW

X502

.75 BR/SW

24

X15

.75 BR/SW

X101

.5 BR/SW

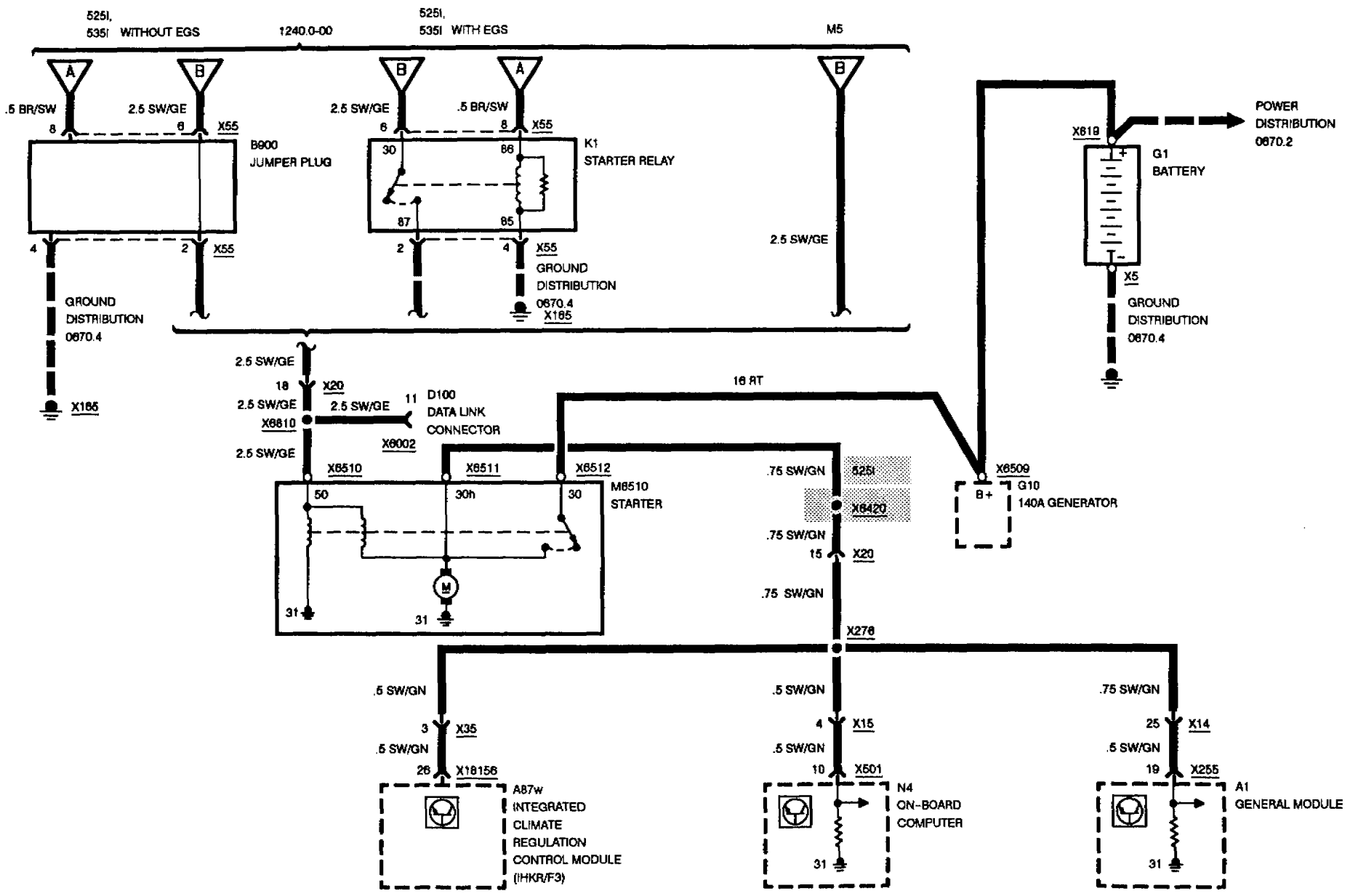


INSTRUMENT  
CLUSTER/  
CHECK CONTROL  
(K/CC)  
8200.0

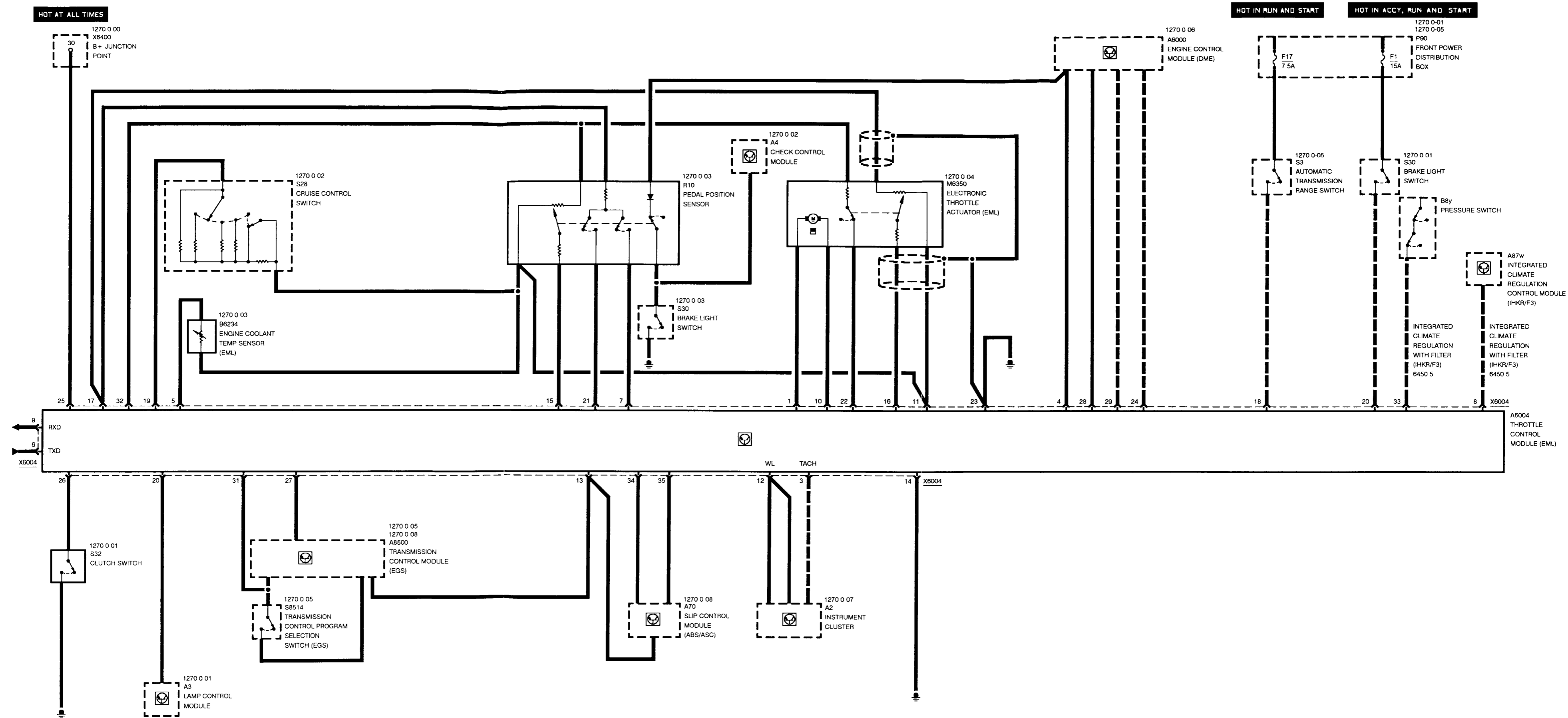
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# START

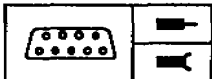








# ELECTRONIC THROTTLE CONTROL (EML, 6-CYLINDER)



## Pin Assignments

### X6004

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A/E	Drive throttle actuator	EML actuator	Square wave signal		
2		Not used				
3	E	Vehicle speed signal	Instrument cluster	Square wave signal		
4	A	Idle signal	DME control unit	approx. 0 V		
5	A/E	Engine coolant temperature	Water temp sensor (EML)	approx. 0...5 V		
6	E/A	Diagnosis	Diagnostic connector TxD			
7	E	Kick-down signal	Pedal position sensor	approx. 5 V		
8	E	A/C system signal	IHKR/F3 control unit	approx. 12 V (ON)		
9	E	Diagnosis	Diagnostic connector RxD			
10	A/E	Drive throttle actuator	EML actuator	Square wave signal		
11	A	Electronic ground	Component ground	Ground		
12	A	EML-warning lamp	Instrument cluster			
13	A	Throttle position signal	ASC/EGS	Square wave signal		
14	E	Output ground	Ground point	Ground		
15	E	Throttle position	Pedal position sensor	0.4...4 V		
16	E	Actuator position sensor	EML actuator	1 V...4.6 V		
17	A	5 V (not short circuit proof)	Pedal position sensor/ EML actuator	5 V		

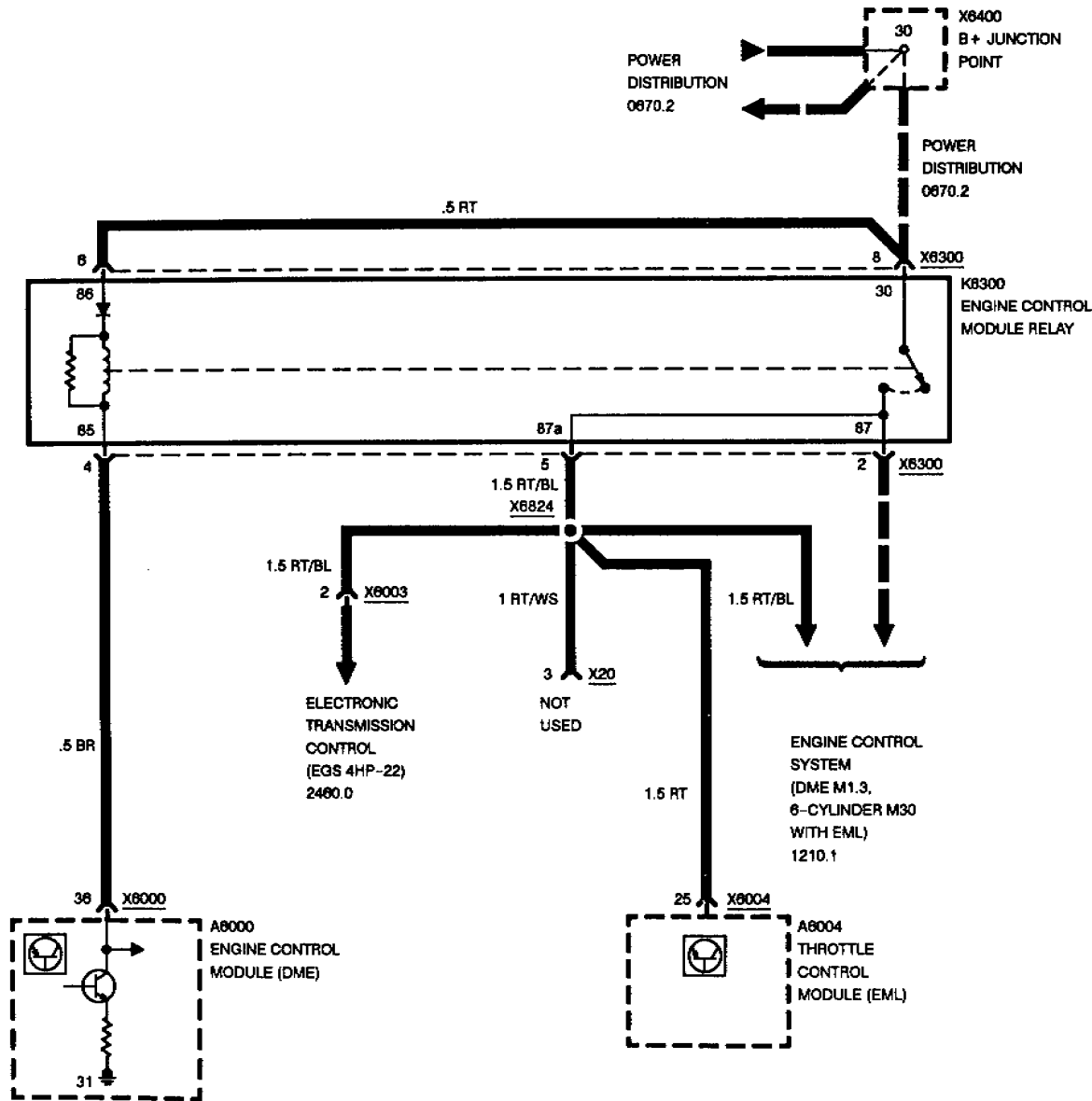


## ELECTRONIC THROTTLE CONTROL (EML, 6-CYLINDER)

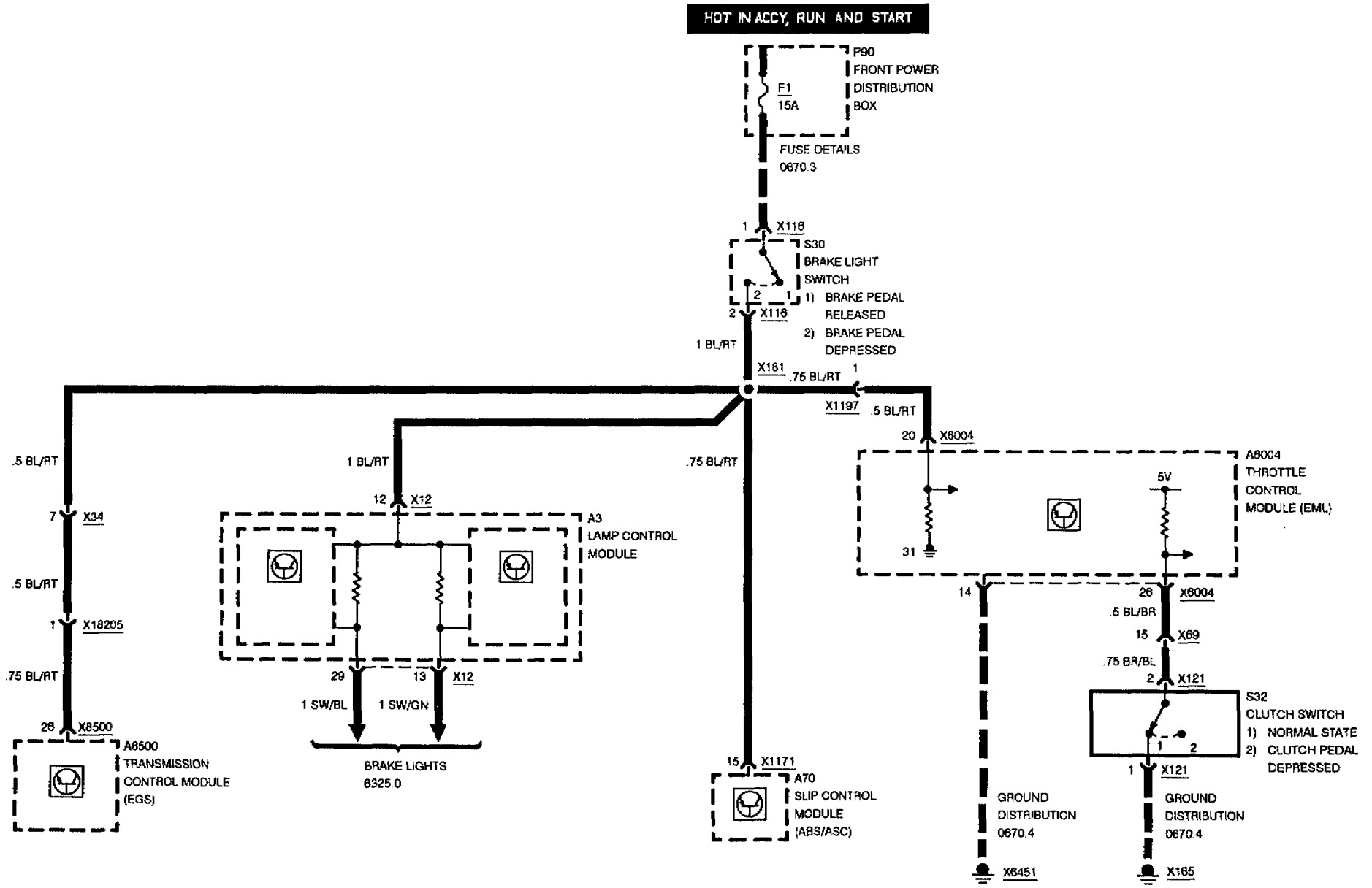
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
18	E	P and N identifier (EGS)	Transmission range switch	approx. 12 V (ON) approx. 0 V (OFF)		
19	E/A	Cruise control switch signal	Cruise control switch	0 V..5 V		
20	E	Brake pedal signal	Brake light switch	approx. 12 V (ON) approx. 0 V (OFF)		
21	E	PWG 9° switch	Pedal position sensor	approx. 5 V (ON)		
22	E	Throttle 17° switch	EML actuator	approx. 5 V (ON)		
23	A	Electronic ground	Component ground	Ground		
24	E	Injection signal ti	DME control unit	Square wave signal		
25	E	Terminal 30 +	DME - relay	approx. on-board voltage		
26	E	Clutch pedal signal	Clutch switch	approx. 0 V		
27	A	Kick-down signal	EGS control unit	approx. 0 V (ON) approx. 12 V (OFF)		
28	A	Full load signal	DME control unit	approx. 0 V		
29	E	Engine speed signal (TD)	DME control unit	Square wave signal		
30		Not used				
31	E	S-program identification	EGS control unit	approx. 0 V		
32	A	5 V (not short circuit proof)	Pedal position sensor/ EML actuator	approx. 5 V		
33	E	A/C compressor ON	Pressure switch	approx. 12 V (ON)		
34	E	Decrease throttle position angle (DKR)	ABS/ASC-control unit	Square wave signal		
35	E	Increase throttle position angle (DKE)	ABS/ASC-control unit	Square wave signal		

BMW  
5

1270.0

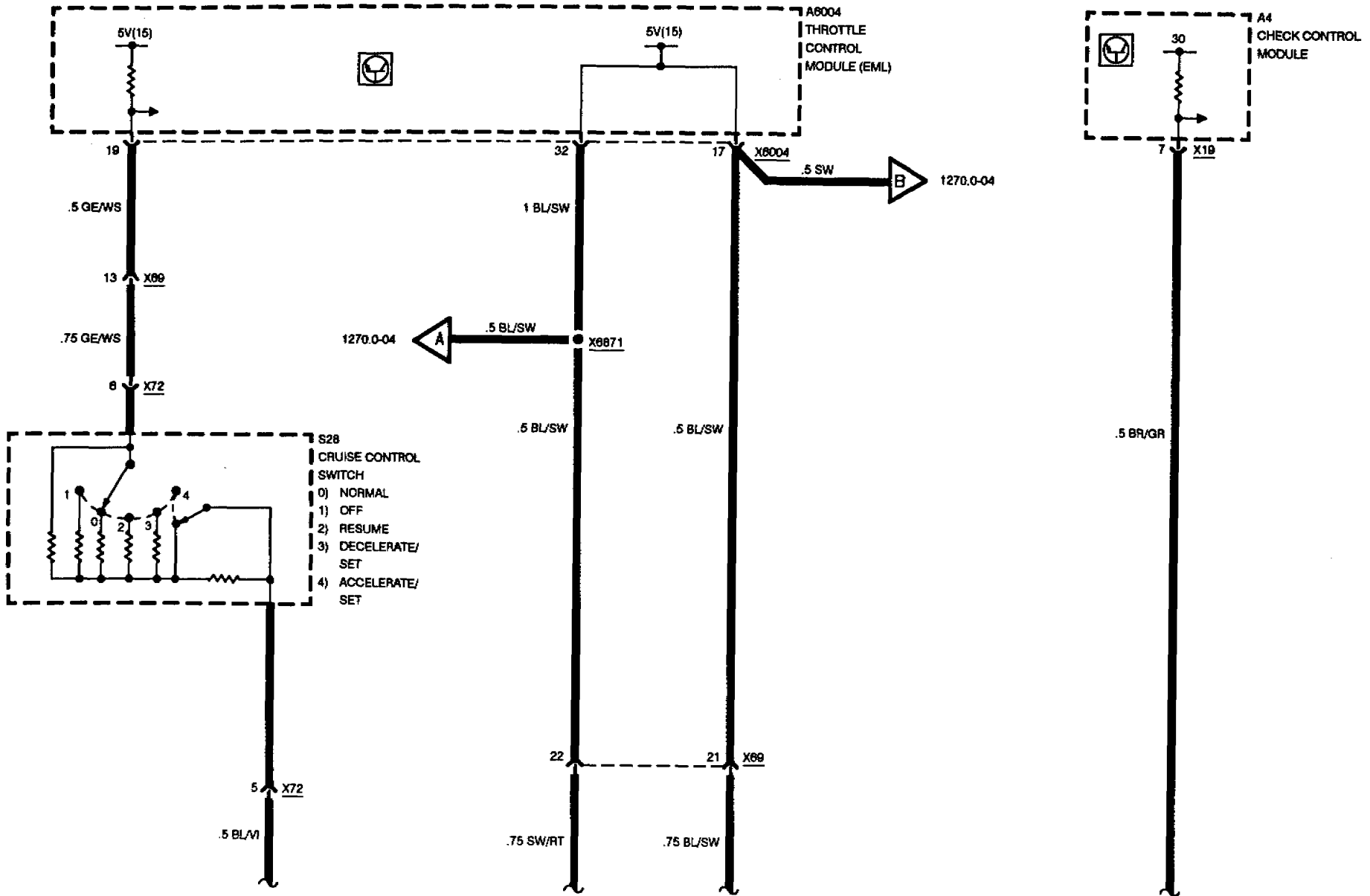


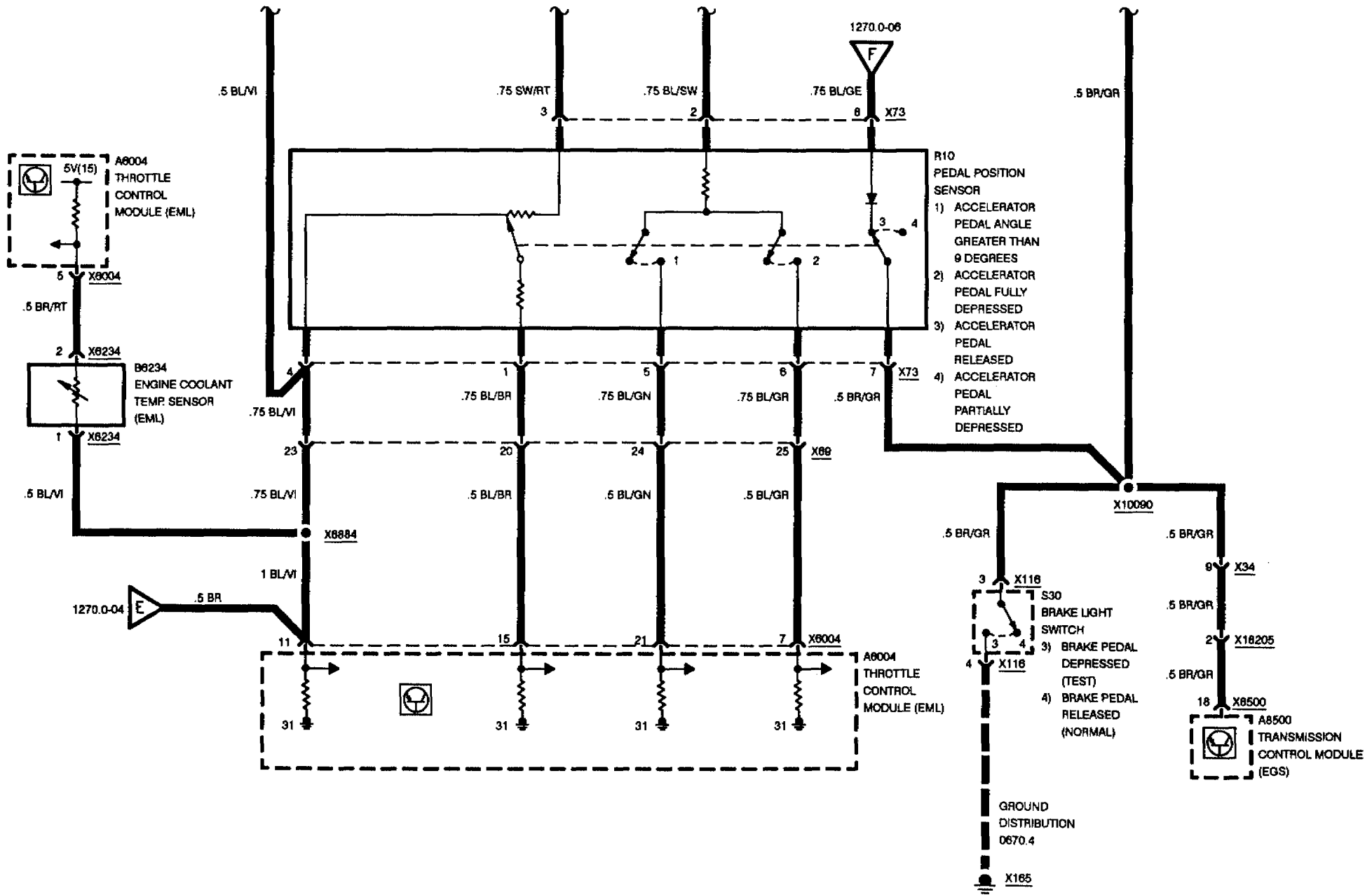


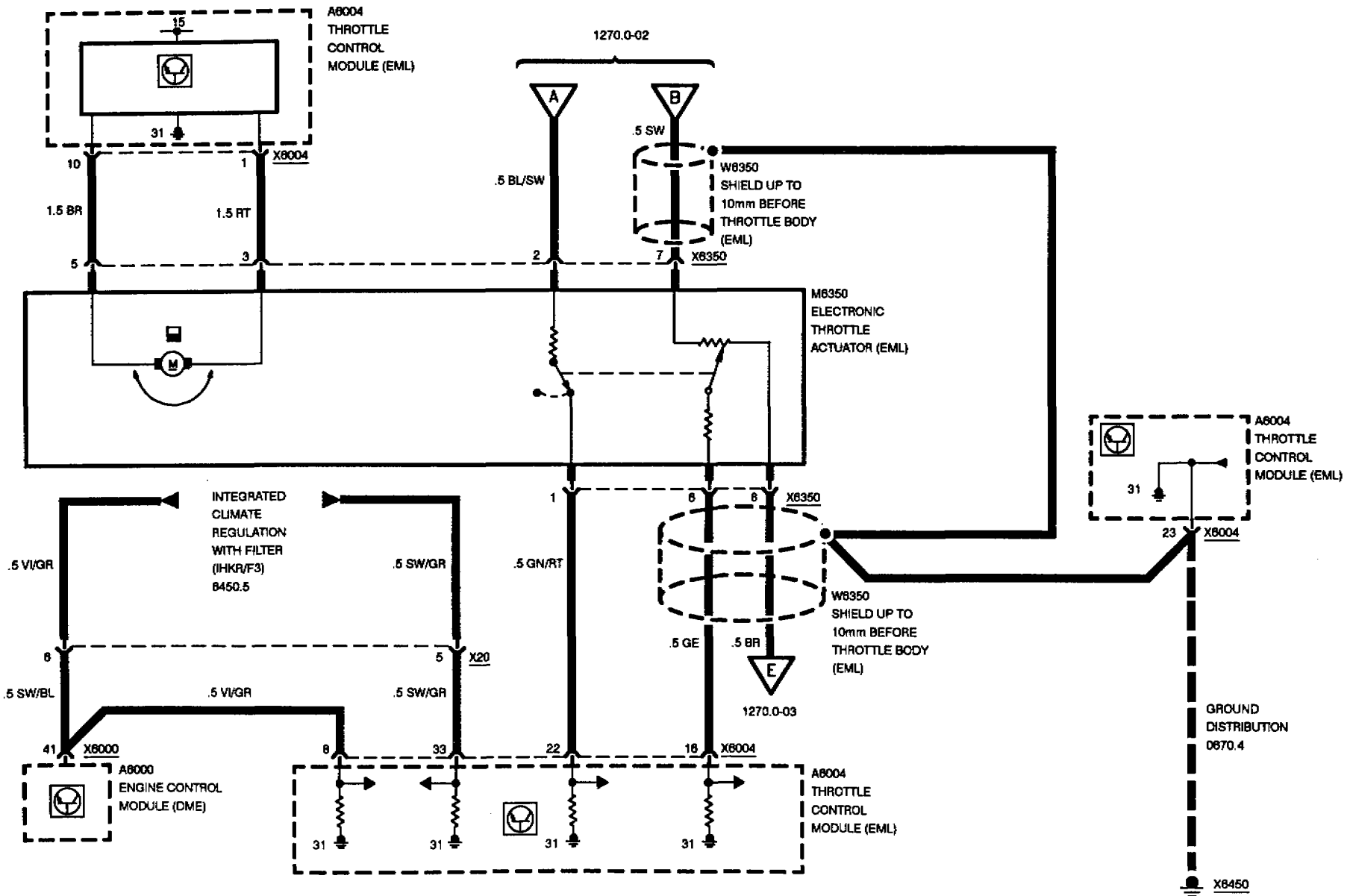


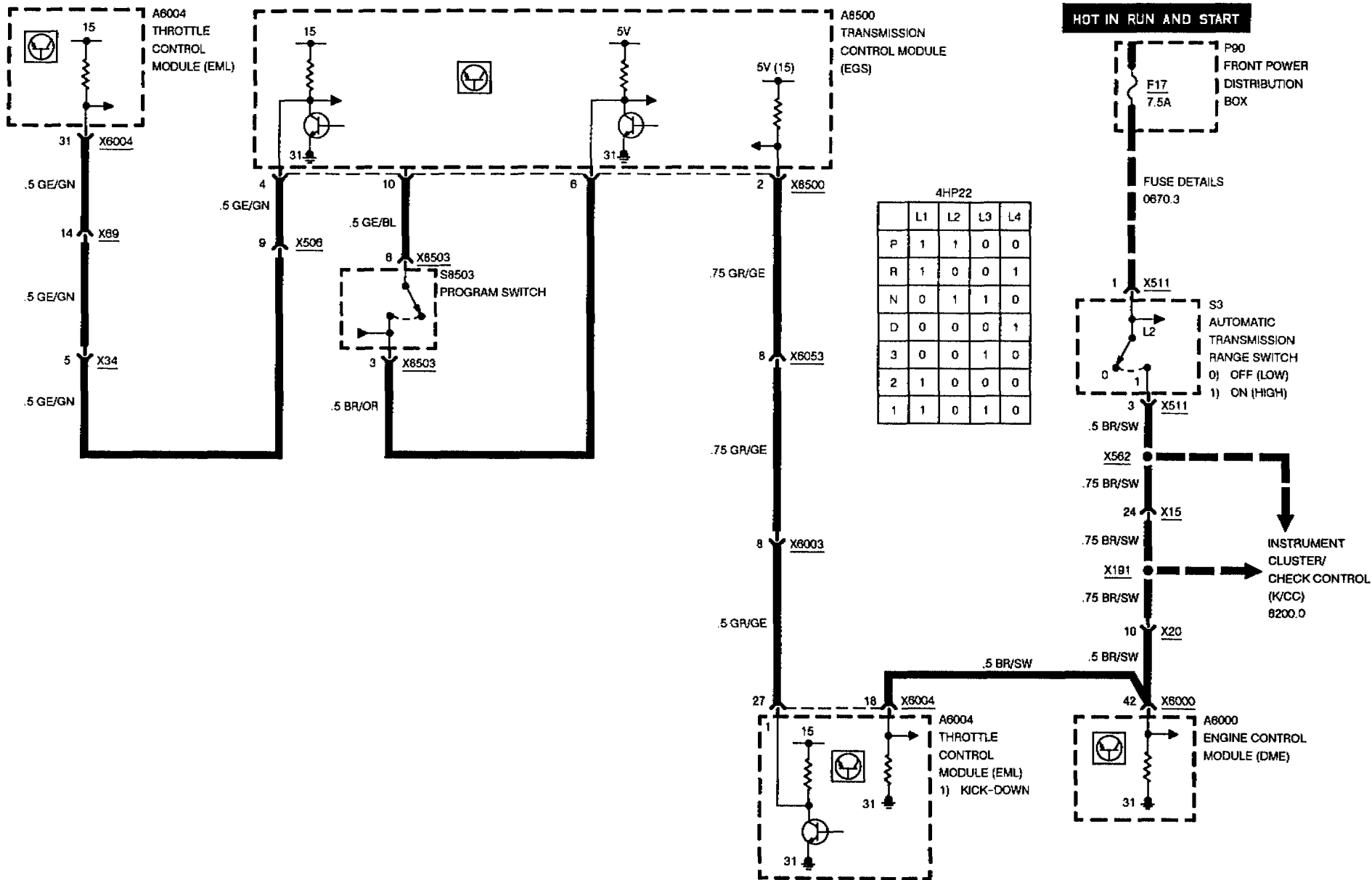
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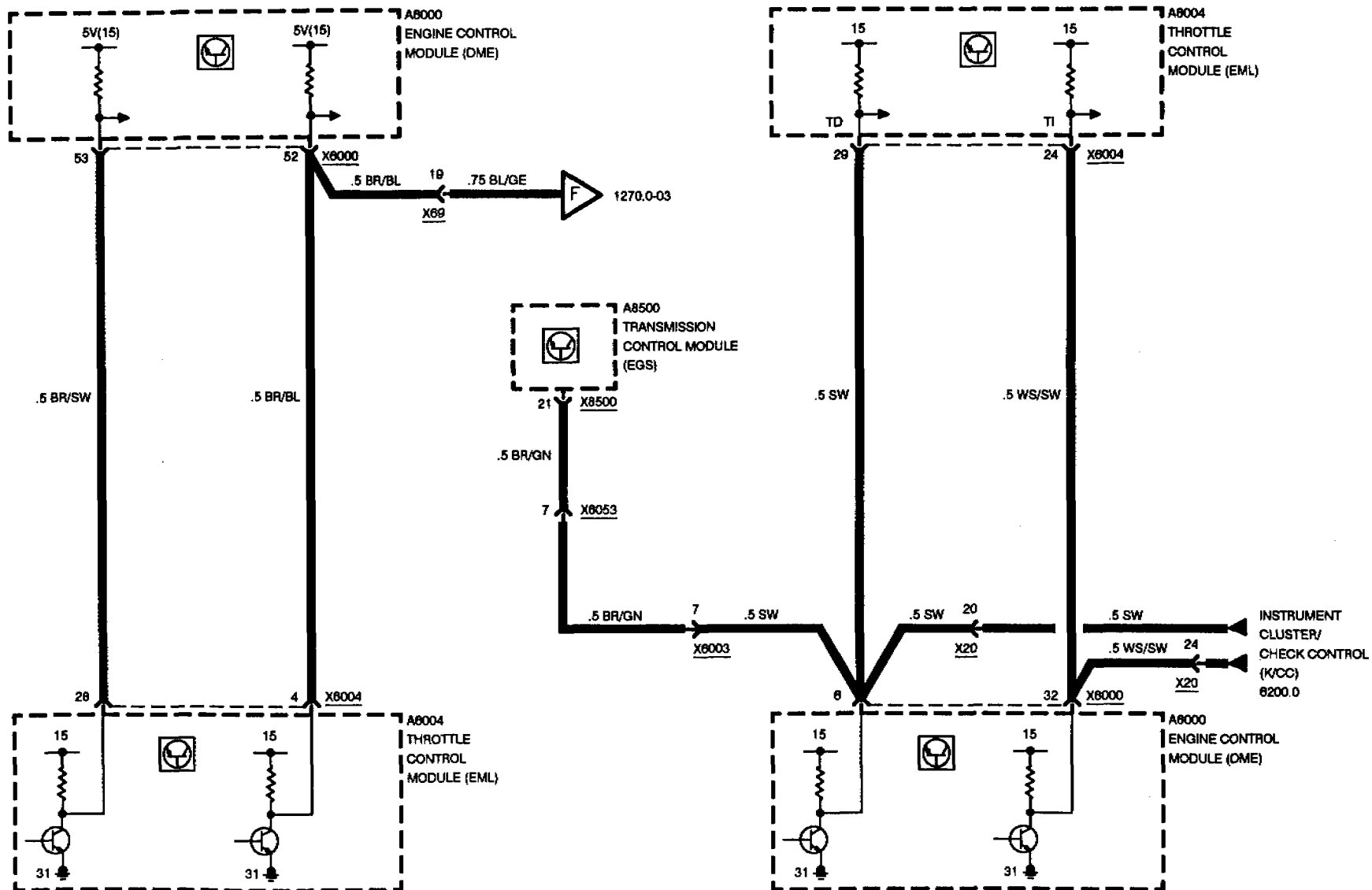
535i

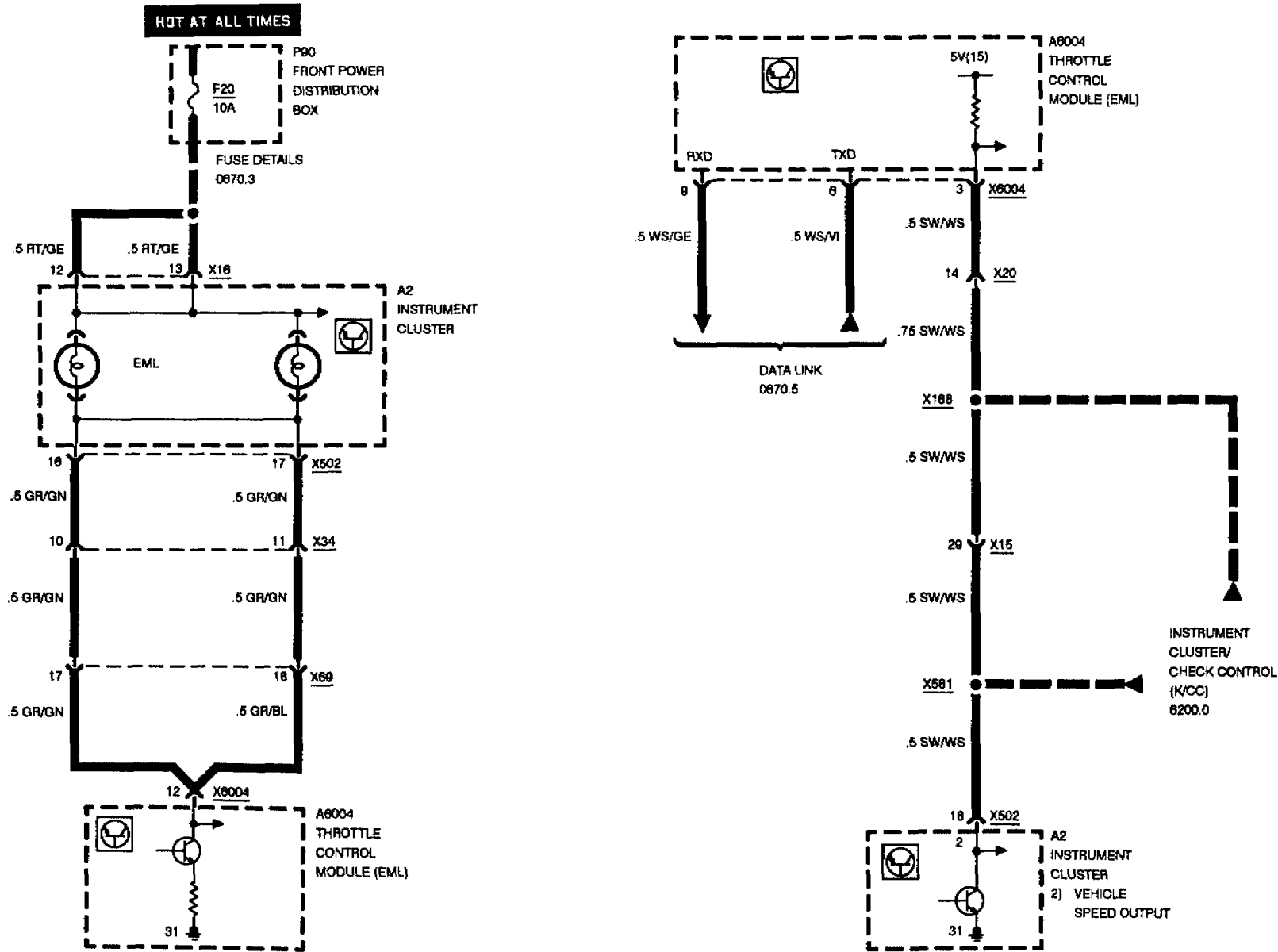








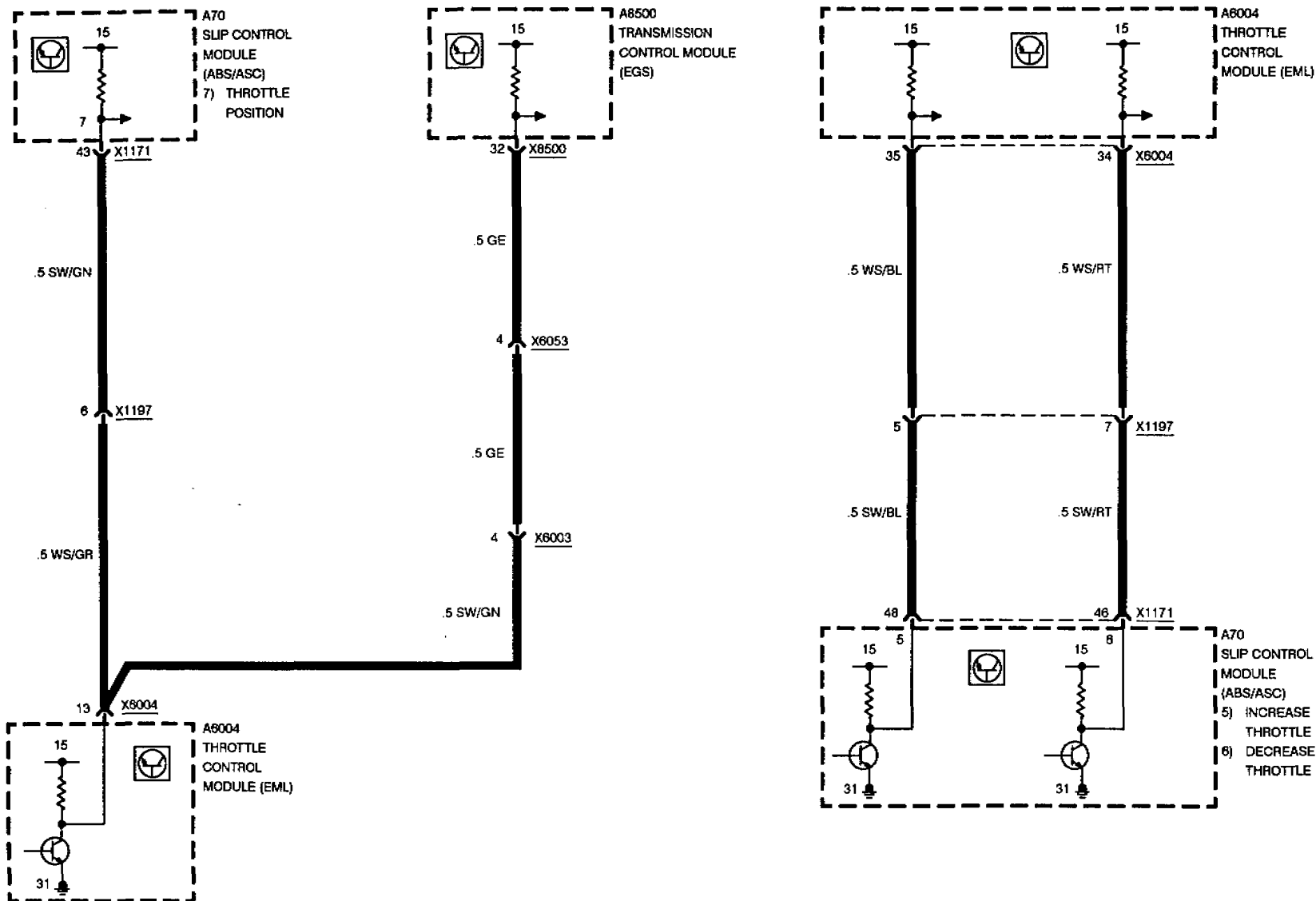






# ELECTRONIC THROTTLE CONTROL (EML 6-CYLINDER) ENGINE CONTROL SYSTEMS (DME)

535i





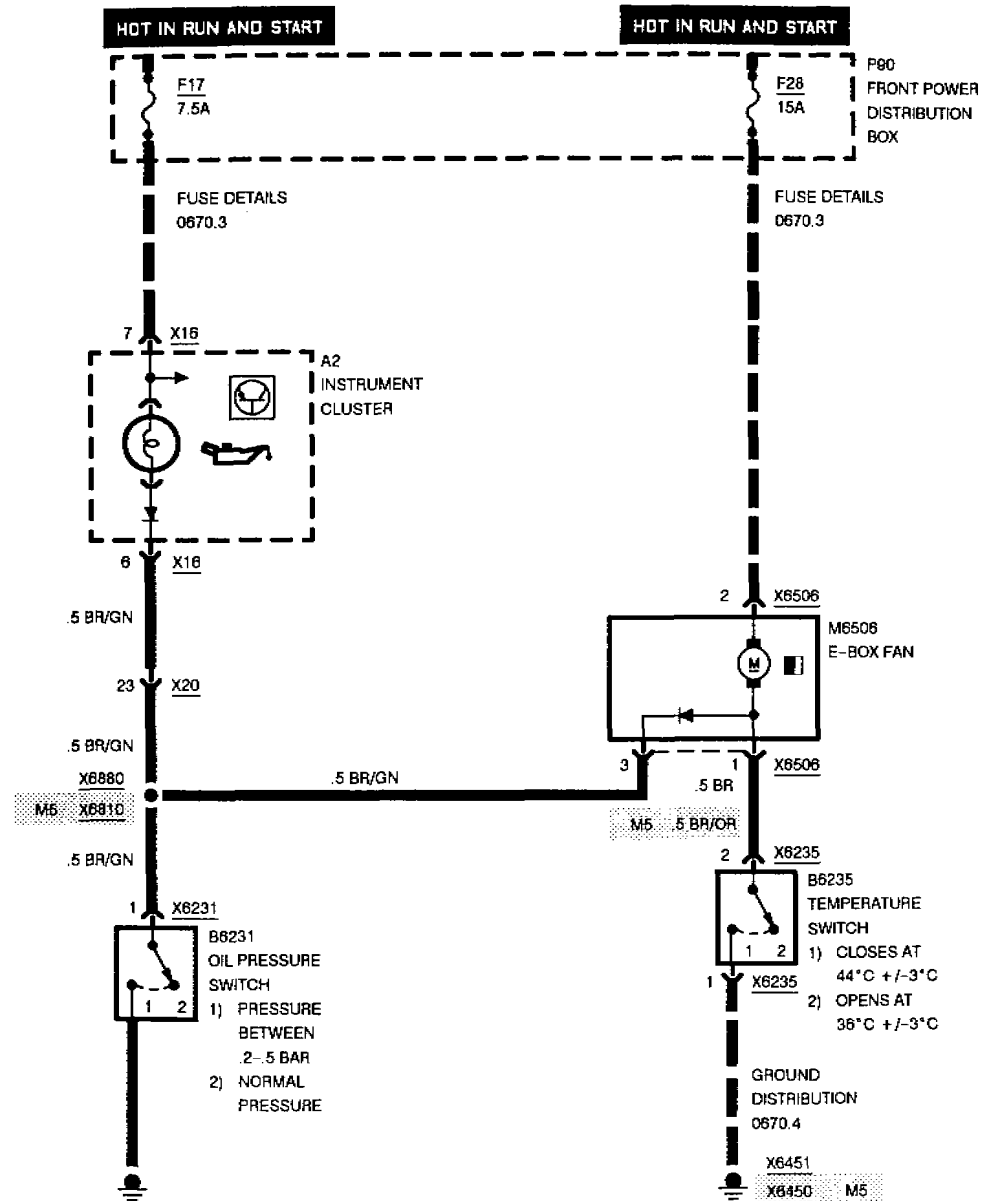
BMW  
5

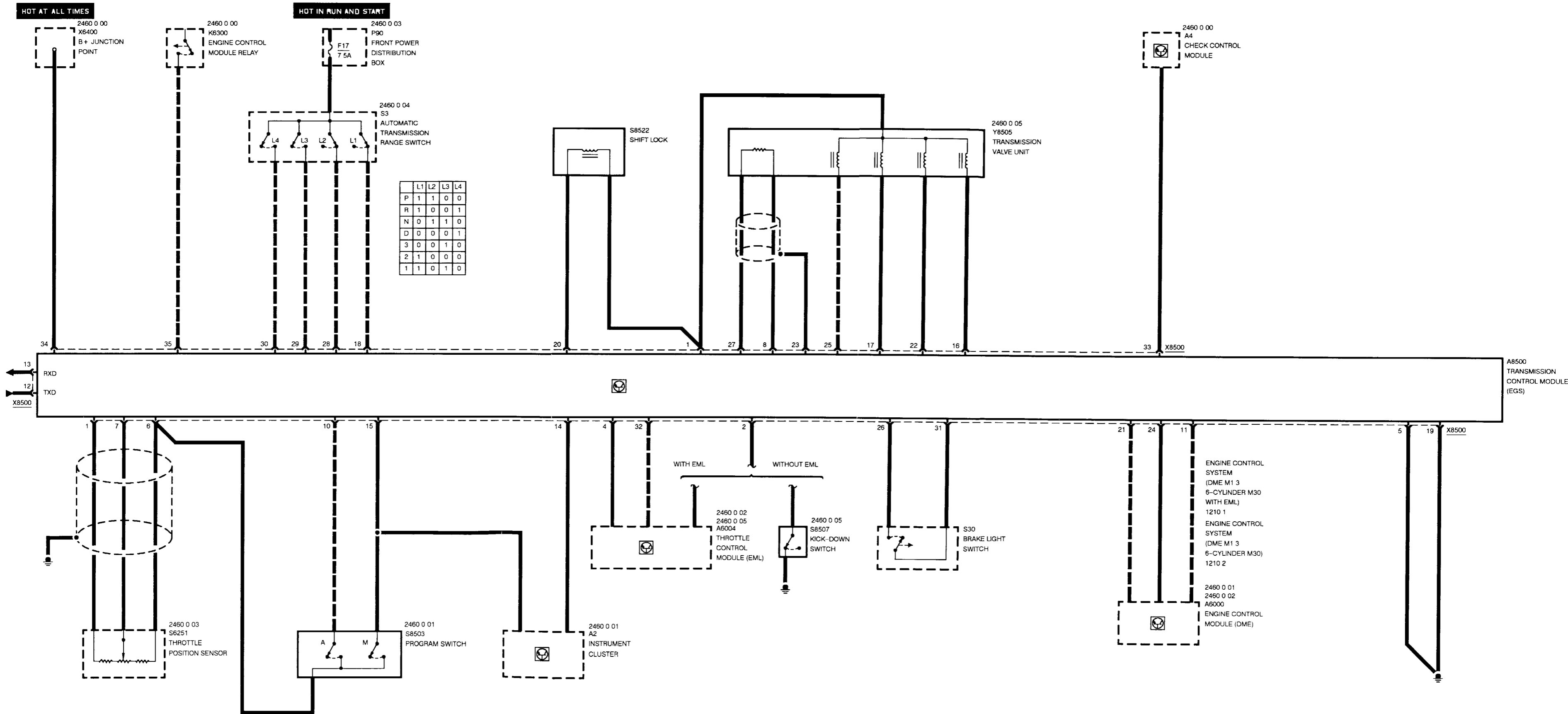
1290.0



# E-BOX FAN

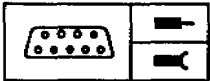
535i, M5







# ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)



## Pin Assignments

### X8500

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Plus supply, solenoid valves, pressure regulators and shift lock solenoid	Gear shift unit	Active high	Component activation	This supply is switched off during mechanical emergency program, i.e. transmission relay in control unit deenergizes.
2	E	Kick-down	EML control unit (with EML) Kick-down switch (without EML)	Active low	Status display	
3		Not used				
4	E/A	EML control unit signal	EML control unit	Active low	Status display	Only in GS 1.26/1.27
5	M	Ground, control unit	Ground			
6	A	Ground, program button	Program button/throttle switch			
7	E	Throttle signal	Throttle switch	Analog	Status display	According to pedal position
8	E	Output speed n-ab (+)	Gearshift unit		Status display	
9	A	Voltage supply, throttle potentiometer	Throttle switch			DK (+) only without EML
10	E	A-program signal	Program button	Active low	Status display	Only in GS 1.26/1.27
11	E	Fuel consumption display (tl signal)	DME control unit		Status display	
12	E/A	TxD				
13	E	RxD				



## ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)

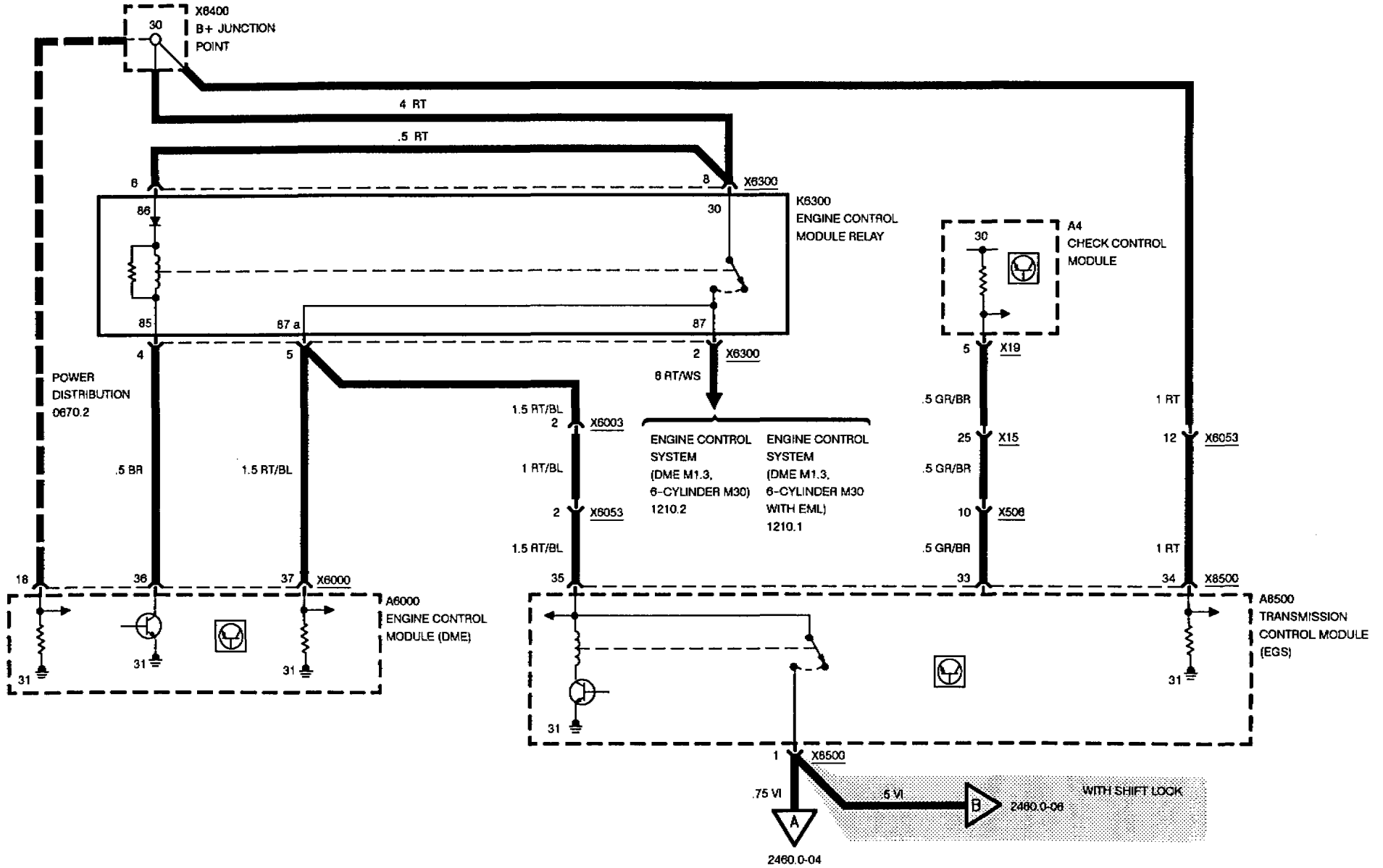
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
14	A	Program signal	Instrument cluster		Status display	
15	E/A	M-program signal	Program button, instrument cluster		Status display	
16	A	Solenoid valve 1	Gearshift unit	Active low	Component activation	
17	A	Solenoid valve, pressure regulation	Gearshift unit	Current control	Component activation	
18	E	Position switch L1	Selector lever	Active high	Status display	
19	M	Ground, control unit	Ground			
20	A	Lifting solenoid, shift-lock	Shift-lock solenoid	Active low	Component activation	Only in GS 1.22/E7 regulation
21	E	Engine speed n-mot (TR signal)	DME control unit		Status display	
22	A	Solenoid valve 2	Gearshift unit	Active low	Component activation	
23	A	Shield speed sensor		Ground		
24	A	Engine intervention	DME control unit	Active low	Component activation	
25	A	Solenoid valve, torque converter clutch	Gearshift unit	Active low	Component activation	
26	E	Brake test switch signal	Brake light switch	Active high		Only in GS 1.22, 1.27
27	E	Output speed n-ab (-)	Gearshift unit		Status display	
28	E	Position switch L2	Selector lever	Active high	Status display	
29	E	Position switch L3	Selector lever	Active high	Status display	
30	E	Position switch L4	Selector lever	Active high	Status display	
31	A	Brake test switch	Brake light switch			
32	E	Set throttle signal	EML control unit	Pulse width modulated	Status display	Correspond to accelerator pedal position
33	A	Fault display	Check control module (A4)	Active high		



## ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)

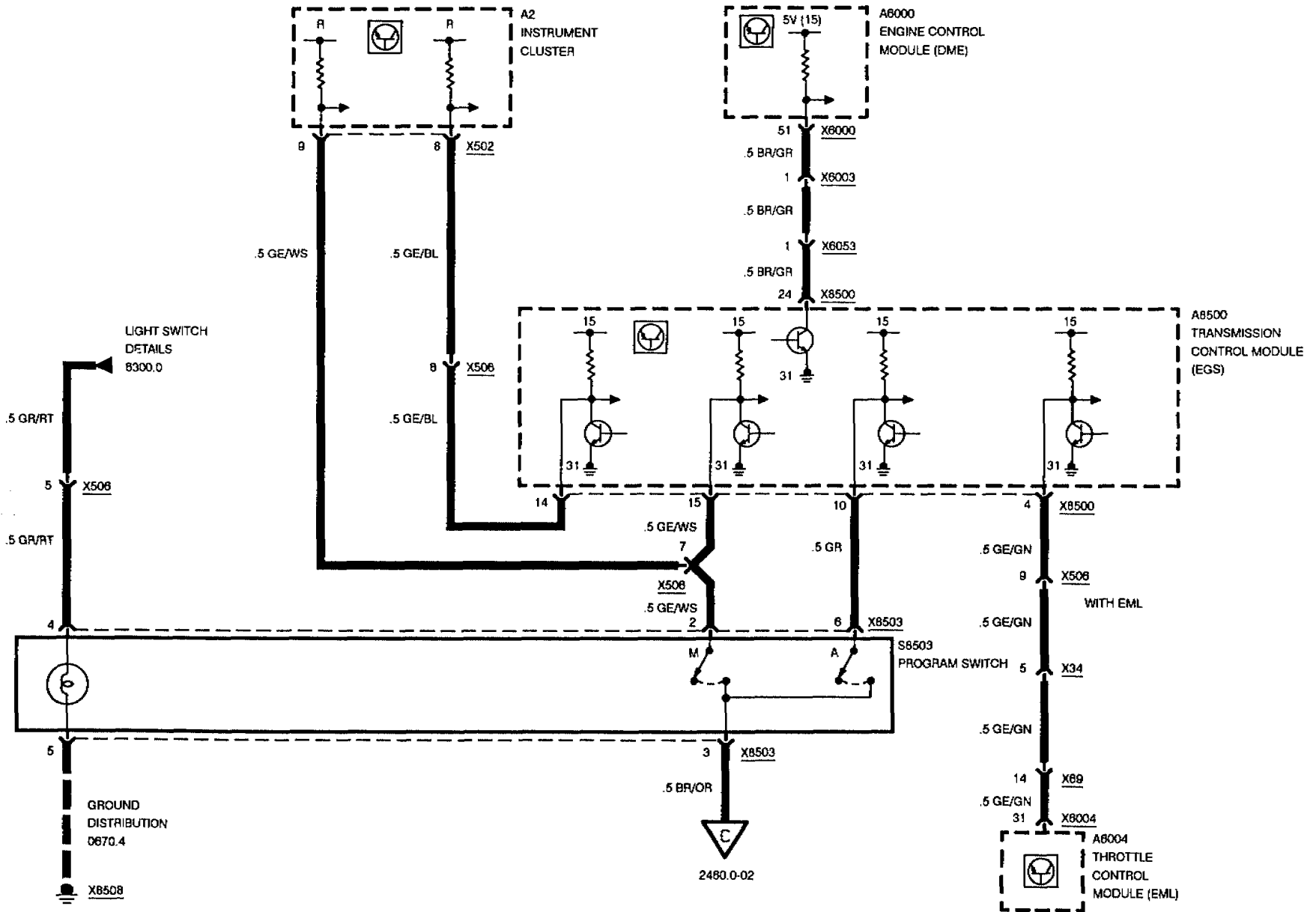
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
34	E	Voltage supply terminal 30	Battery	Battery voltage		Continuous supply
35	E	Voltage supply	DME main relay			Holding circuit DME

# ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)



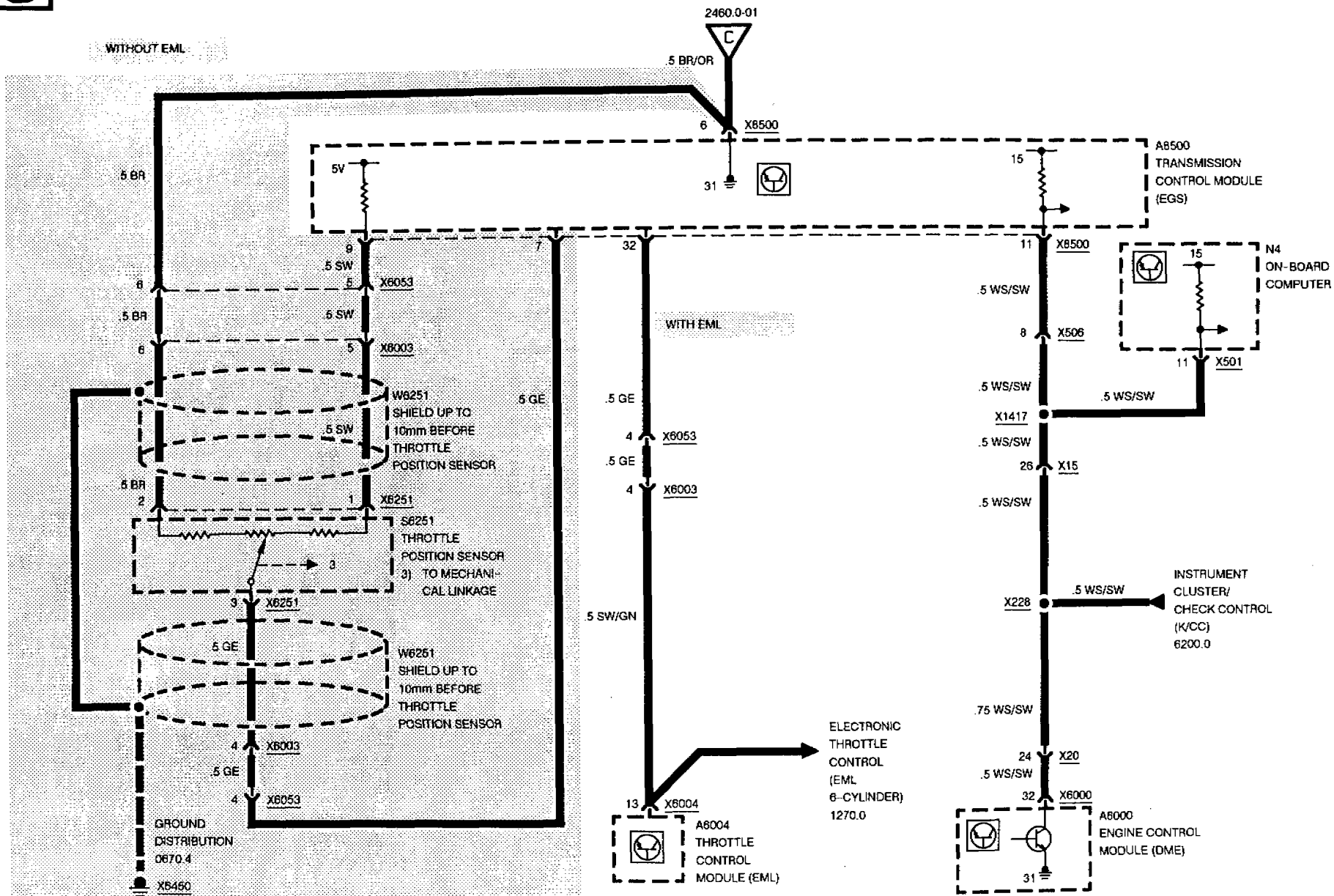


# ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)



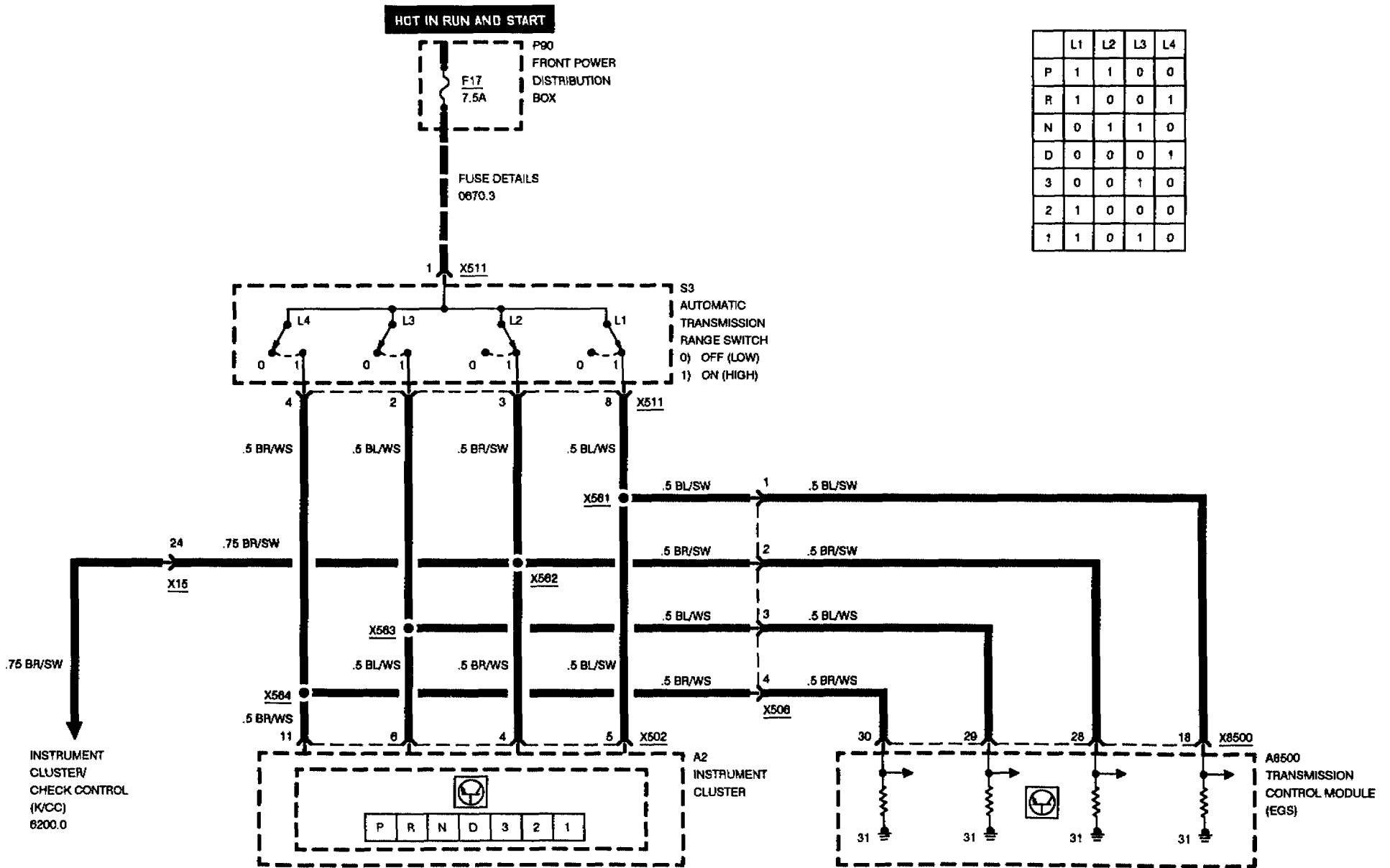


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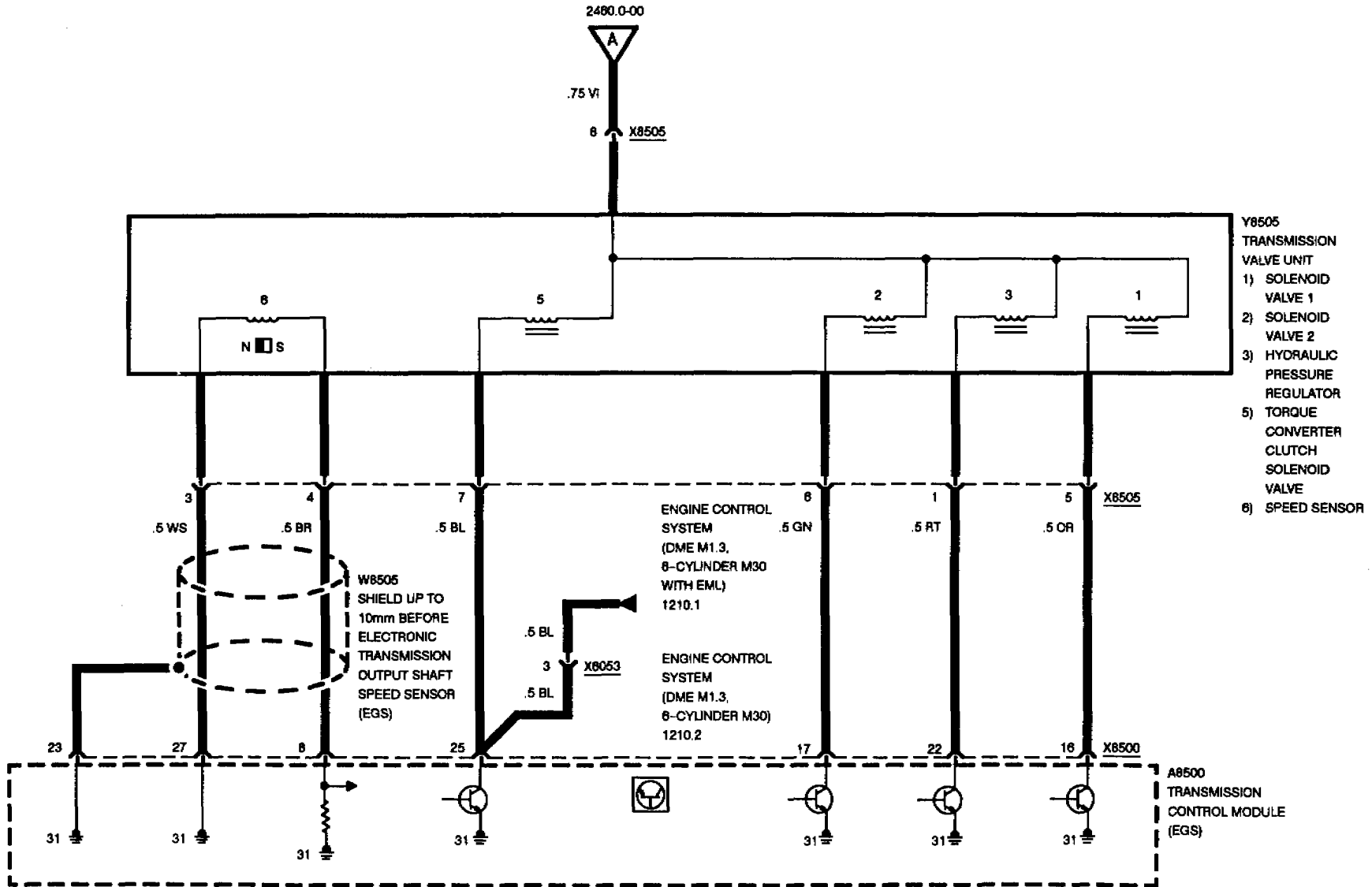


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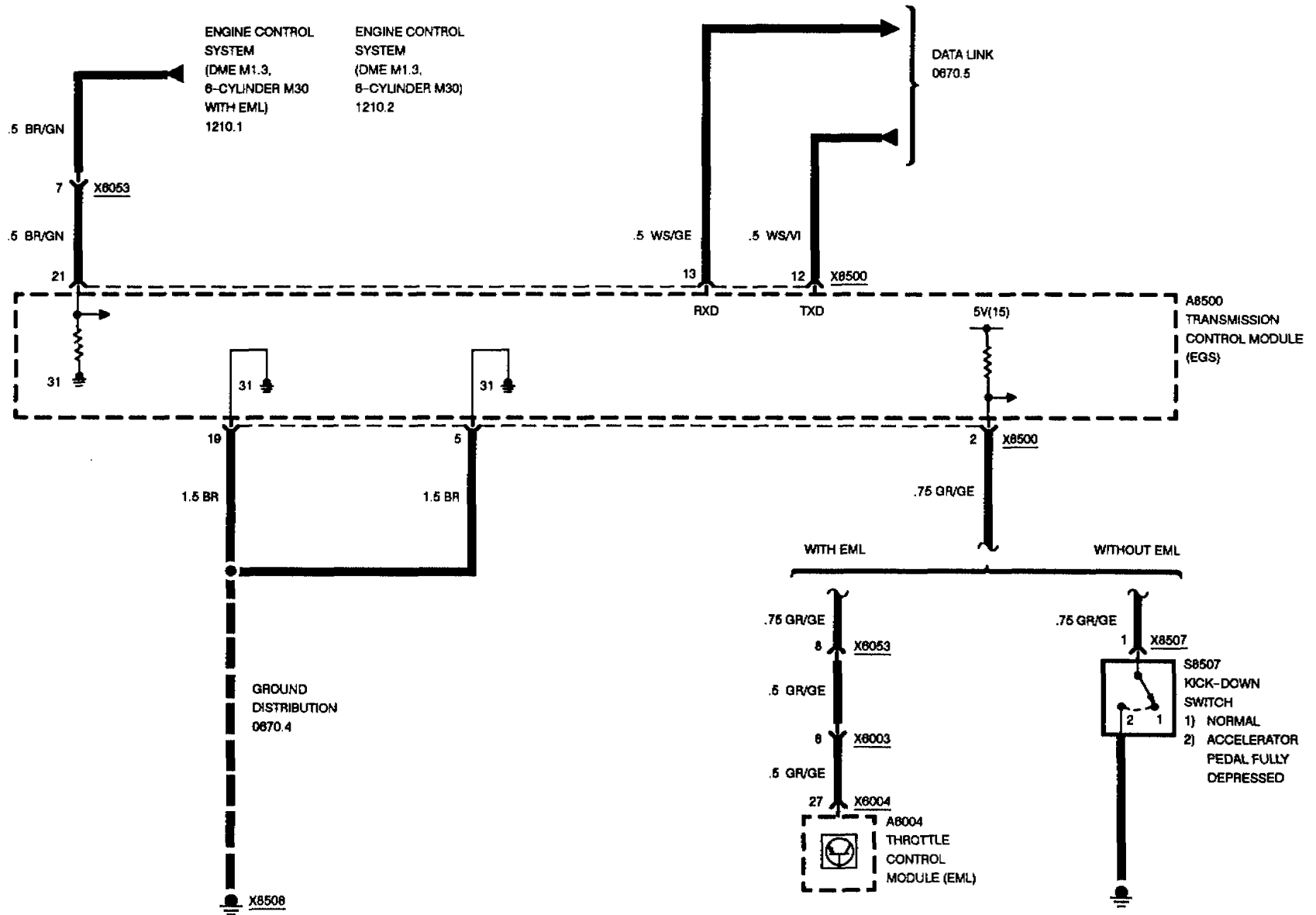




# ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)

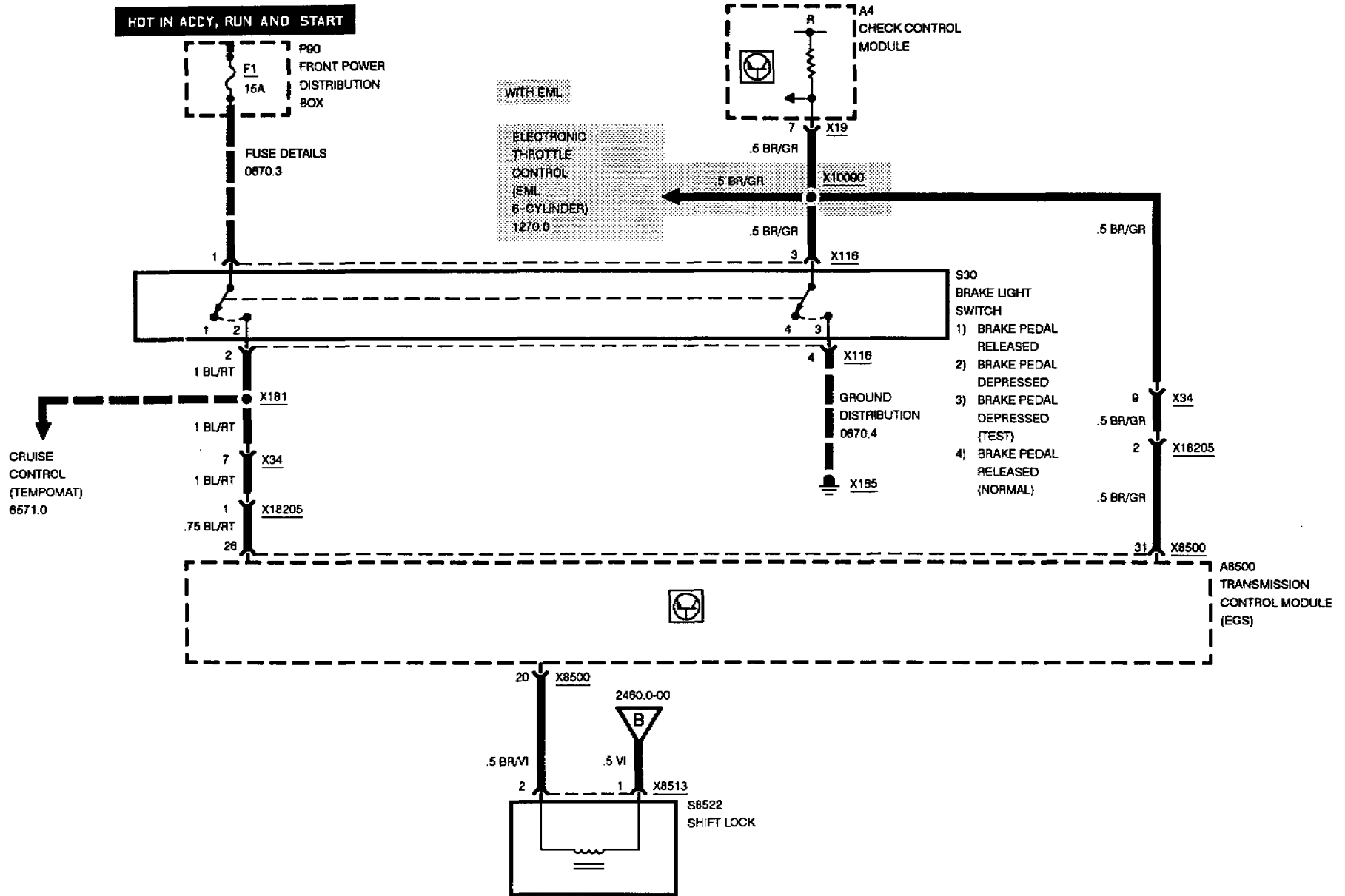


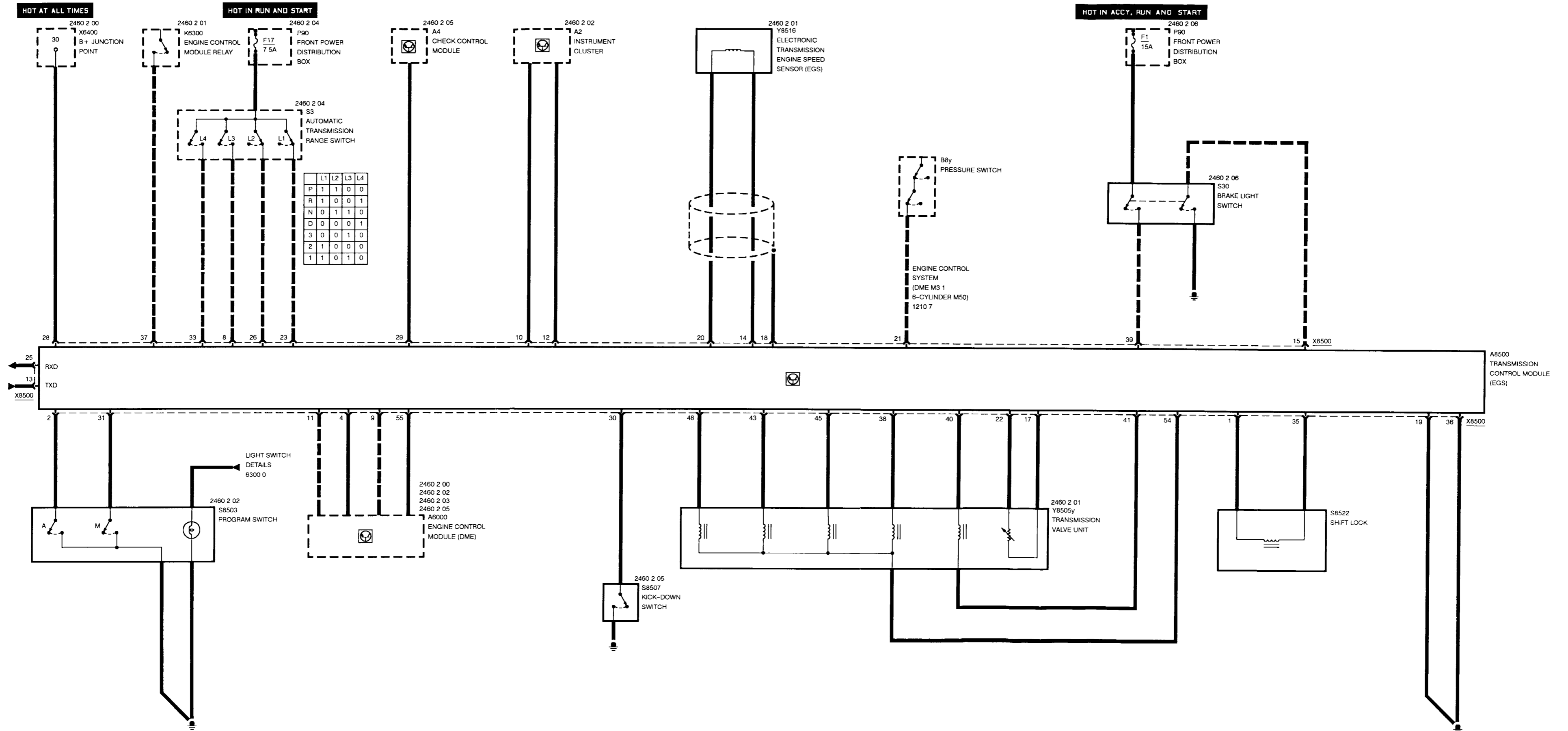
# ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22)





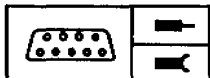
# ELECTRONIC TRANSMISSION CONTROL (EGS 4HP-22) SHIFT LOCK







## ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)



### Pin Assignments

#### X8500

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Shift lock solenoid control	Shift lock solenoid			
2	E	Automatic mode signal	Program switch	Ground		
3		Not used				
4	A	Ignition timing intervention	DME control unit	Ground		Active only during gear shifts
5		Not used				
6		Not used				
7		Not used				
8	E	Gear range signal L3	Auto. trans. range switch			
9	E	ti Measuring signal (KVA)	DME control unit	Square-wave signal	Multimeter function pulse duration	Oscilloscope
10	A	Automatic mode indicator	Instrument cluster			
11	E	Engine speed signal (FR)	DME control unit	Ground with superimposed signal		Can only be measured with crankshaft rotating
12	A	Manual mode indicator	Instrument cluster			
13	E/A	Diagnosis TxD	Diagnostic socket			
14	E	Transmission output shaft speed (-)	EGS RPM sensor			
15	E	Switch test signal	Brake light test switch			



## ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
16		Not used				
17	E	Analog ground (oil temperature sensor)	Transmission gear shift unit			
18	A	Shield, RPM sensor	EGS RPM sensor	Ground		
19	M	Ground	Ground	Ground		
20	E	Transmission output shaft speed (+)	EGS RPM sensor			
21	E	A/C compressor ON	Pressure switch			
22	E	Oil temperature signal (+)	Transmission gear shift unit	NTC		
23	E	Gear range signal L1	Auto. trans. range switch			
24		Not used				
25	E	Diagnosis RxD	Diagnostic socket			
26	E	Gear range signal L2	Auto. trans. range switch			
27		Not used				
28	E	Terminal 30 voltage	Terminal 30			
29	A	Fault indicator signal	Check control module			
30	E	Kick down signal	Kick down switch	Ground		
31	E	Manual mode signal	Program switch	Ground		
32		Not used				
33	E	Gear range signal L4	Auto. trans. range switch			
34		Not used				
35	A	Solenoid ground	Shift lock solenoid			
36	M	Ground	Ground	Ground		
37	E	Voltage supply	Relay 2, DME			



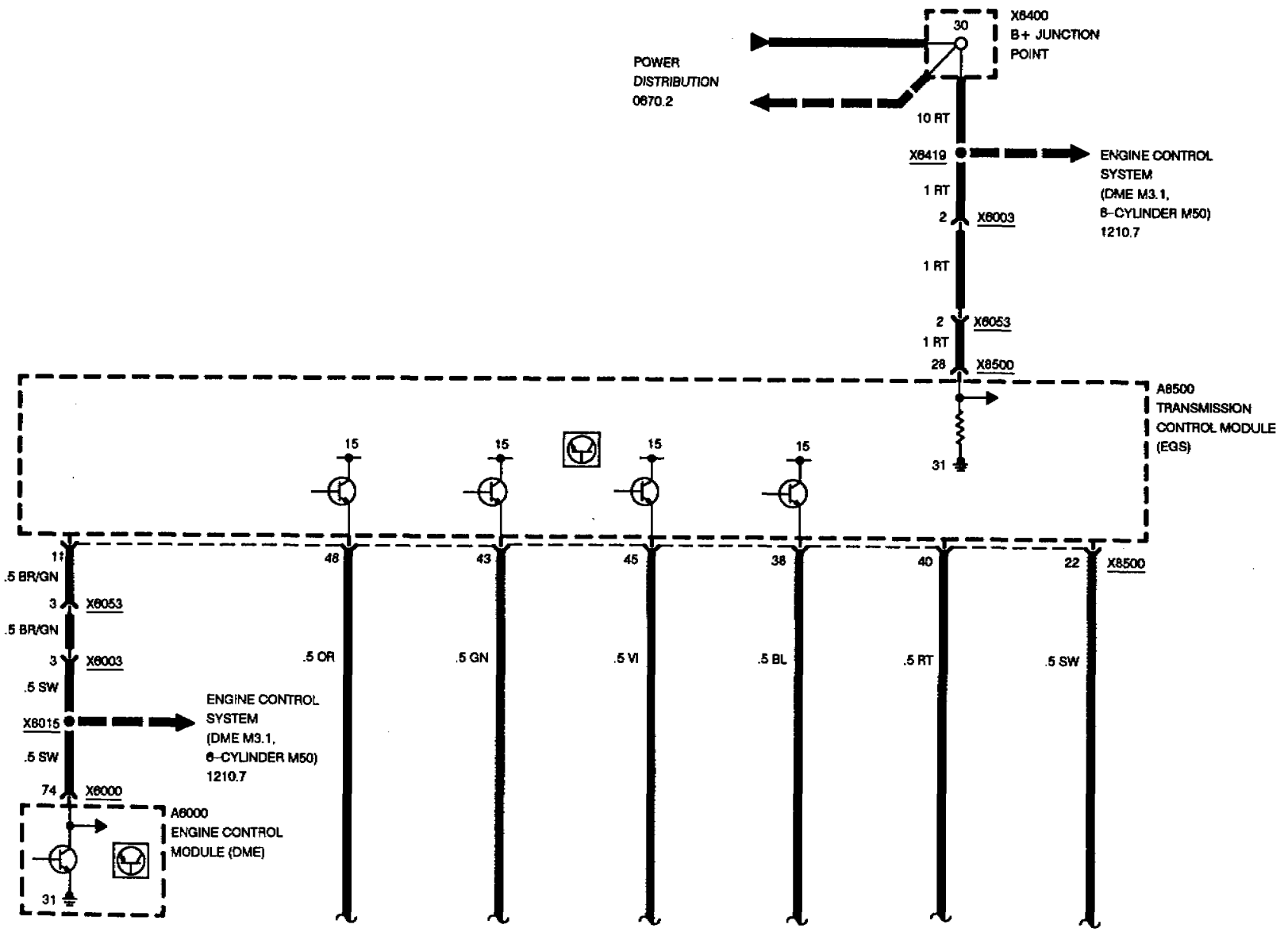


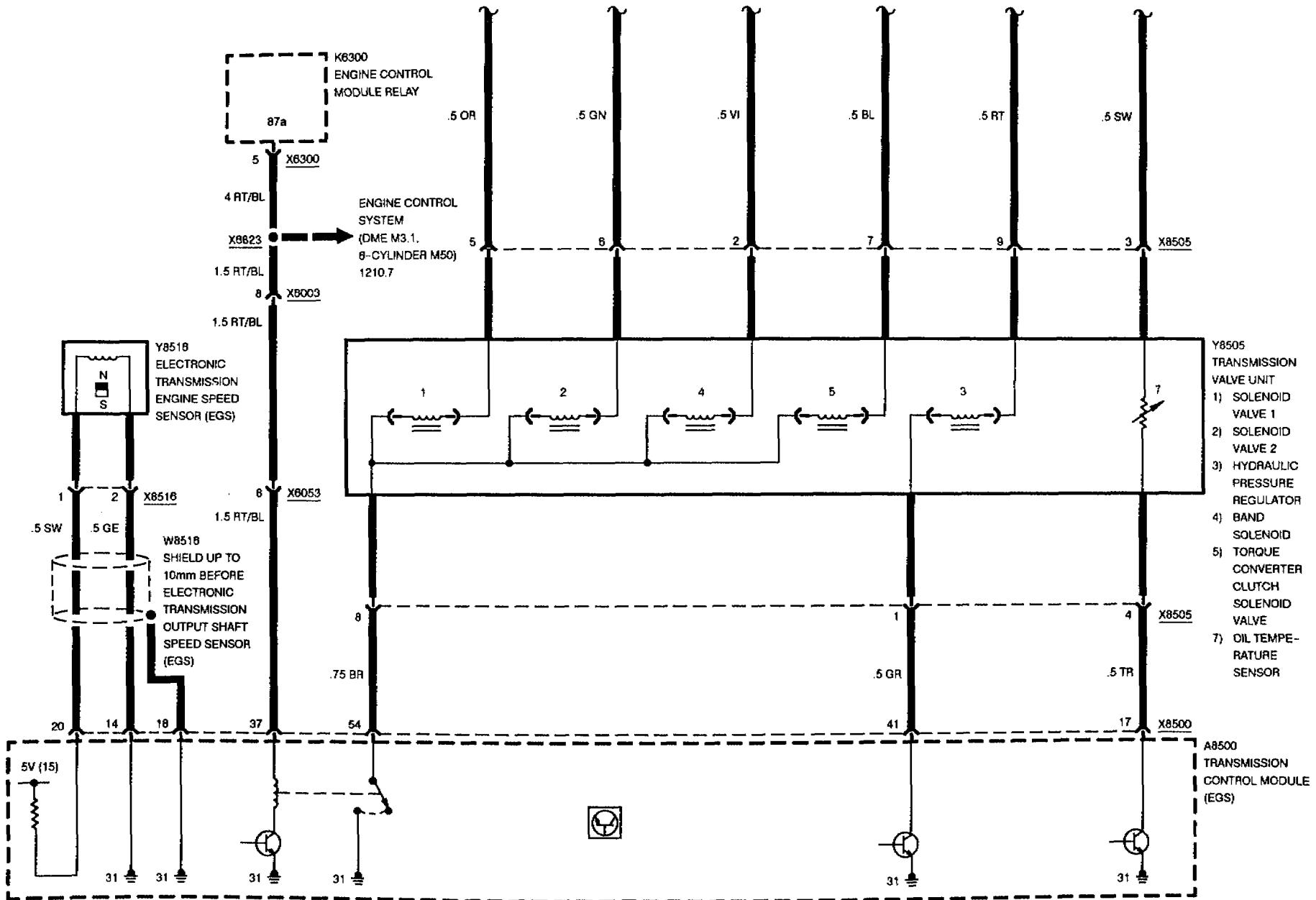
## ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
38	A	Torque converter clutch solenoid control	Transmission gear shift unit			
39	E	Brake pedal status	Brake light test switch			
40	A	Pressure regulator solenoid control (+)	Transmission gear shift unit			
41	A	Pressure regulator solenoid control (-)	Transmission gear shift unit			
42		Not used				
43	A	Solenoid 2 control (+)	Transmission gear shift unit			
44		Not used				
45	A	Band solenoid control (+)	Transmission gear shift unit			
46		Not used				
47		Not used				
48	A	Solenoid 1 control (+)	Transmission gear shift unit			
49		Not used				
50		Not used				
51		Not used				
52		Not used				
53		Not used				
54	A	Solenoid ground	Transmission gear shift unit			
55	E	Throttle position signal	DME control unit	Pulse width modulated		



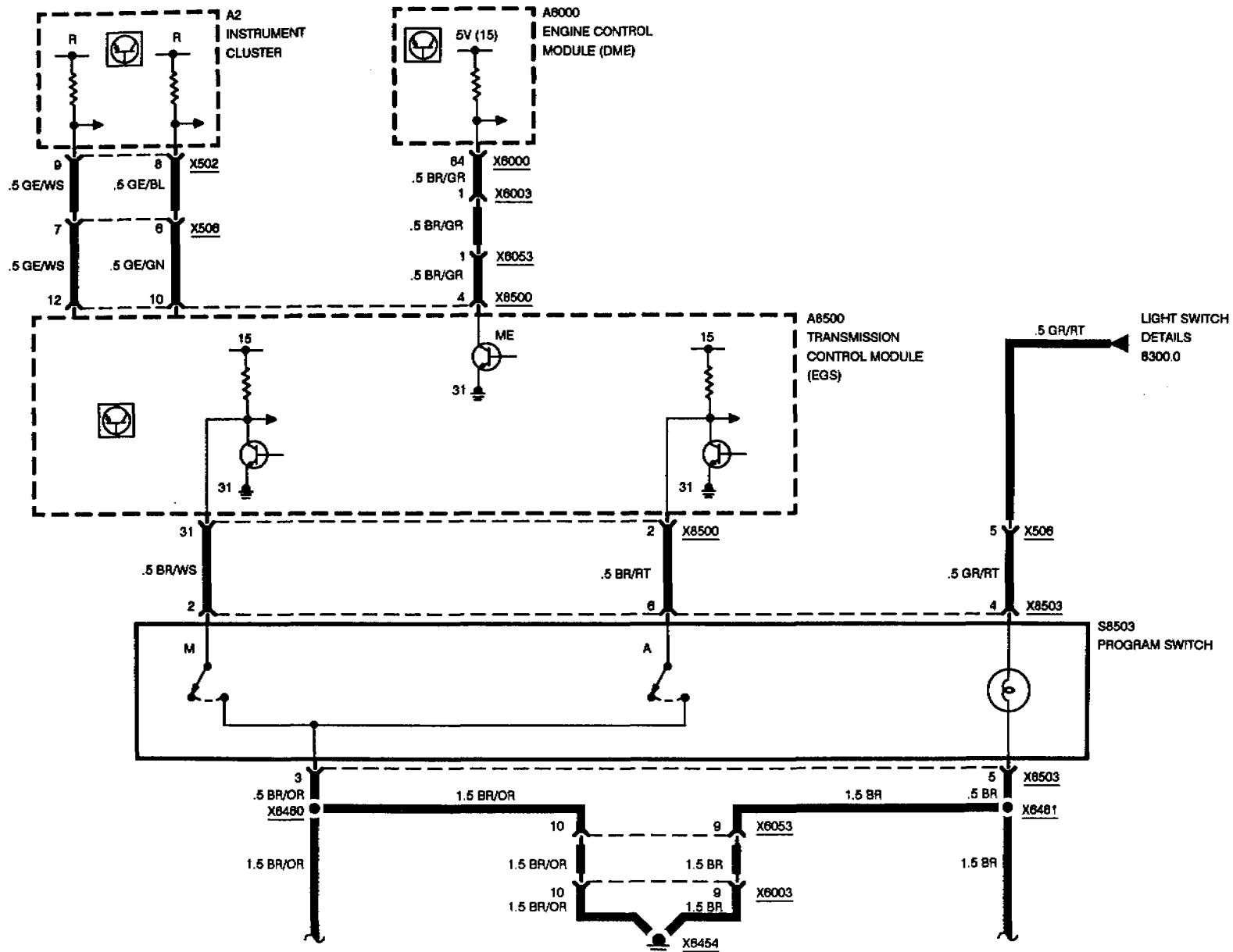
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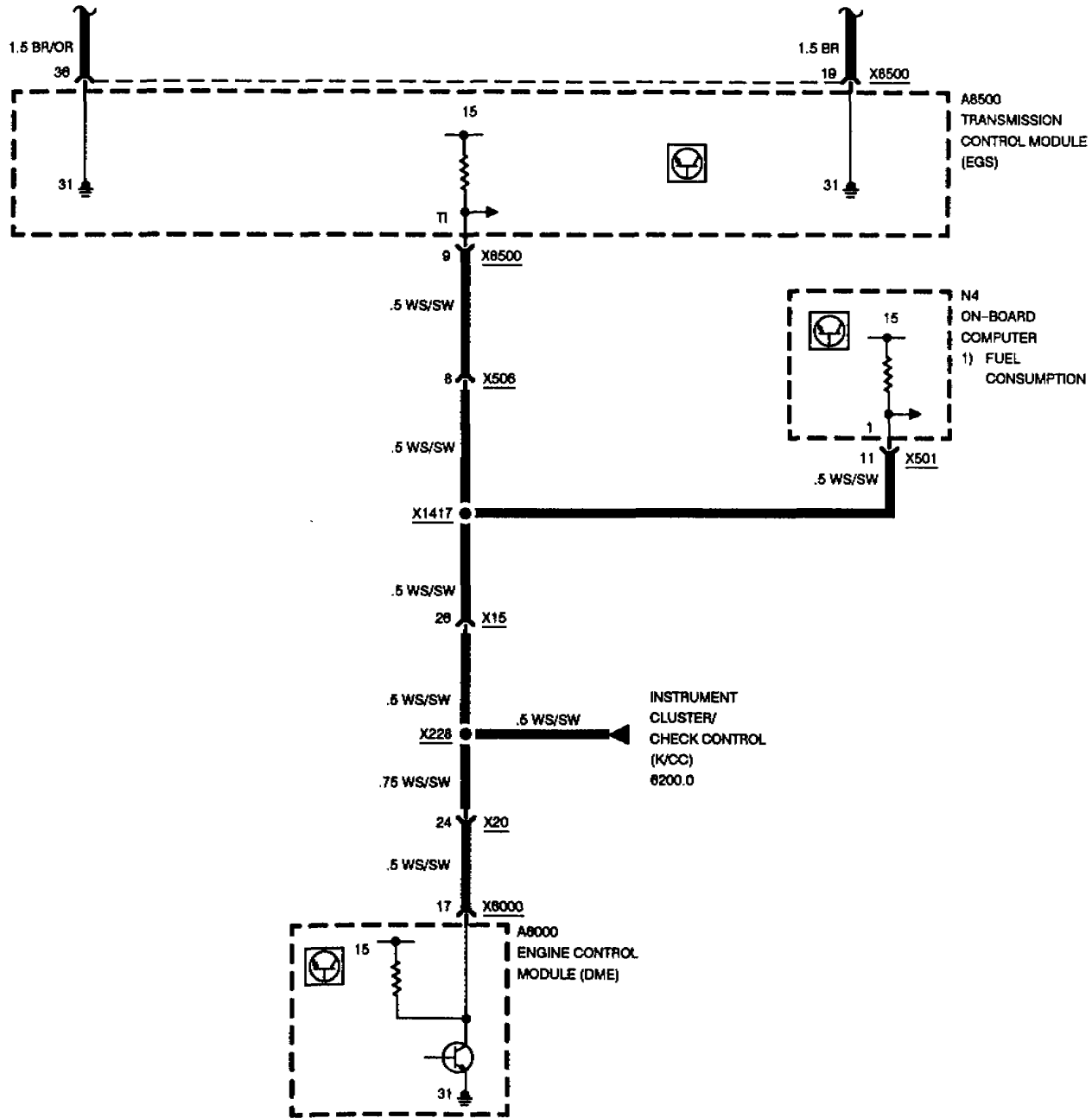






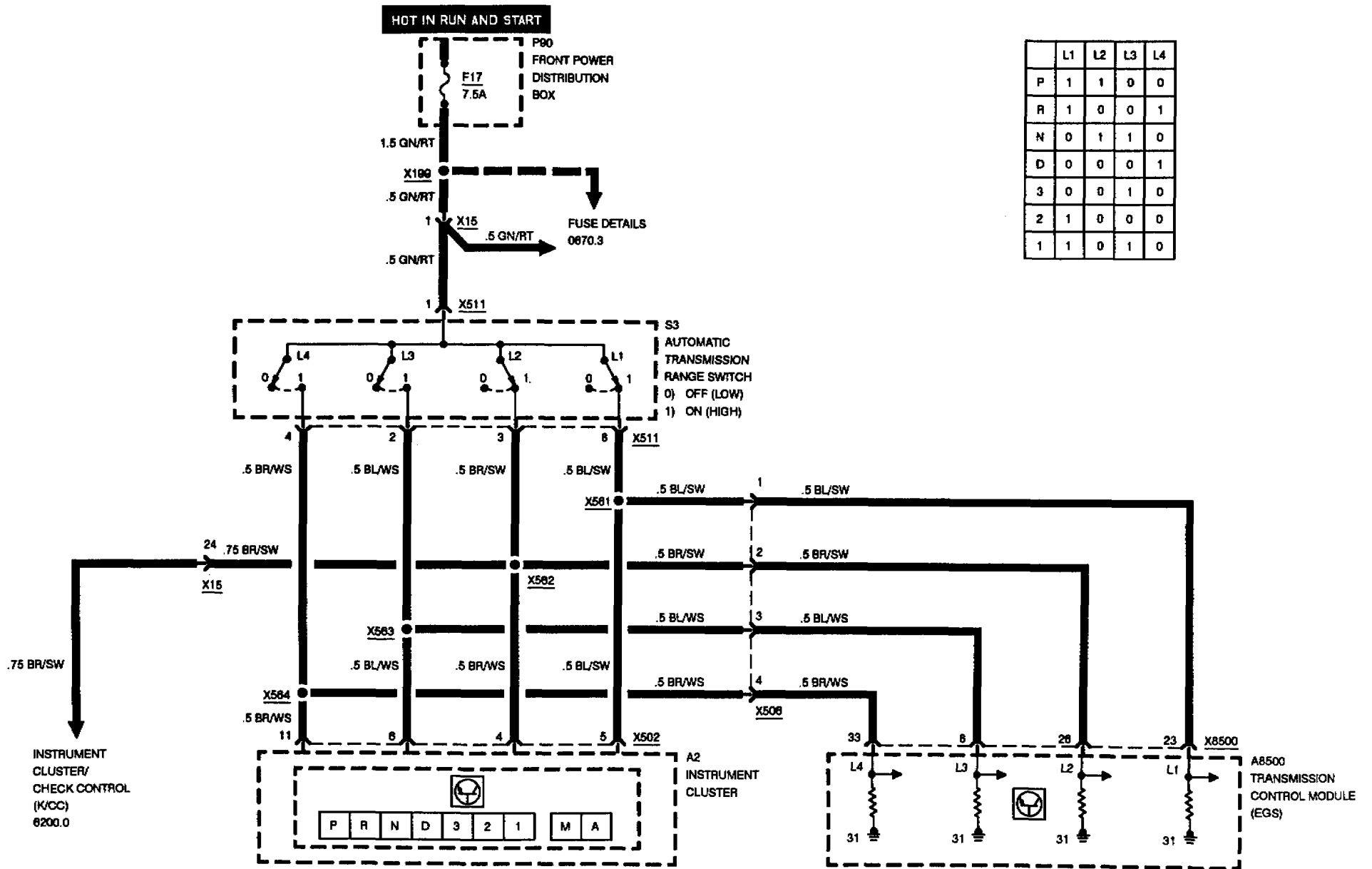
# ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)





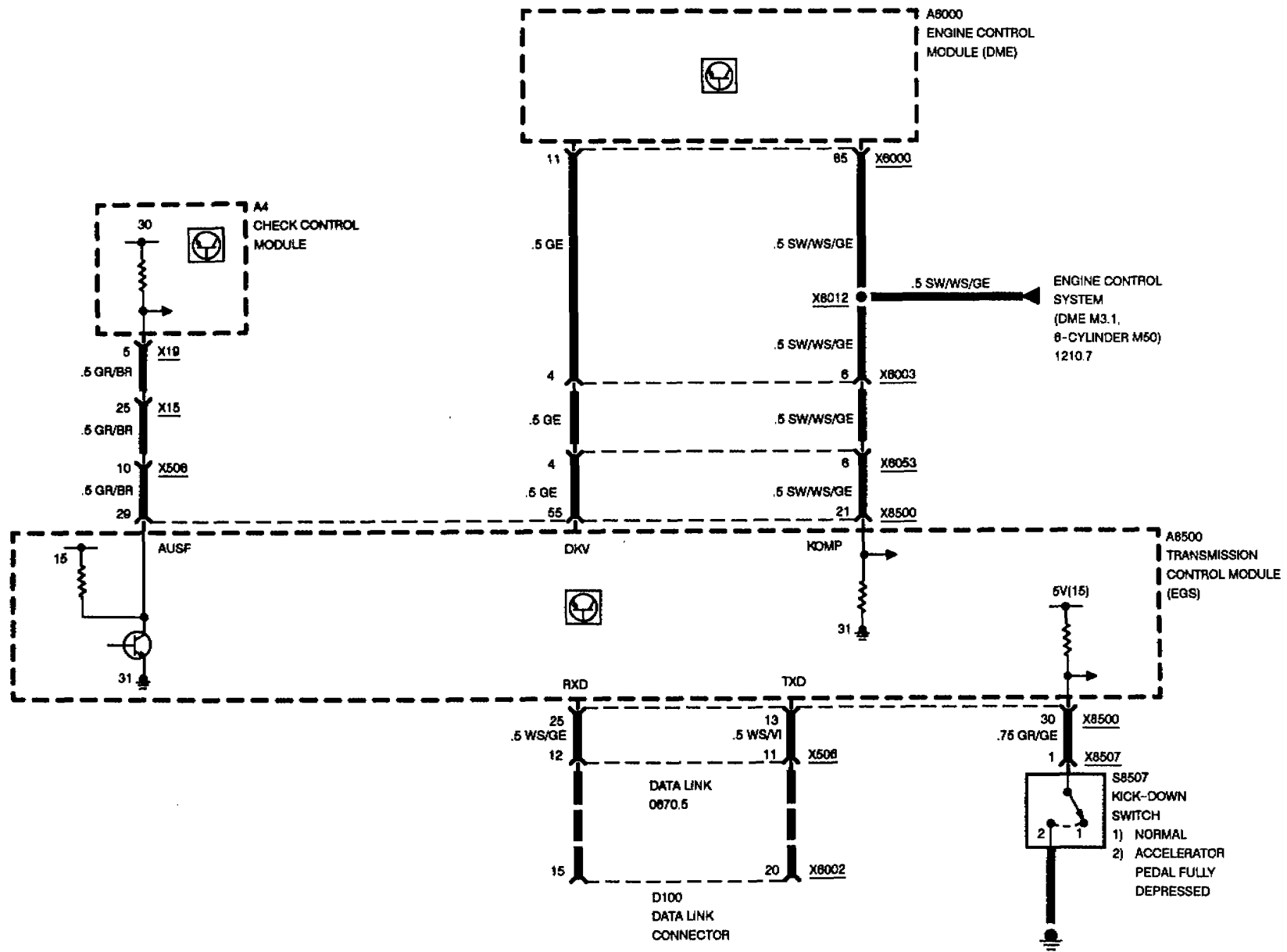


# ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)



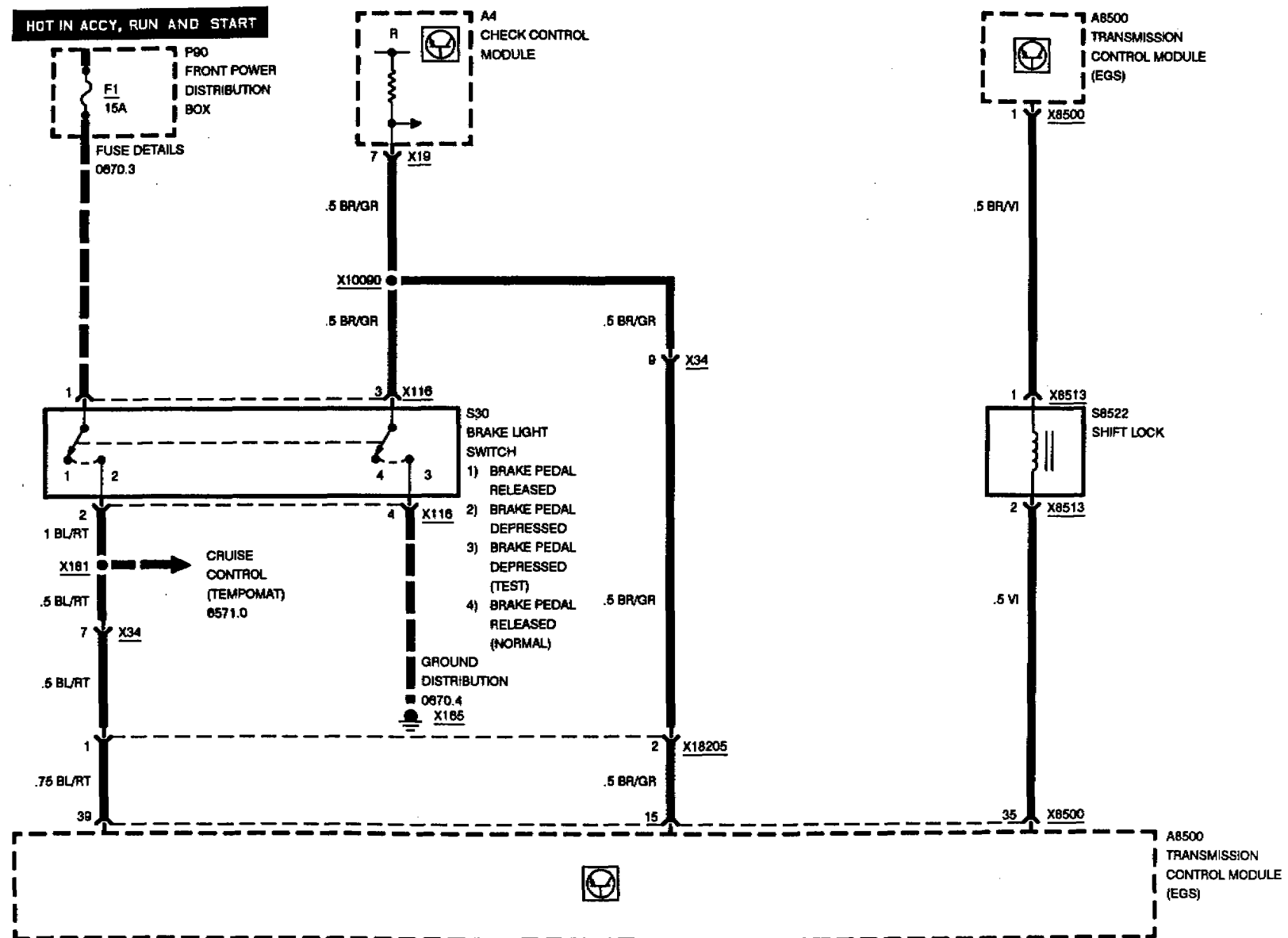
	L1	L2	L3	L4
P	1	1	0	0
R	1	0	0	1
N	0	1	1	0
D	0	0	0	1
3	0	0	1	0
2	1	0	0	0
1	1	0	1	0

# ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)





# ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)

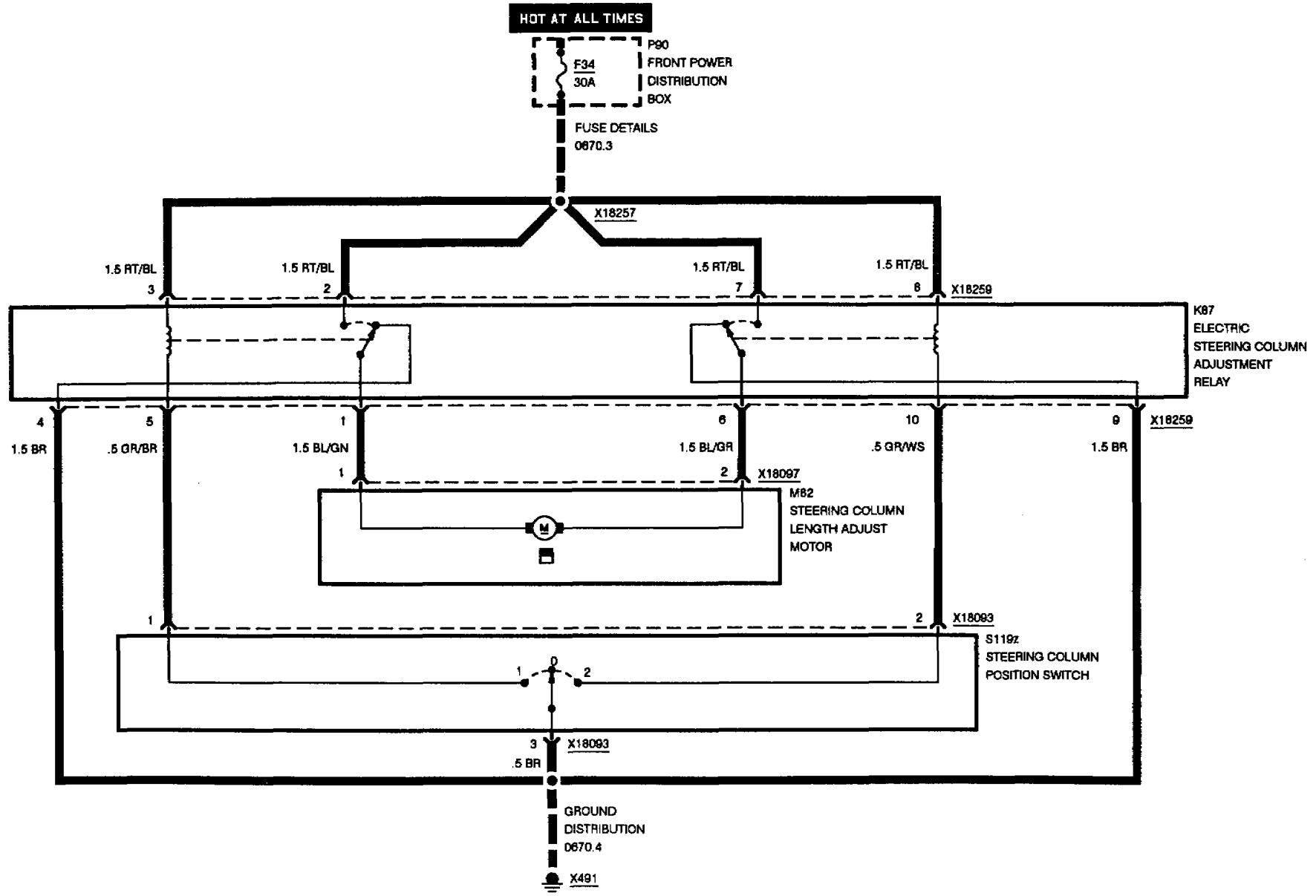








# ELECTRIC STEERING COLUMN ADJUSTMENT

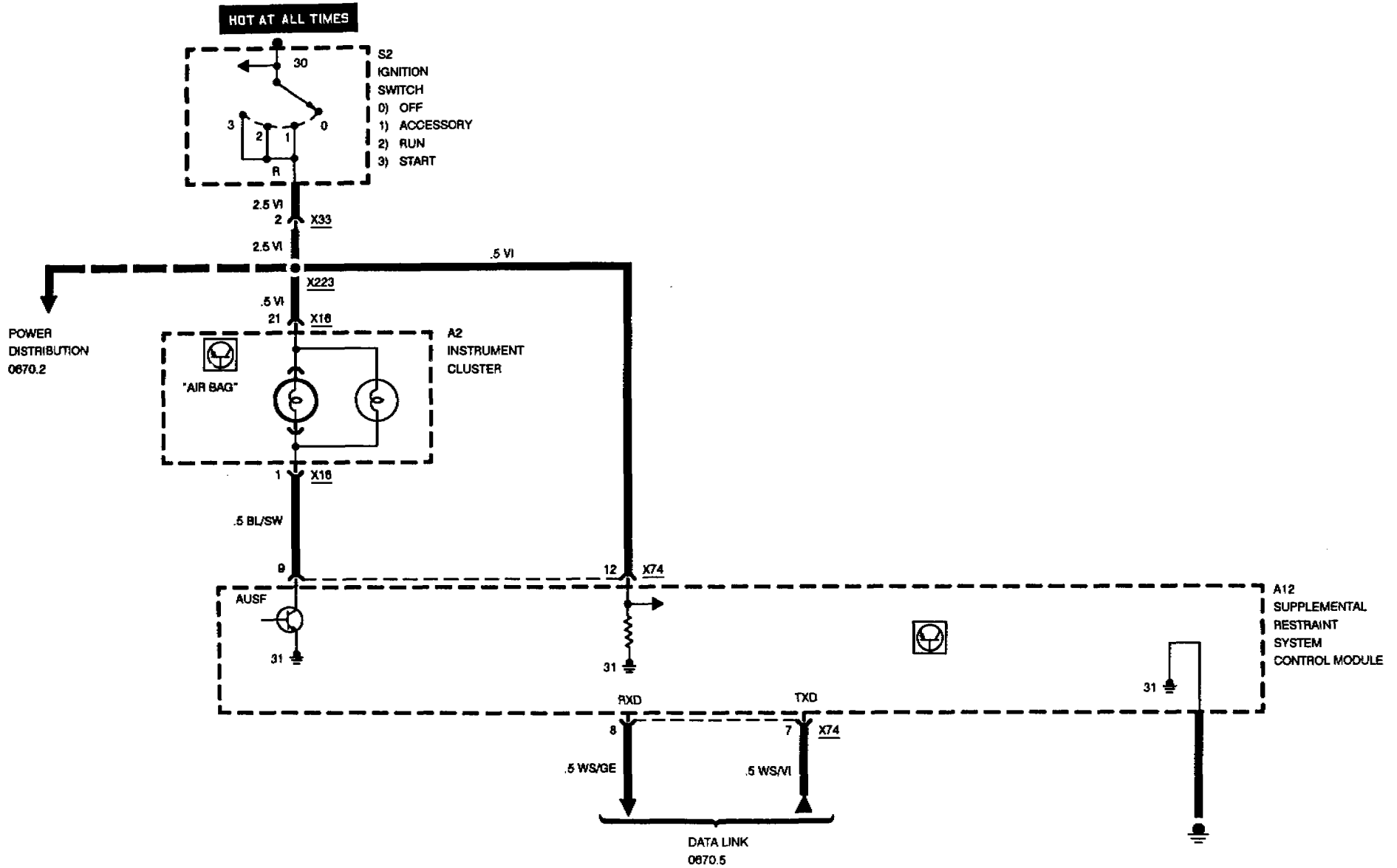


BMW  
5

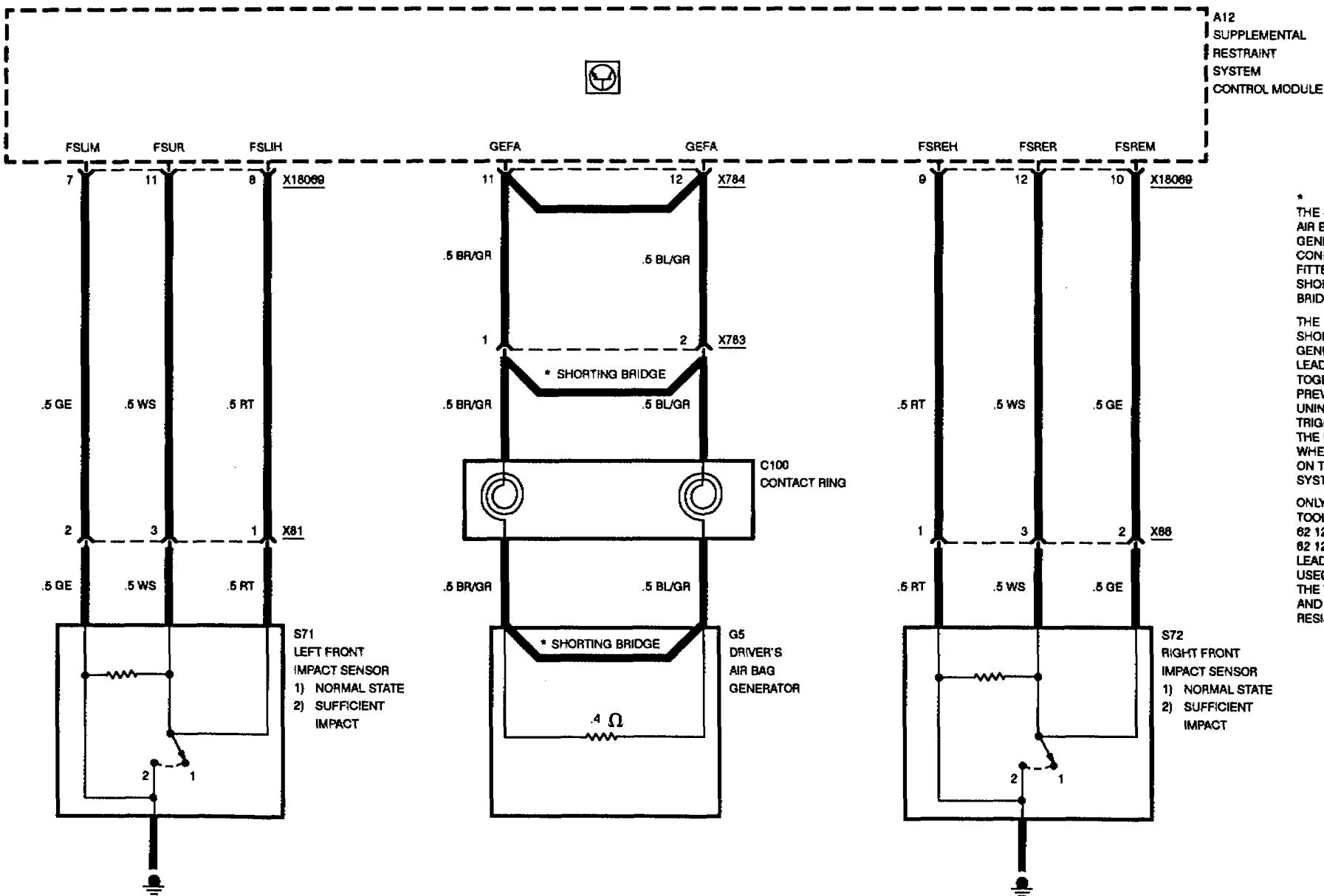
3234.0



# SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG)



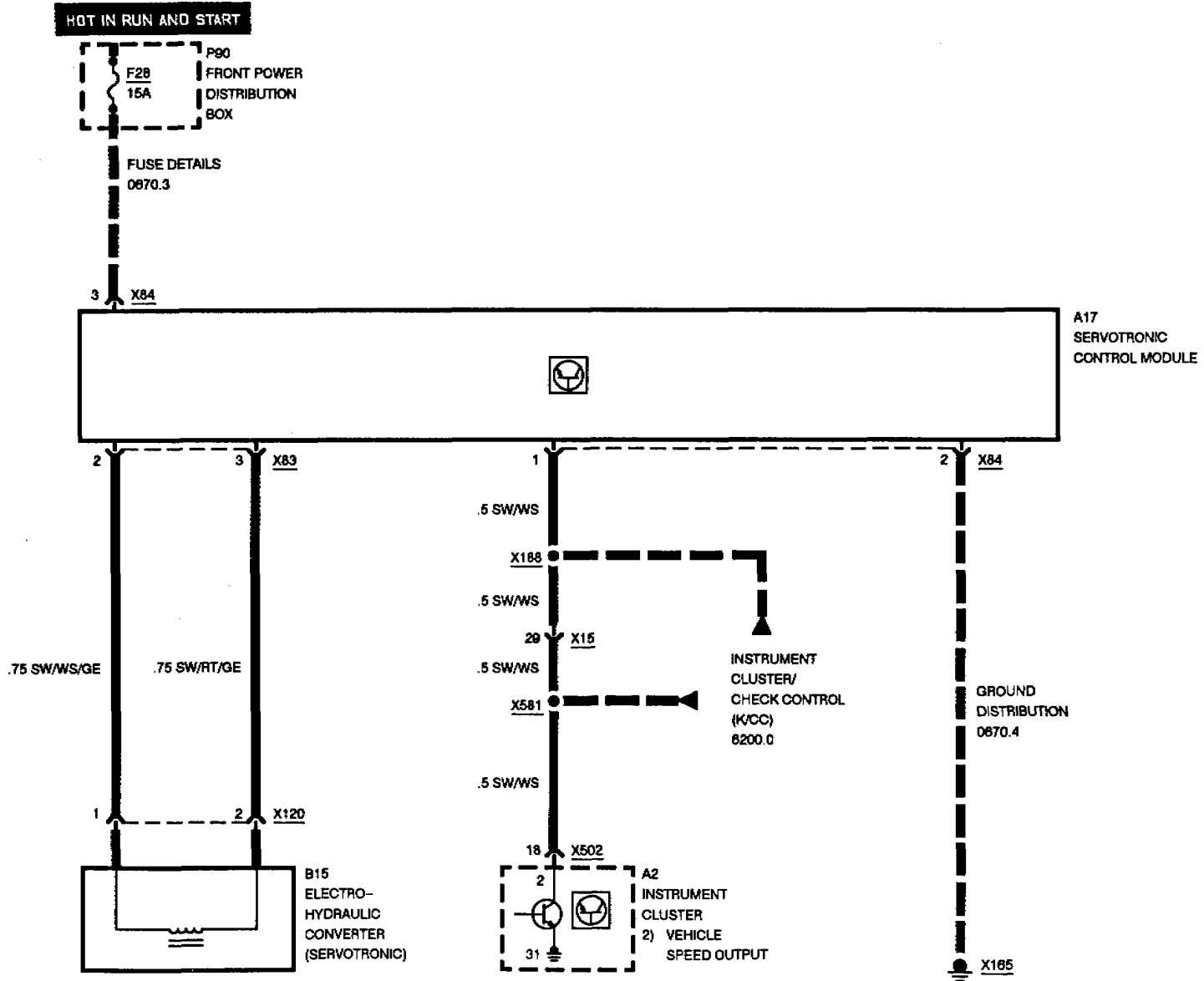
# SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG)

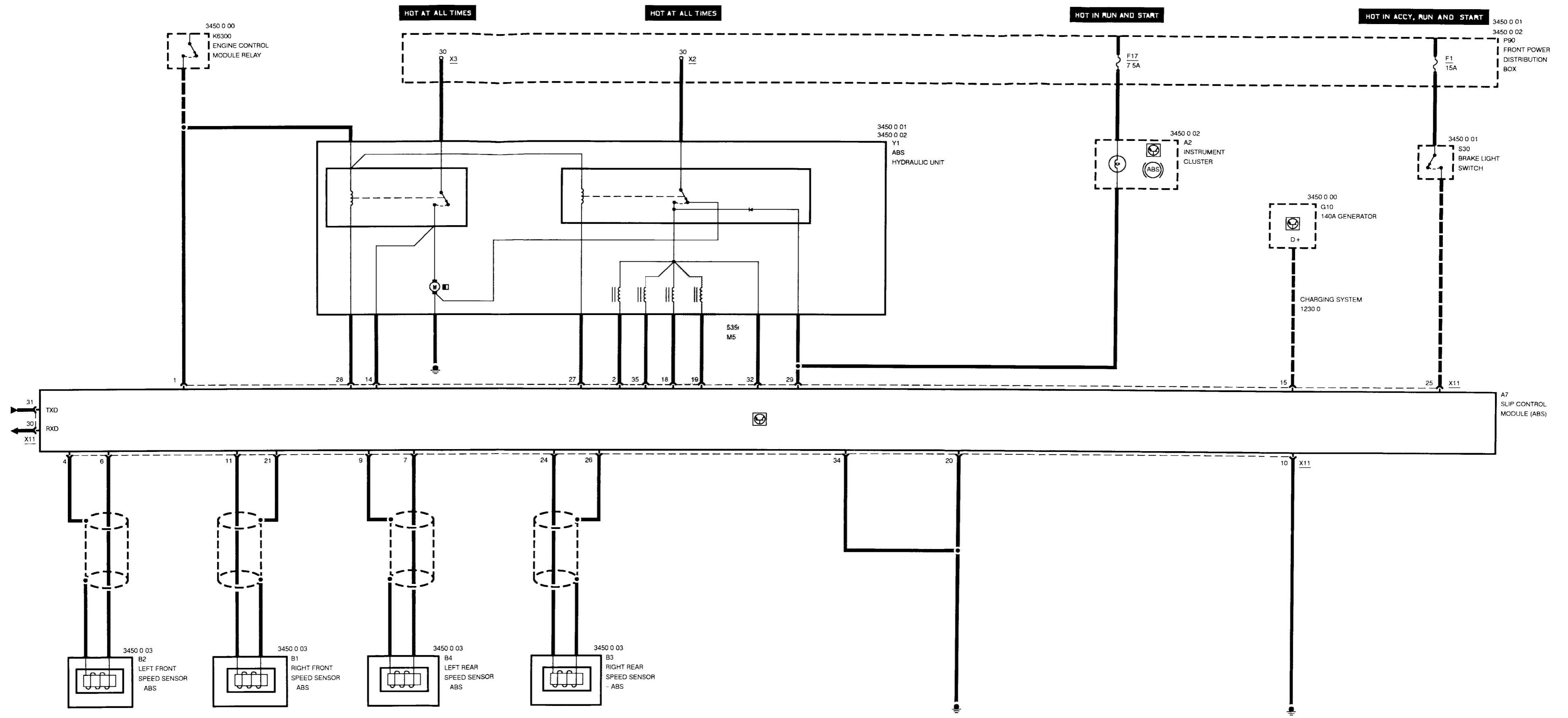


\* THE DRIVER'S AIR BAG GENERATOR CONNECTOR IS FITTED WITH SHORTING BRIDGES. THE BRIDGES SHORT THE GENERATOR LEADS TOGETHER TO PREVENT UNINTENTIONAL TRIGGERING OF THE IGNITER WHEN WORKING ON THE AIR BAG SYSTEM. ONLY SPECIAL TOOLS 82 1260 AND 82 1280 (TEST LEADS) MAY BE USED TO CHECK THE WIRE LOOP AND IGNITER RESISTANCE.



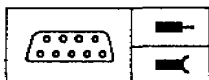
# POWER ASSIST STEERING (SERVOTRONIC)







# ANTILOCK BRAKE SYSTEM (ABS)



## Pin Assignments

### X11

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Battery voltage	DME Relay	approx. 12 V		
2	A	Left front solenoid control	Front left solenoid valve	Ground		
3		Not used				
4	E	Ground	Front left speed sensor	Ground		
5		Not used				
6	E	Speed sensor signal	Front left speed sensor			
7	E	Speed sensor signal	Rear left speed sensor			
8		Not used				
9	E	Ground	Rear left speed sensor	Ground		
10	M	Ground, control unit	Ground	Ground		
11	E	Speed sensor signal	Front right speed sensor			
12		Not used				
13		Not used				
14	E	Pump relay monitor	Pump relay			
15	E	Battery voltage	Alternator	approx. 12 V		
16		Not used				
17		Not used				
18	A	Rear left solenoid control	Rear left solenoid valve	Ground		
19	A	Rear right solenoid control	Rear right solenoid valve	Ground		535i, M5





## ANTILOCK BRAKE SYSTEM (ABS)

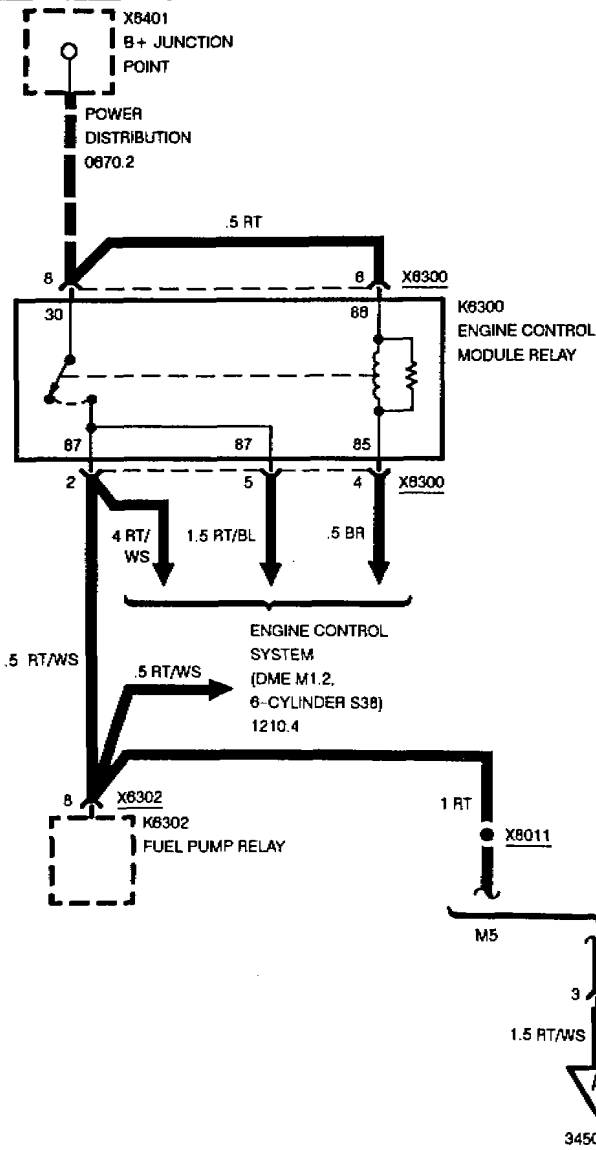
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
20	M	Ground, control unit	Ground	Ground		
21	E	Ground	Front right speed sensor	Ground		
22		Not used				
23		Not used				
24	E	Speed sensor signal	Rear right speed sensor			
25	E	Brake pedal status	Brake light switch			
26	E	Ground	Rear right speed sensor	Ground		
27	A	Valve relay control	Valve relay	Ground		
28	A	Pump relay control	Pump relay	Ground		
29	A	Warning lamp control	Instrument cluster	Ground		
30	A	RxD	Diagnostic connector			
31	E	TxD	Diagnostic connector			
32	E	Display, valve relay	Valve relay			
33		Not used				
34	M	Ground, control unit	Ground	Ground		
35	A	Front right solenoid control	Front right solenoid valve	Ground		

BMW  
**5**

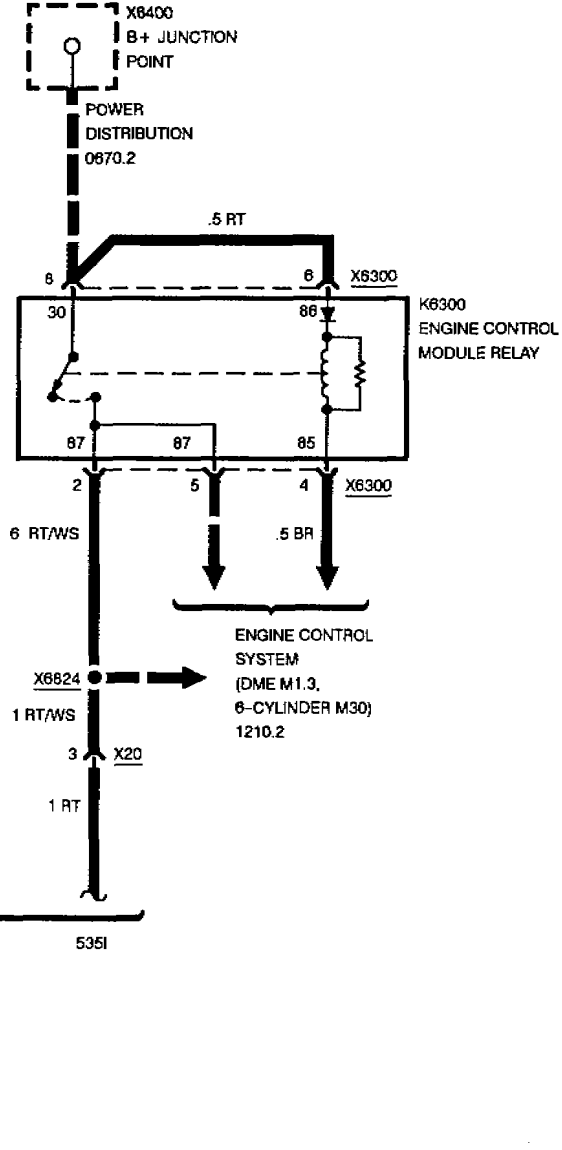
3450.0

# SLIP CONTROL (ABS)

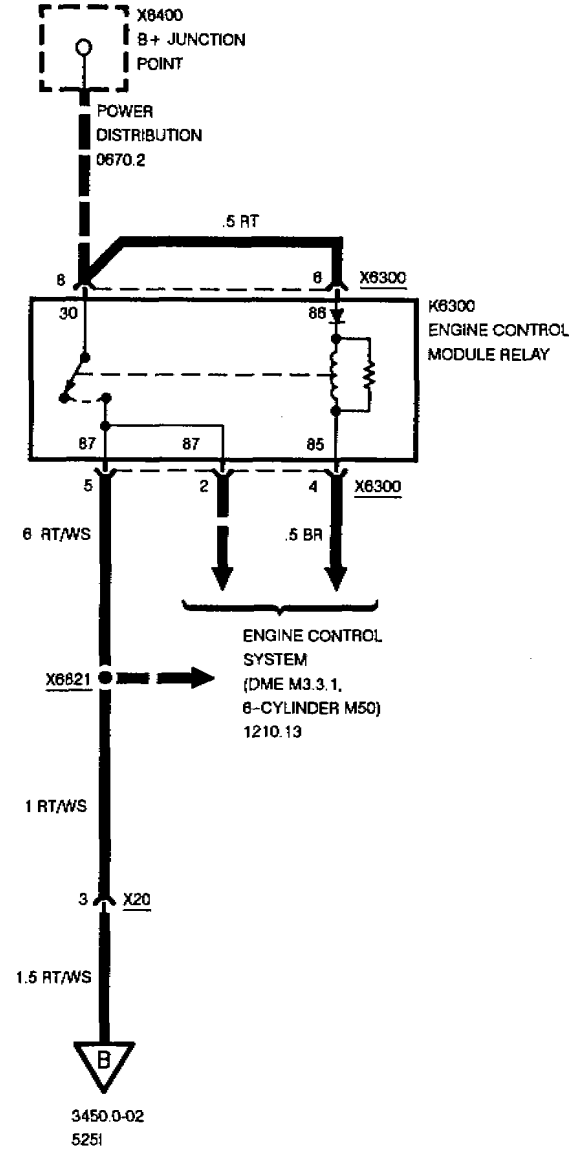
**HOT AT ALL TIMES**



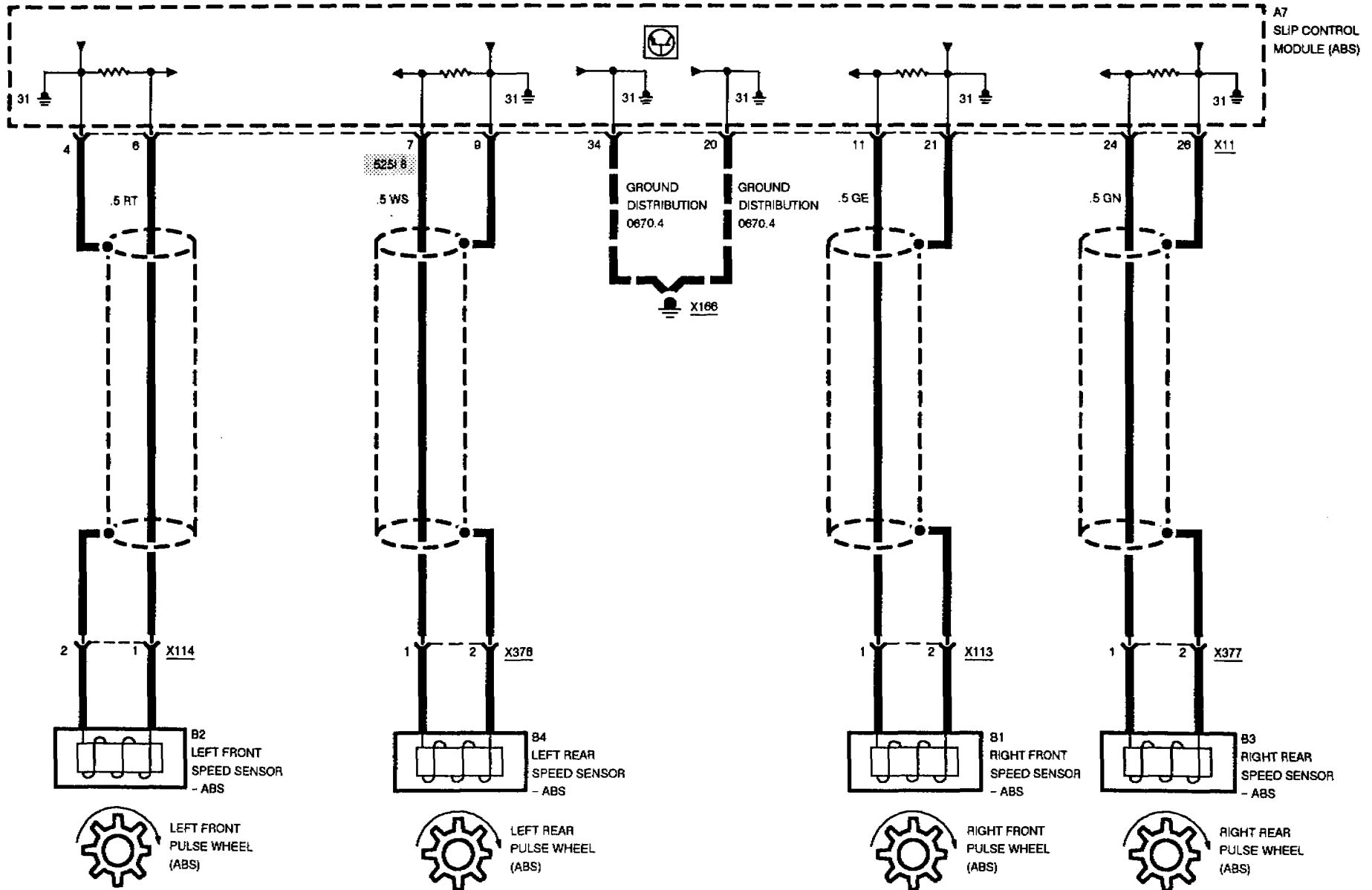
**HOT AT ALL TIMES**



**HOT AT ALL TIMES**

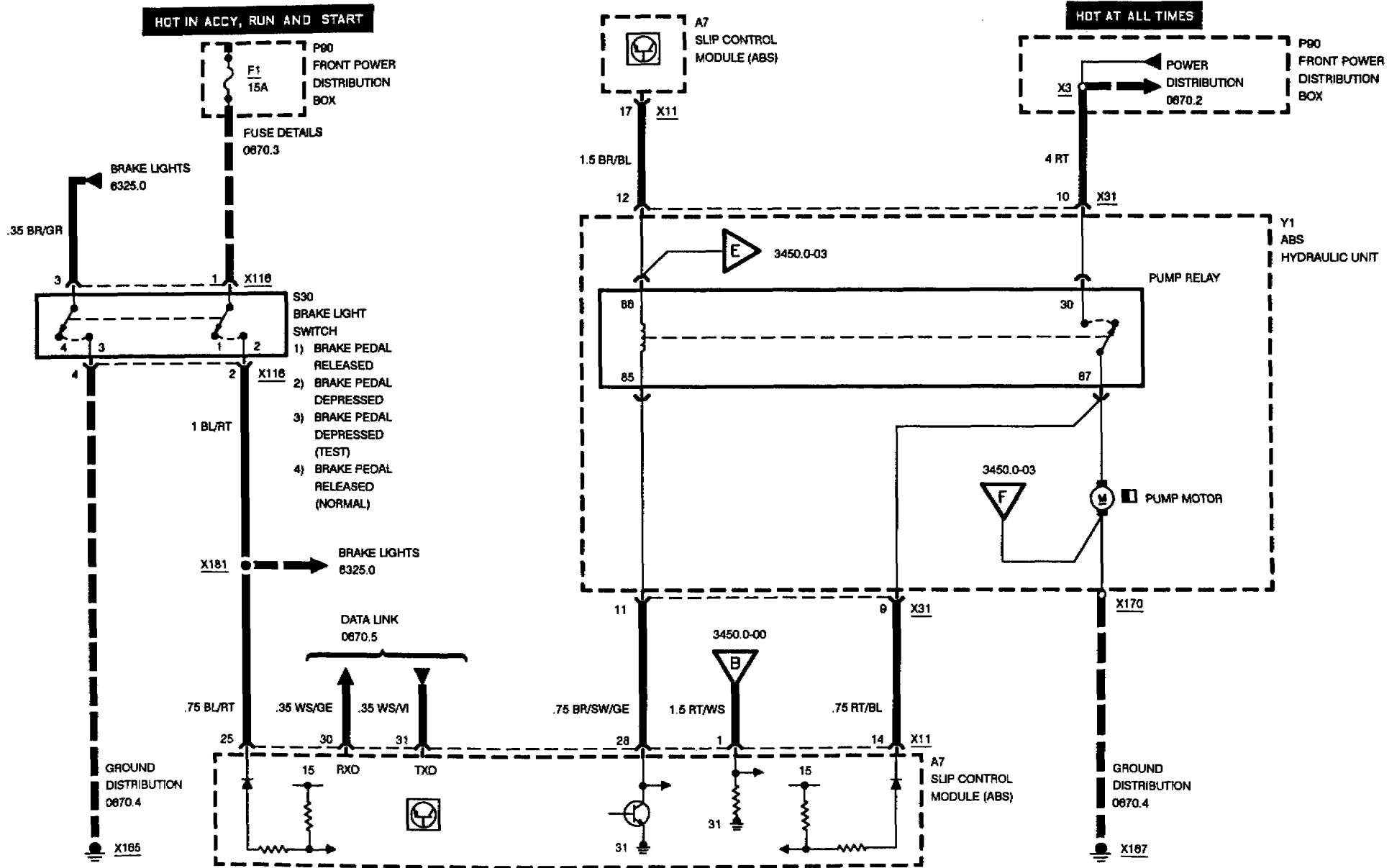


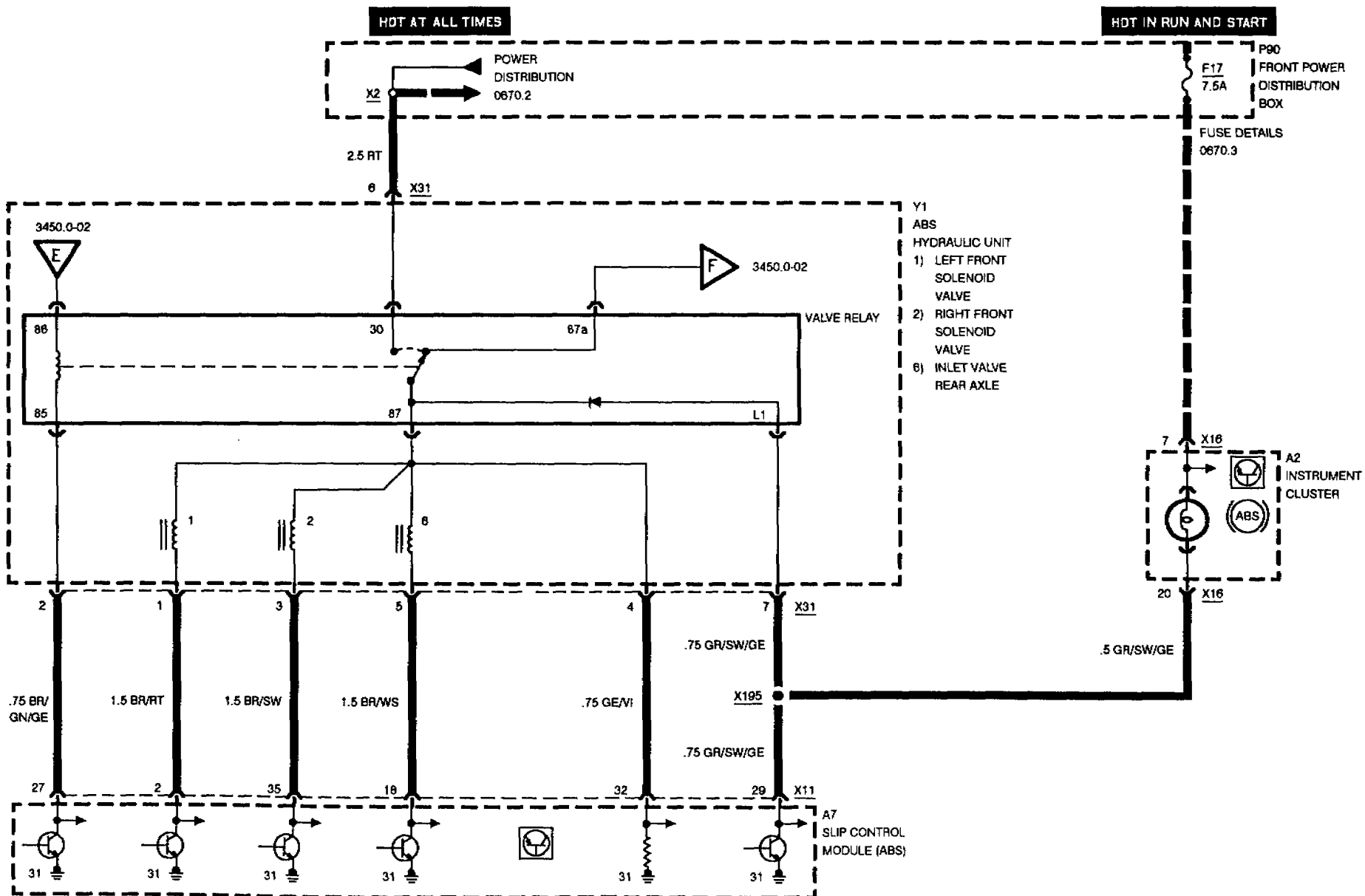
# SLIP CONTROL (ABS)



# SLIP CONTROL (ABS)

525i

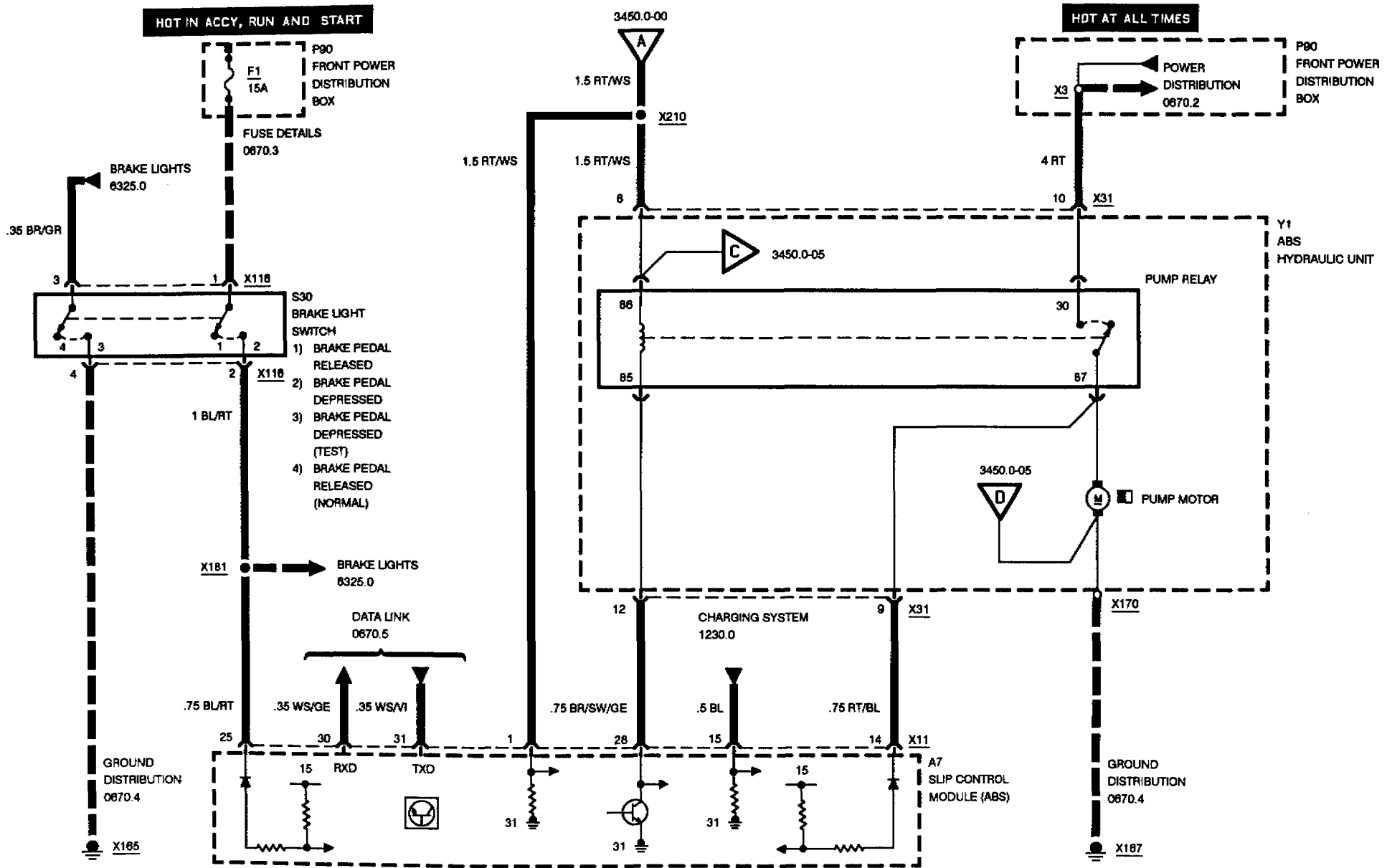






# SLIP CONTROL (ABS)

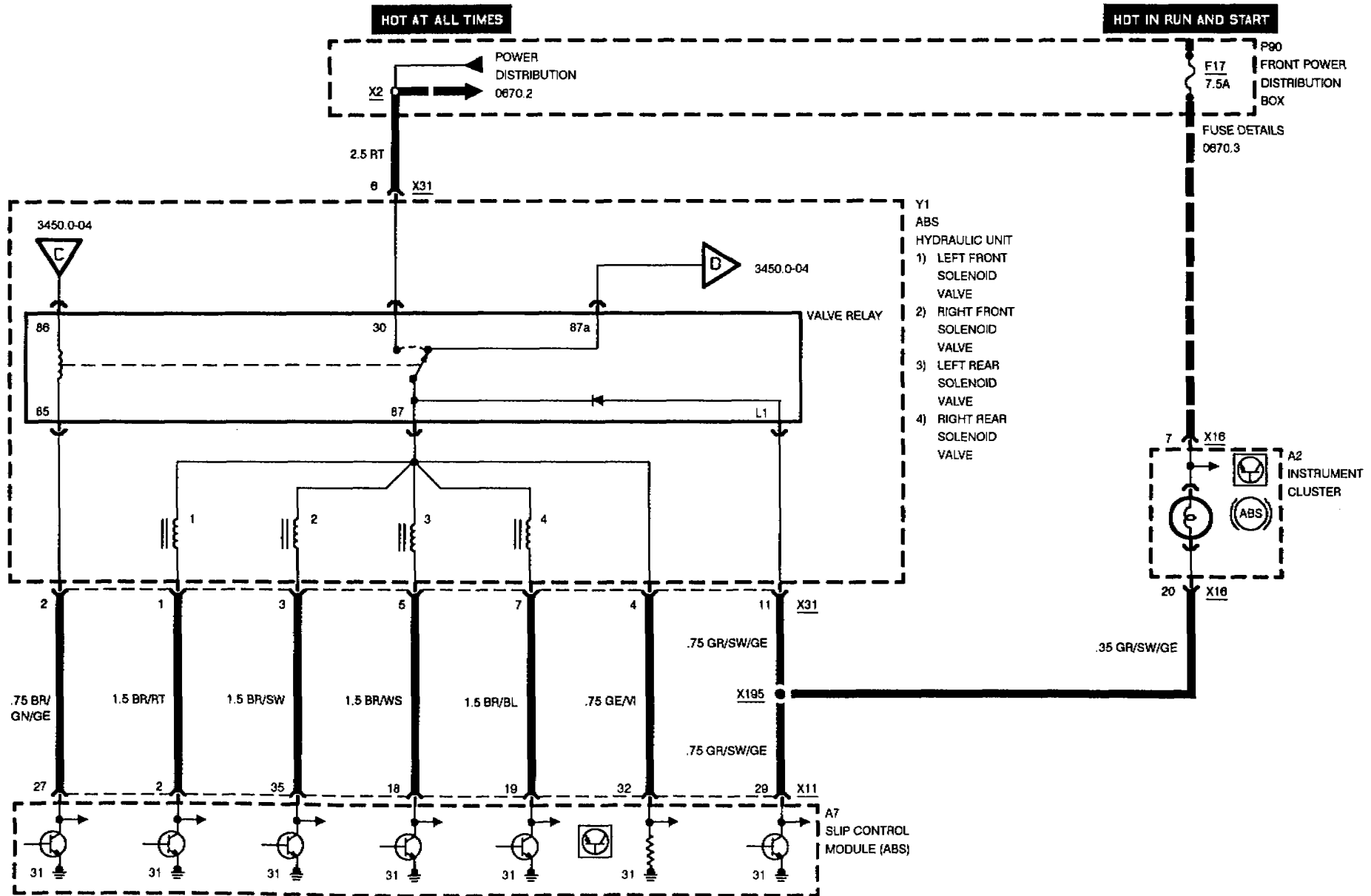
535i, M5





# SLIP CONTROL (ABS)

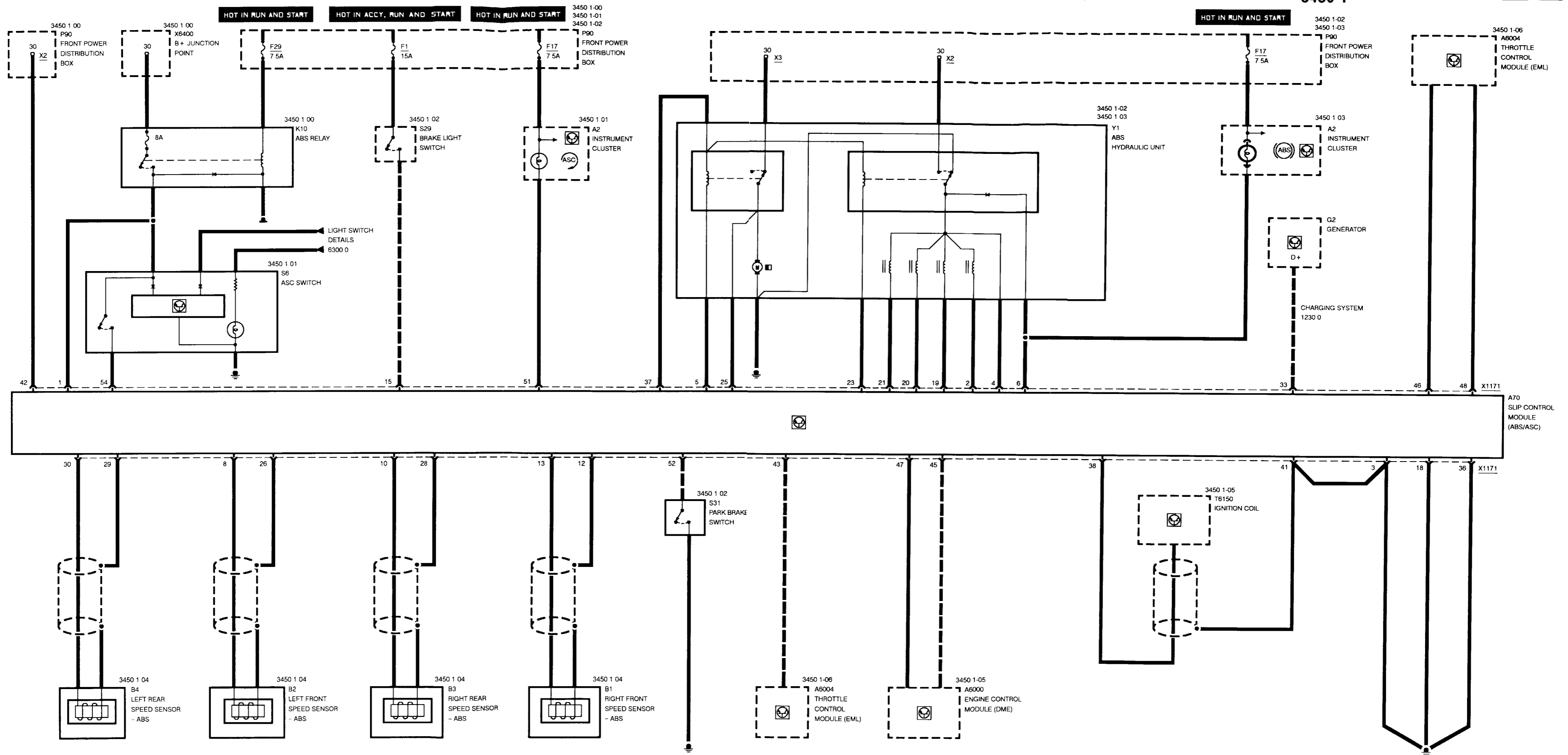
535i, M5





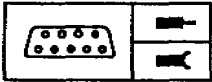
BMW  
**5**

3450.0-06





# AUTOMATIC STABILITY CONTROL (ASC)



## Pin Assignments

### X1171

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Battery voltage	ABS relay	approx. 12 V		
2	A	Right rear solenoid control	Right rear solenoid valve	Ground		
3	M	Ground, control unit	Connection, Pin 41 and ground	Ground		
4	E	Power	Valve relay			
5	E	Controlled ground	Pump relay	Ground		
6	A	ABS lamp control	Instrument cluster	Ground		
7		Not used				
8	E	Speed signal	Left front speed sensor			
9		Not used				
10	E	Speed signal	Right rear speed sensor			
11		Not used				
12	E	Sensor ground	Right front speed sensor	Ground		
13	E	Speed signal	Right front speed sensor			
14		Not used				
15	E	Brake pedal status	Brake light switch	Ground		
16		Not used				
17		Not used				
18	M	Ground, control unit	Ground	Ground		



## AUTOMATIC STABILITY CONTROL (ASC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
19	A	Left rear solenoid control	Left rear solenoid valve	Ground		
20	A	Right front solenoid control	Right front solenoid valve	Ground		
21	A	Left front solenoid control	Left front solenoid valve	Ground		
22		Not used				
23	E	Valve relay control	Valve relay	Ground		
24		Not used				
25	E	Pump relay monitor	Pump relay			
26	E	Sensor ground	Front left speed sensor	Ground		
27		Not used				
28	E	Sensor ground	Right rear speed sensor	Ground		
29	E	Sensor ground	Left rear speed sensor	Ground		
30	E	Speed signal	Left rear speed sensor			
31		Not used				
32		Not used				
33	E	Charging voltage	Alternator	approx. 12 V		
34		Not used				
35		Not used				
36	M	Ground, control unit	Ground	Ground		
37	A	Power signal	Pump relay			
38	E	Ignition timing signal	Ignition coil			
39		Not used				
40		Not used				
41	M	Ground	Connection, Pin 3	Ground		
42	E	Battery voltage	Power distribution box	approx. 12 V		

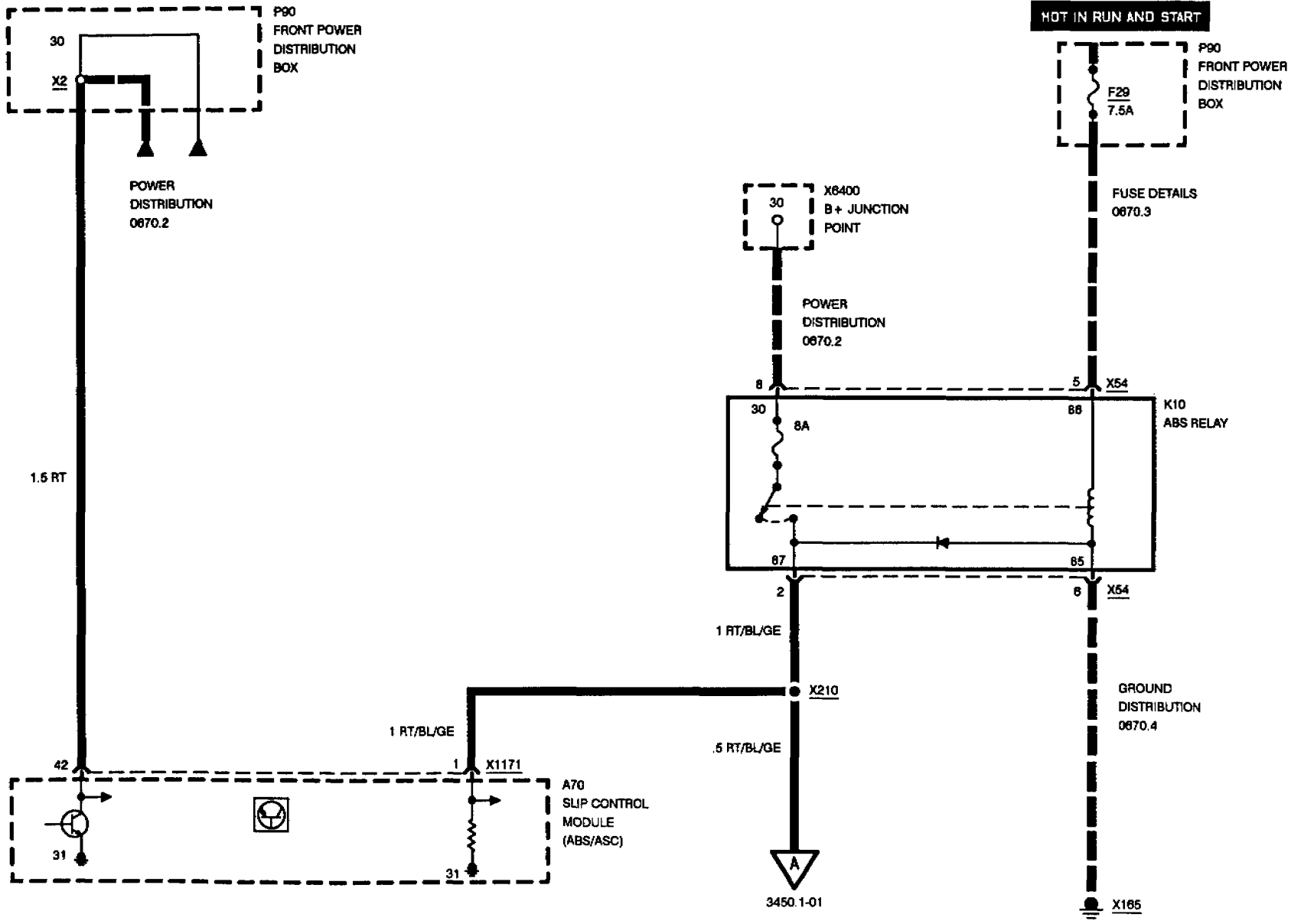


## AUTOMATIC STABILITY CONTROL (ASC)

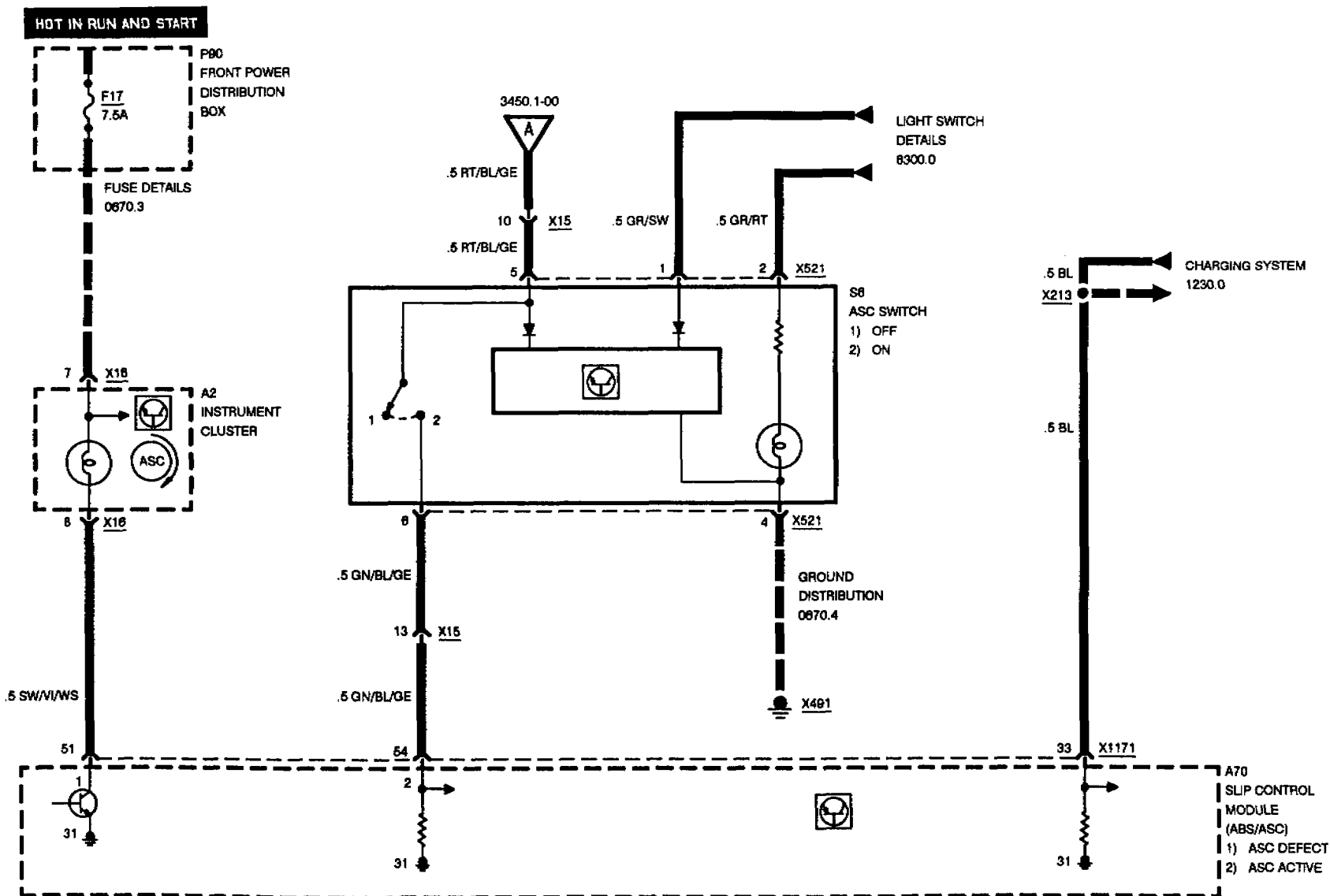
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
43	A	EML-Signal	EML-Module			
44		Not used				
45	E	Ignition cut-off signal	DME-Module			
46	E	Throttle signal	EML-Module			
47	E	DME-signal	DME-Module			
48	E	Throttle signal	EML-Module			
49		Not used				
50		Not used				
51	A	ASC lamp control	Instrument cluster	Ground		
52	E	Park brake signal	Park brake switch	Ground		
53		Not used				
54	E	Switch signal	ASC-Switch			
55		Not used				



# SLIP CONTROL (ABS/ASC)

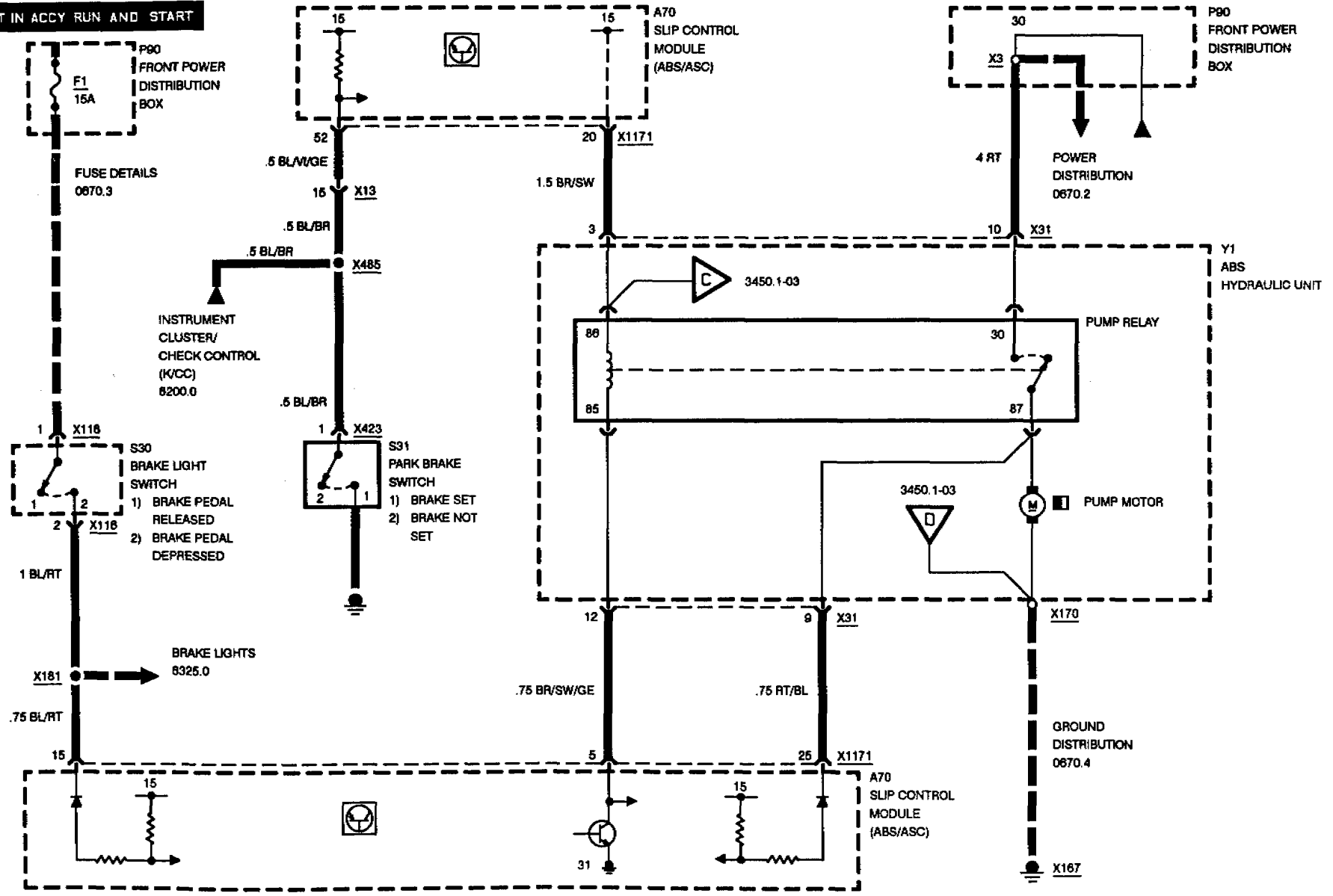


# SLIP CONTROL (ABS/ASC)



# SLIP CONTROL (ABS/ASC)

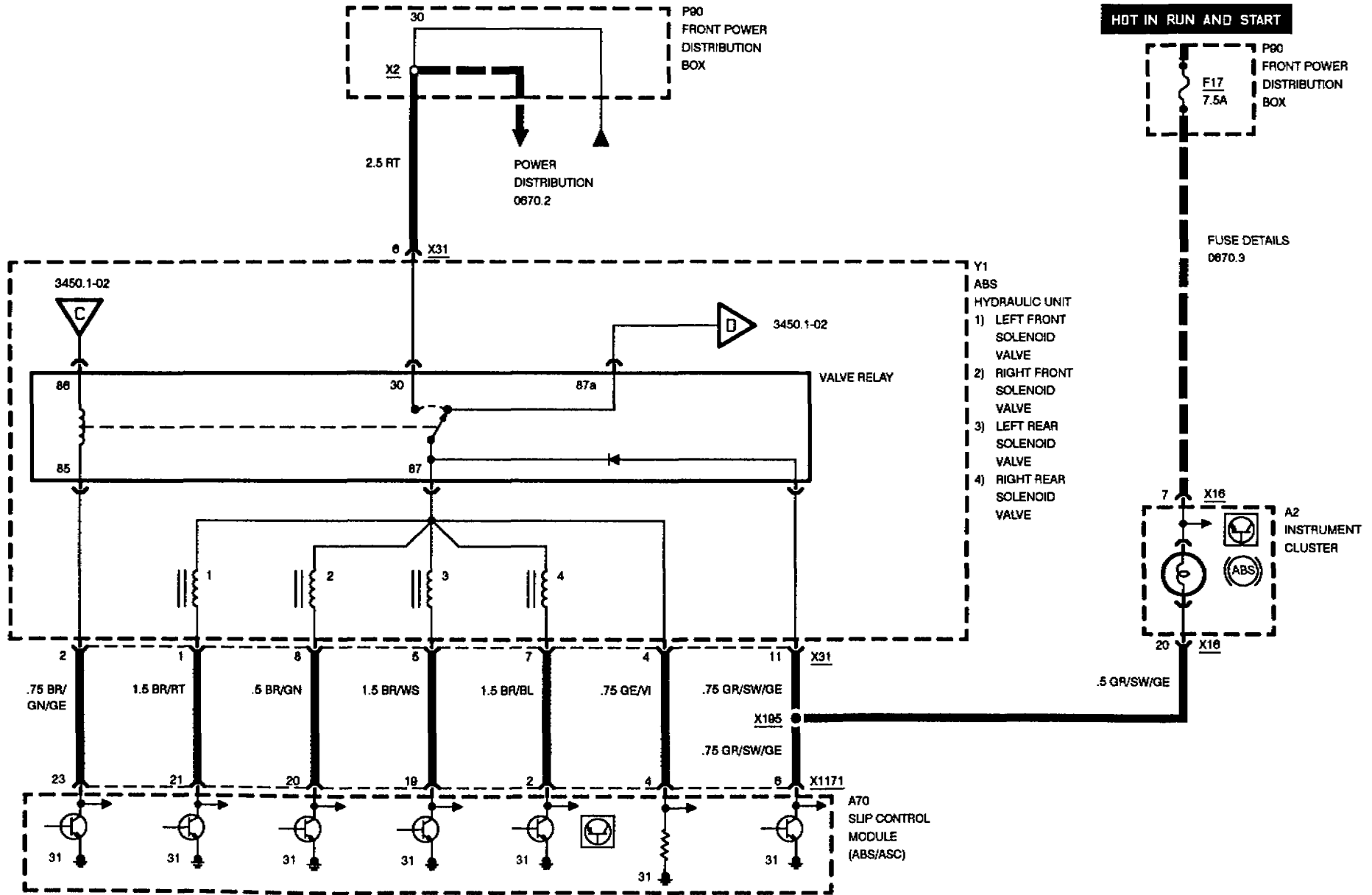
**HOT IN ACCY RUN AND START**





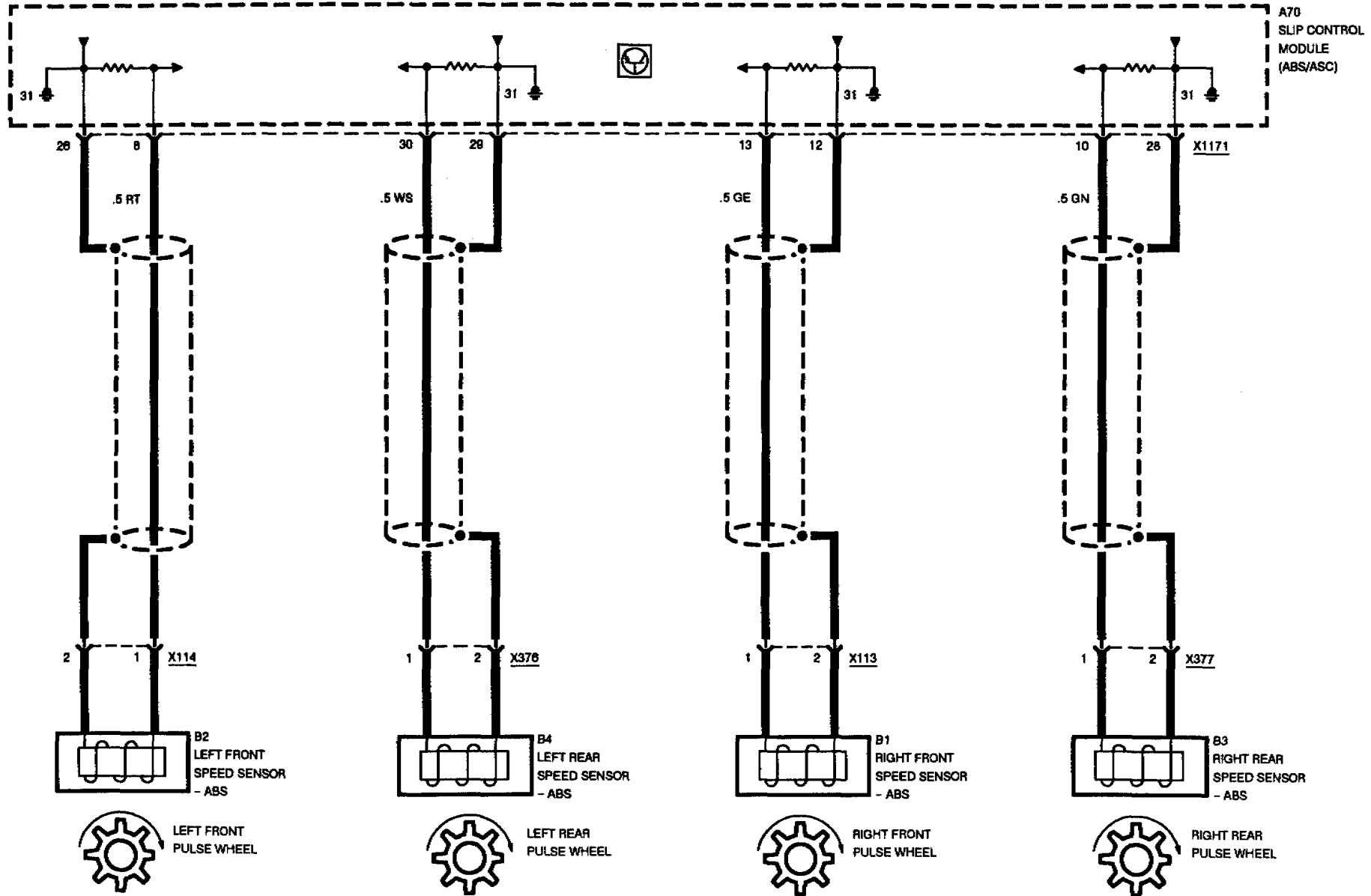


# SLIP CONTROL (ABS/ASC)



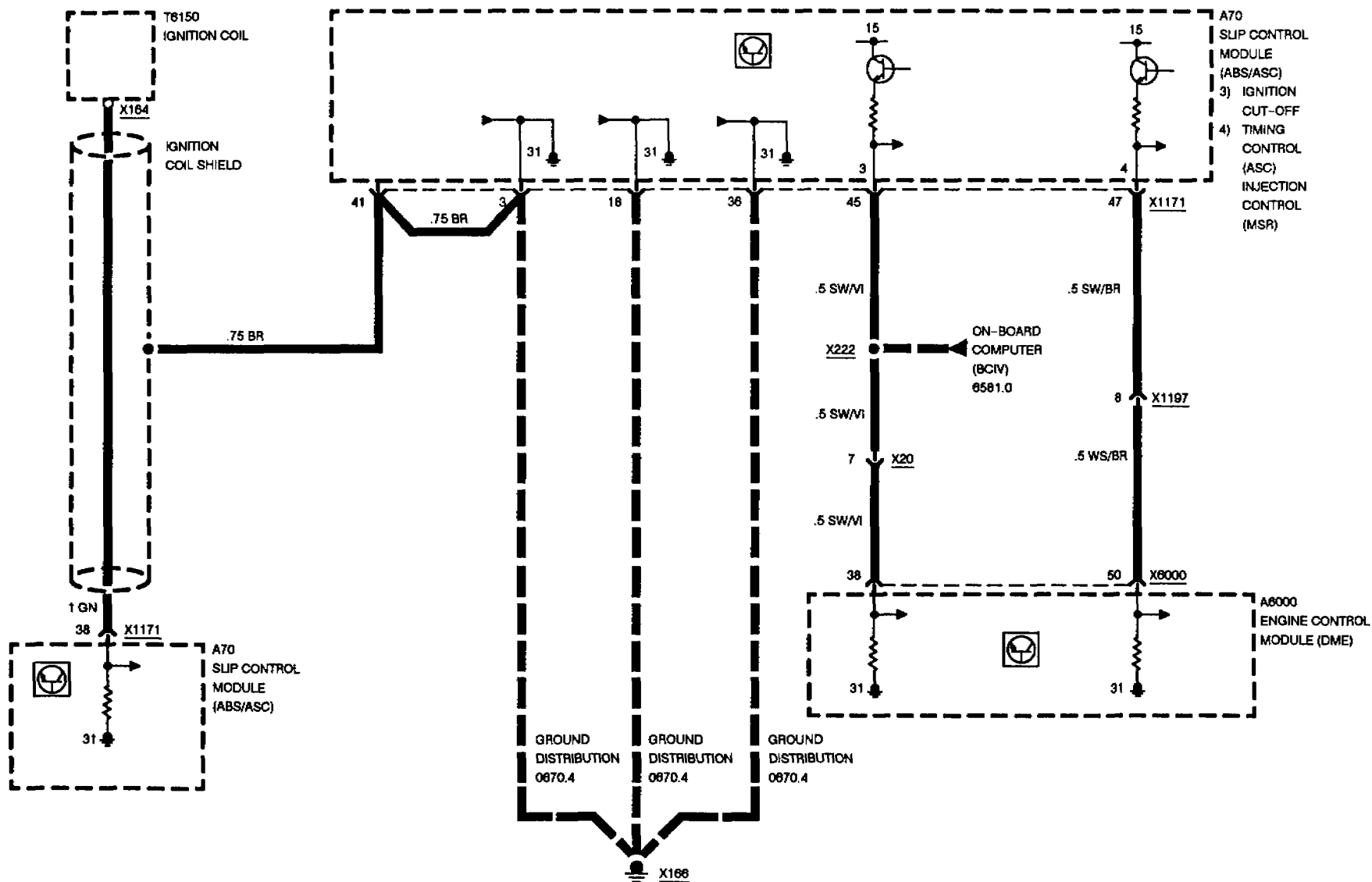


# SLIP CONTROL (ABS/ASC)



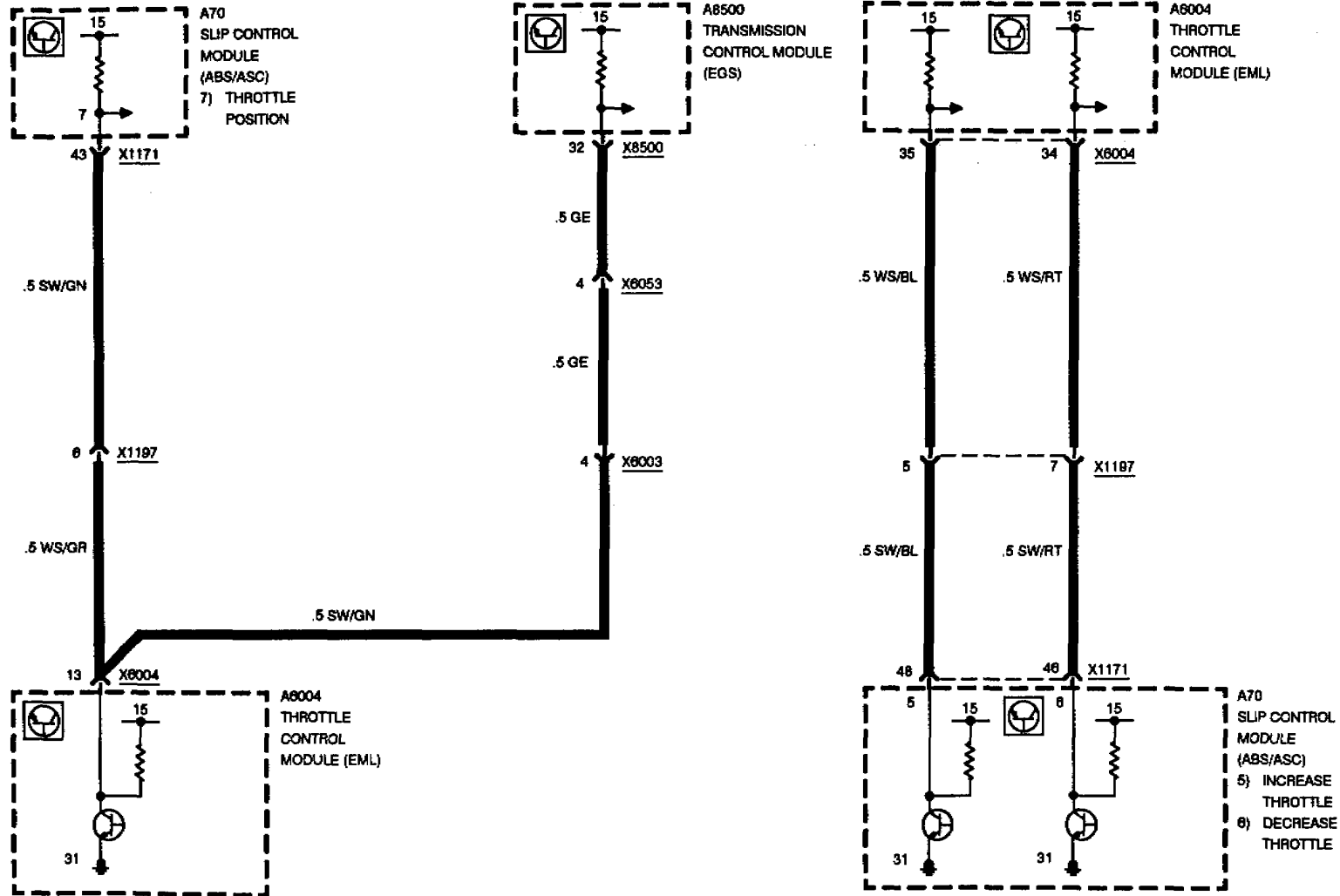


# SLIP CONTROL (ABS/ASC) ENGINE CONTROL (DME) INTERFACE



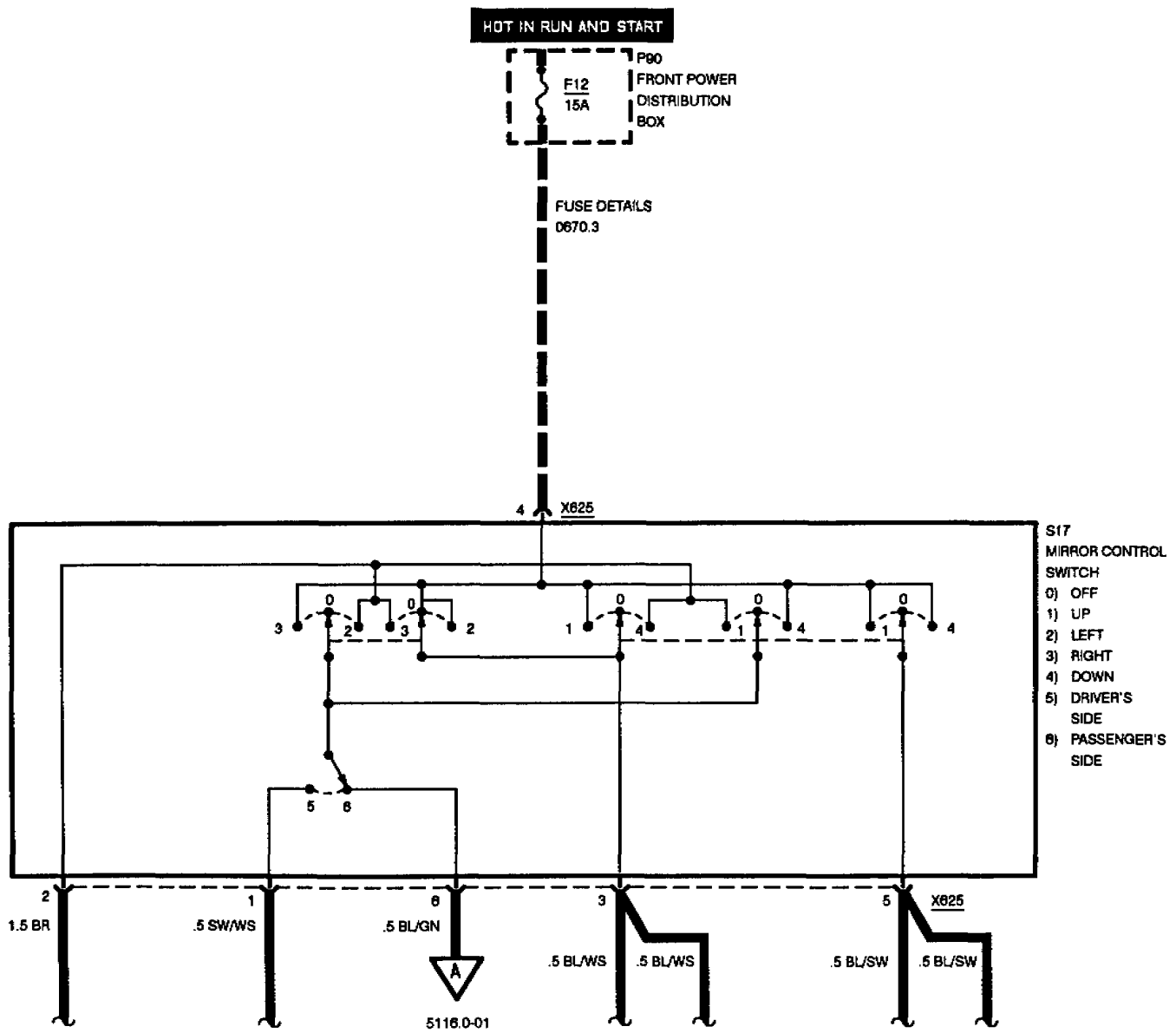


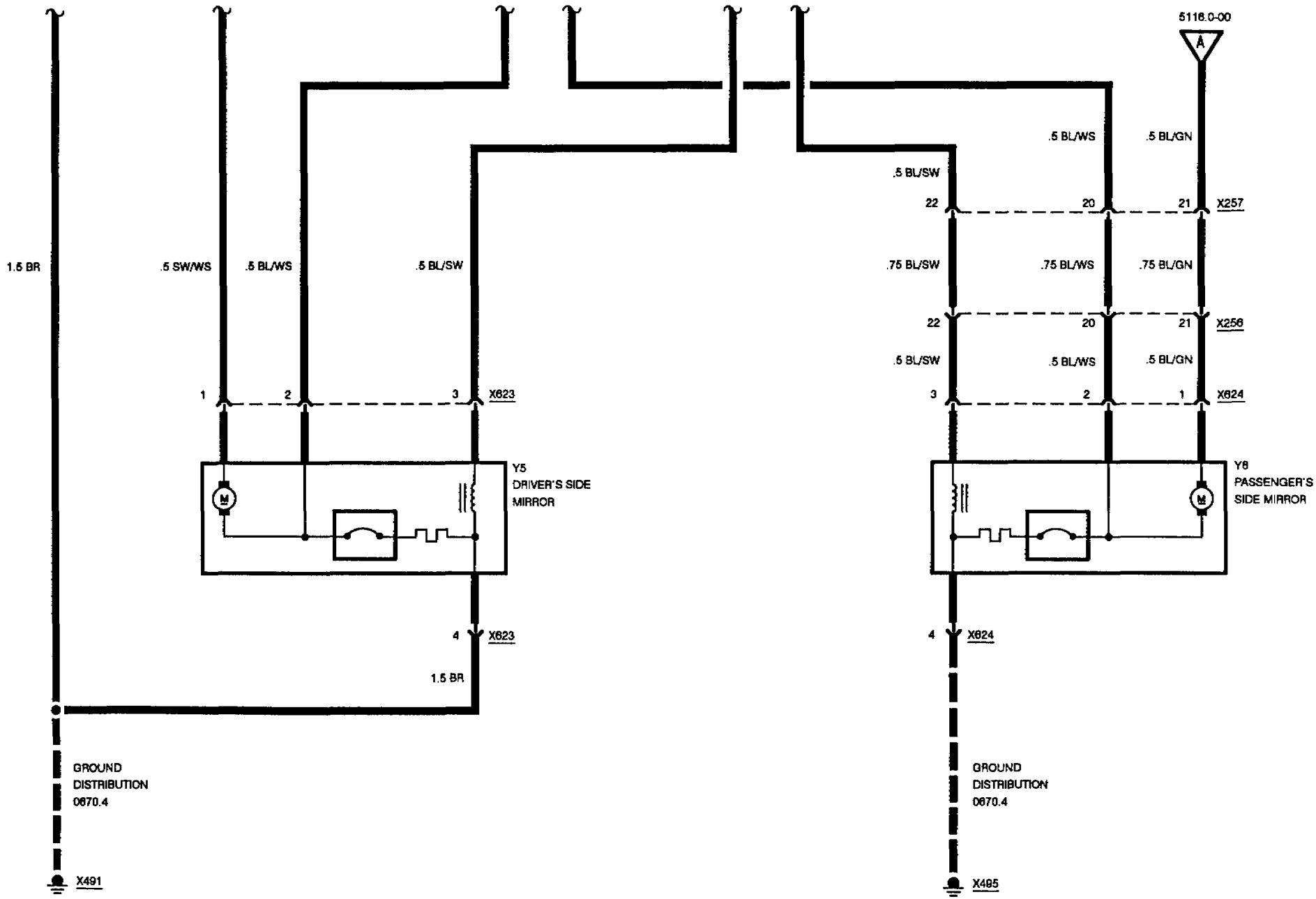
# SLIP CONTROL (ABS/ASC) EML INTERFACE



BMW  
5

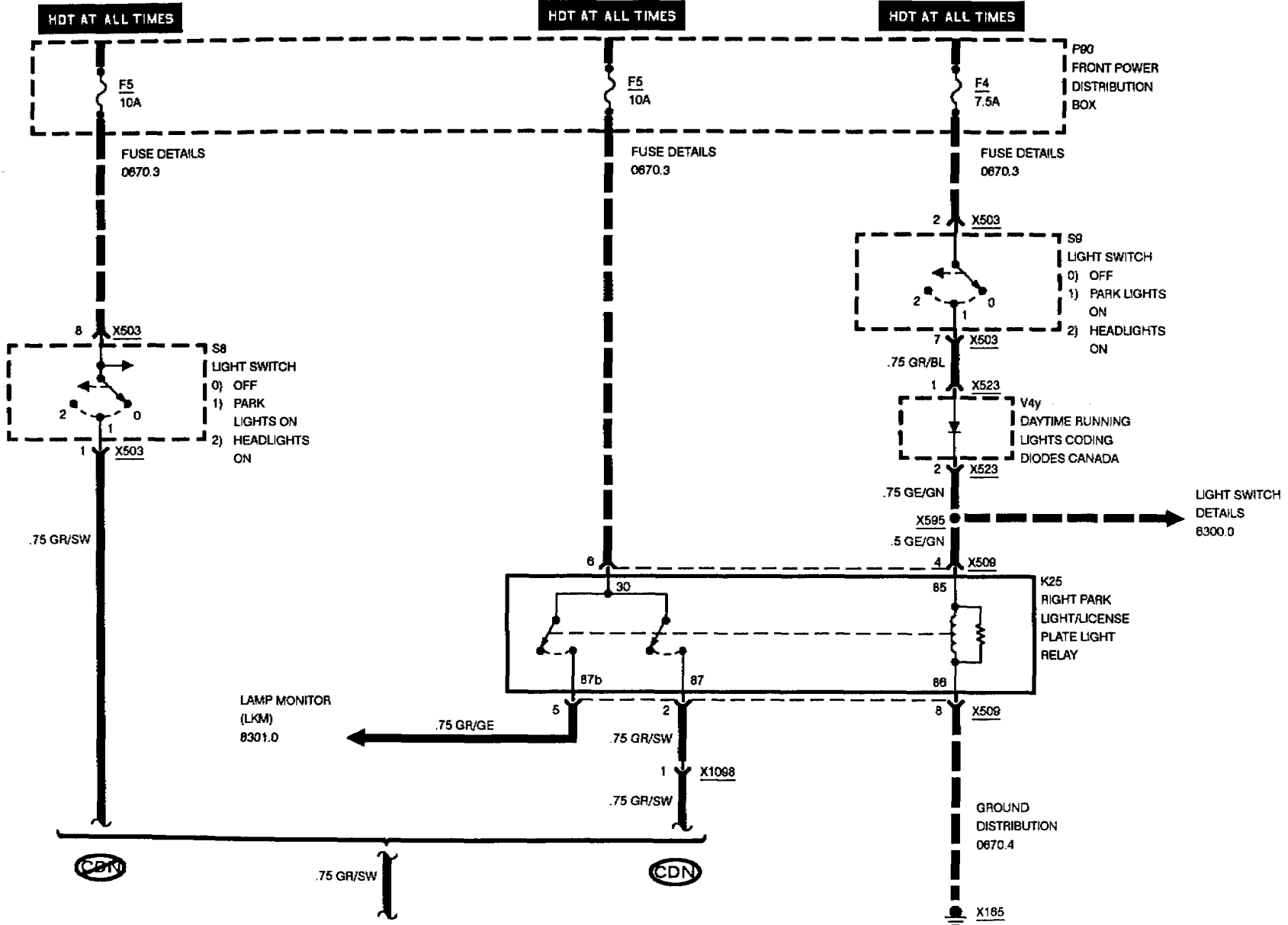
5116.0



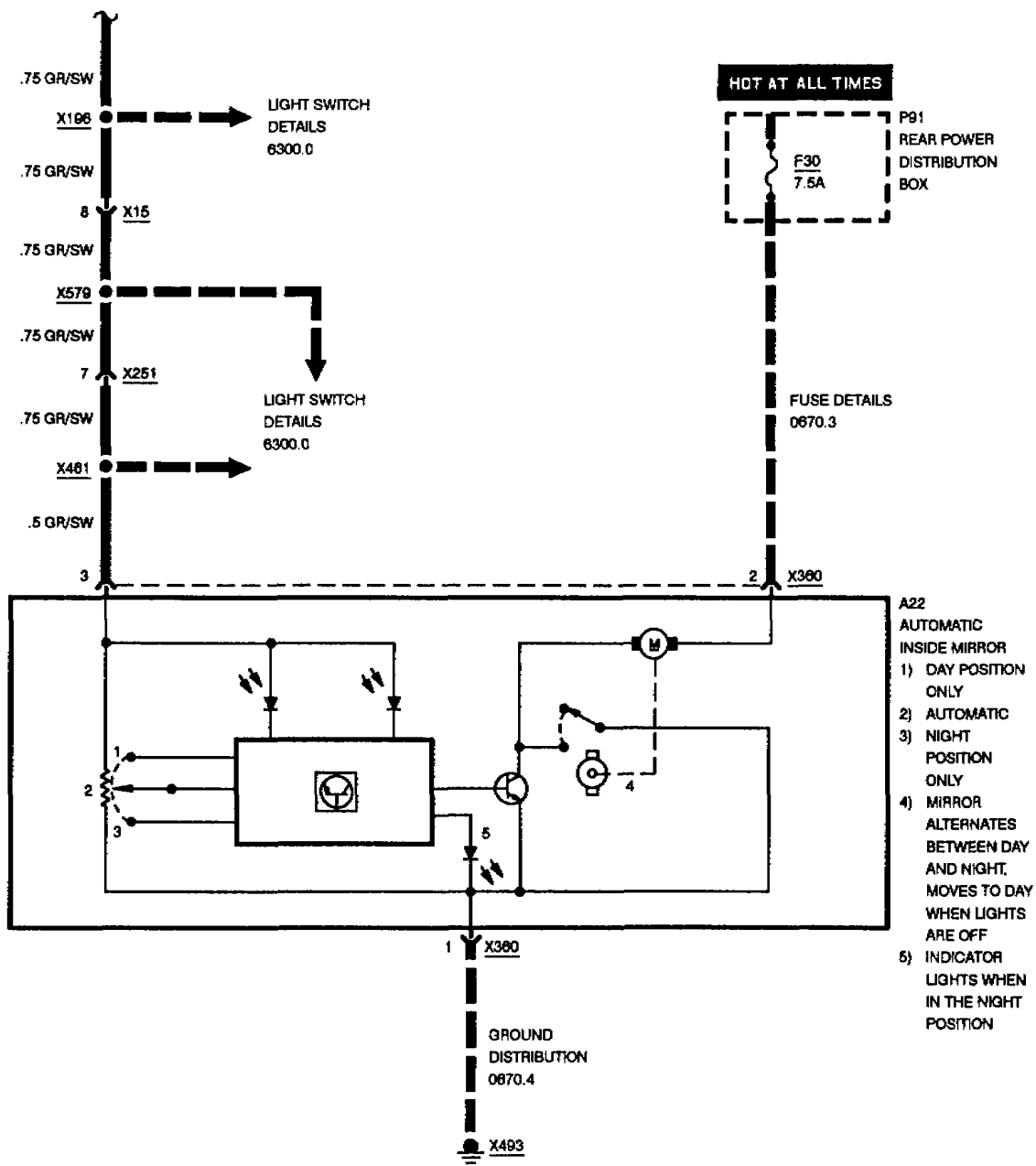




# POWER MIRRORS INSIDE MIRRORS



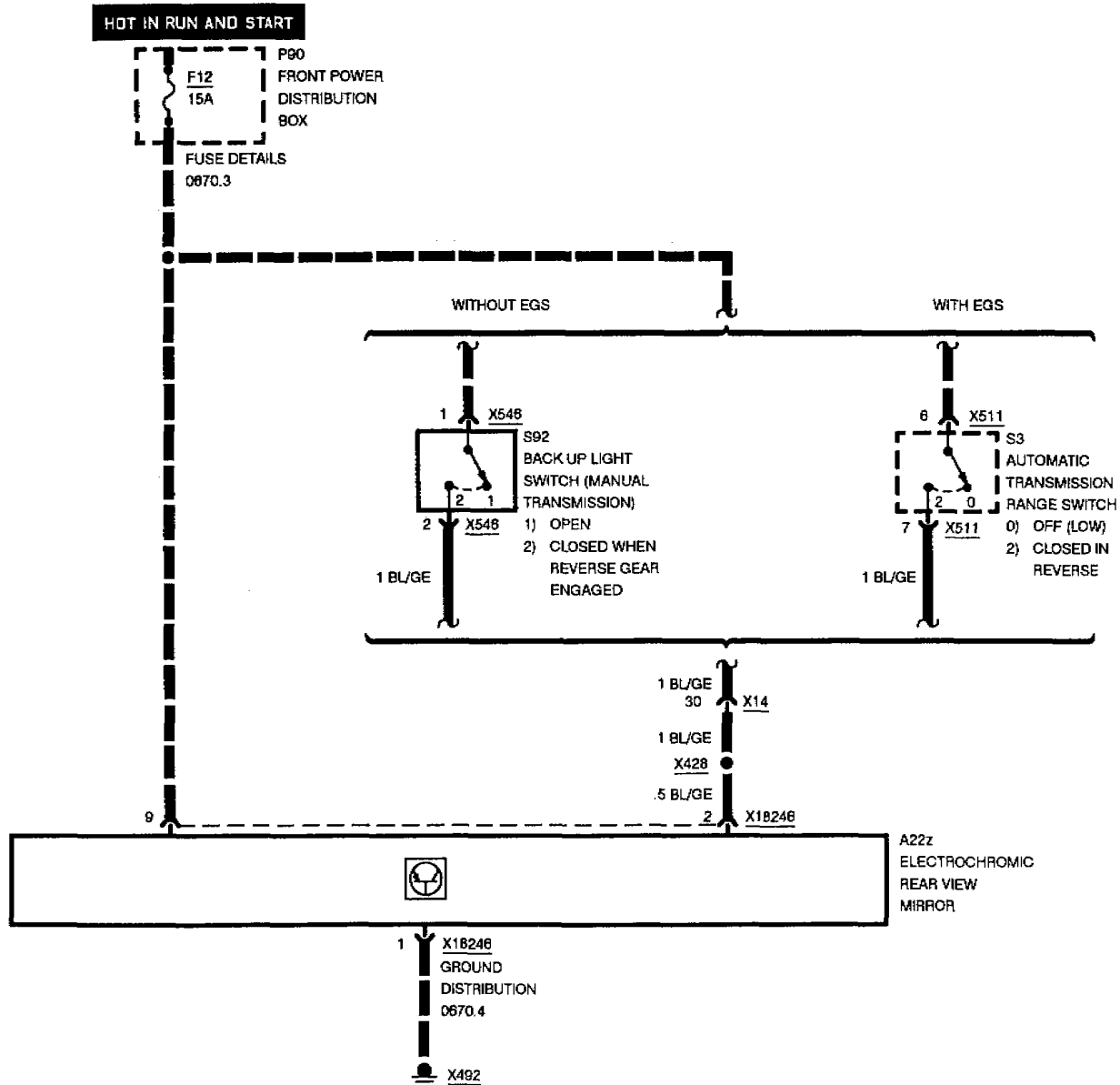






# POWER MIRRORS

## ELECTROCHROMIC REAR VIEW MIRROR

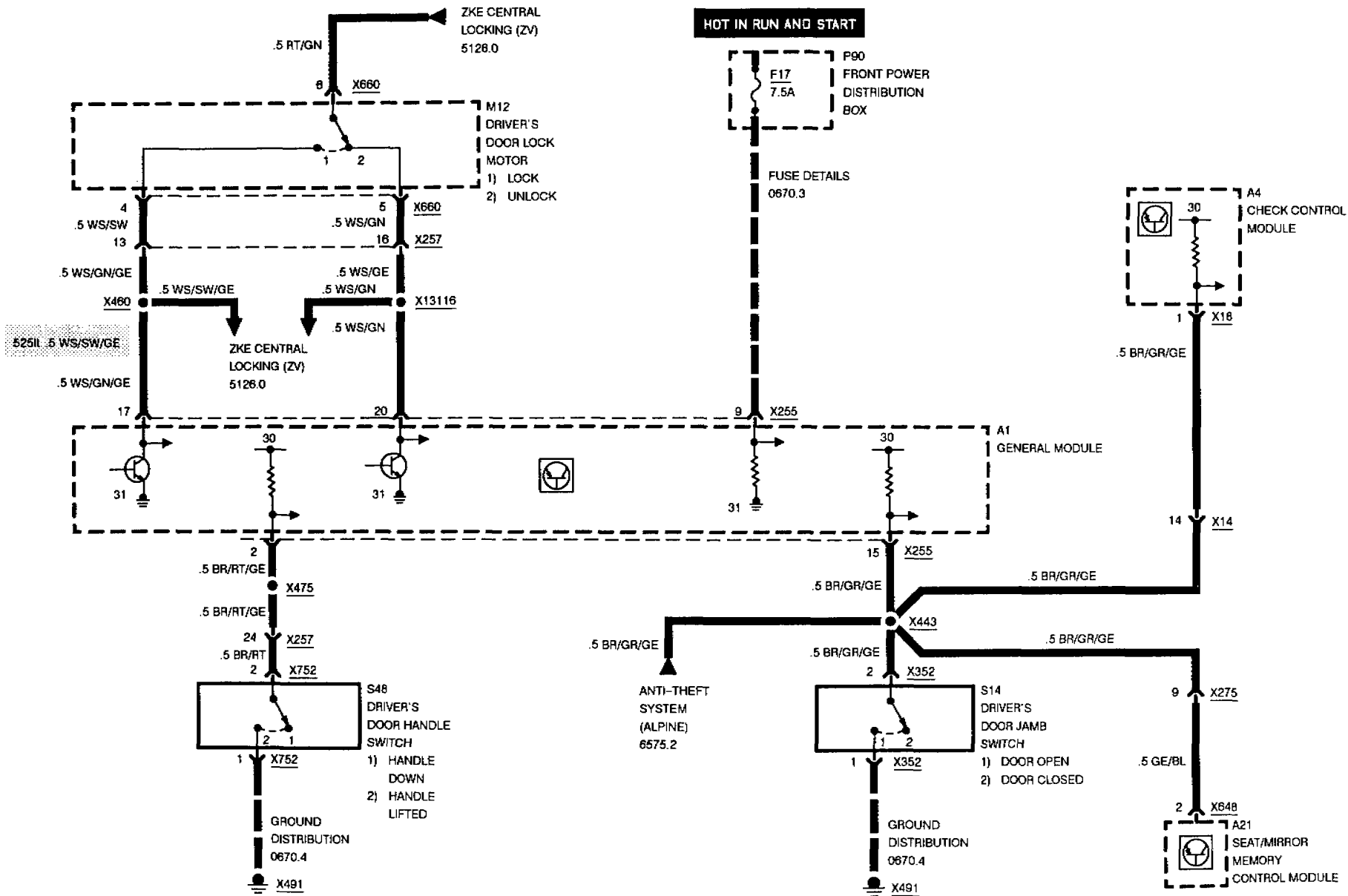


BMW  
5

5120.0

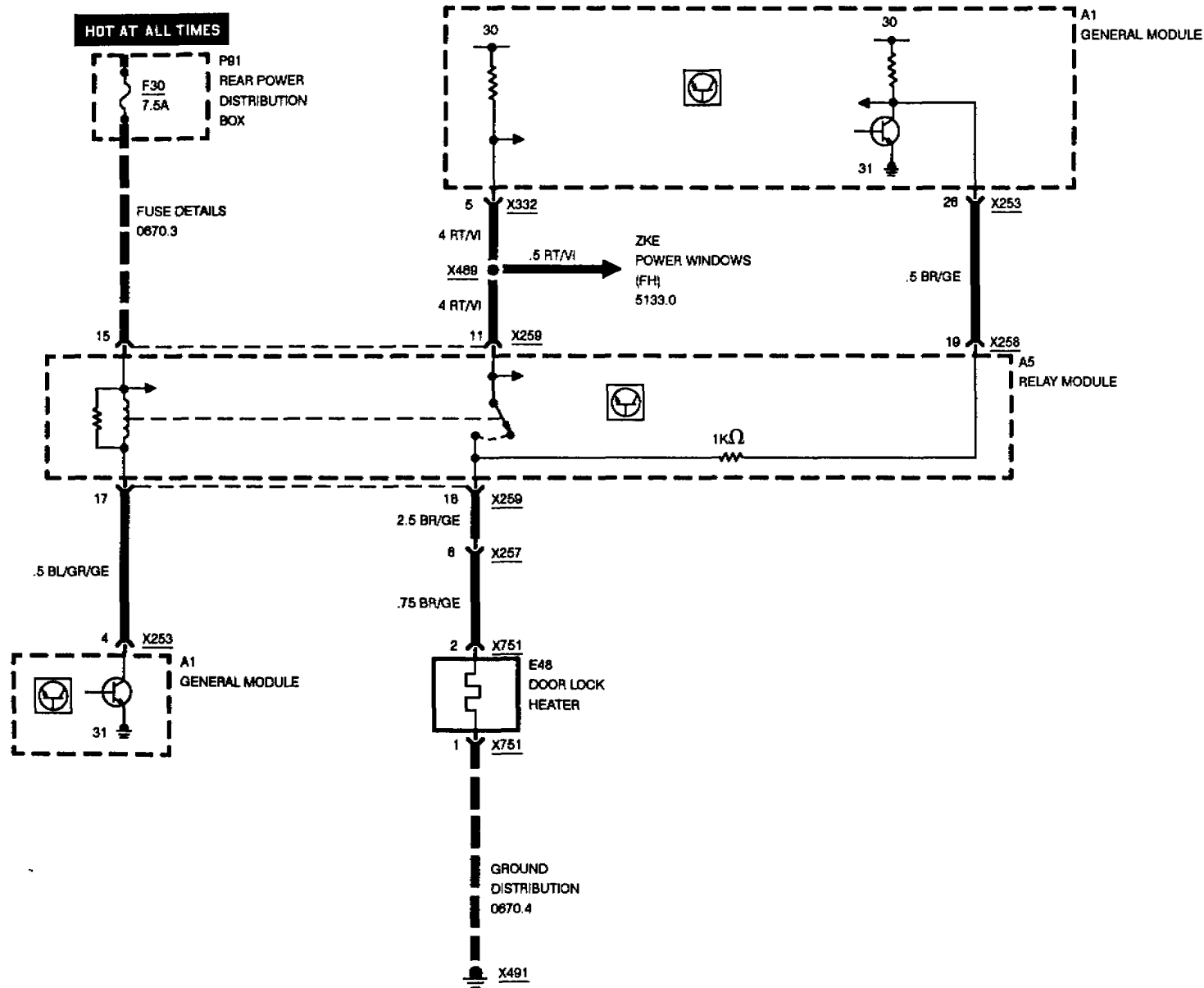
# ZKE DOOR LOCK HEATING (TSH)

## INPUT DETAILS



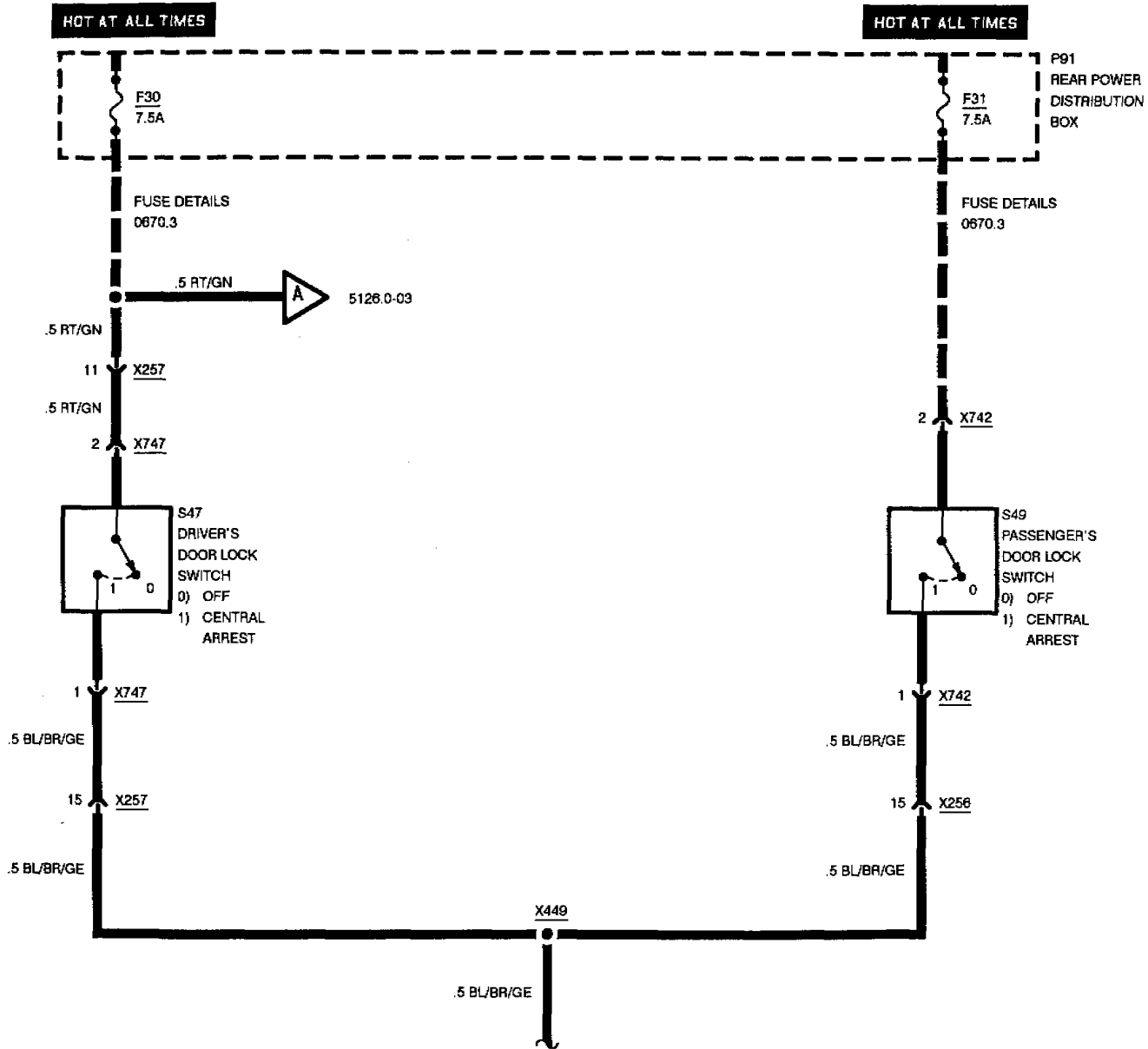


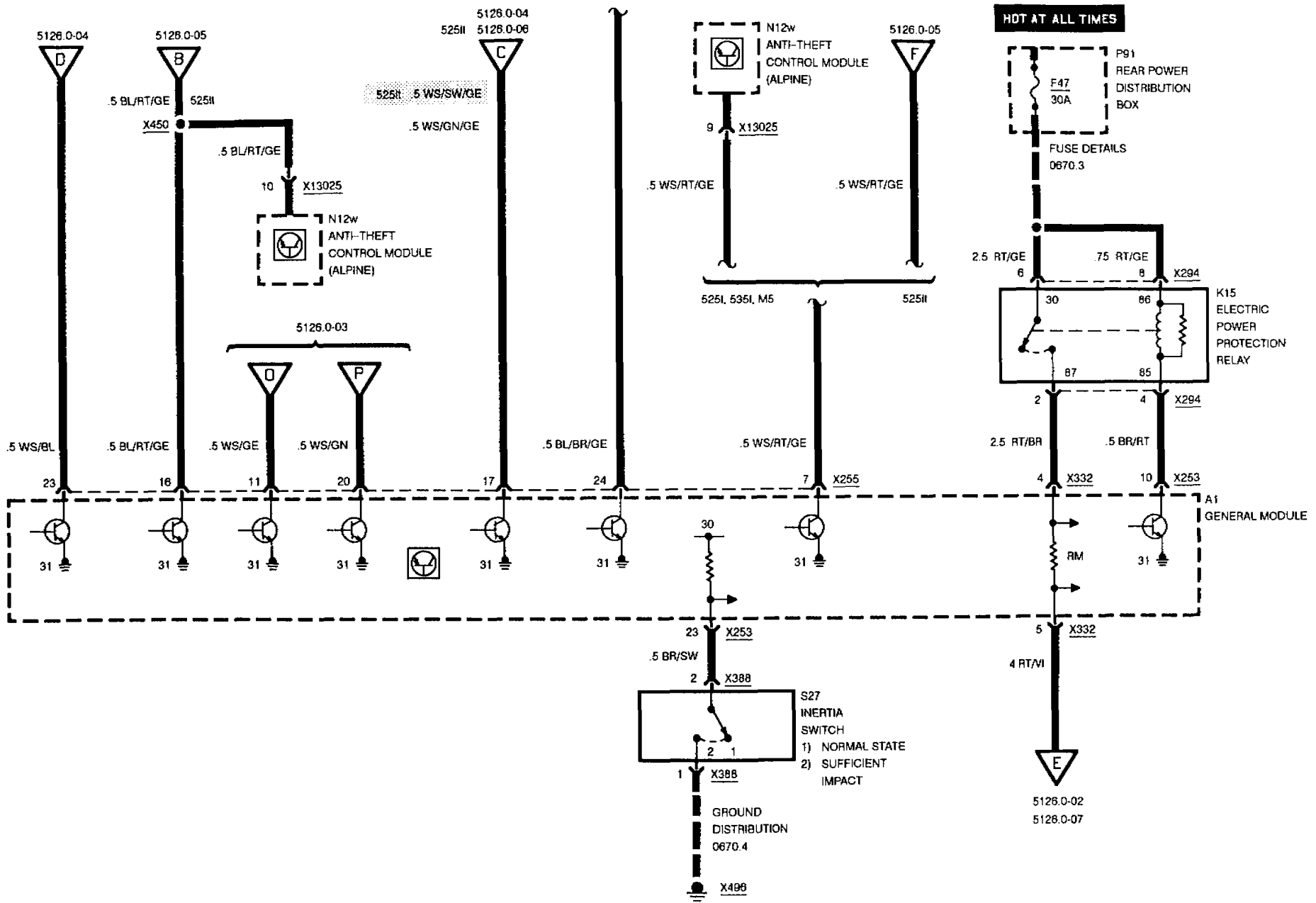
# ZKE DOOR LOCK HEATING (TSH) OUTPUT DETAILS





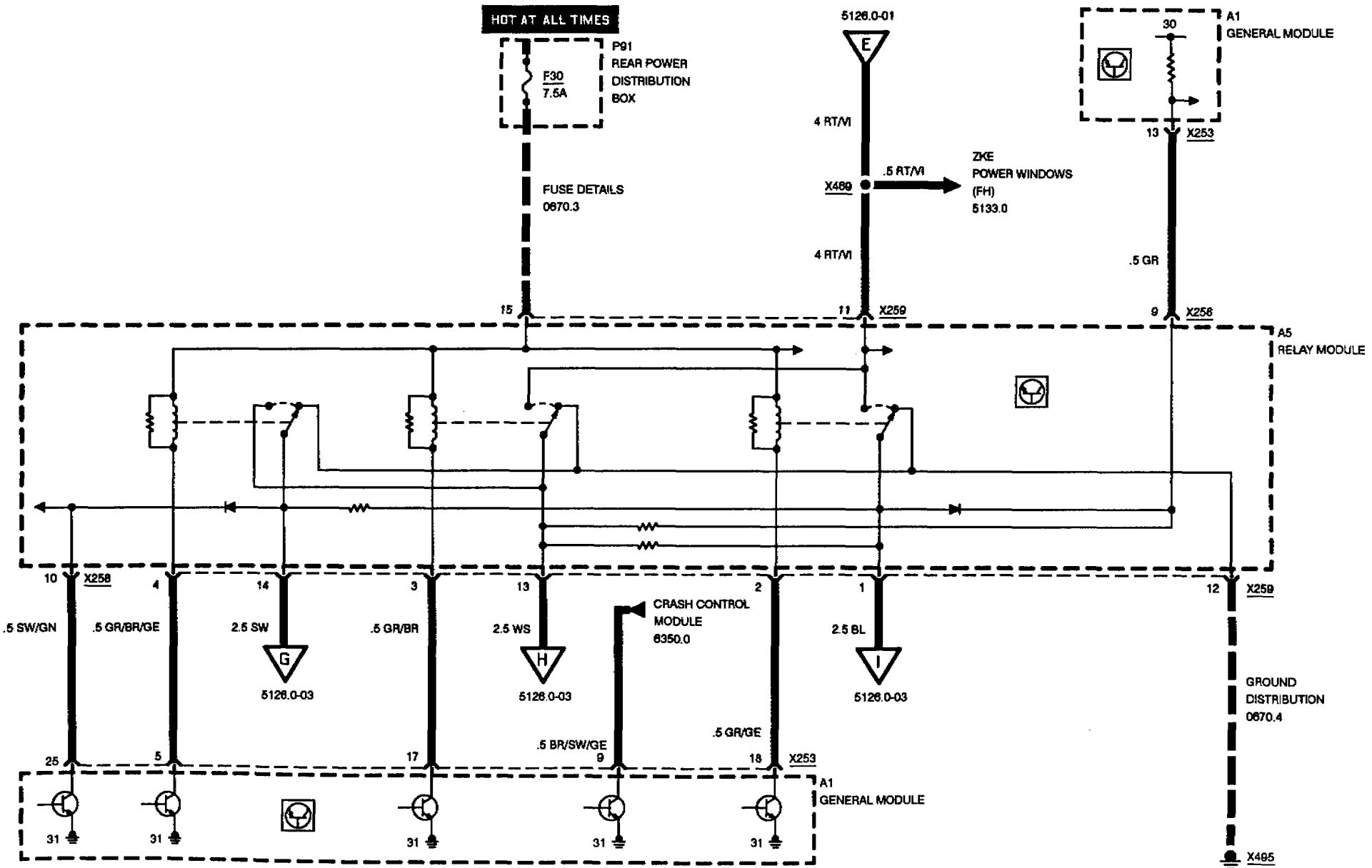
# ZKE CENTRAL LOCKING (ZV) INPUT DETAILS







# ZKE CENTRAL LOCKING (ZV) OUTPUT DETAILS

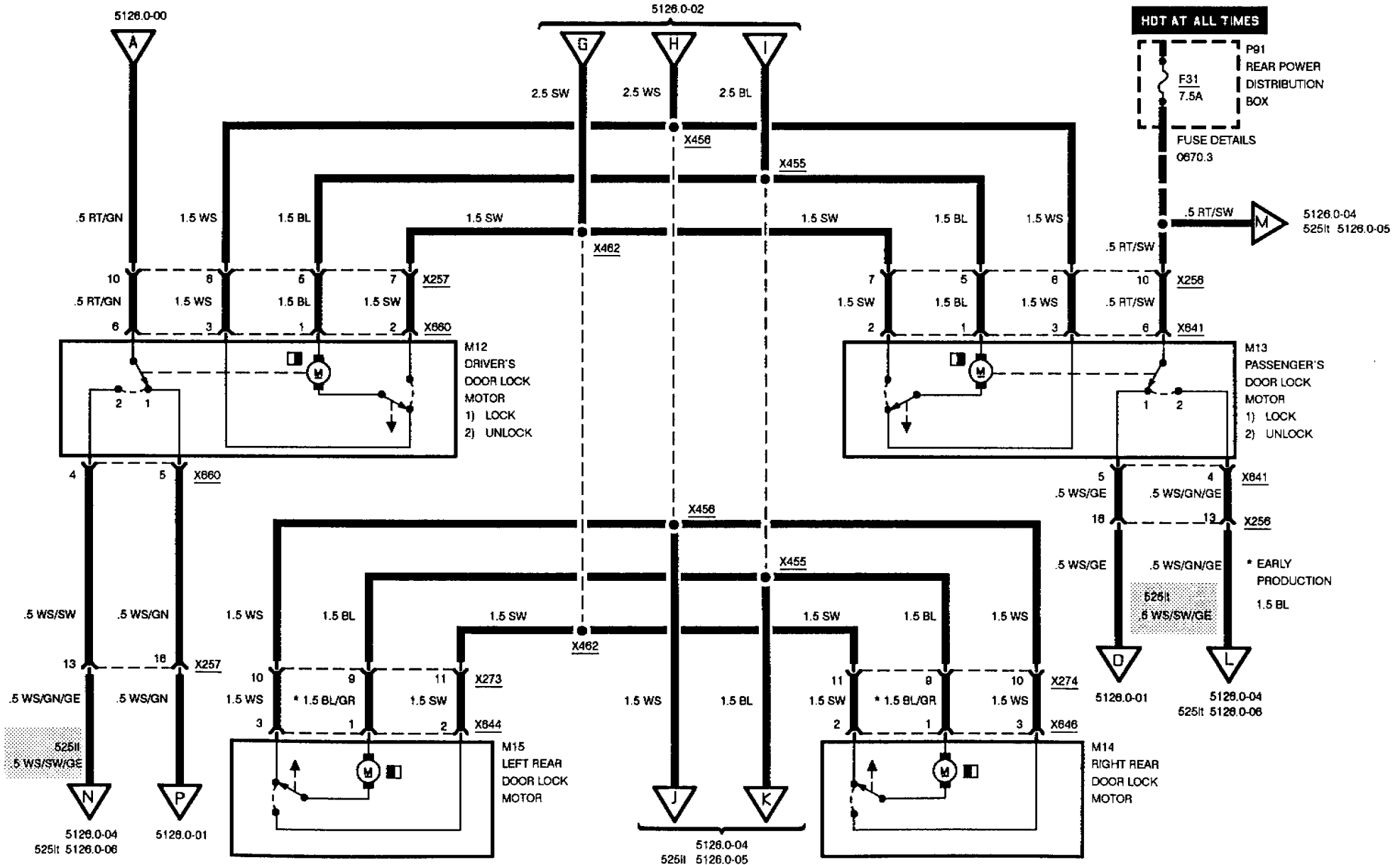






# ZKE CENTRAL LOCKING (ZV)

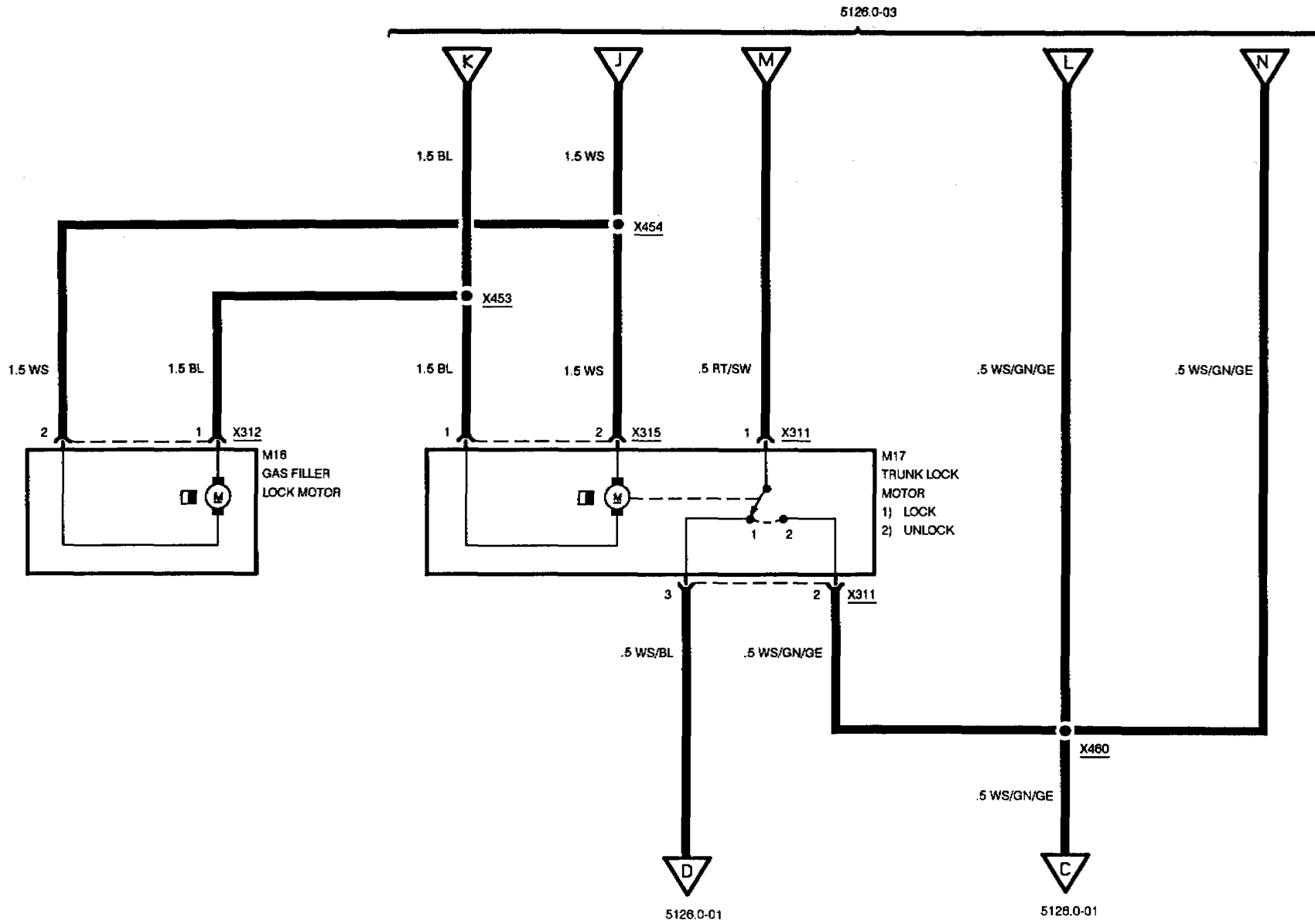
## OUTPUT DETAILS





# ZKE CENTRAL LOCKING (ZV)

## OUTPUT DETAILS

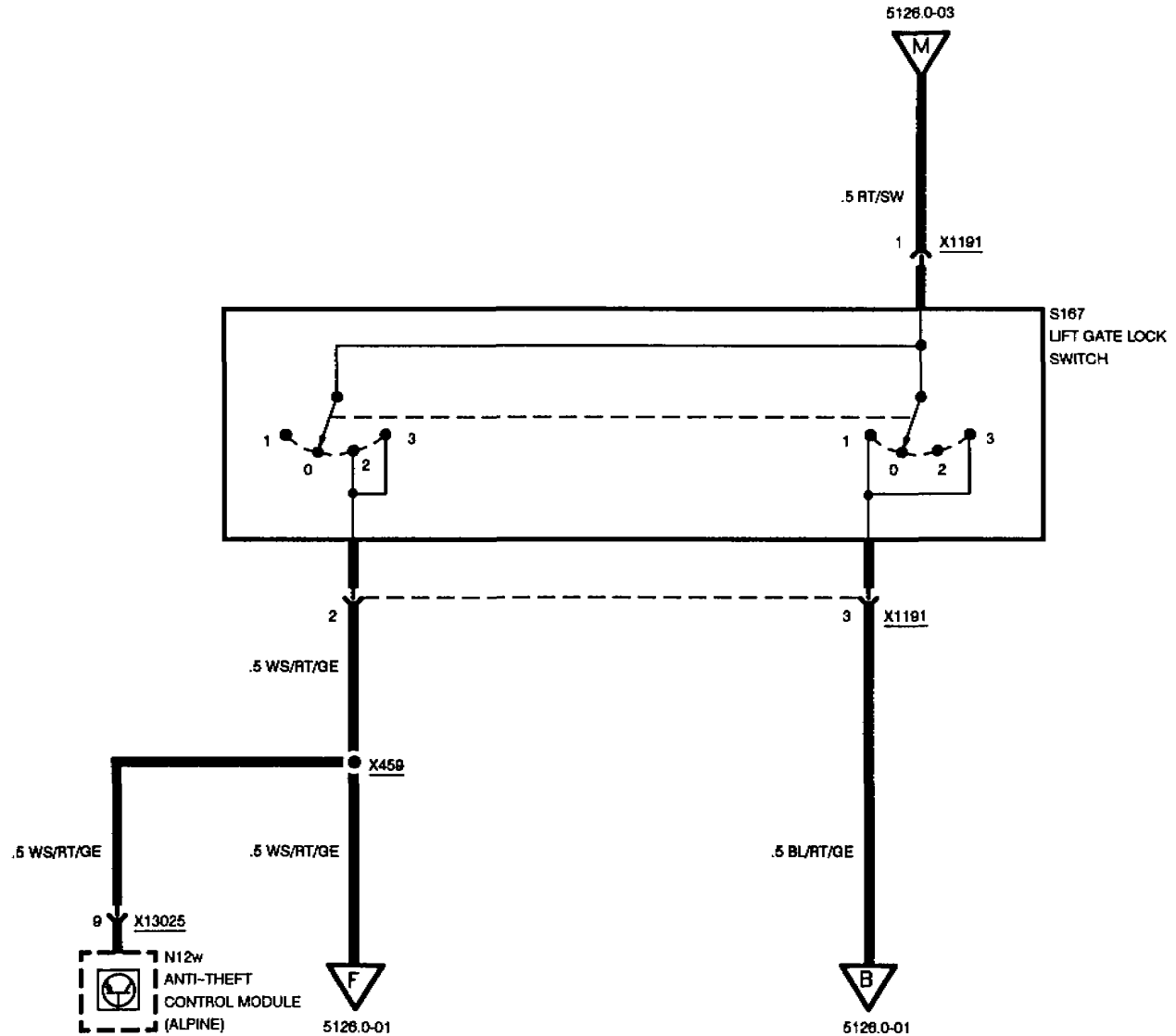
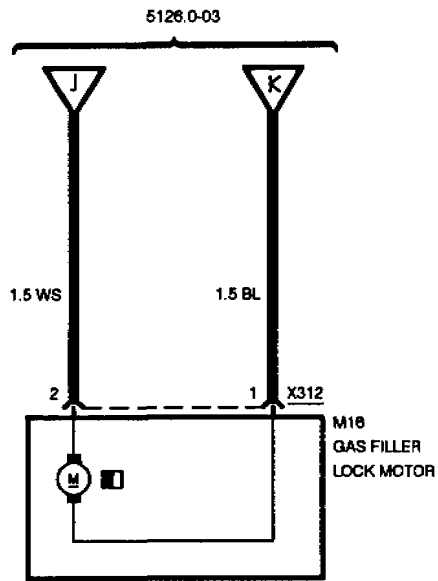


11/92 — 5126.0-04 — 1992



# ZKE CENTRAL LOCKING (ZV) OUTPUT DETAILS

525it

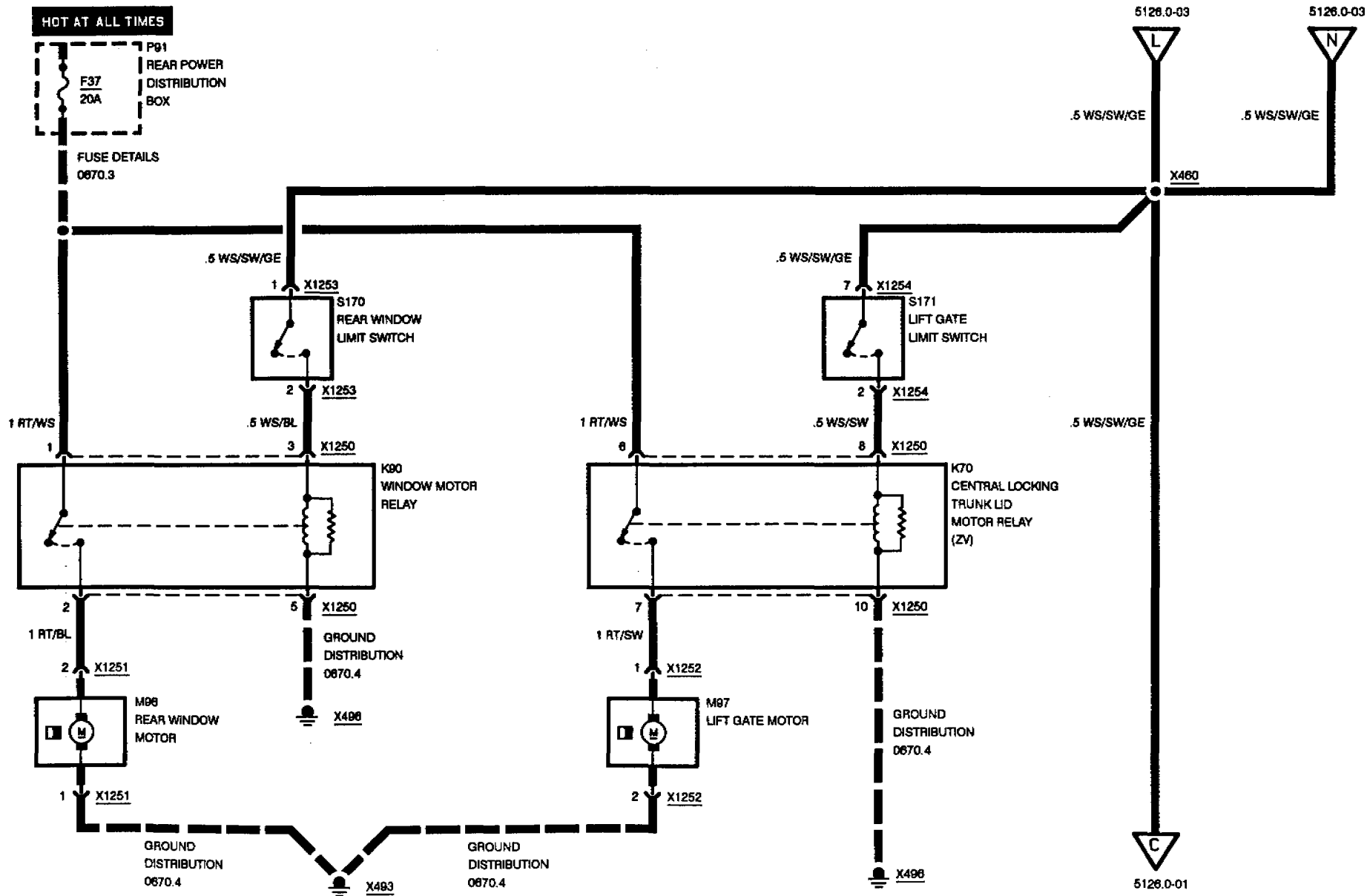




# ZKE CENTRAL LOCKING (ZV)

525it

## OUTPUT DETAILS



11/92

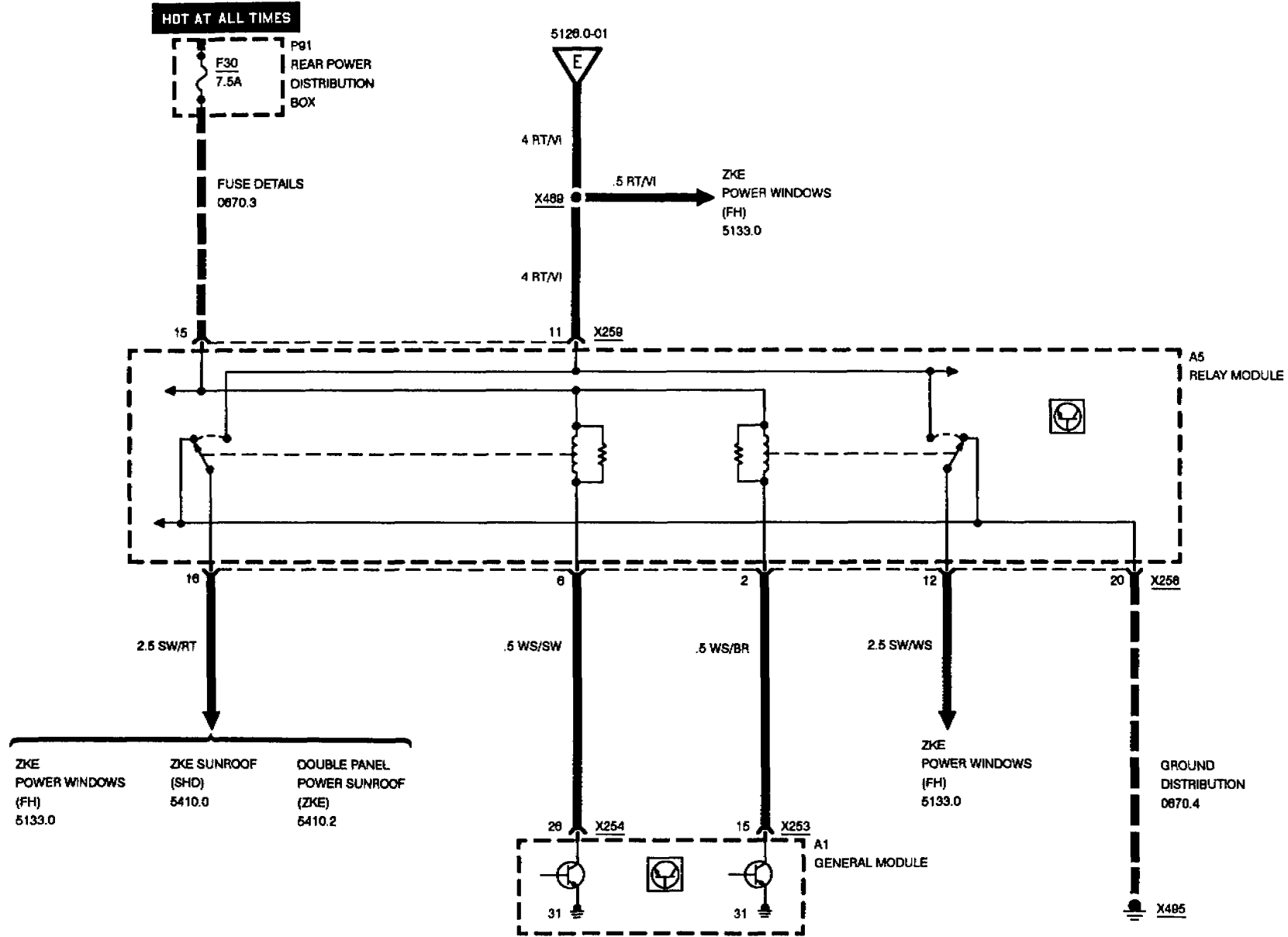
5126.0-06

1992



# ZKE CENTRAL LOCKING (ZV)

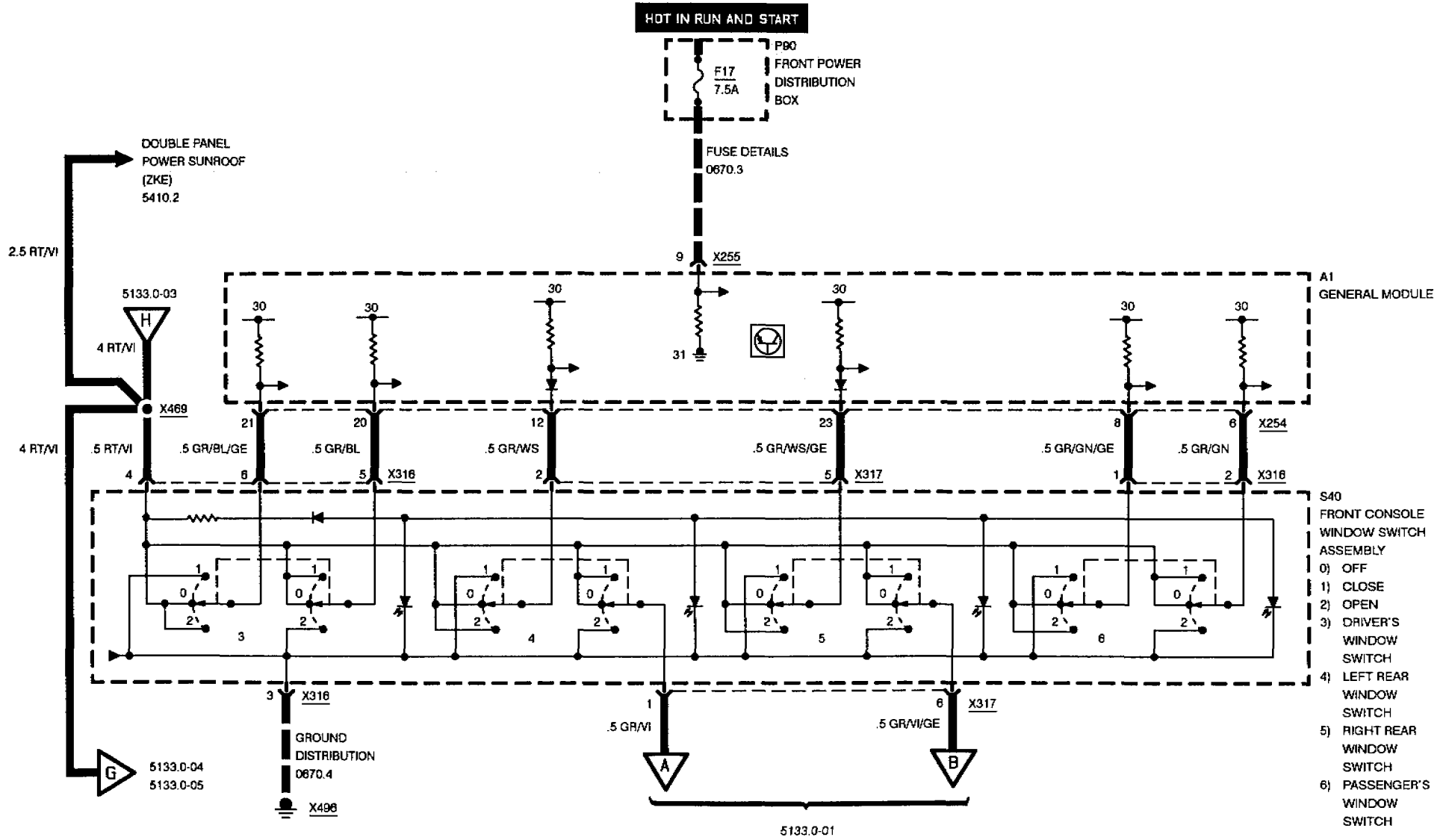
## OUTPUT DETAILS





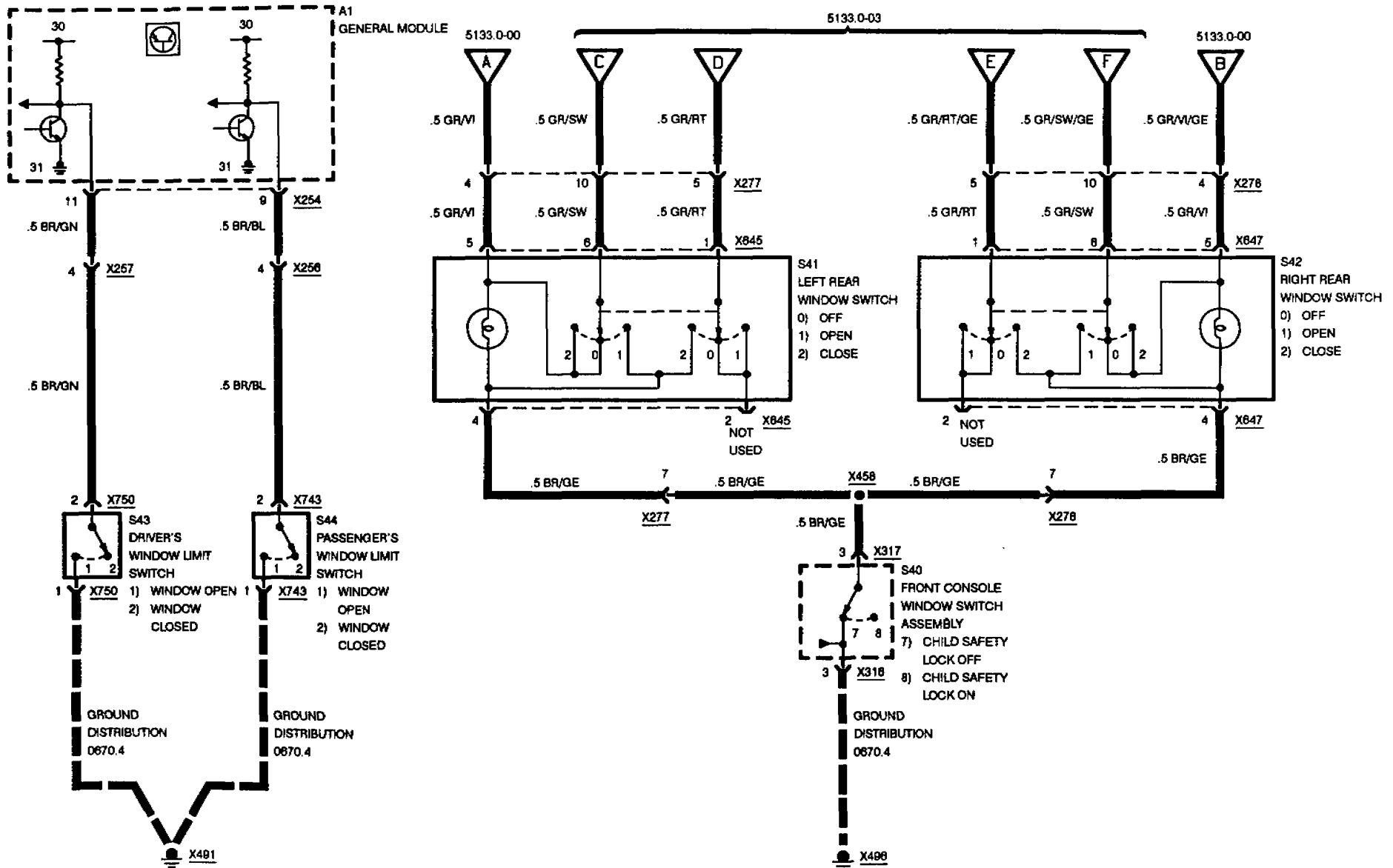
# ZKE POWER WINDOWS (FH)

## INPUT DETAILS



# ZKE POWER WINDOWS (FH)

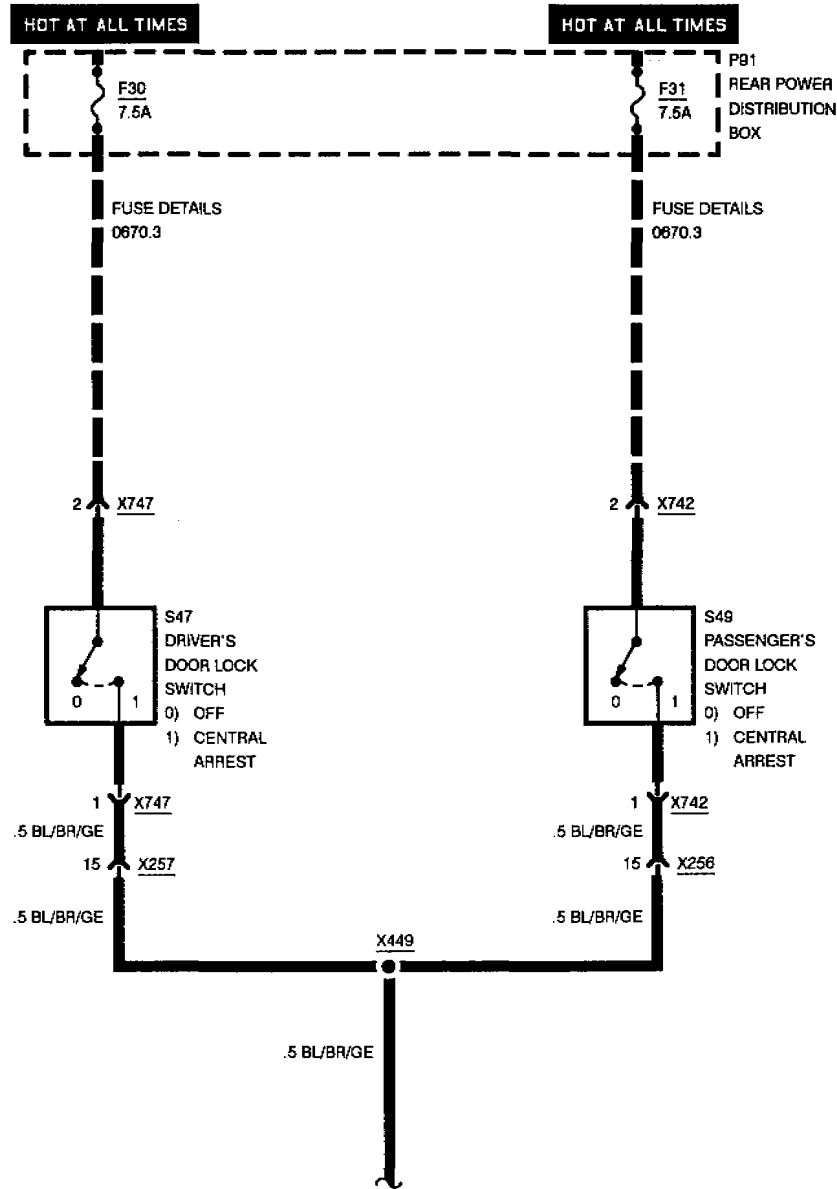
## INPUT DETAILS



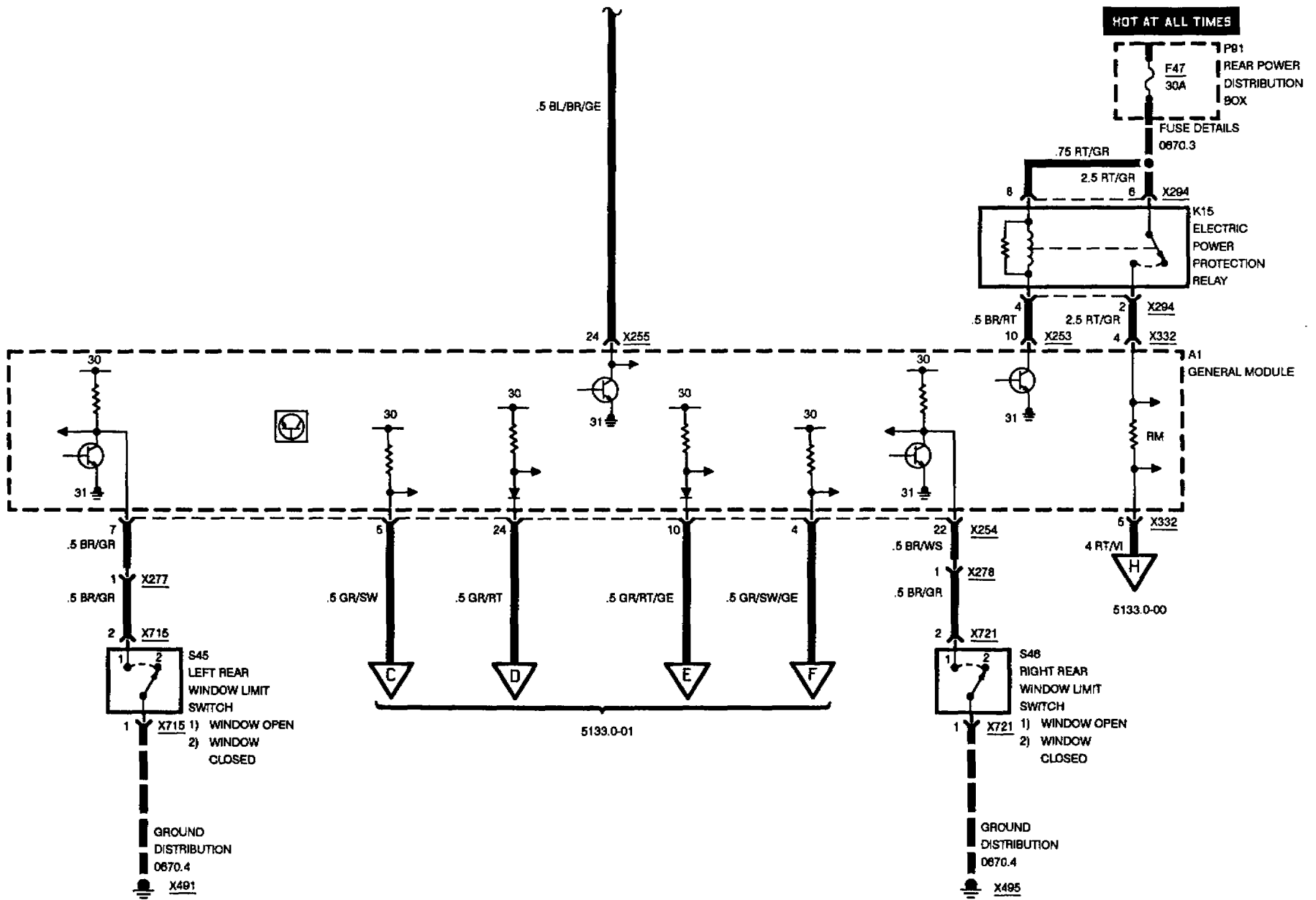


# ZKE POWER WINDOWS (FH)

## INPUT DETAILS





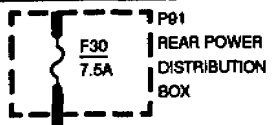




# ZKE POWER WINDOWS (FH)

## LEFT SIDE OUTPUT DETAILS

**HOT AT ALL TIMES**



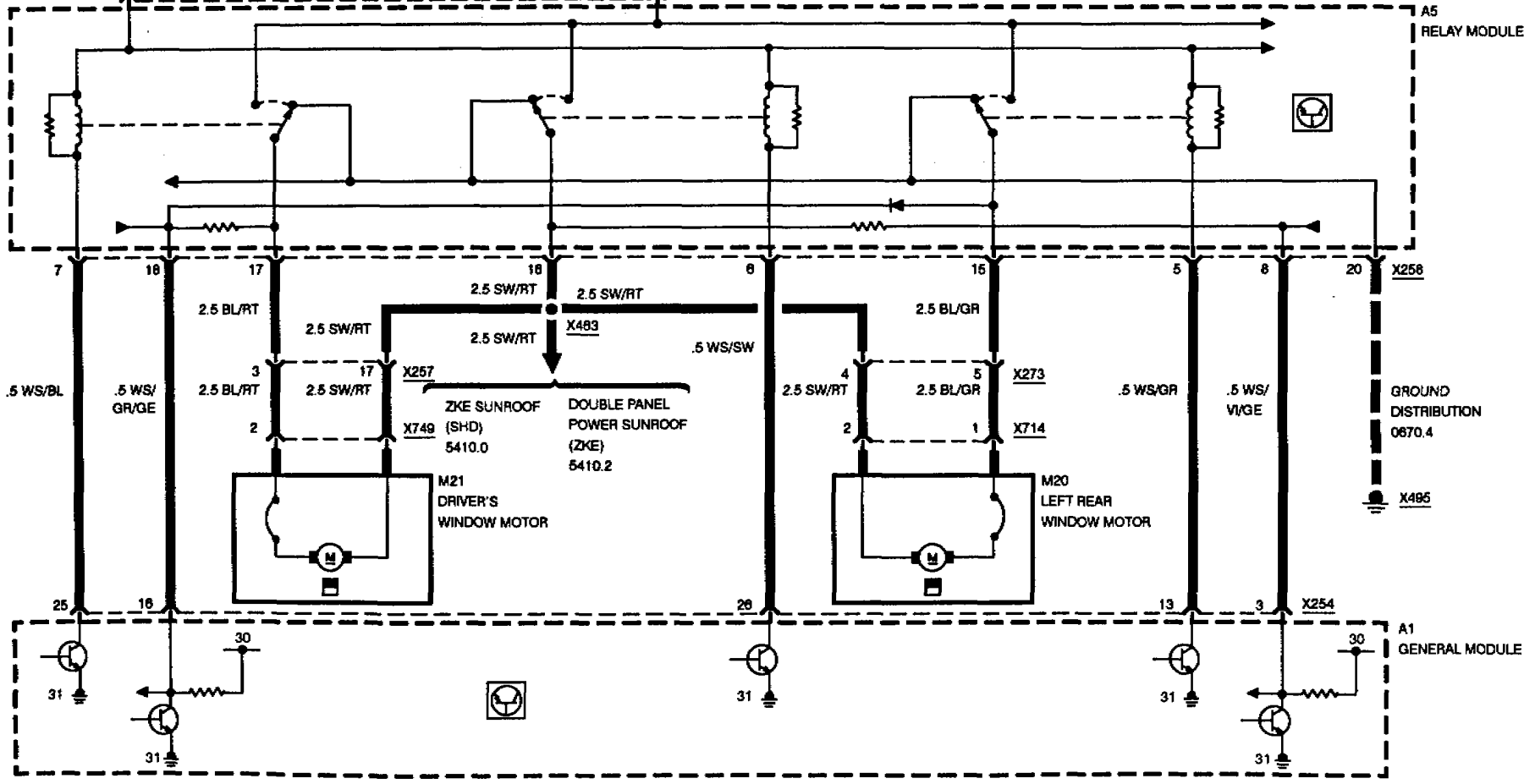
FUSE DETAILS  
0670.3

5133.0-00



4 RT/VI

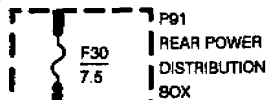
11 X259



# ZKE POWER WINDOWS (FH)

## RIGHT SIDE OUTPUT DETAILS

HOT AT ALL TIMES



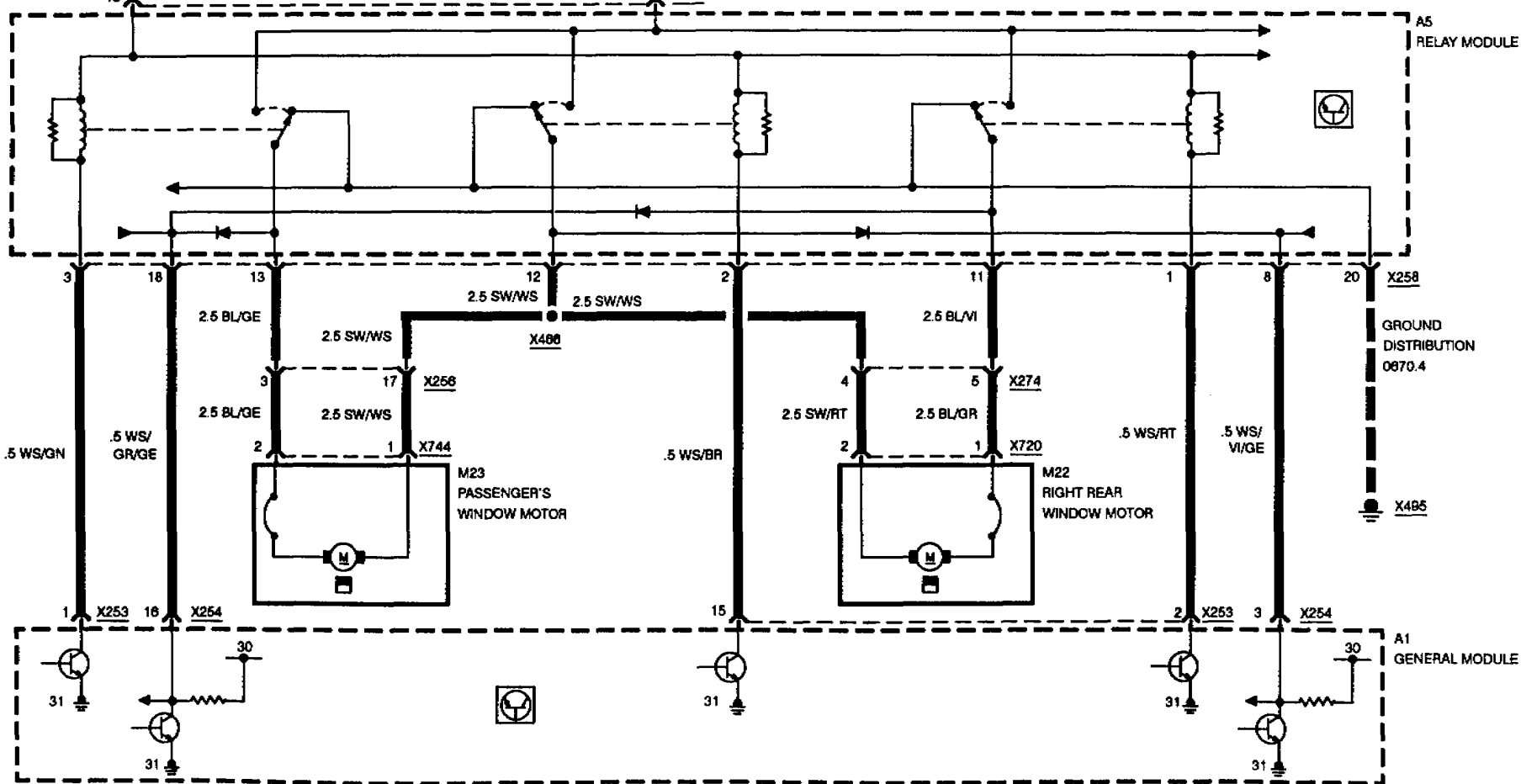
5133.0-00



4 RT/M

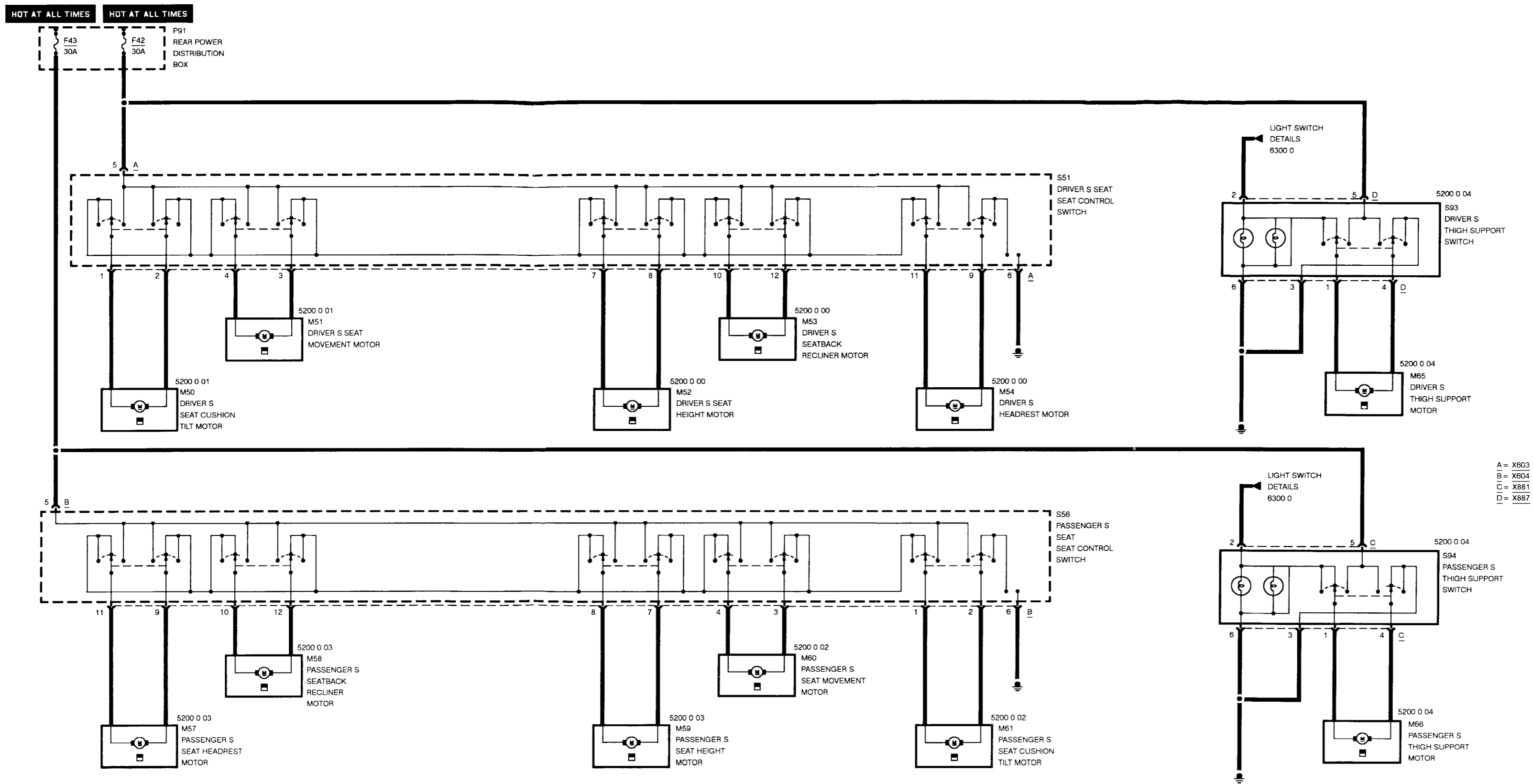
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X259



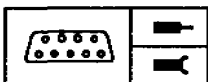
BMW  
5

5133.0-06





# POWER SEATS



## Pin Assignments

- A = X603 12 Pins, black
- B = X604 12 Pins, black
- C = X881 6 Pins, white
- D = X887 6 Pins, black

### X603 (Driver) and X604 (Passenger)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E/A	Seat cushion tilt control	Seat cushion tilt motor			
2	E/A	Seat cushion tilt control	Seat cushion tilt motor			
3	E/A	Seat cushion movement control	Seat movement motor			
4	E/A	Seat cushion movement control	Seat movement motor			
5	E	Battery voltage	Fuse			
6	M	Ground	Ground			
7	E/A	Seat cushion height control	Seat height motor			
8	E/A	Seat cushion height control	Seat height motor			
9	E/A	Headrest control	Headrest motor			
10	E/A	Recliner control	Seat back recliner motor			
11	E/A	Headrest control	Headrest motor			
12	E/A	Recliner control	Seat back recliner motor			



## POWER SEATS

### X887 (Driver) and X881 (Passenger)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E/A	Thigh support control	Thigh support motor			
2	E	Switch illumination	Light switch			
3	M	Ground	Ground			
4	E/A	Thigh support control	Thigh support motor			
5	E	Battery voltage	Fuse			
6	M	Ground	Ground			

BMW  
5

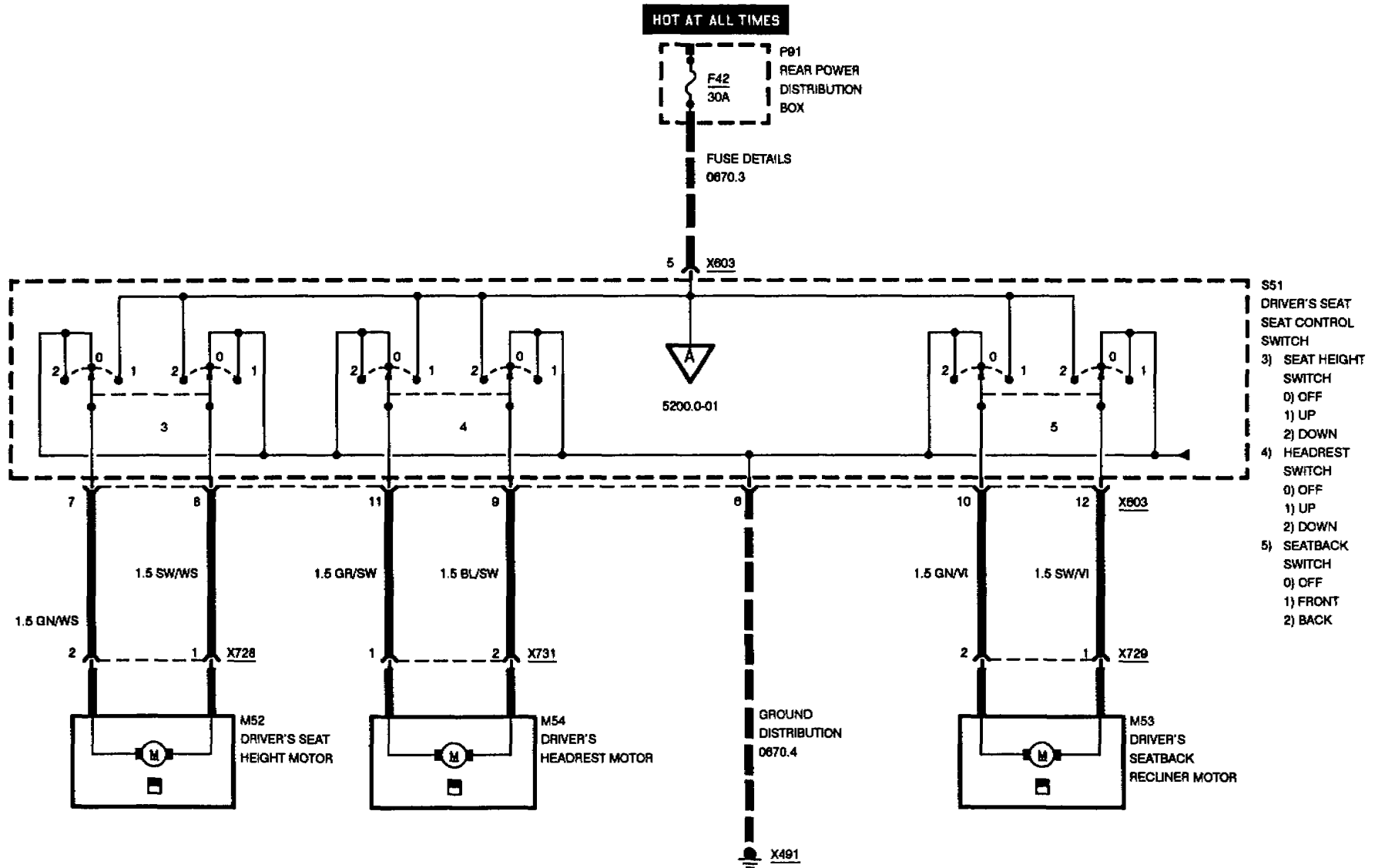
5200.0



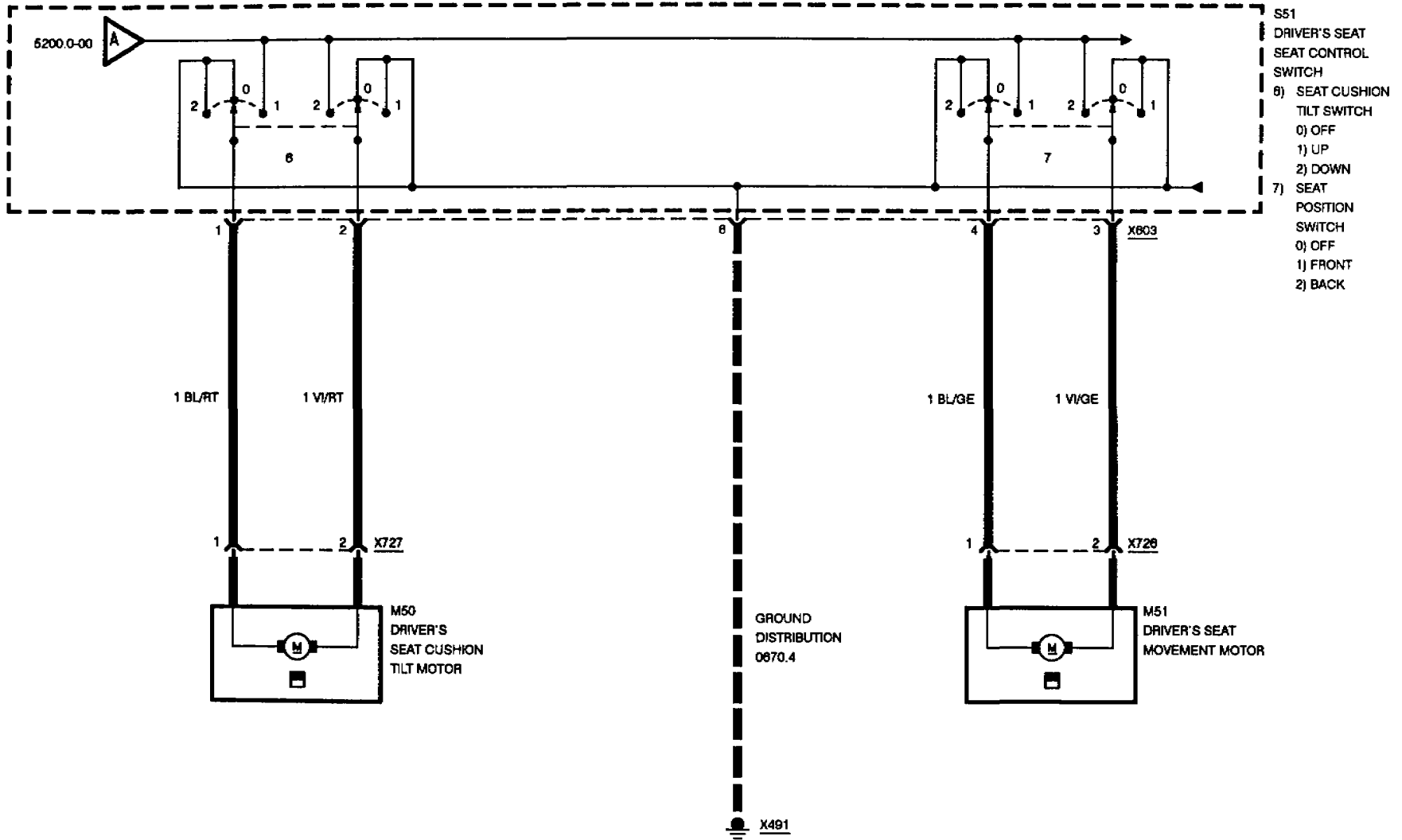


# POWER SEATS

## DRIVER'S SEAT



**BMW**  
**5** **POWER SEATS**  
**DRIVER'S SEAT**

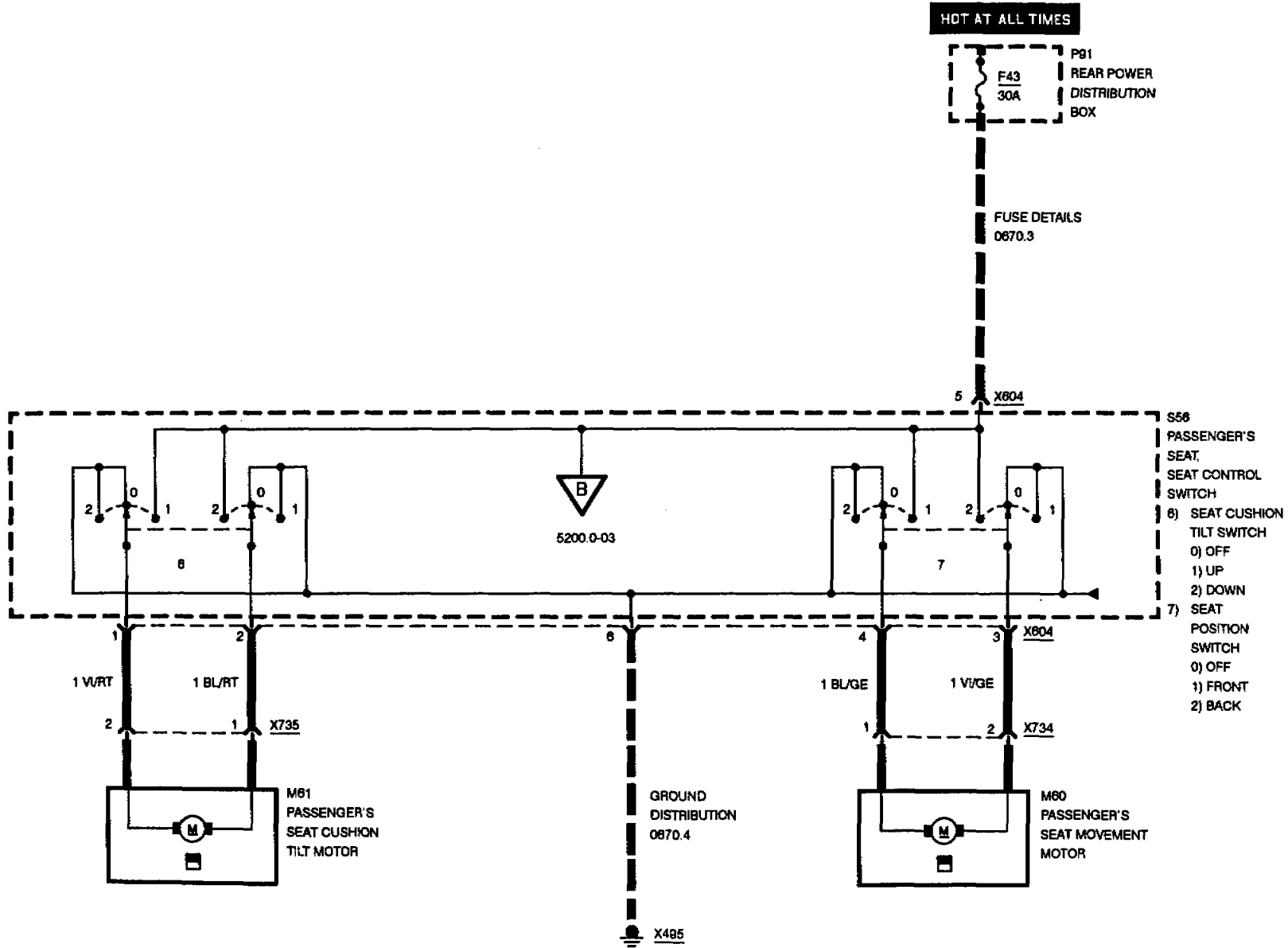


- S51 DRIVER'S SEAT SEAT CONTROL SWITCH
- 6) SEAT CUSHION TILT SWITCH
  - 0) OFF
  - 1) UP
  - 2) DOWN
- 7) SEAT POSITION SWITCH
  - 0) OFF
  - 1) FRONT
  - 2) BACK



# POWER SEATS

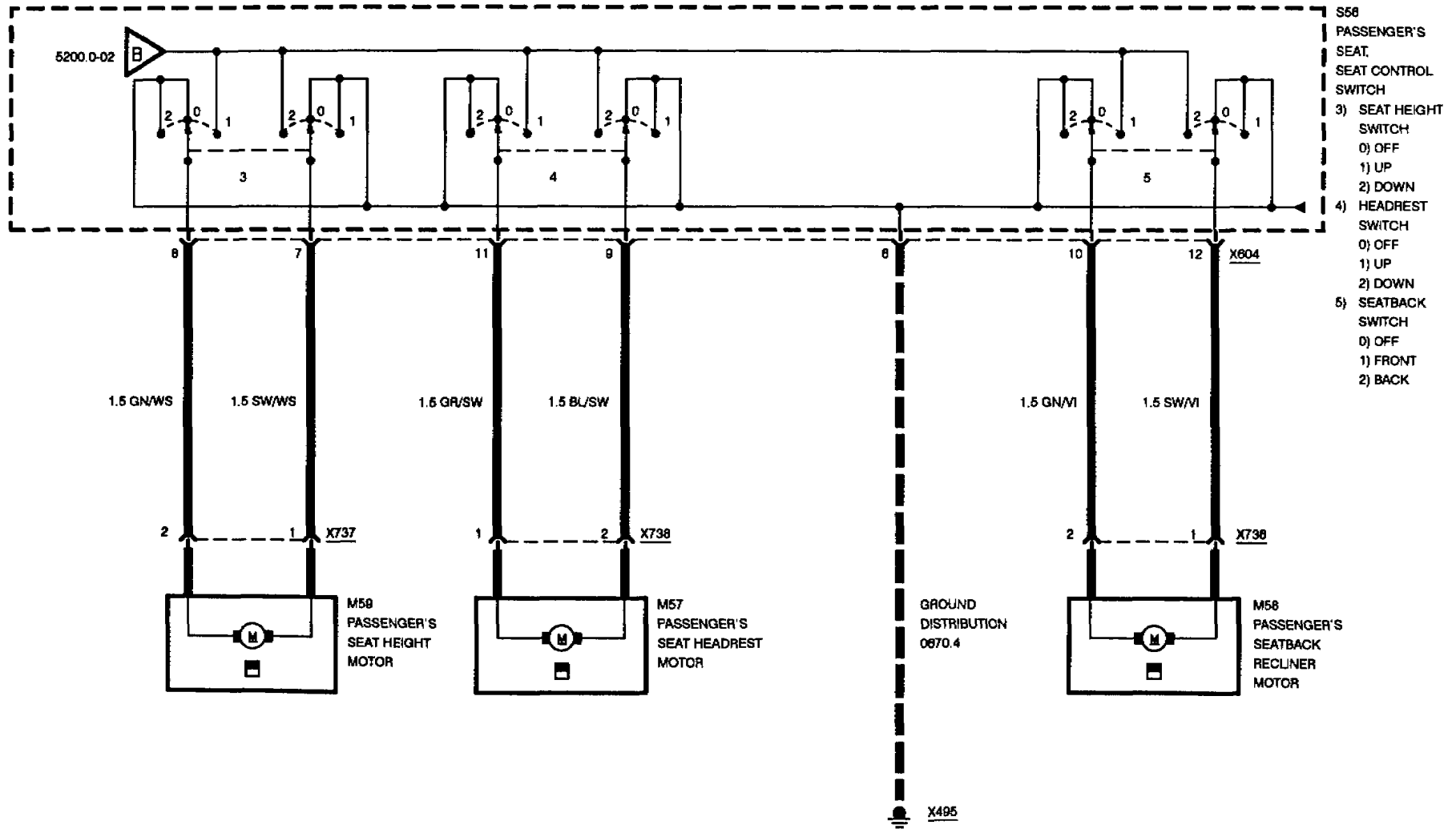
## PASSENGER'S SEAT





# POWER SEATS

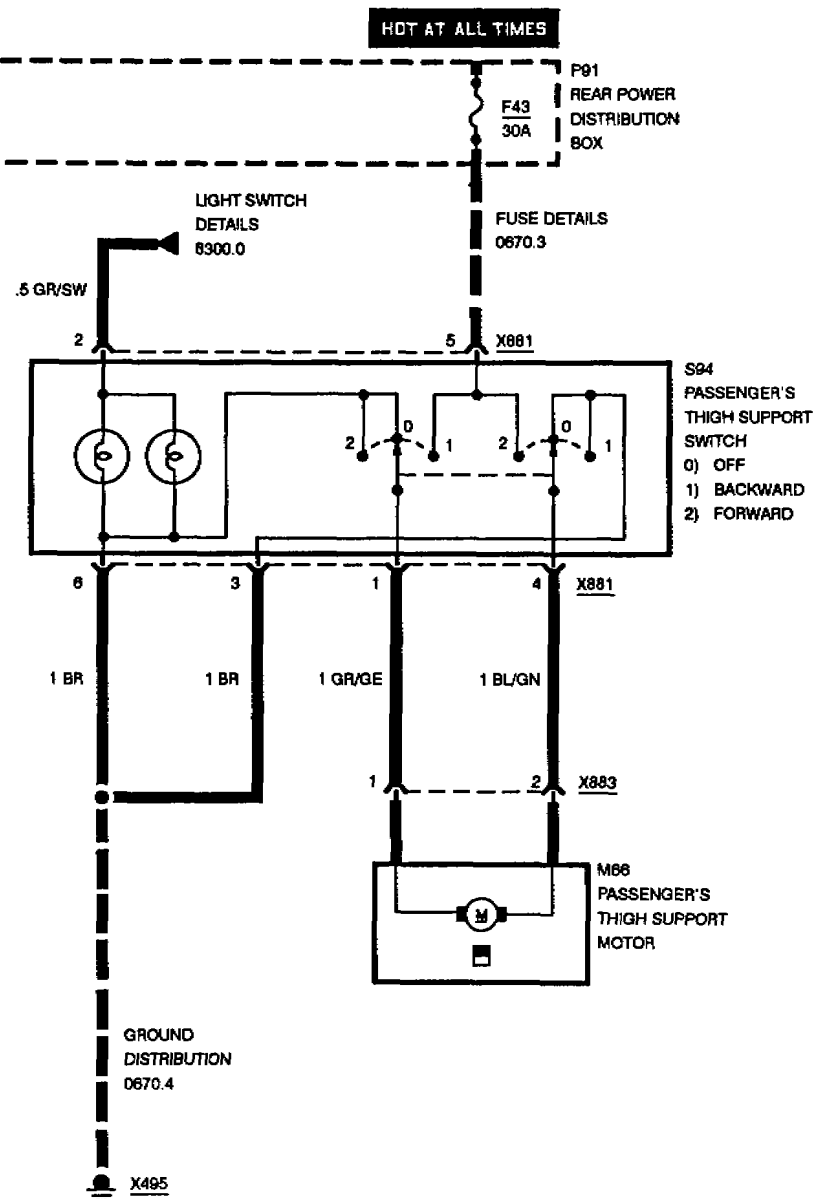
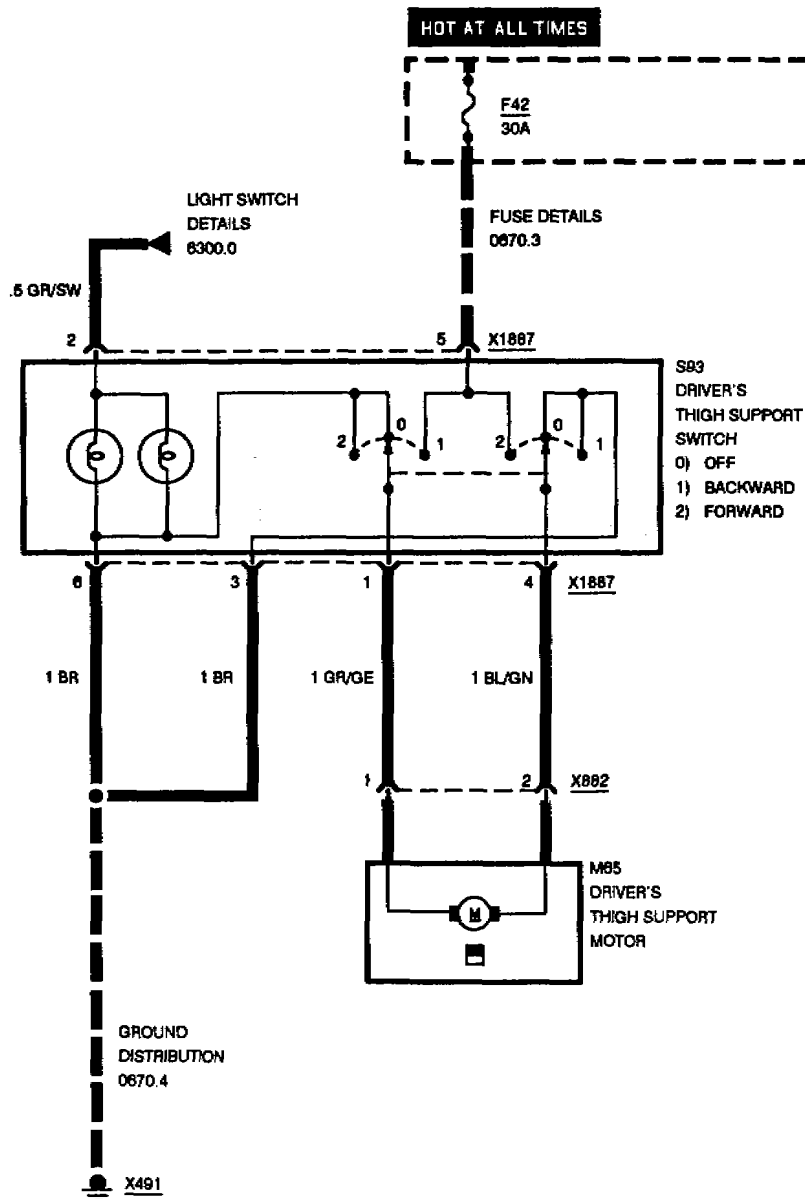
## PASSENGER'S SEAT

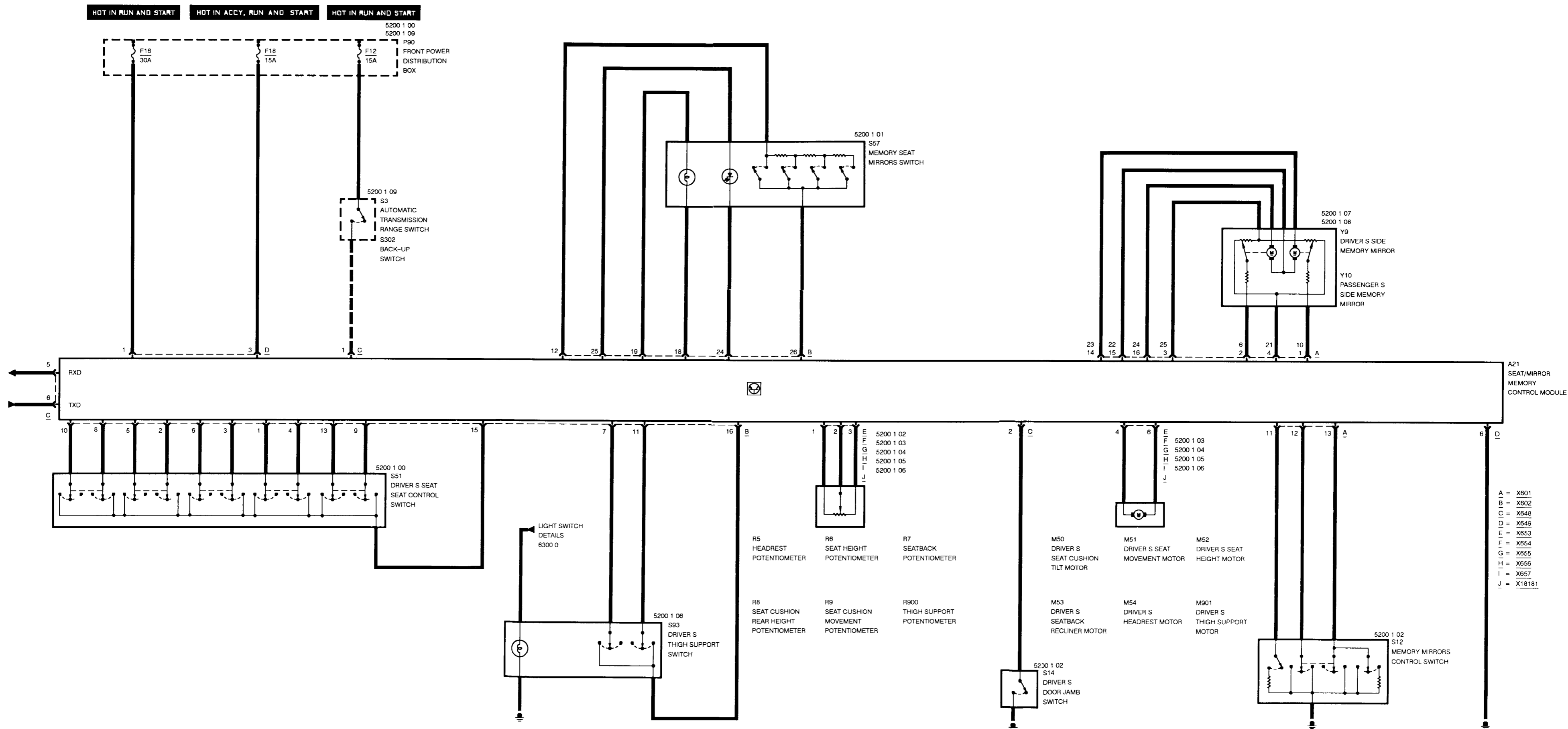




# POWER SEATS

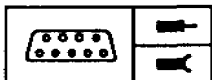
## THIGH SUPPORT, WITH SPORT SEATS ONLY







## MEMORY SEATS/MIRRORS (SM/SPM)



### Pin Assignments

- A=X601 26 Pins, white
- B=X602 26 Pins, yellow
- C=X648 6 Pins, black
- D=X649 6 Pins, white
- E=X653 6 Pins, black
- F=X654 6 Pins, white
- G=X655 6 Pins, blue
- H=X656 6 Pins, green
- I=X657 6 Pins, brown
- I=X18181 6 Pins, yellow

### X601

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Potentiometer connection	Driver's mirror	0-4.5 V	Voltage value	
2	E	Potentiometer connection	Driver's mirror	0-4.5 V	Voltage value	
3	A	Position potentiometer, voltage	Driver's mirror	5 V	Voltage value	
4	M	Position potentiometer, ground	Driver's mirror	Ground	Voltage value	
5		Not used				
6	E	Potentiometer connection	Passenger's mirror	0-4.5 V	Voltage value	
7		Not used				
8		Not used				



## MEMORY SEATS/MIRRORS (SM/SPM)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
9		Not used				
10	E	Potentiometer connection	Passenger's mirror	0-4.5 V	Voltage value	
11	E	Mirror select signal	Mirror control switch	Ground	Status display	
12	E	Mirror adjustment, L/R	Mirror control switch	Ground	Status display	
13	E	Mirror adjustment, L/R and U/D	Mirror control switch	Ground	Status display	
14	E/A	Connection, driver's mirror adjustment motor	Mirror adjustment motor, horizontal			
15	E/A	Connection, driver's mirror adjustment motor	Mirror adjustment motors, horizontal/vertical			
16	E/A	Connection, driver's mirror adjustment motor	Mirror adjustment motor, vertical			
17		Not used				
18		Not used				
19		Not used				
20		Not used				
21	M	Position potentiometer, ground	Passenger's mirror	Ground	Voltage value	
22	E/A	Connection, passenger's mirror adjustment motor	Passenger's mirror adjustment motor, horizontal/vertical			
23	E/A	Connection, passenger's mirror adjustment motor	Passenger's mirror adjustment motor, horizontal			
24	E/A	Connection, passenger's mirror adjustment motor	Passenger's mirror adjustment motor, vertical			
25	A	Position potentiometer voltage	Passenger's mirror	5 V	Voltage value	
26		Not used				





## MEMORY SEATS/MIRRORS (SM/SPM)

### X602

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Headrest down	Seat adjustment switch	Ground	Status display	
2	E	Tilt, down	Seat adjustment switch	Ground	Status display	
3	E	Height, down	Seat adjustment switch	Ground	Status display	
4	E	Headrest up	Seat adjustment switch	Ground	Status display	
5	E	Tilt, up	Seat adjustment switch	Ground	Status display	
6	E	Height, up	Seat adjustment switch	Ground	Status display	
7	E	Thigh support, backward	Thigh support switch	Ground	Status display	
8	E	Seat movement, back	Seat adjustment switch	Ground	Status display	
9	E	Backrest, back	Seat adjustment switch	Ground	Status display	
10	E	Seat movement, forward	Seat adjustment switch	Ground	Status display	
11	E	Thigh support, forward	Thigh support switch	Ground	Status display	
12	A	Memory switch voltage	Memory switch	5 V	Status display	
13	E	Backrest, forward	Seat adjustment switch	Ground	Status display	
14		Not used				
15	E	Ground	Seat adjustment switch	Ground		
16	E	Ground	Thigh support switch			
17		Not used				
18	A	Switch illumination (-)	Memory switch	Ground		
19	A	Switch illumination (+)	Memory switch	12 V		
20		Not used				
21		Not used				
22		Not used				



## MEMORY SEATS/MIRRORS (SM/SPM)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
23		Not used				
24	A	Memory switch LED (-)	Memory switch	Ground		
25	A	Memory switch LED (+)	Memory switch	2 V		
26	E	Memory switch signal	Memory switch	Voltage value		

### X648

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Reverse gear signal	Back up switch			
2	E	Driver's door status	Driver's door jamb switch			
3		Not used				
4		Not used				
5	A	Diagnosis (RxD)	Diagnosis connector			
6	E	Diagnosis (TxD)	Diagnosis connector			

### X649

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Terminal 15 voltage	Fuse			
2		Not used				
3	E	Terminal R voltage	Fuse			
4		Not used				
5		Not used				
6	M	Ground	Ground point			



## MEMORY SEATS/MIRRORS (SM/SPM)

### X653

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Potentiometer voltage	Driver's headrest pot.			
2	E	Headrest position signal	Driver's headrest pot.			
3	M	Ground	Driver's headrest pot.			
4	E/A	Motor voltage/ground	Driver's headrest motor			
5		Not used				
6	E/A	Motor voltage/ground	Driver's headrest motor			

### X654

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Potentiometer voltage	Driver's seat height pot.			
2	E	Seat height position signal	Driver's seat height pot.			
3	M	Ground	Driver's seat height pot.			
4	E/A	Motor voltage/ground	Driver's seat height motor			
5		Not used				
6	E/A	Motor voltage/ground	Driver's seat height motor			

### X655

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Potentiometer voltage	Driver's seat back pot.			
2	E	Seat back position signal	Driver's seat back pot.			
3	M	Ground	Driver's seat back pot.			



## MEMORY SEATS/MIRRORS (SM/SPM)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
4	E/A	Motor voltage/ground	Driver's seat back recliner motor			
5		Not used				
6	E/A	Motor voltage/ground	Driver's seat back recliner motor			

### X656

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Potentiometer voltage	Driver's seat rear height pot.			
2	E	Seat rear height signal	Driver's seat rear height pot.			
3	M	Ground	Driver's seat rear height pot.			
4	E/A	Motor voltage/ground	Driver's seat cushion tilt motor			
5		Not used				
6	E/A	Motor voltage/ground	Driver's seat cushion tilt motor			



## MEMORY SEATS/MIRRORS (SM/SPM)

### X657

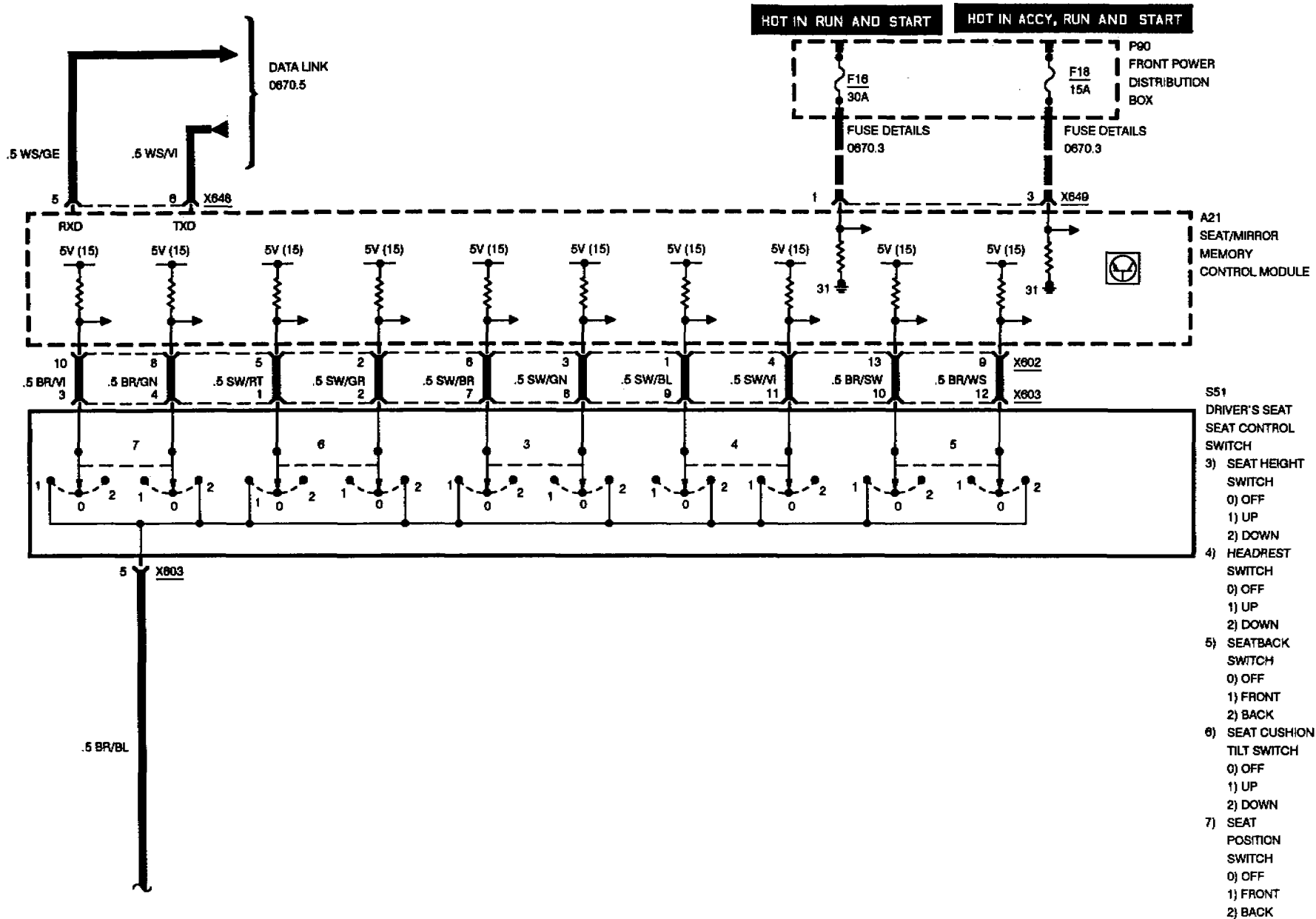
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Potentiometer voltage	Driver's seat potentiometer			
2	E	Seat cushion position signal	Driver's seat potentiometer			
3	M	Ground	Driver's seat potentiometer			
4	E/A	Motor voltage/ground	Driver's seat movement motor			
5		Not used				
6	E/A	Motor voltage/ground	Driver's seat movement motor			

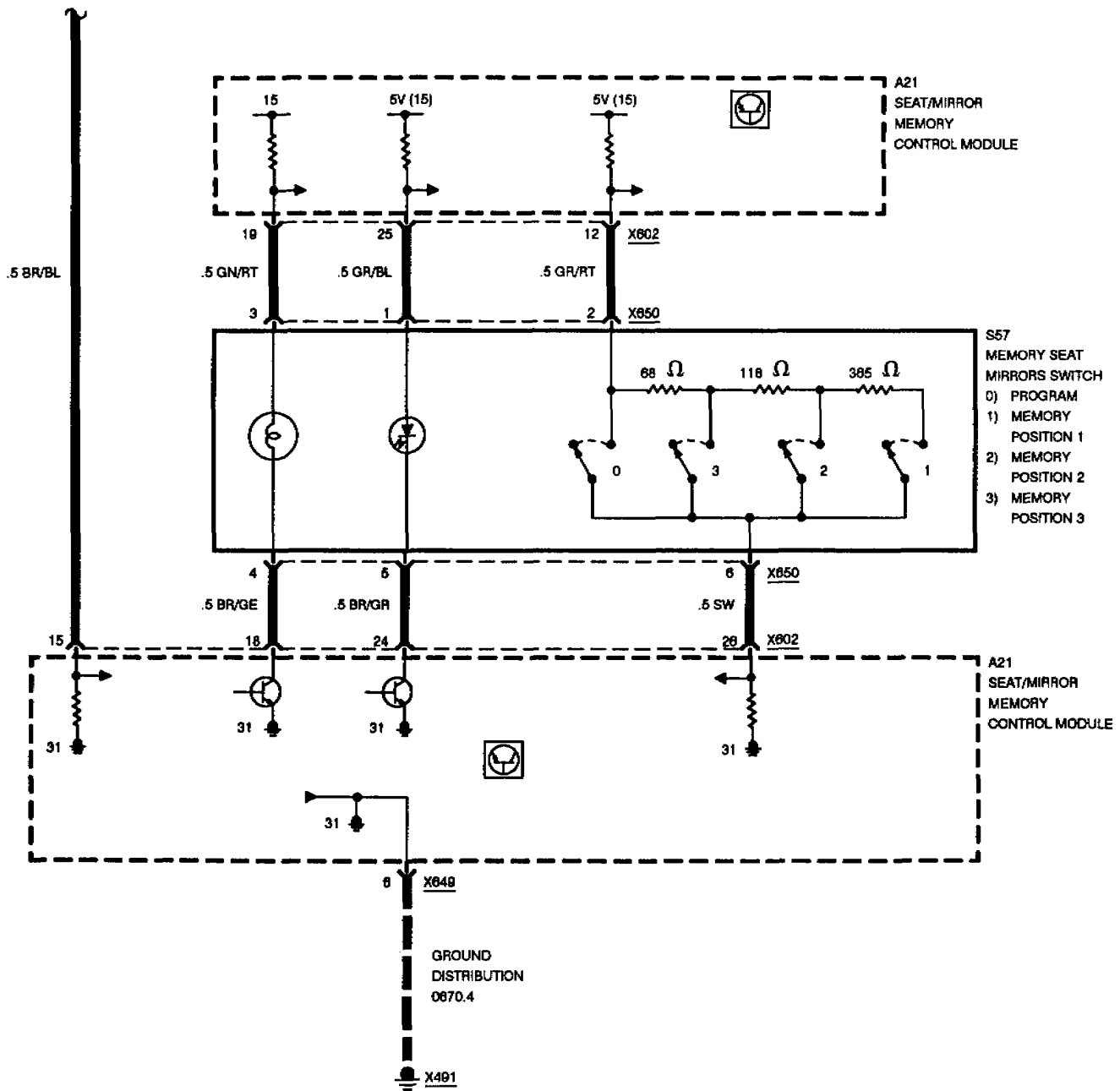
### X18181

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Potentiometer voltage	Driver's seat thigh support pot.			
2	E	Thigh support position signal	Driver's seat thigh support pot.			
3	M	Ground	Driver's seat thigh support pot.			
4	E/A	Motor voltage/ground	Driver's seat thigh support motor			
5		Not used				
6	E/A	Motor voltage/ground	Driver's seat thigh support motor			

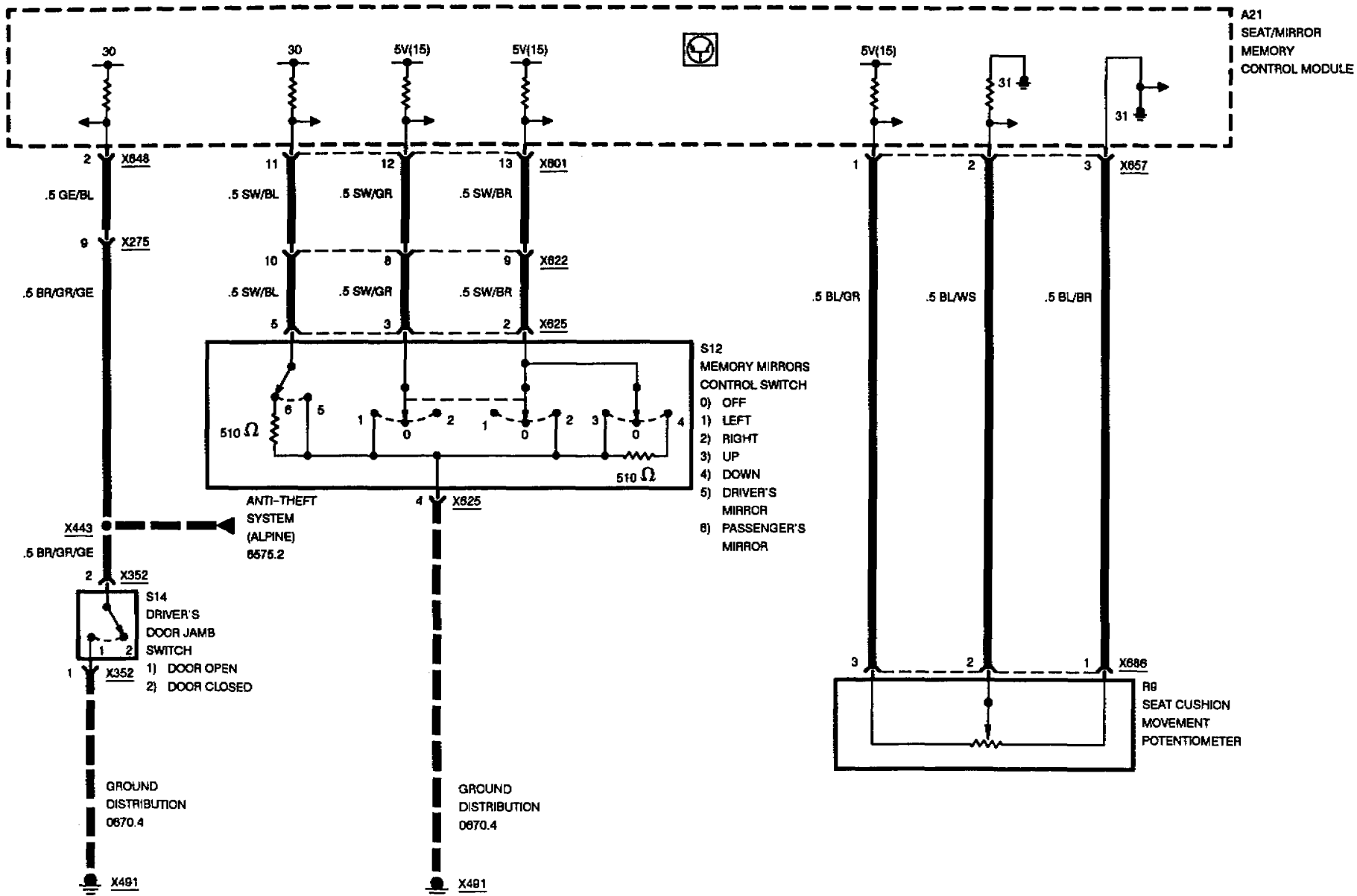


# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)





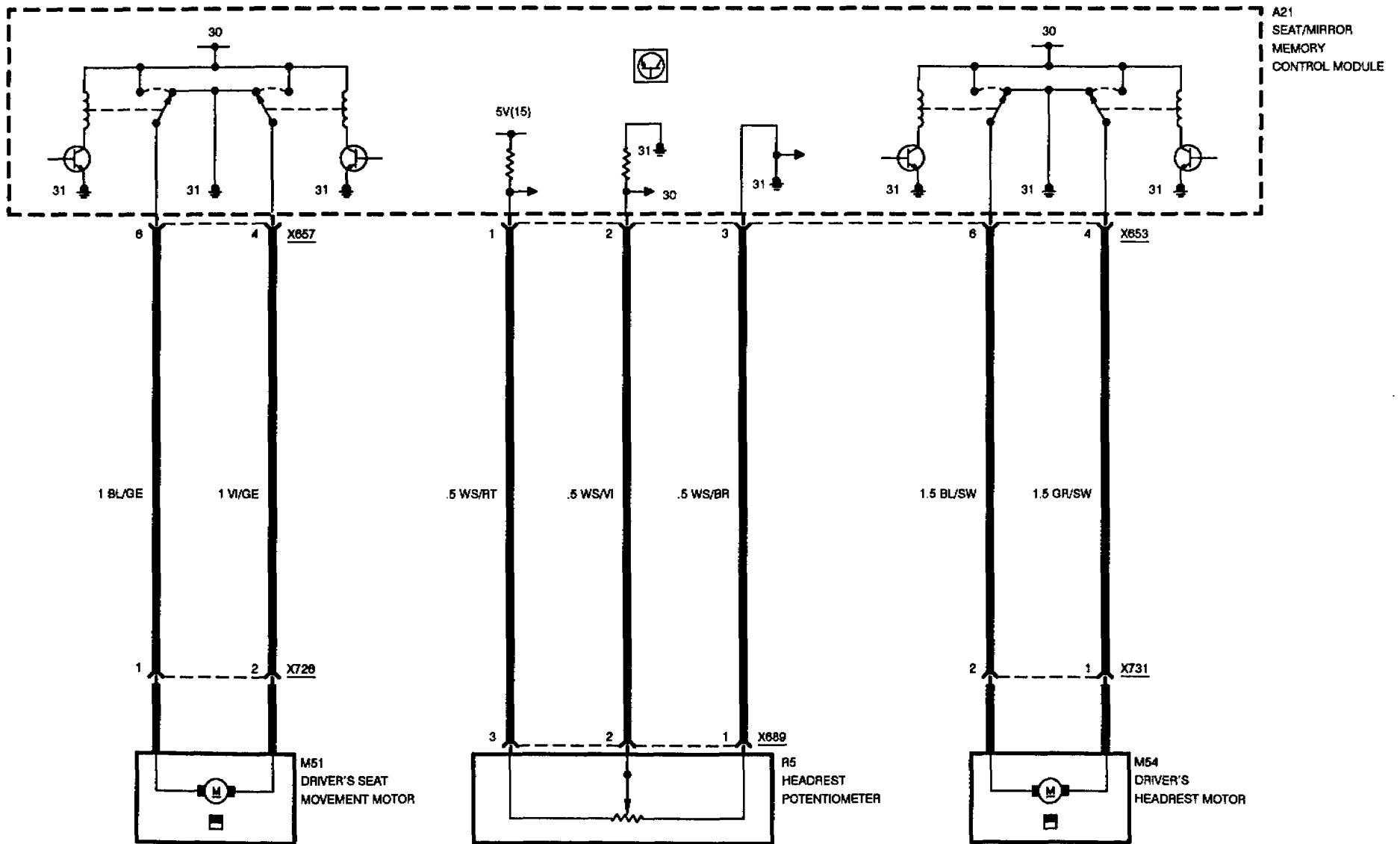
# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)





# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)

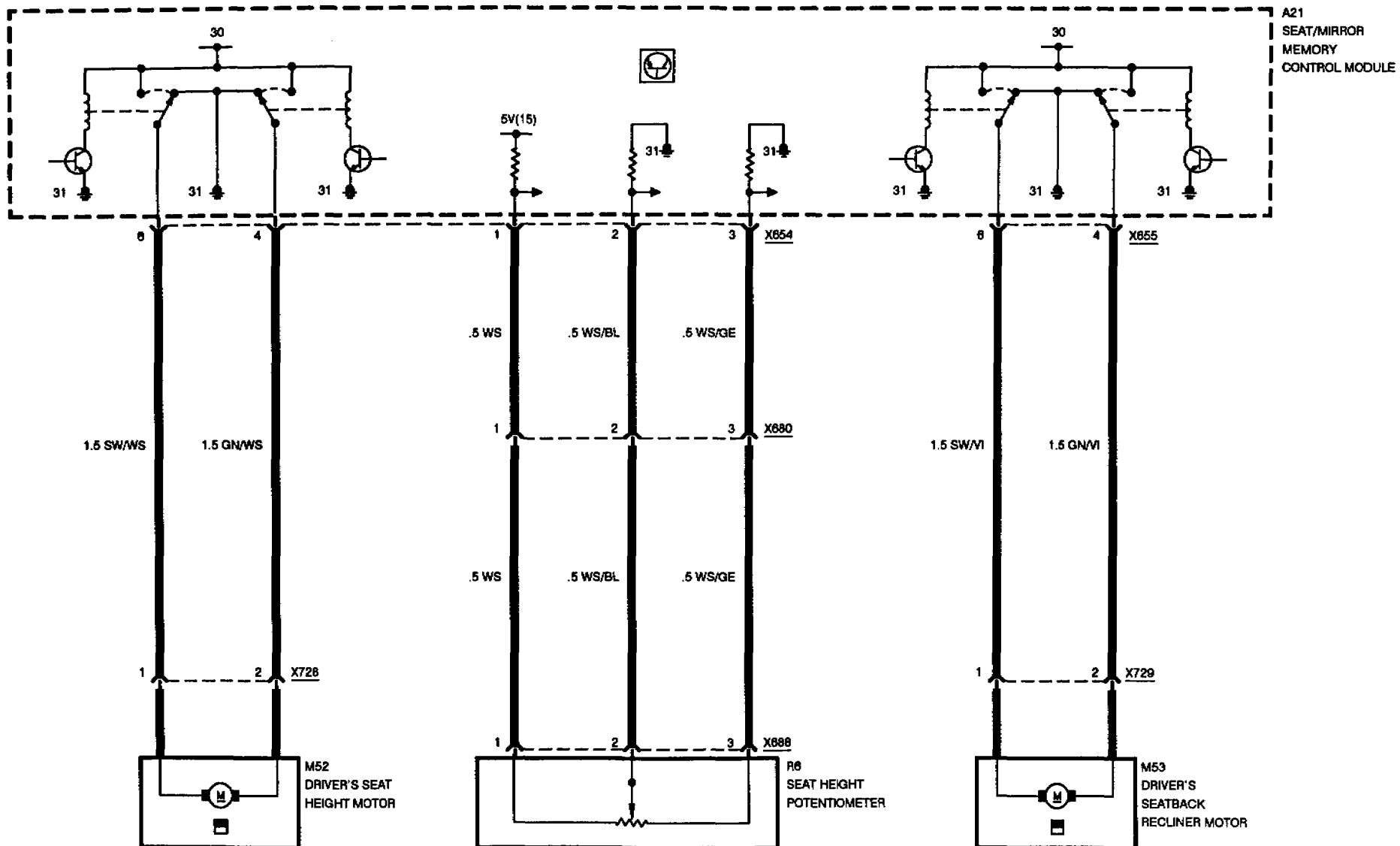
## SEAT





# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)

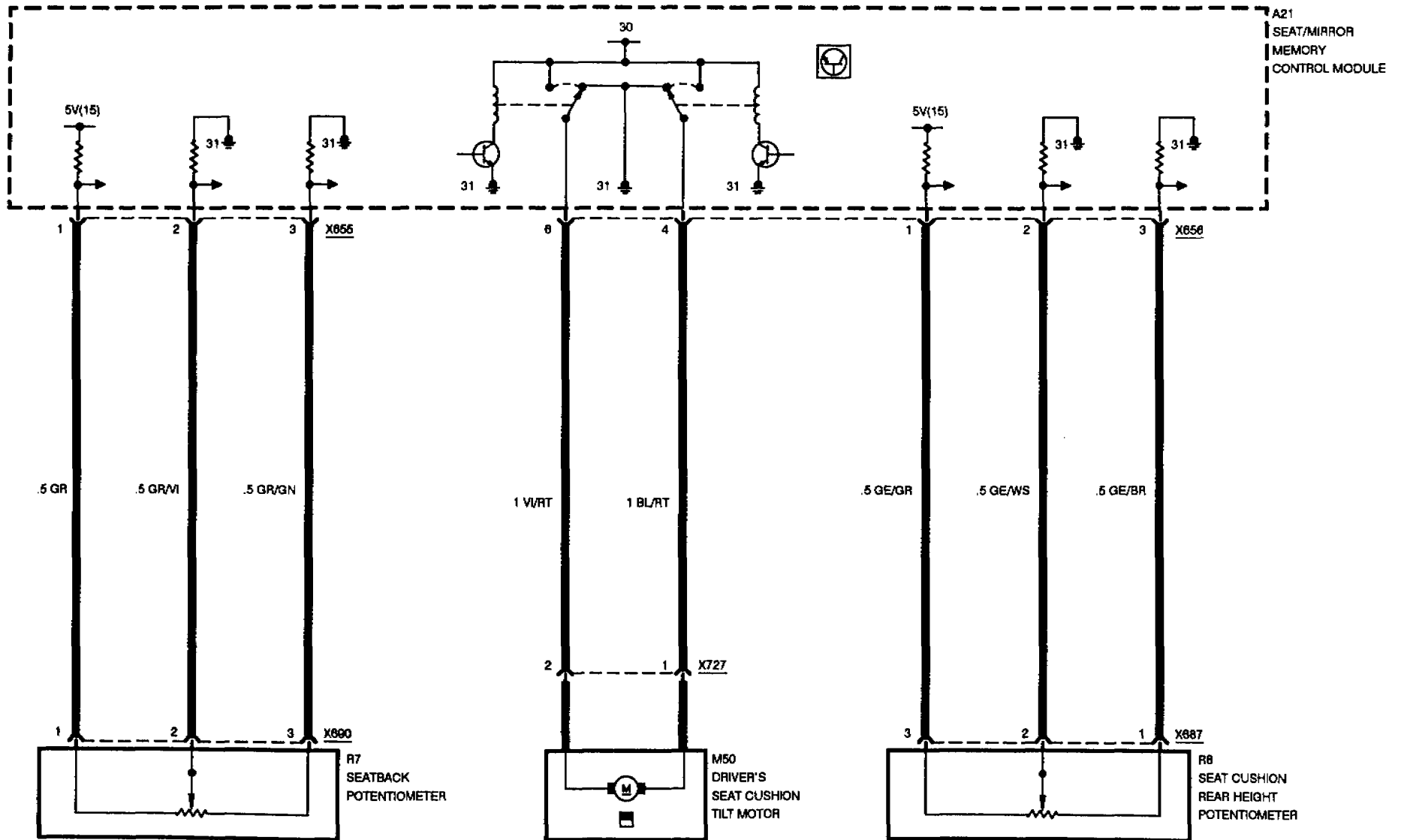
## SEAT



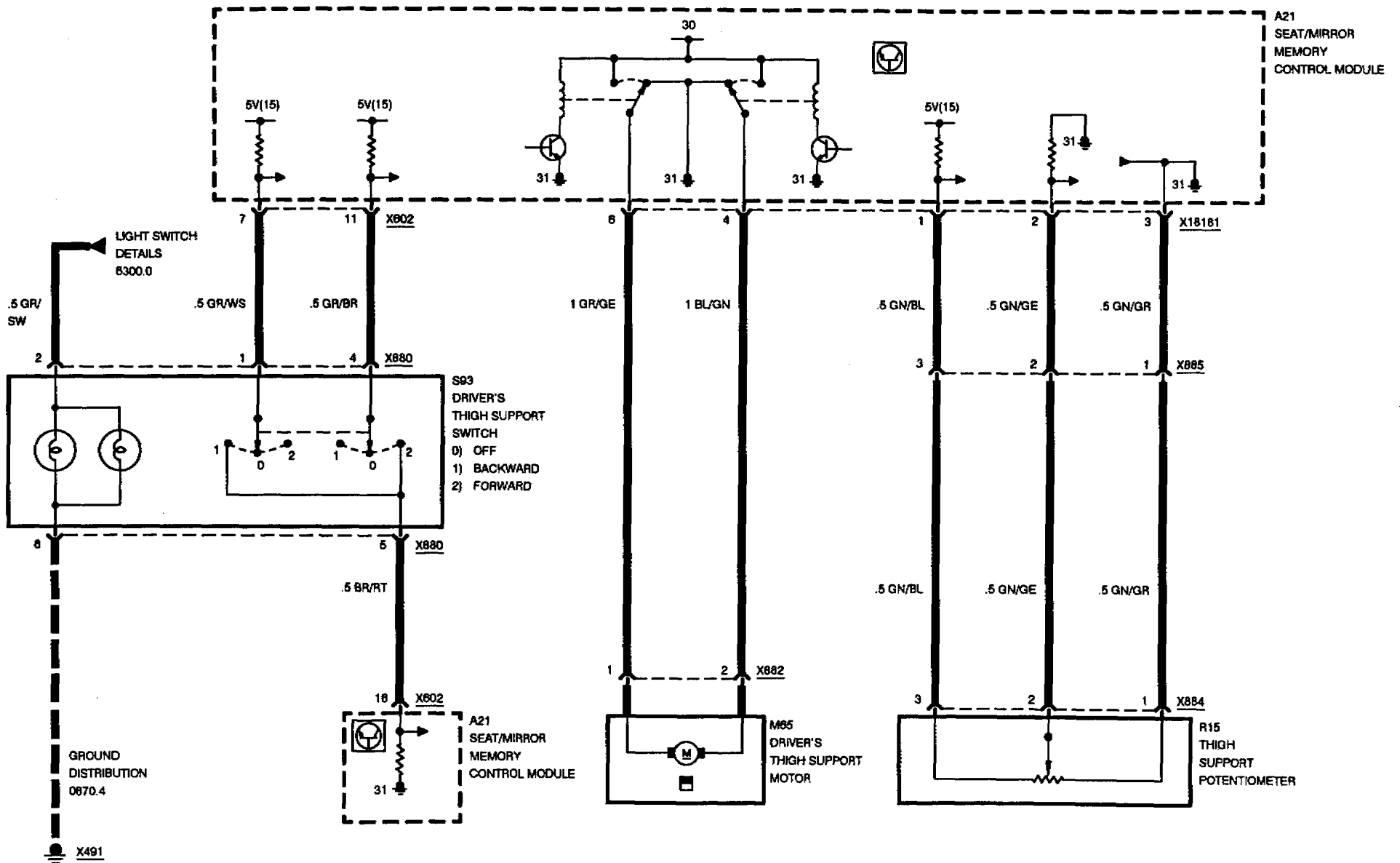


# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)

SEAT



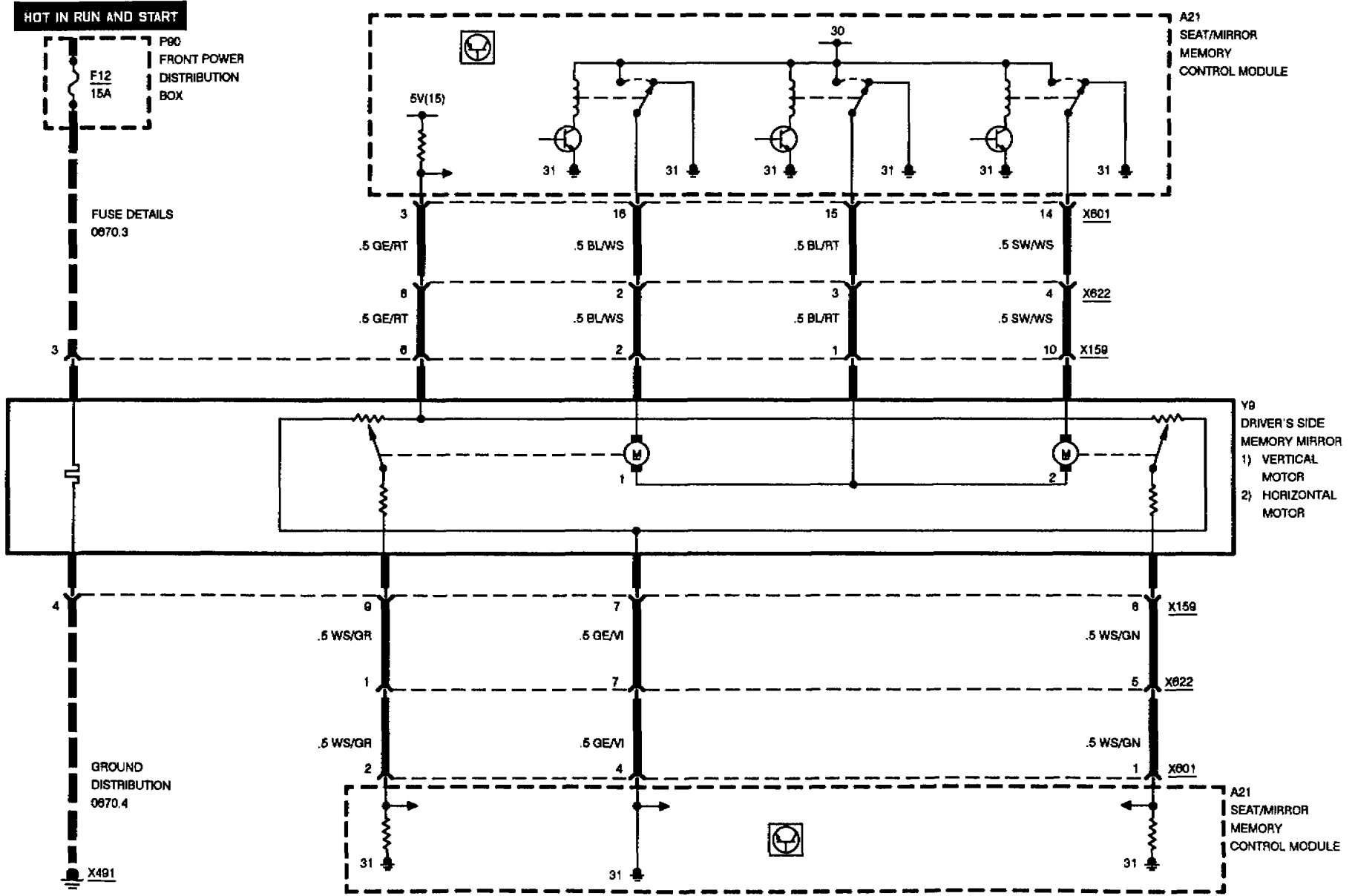
# SEAT/MIRROR MEMORY SYSTEM (SM/SPM) WITH SPORT SEAT





# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)

## MIRROR

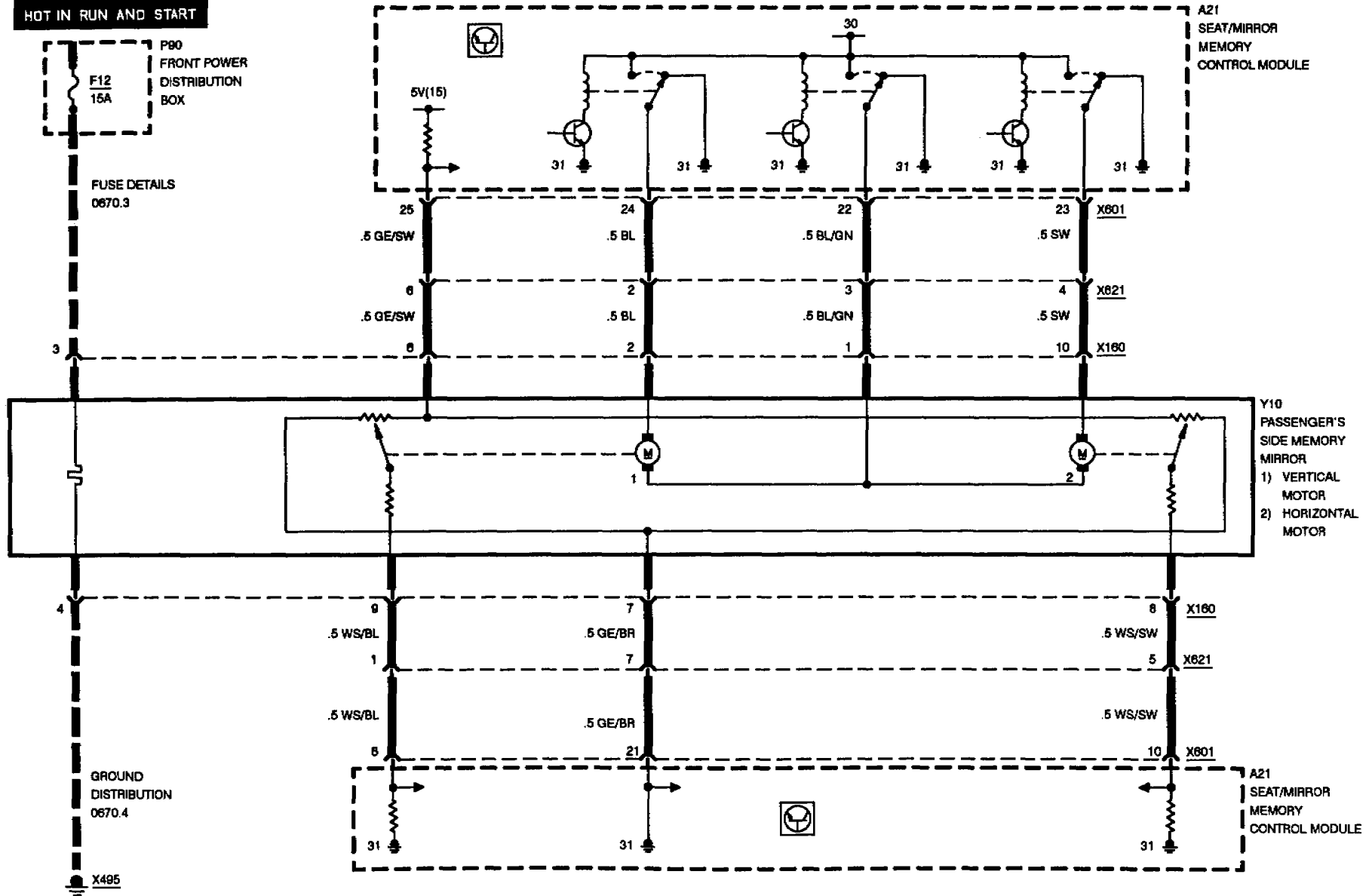




# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)

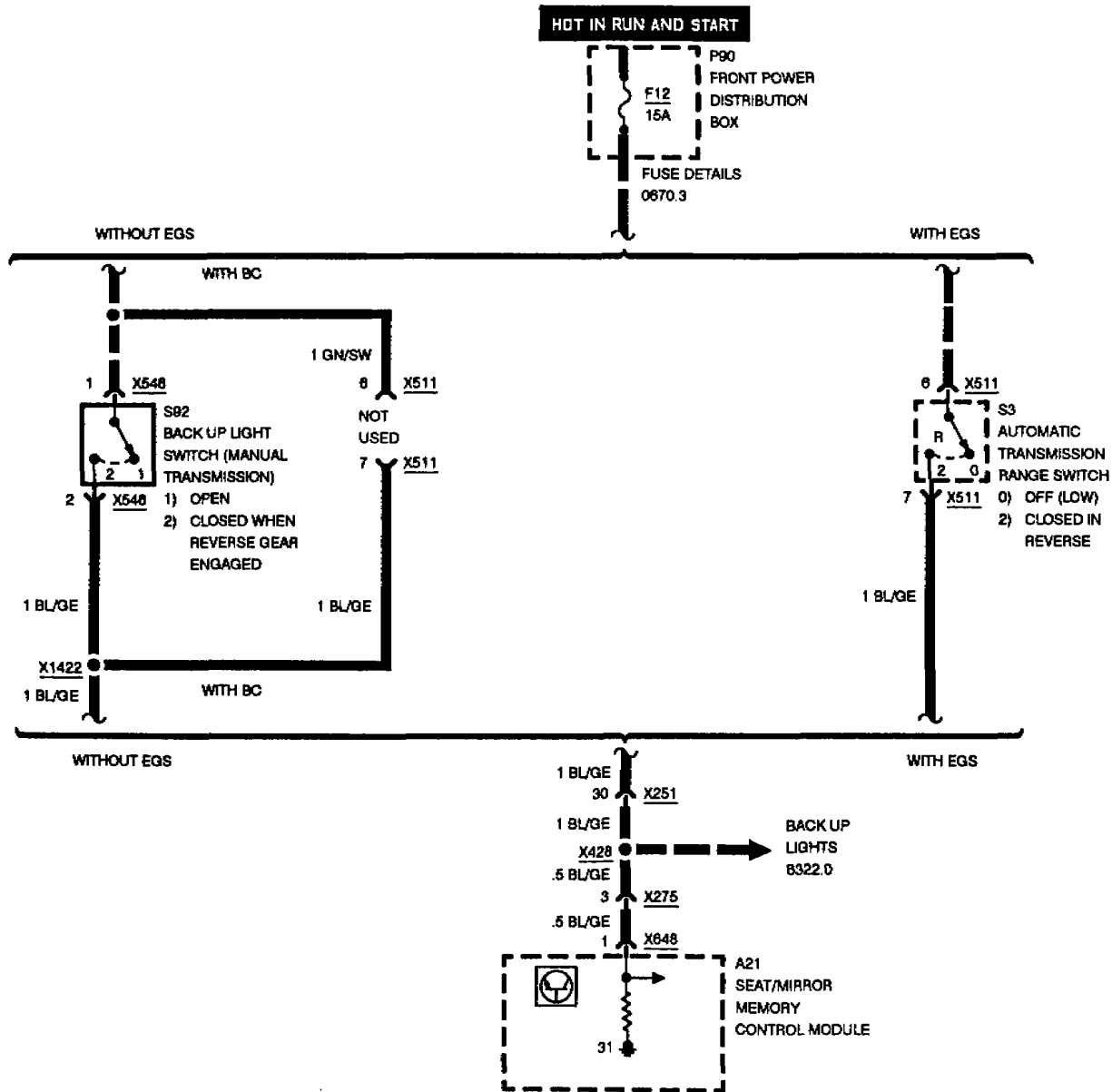
## MIRROR

HOT IN RUN AND START



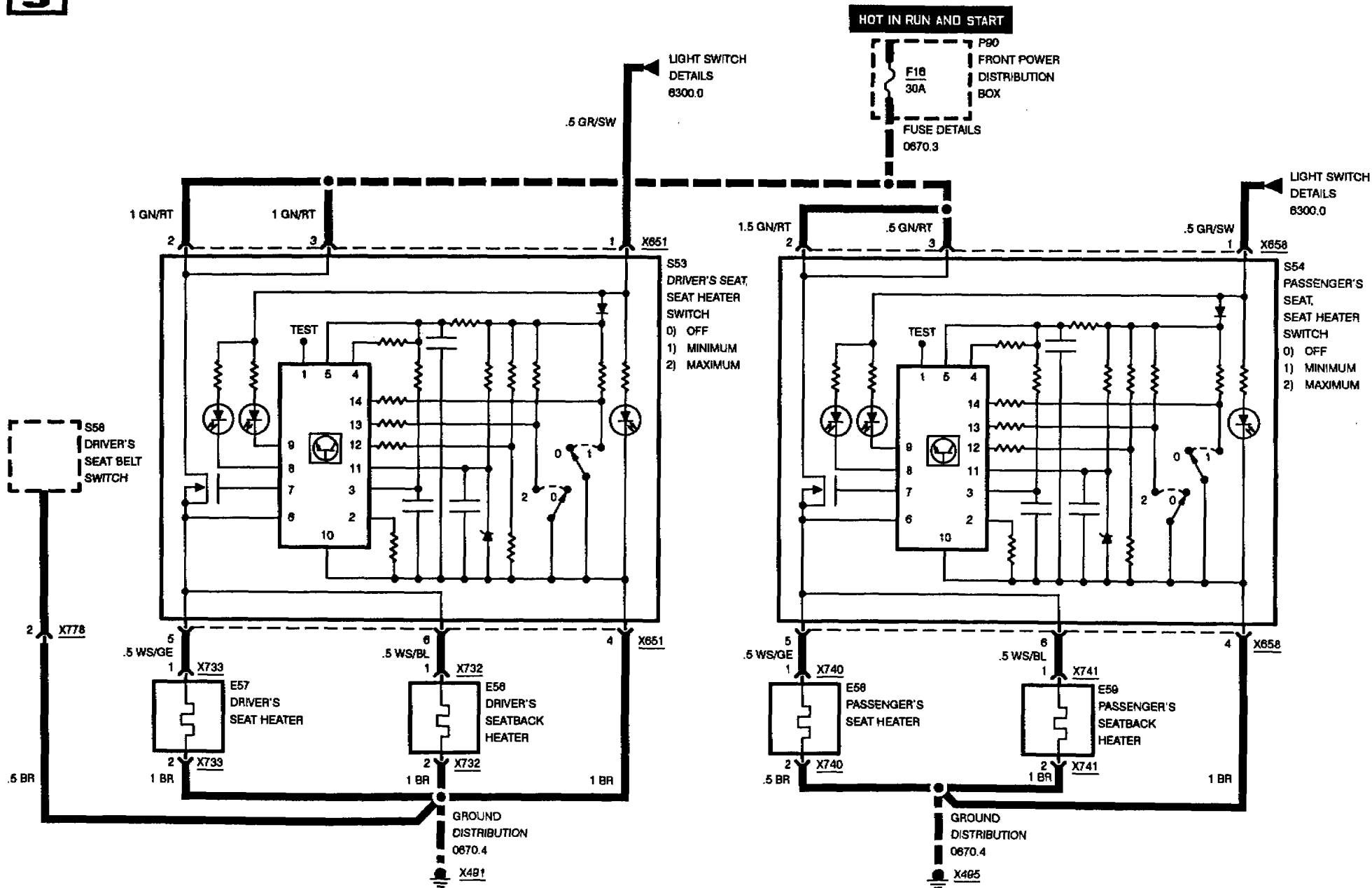


# SEAT/MIRROR MEMORY SYSTEM (SM/SPM)





# HEATED SEATS



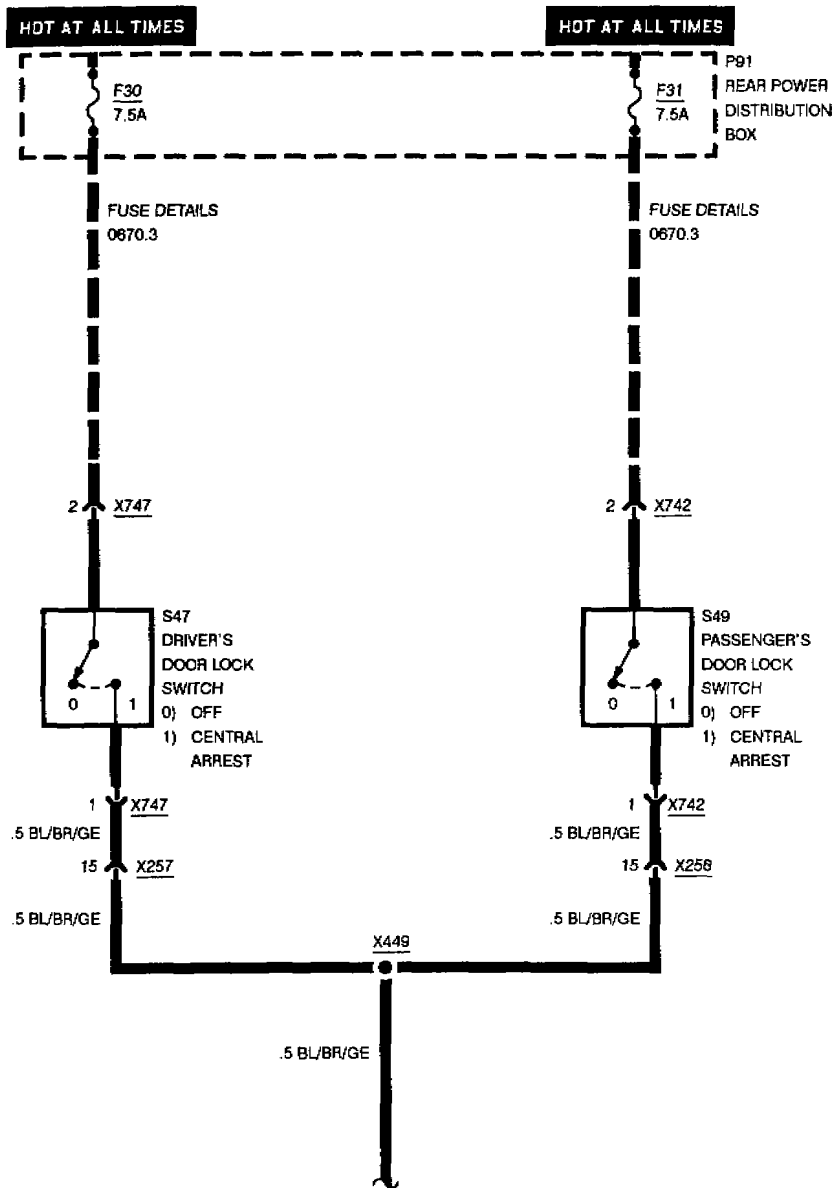


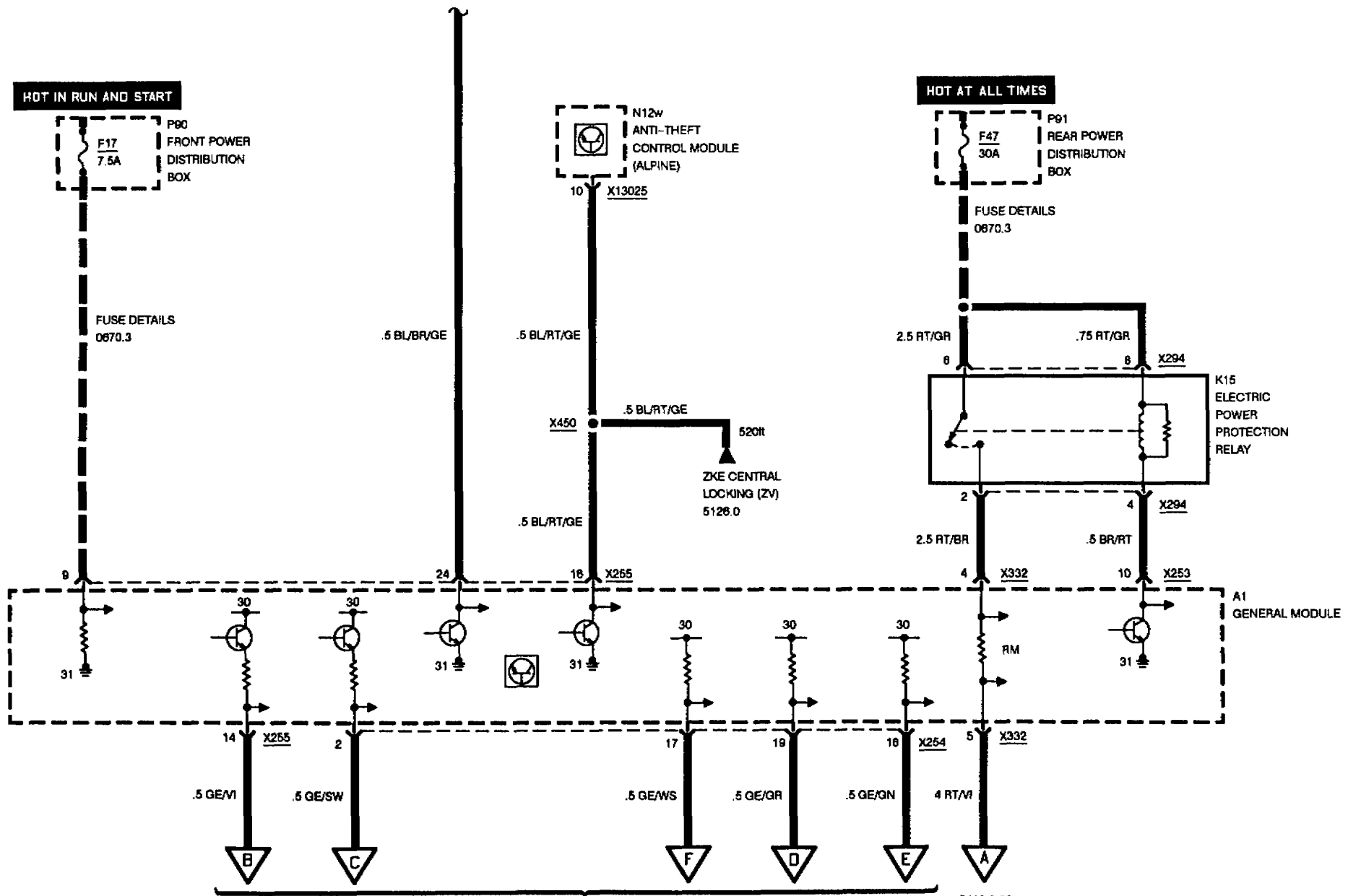
BMW  
5

5410.0



# ZKE SUNROOF (SHD) INPUT DETAILS





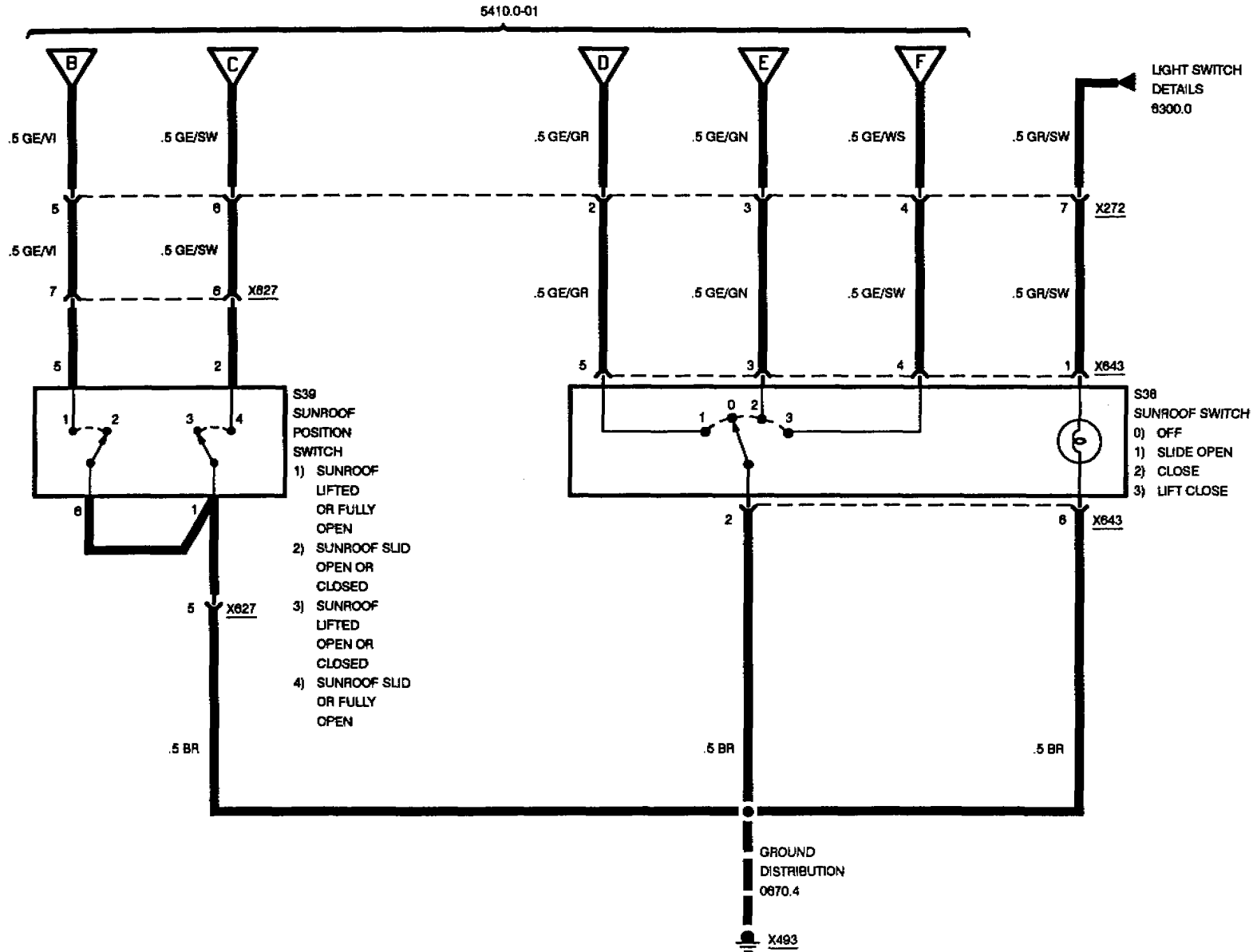
5410.0-02

5410.0-03



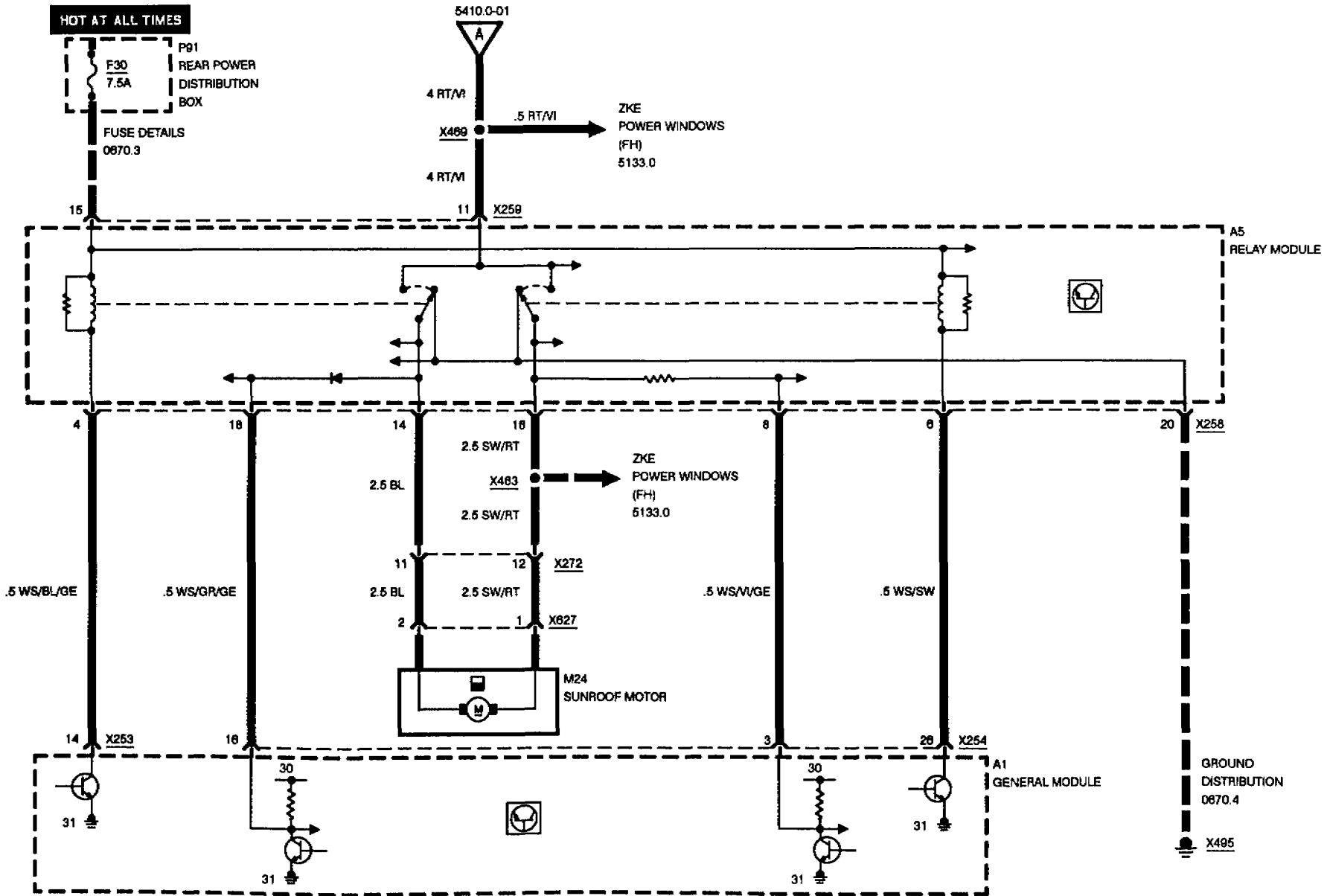
# ZKE SUNROOF (SHD)

## INPUT DETAILS

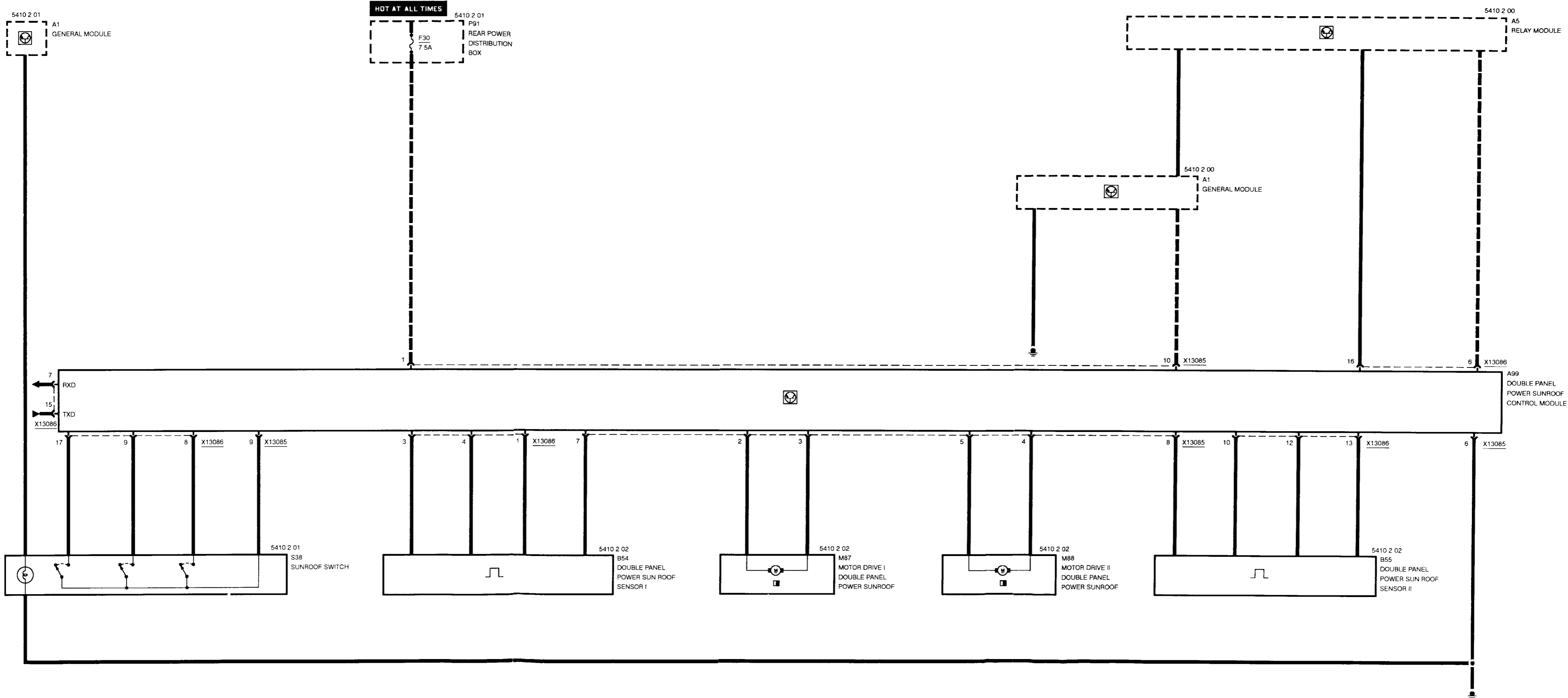




# ZKE SUNROOF (SHD) OUTPUT DETAILS

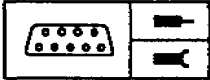








# DOUBLE PANEL POWER SUNROOF (ZKE)



## Pin Assignments

A=X13085 10 Pins

B=X13086 18 Pins

### X13085

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Power, terminal 30	Power distribution box	approx. 12 V		
2	E/A	Motor voltage/ground	Motor, front roof			
3	E/A	Motor voltage/ground	Motor, front roof			
4	E/A	Motor voltage/ground	Motor, rear roof			
5	E/A	Motor voltage/ground	Motor, rear roof			
6	M	Module ground	Ground	Ground		
7	A	Power	Sensor, front roof			
8	A	Power	Sensor, rear roof			
9	A	Power	Switch, double panel power sunroof			
10	E	Power	General module			

### X13086

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Position contact	Sensor, front roof			
2		Not used				





## DOUBLE PANEL POWER SUNROOF (ZKE)

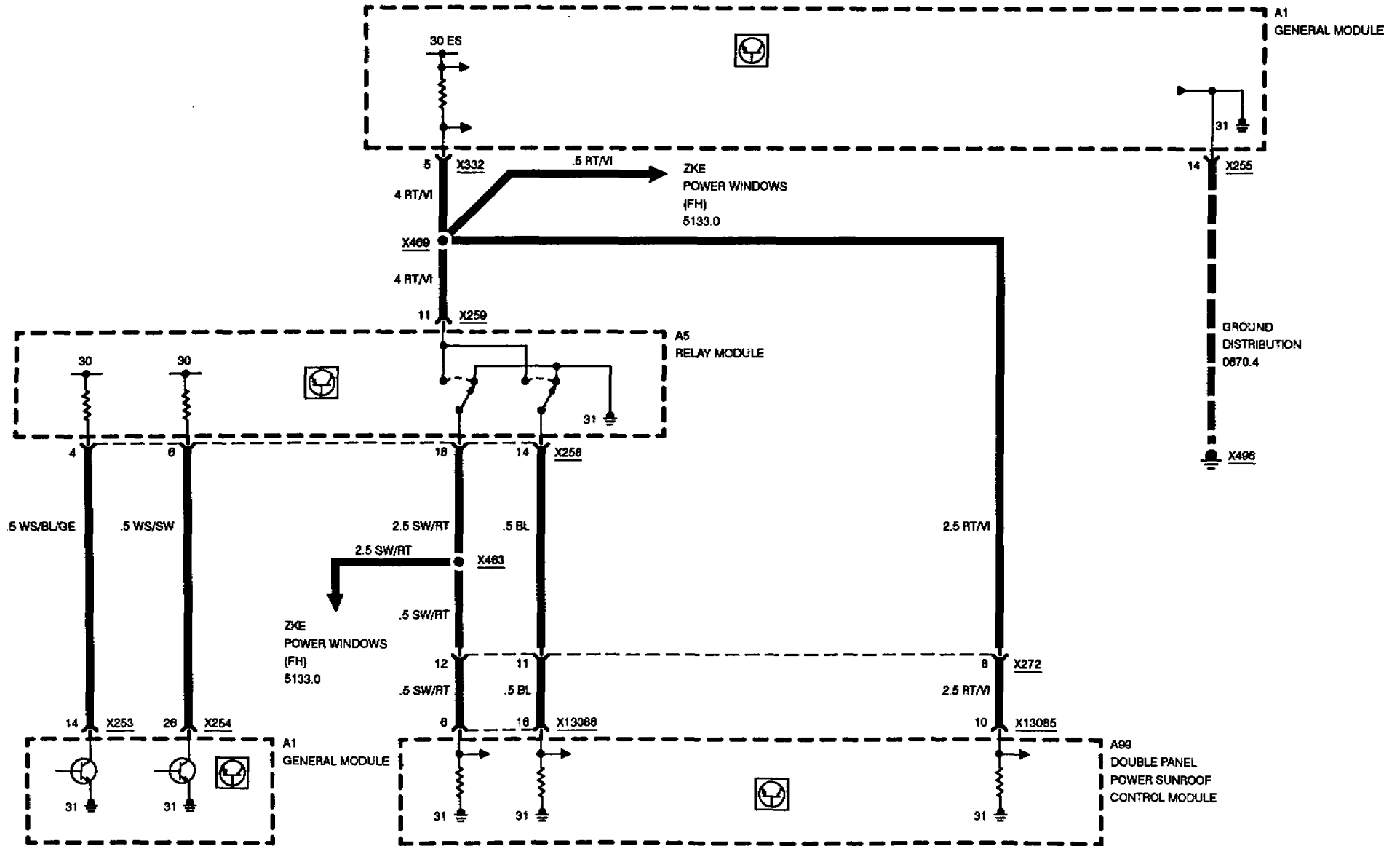
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
3	E	Position contact	Sensor, front roof			
4	E	Position contact	Sensor, front roof			
5		Not used				
6	E	Control signal	Relay module			
7	A	RxD	Diagnostic connector			
8	E	Switch, closed	Switch, double panel power sunroof			
9	E	Switch, closed	Switch, double panel power sunroof			
10	E	Position contact	Sensor, rear roof			
11		Not used				
12	E	Position contact	Sensor, rear roof			
13	E	Position contact	Sensor, rear roof			
14		Not used				
15	E	TxD	Diagnostic connector			
16	E	MSD +	Relay module			
17	E	Switch closed	Switch, double panel power sunroof			
18		Not used				

BMW  
**5**

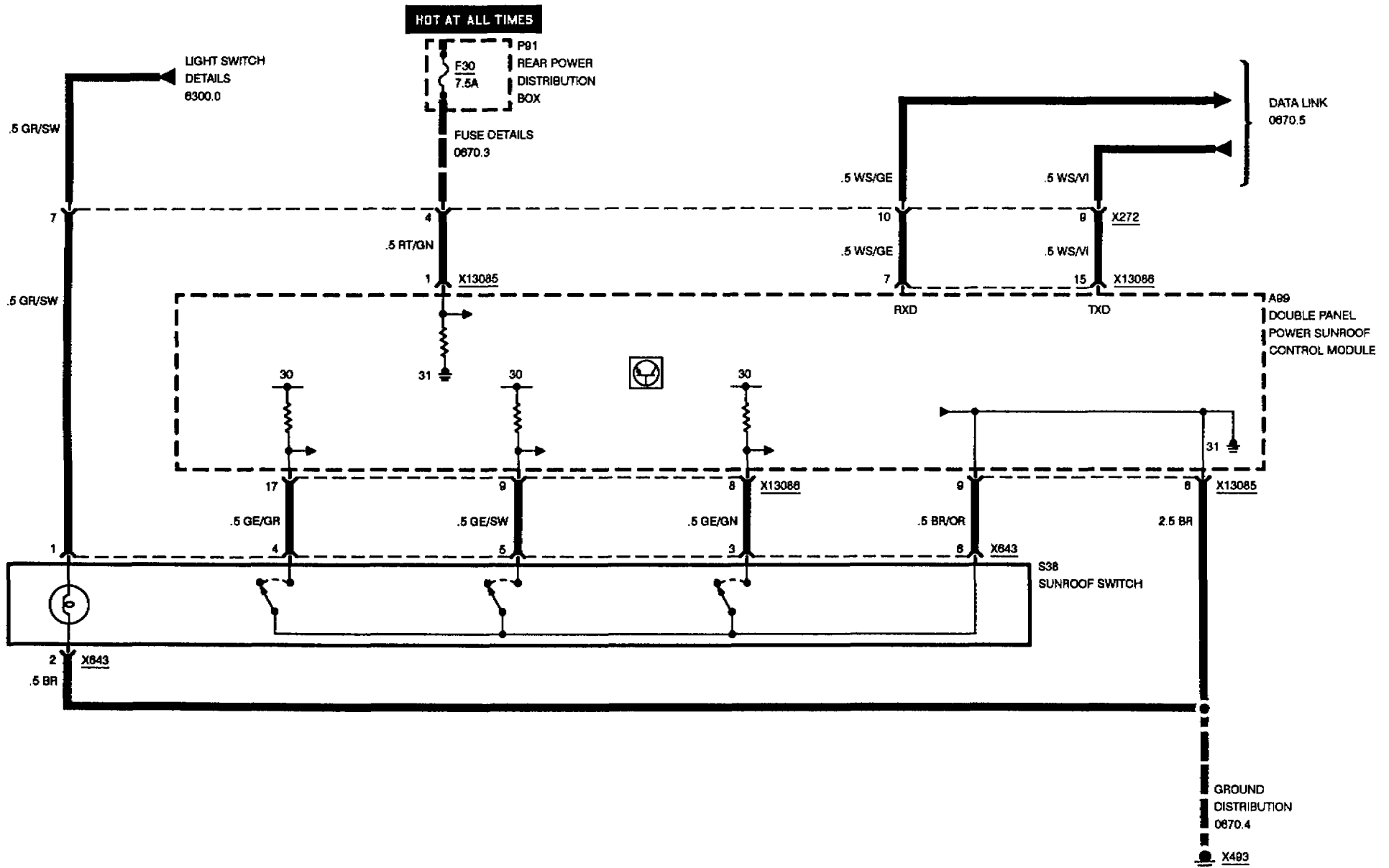
5410.2



# DOUBLE PANEL POWER SUNROOF (ZKE)

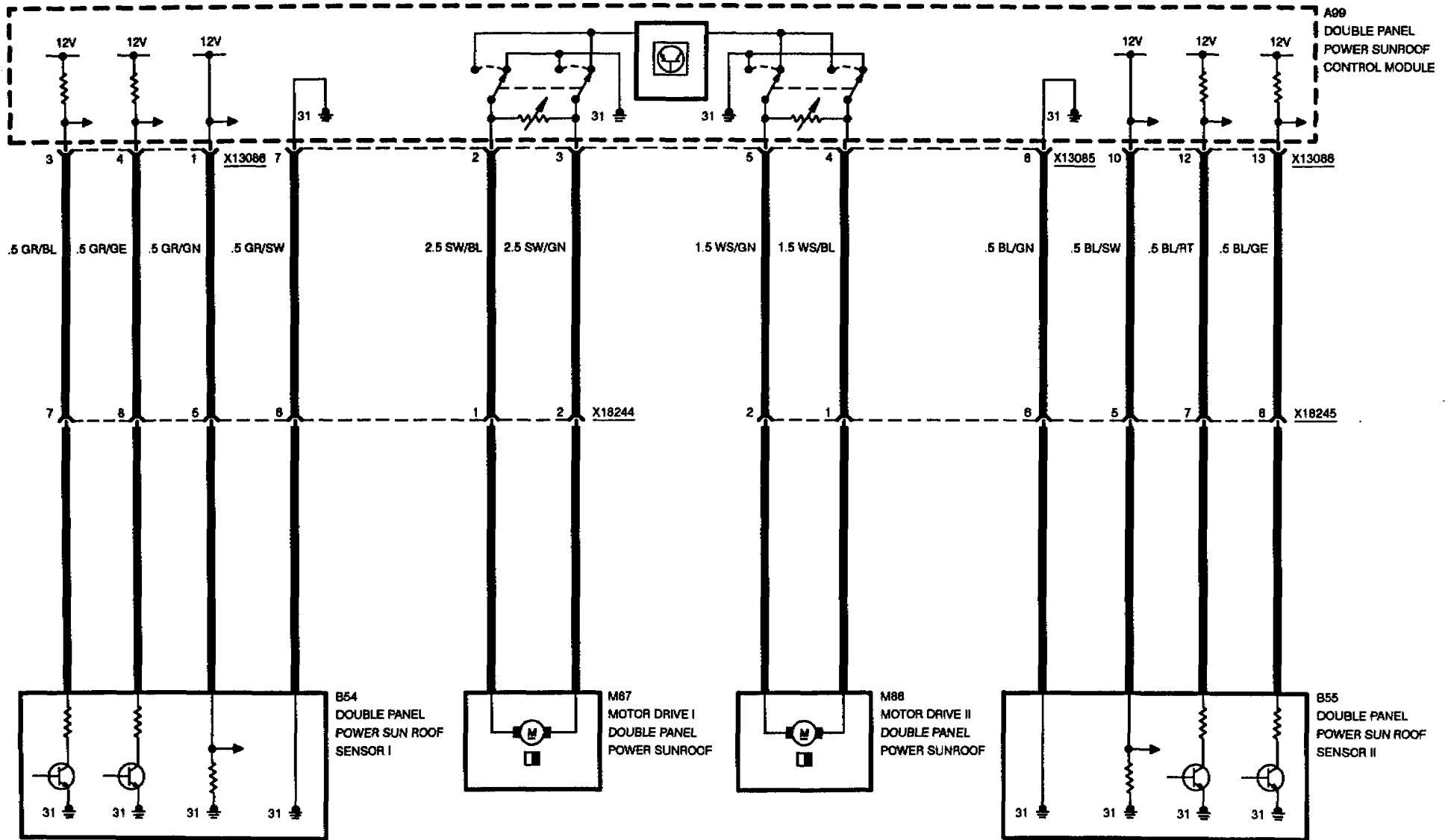


# DOUBLE PANEL POWER SUNROOF (ZKE)





# DOUBLE PANEL POWER SUNROOF (ZKE)



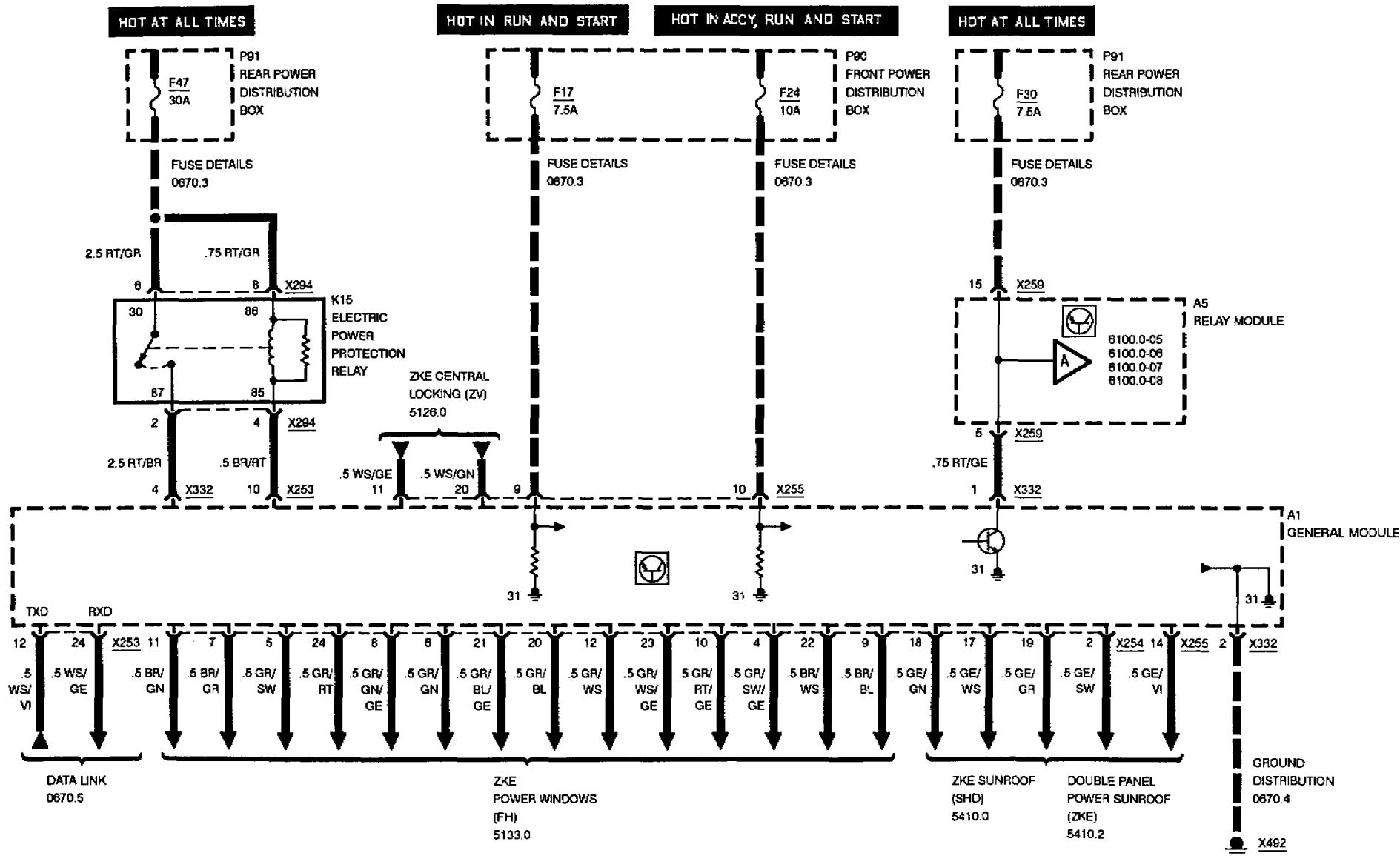
BMW  
5

6100.0



# CENTRAL BODY ELECTRONICS (ZKE)

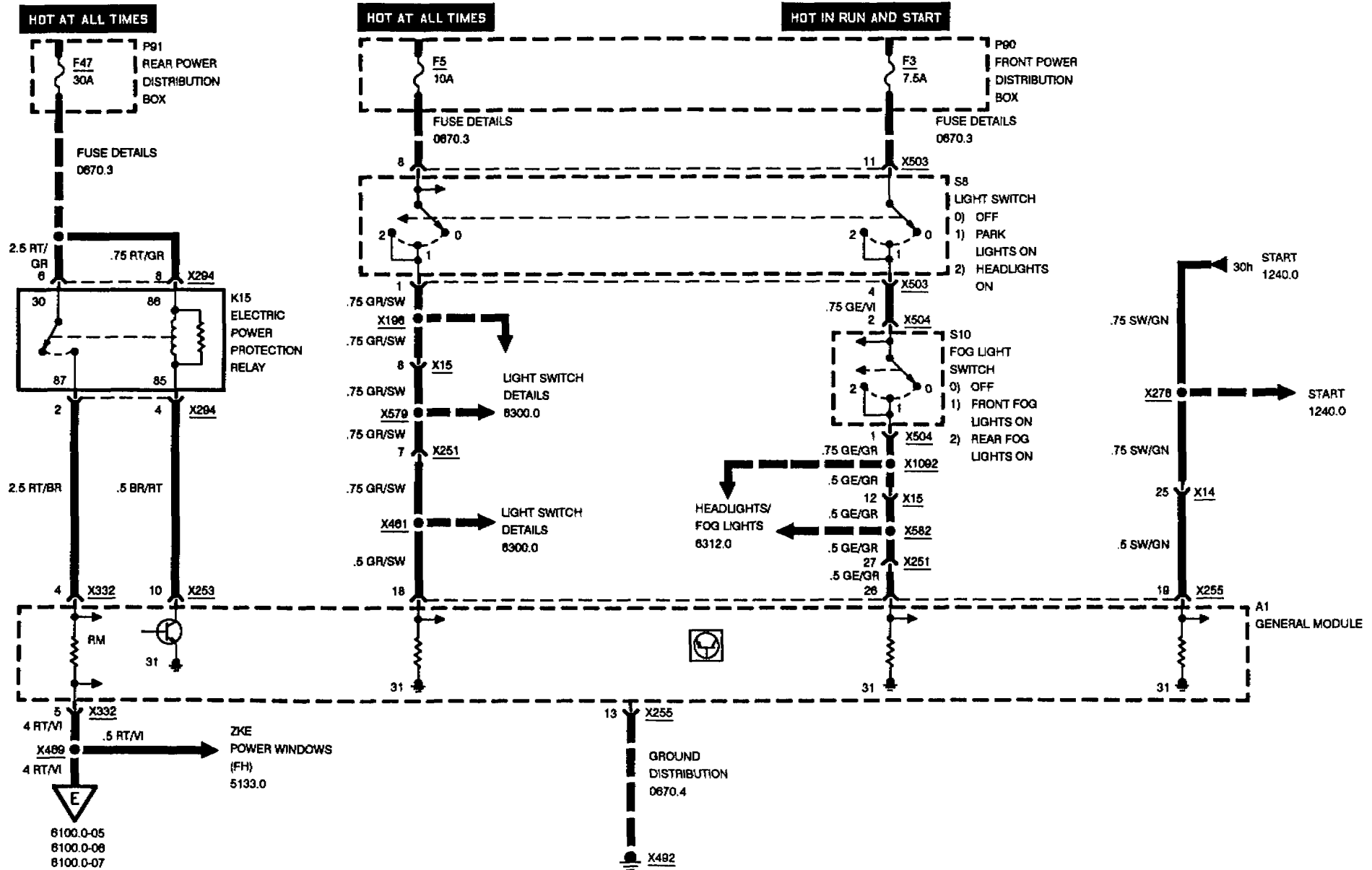
## GENERAL MODULE





# CENTRAL BODY ELECTRONICS (ZKE)

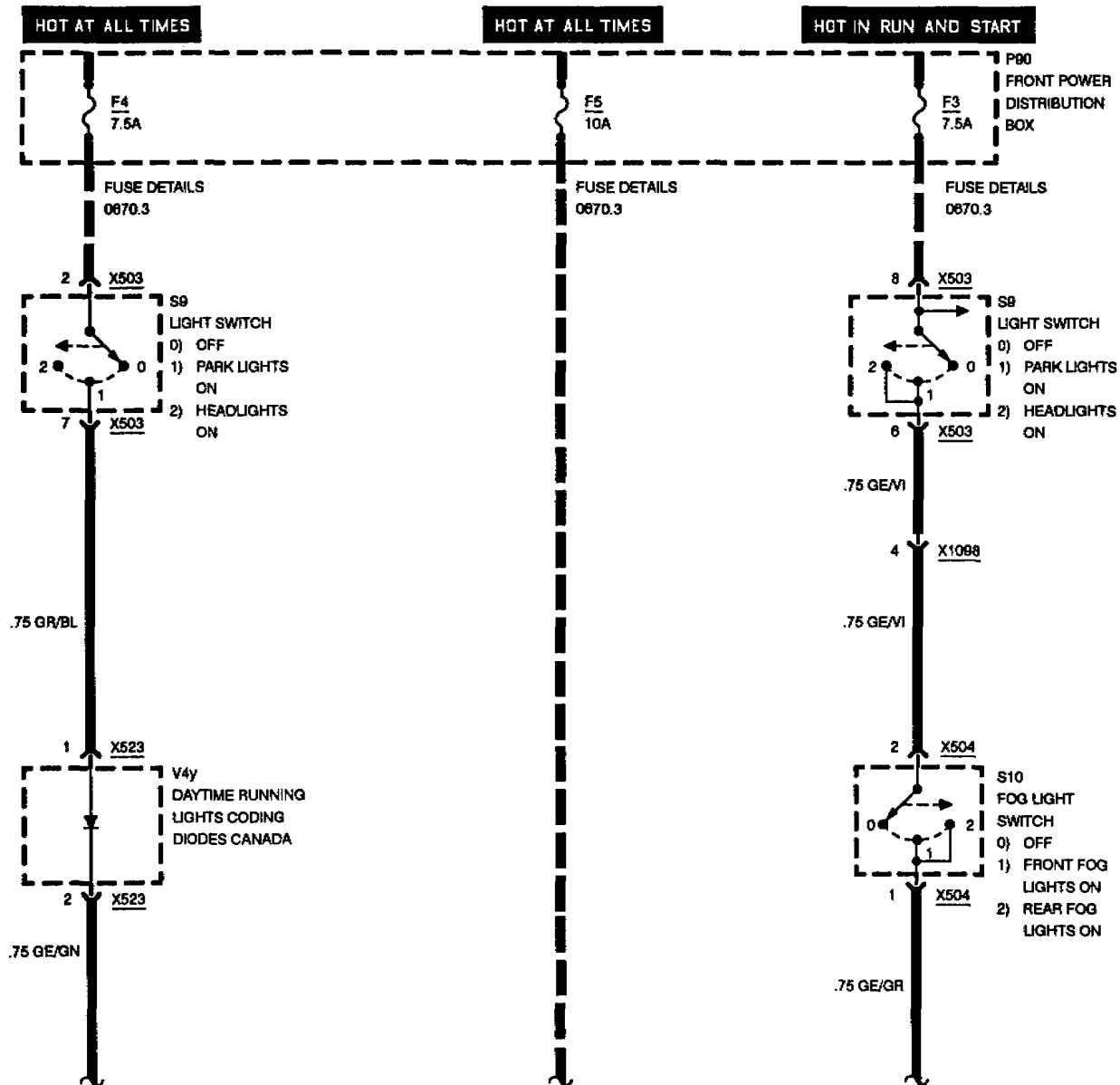
## GENERAL MODULE

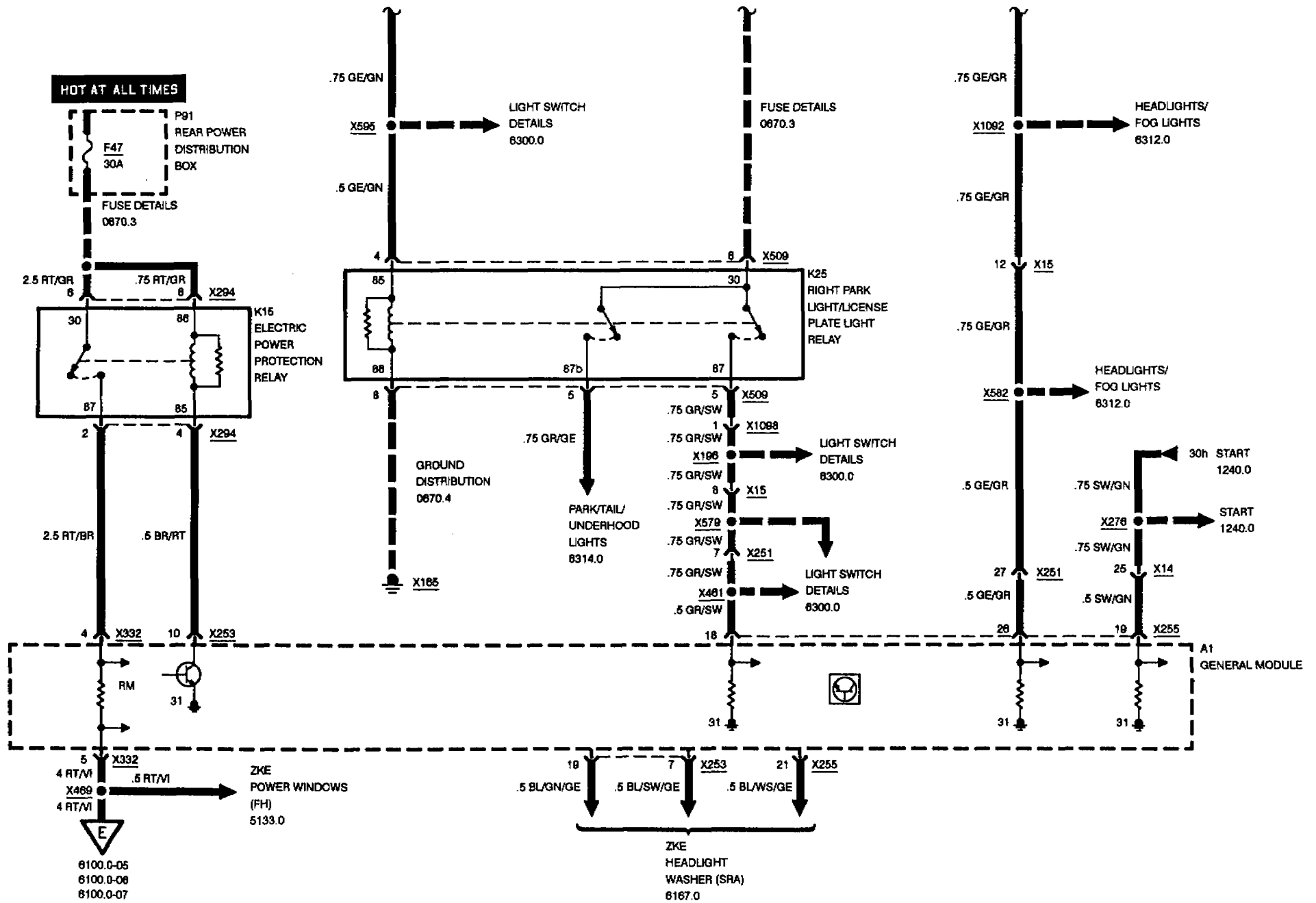






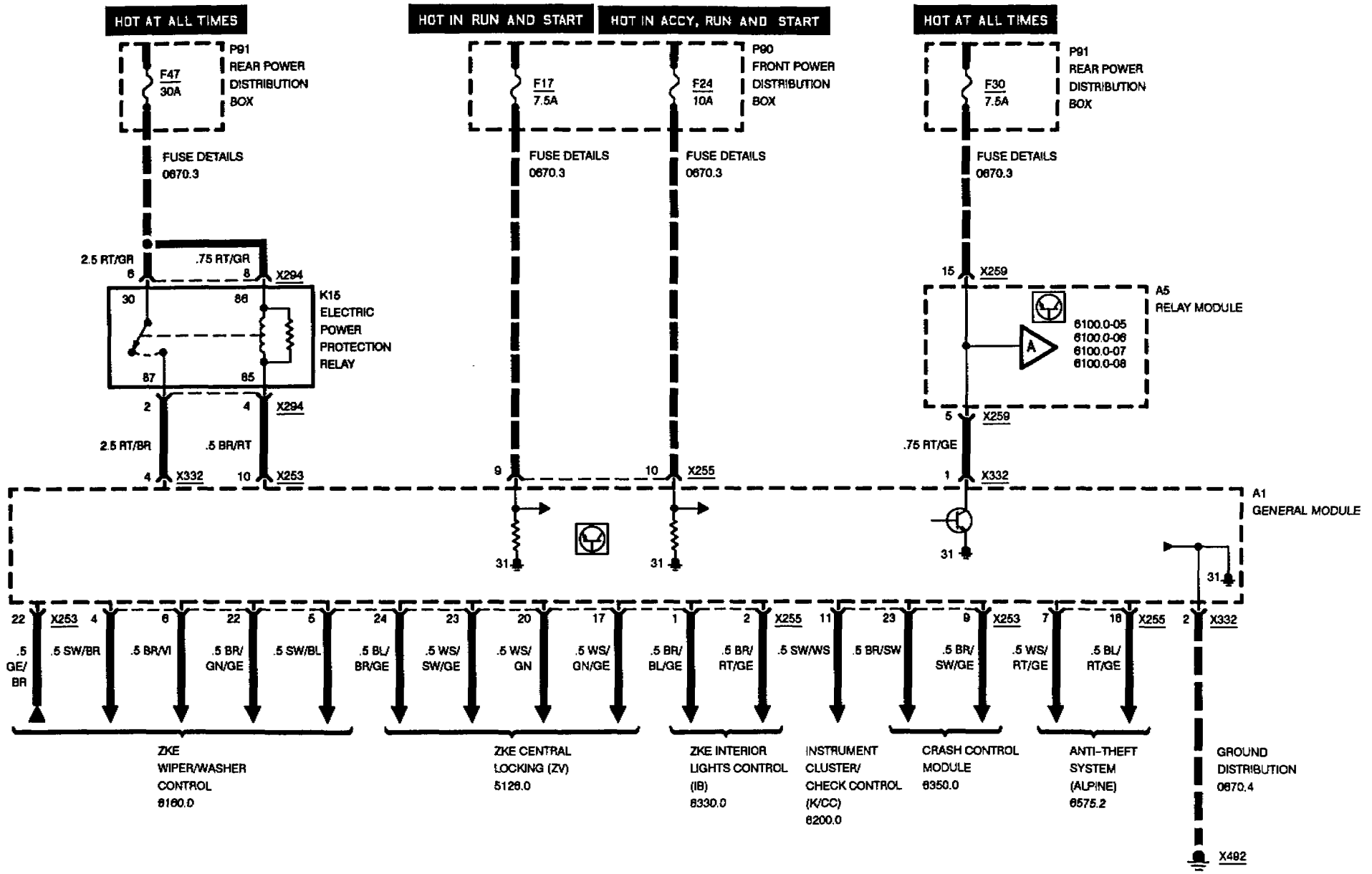
# CENTRAL BODY ELECTRONICS (ZKE) GENERAL MODULE





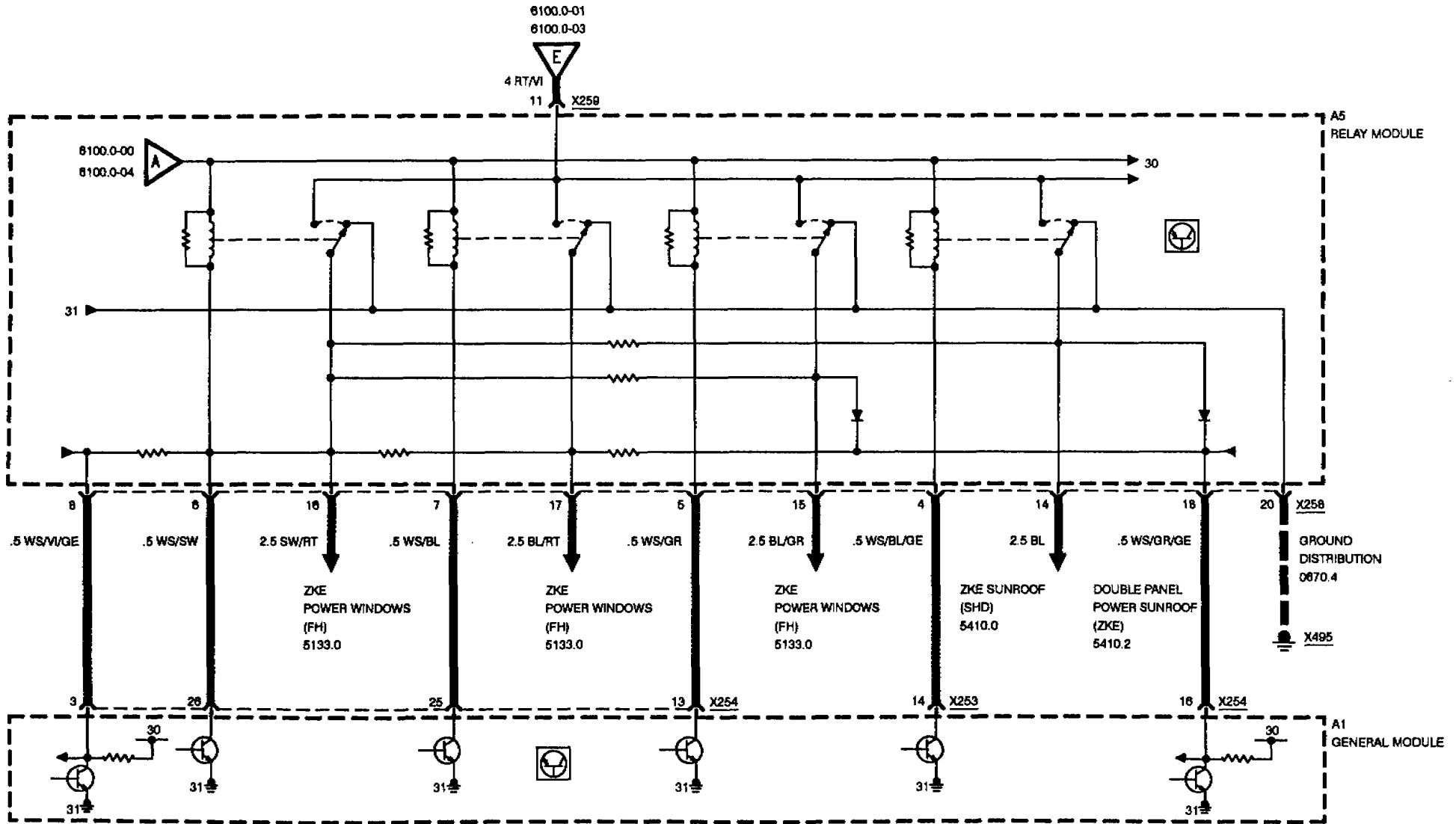


# CENTRAL BODY ELECTRONICS (ZKE) GENERAL MODULE



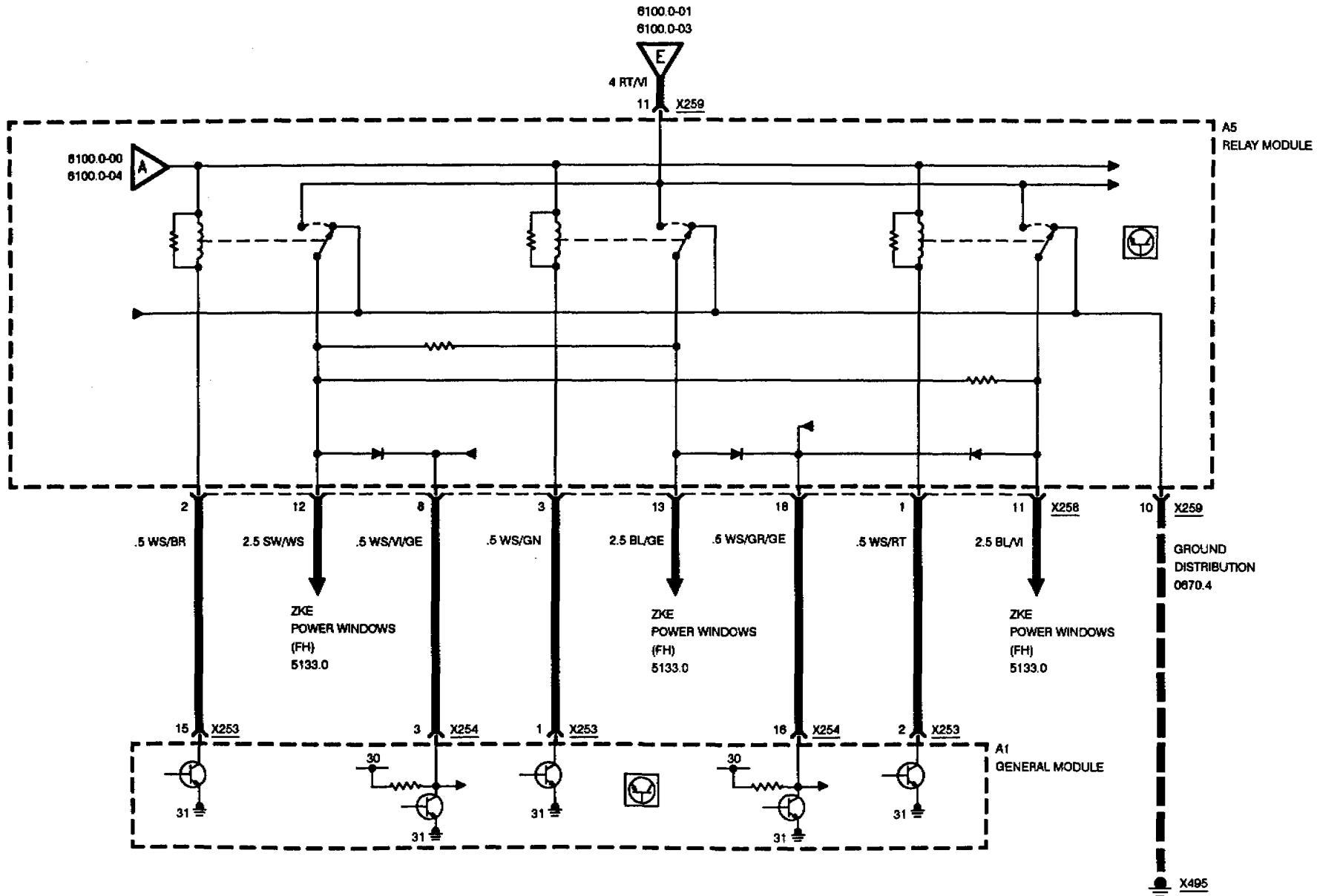


# CENTRAL BODY ELECTRONICS (ZKE) RELAY MODULE



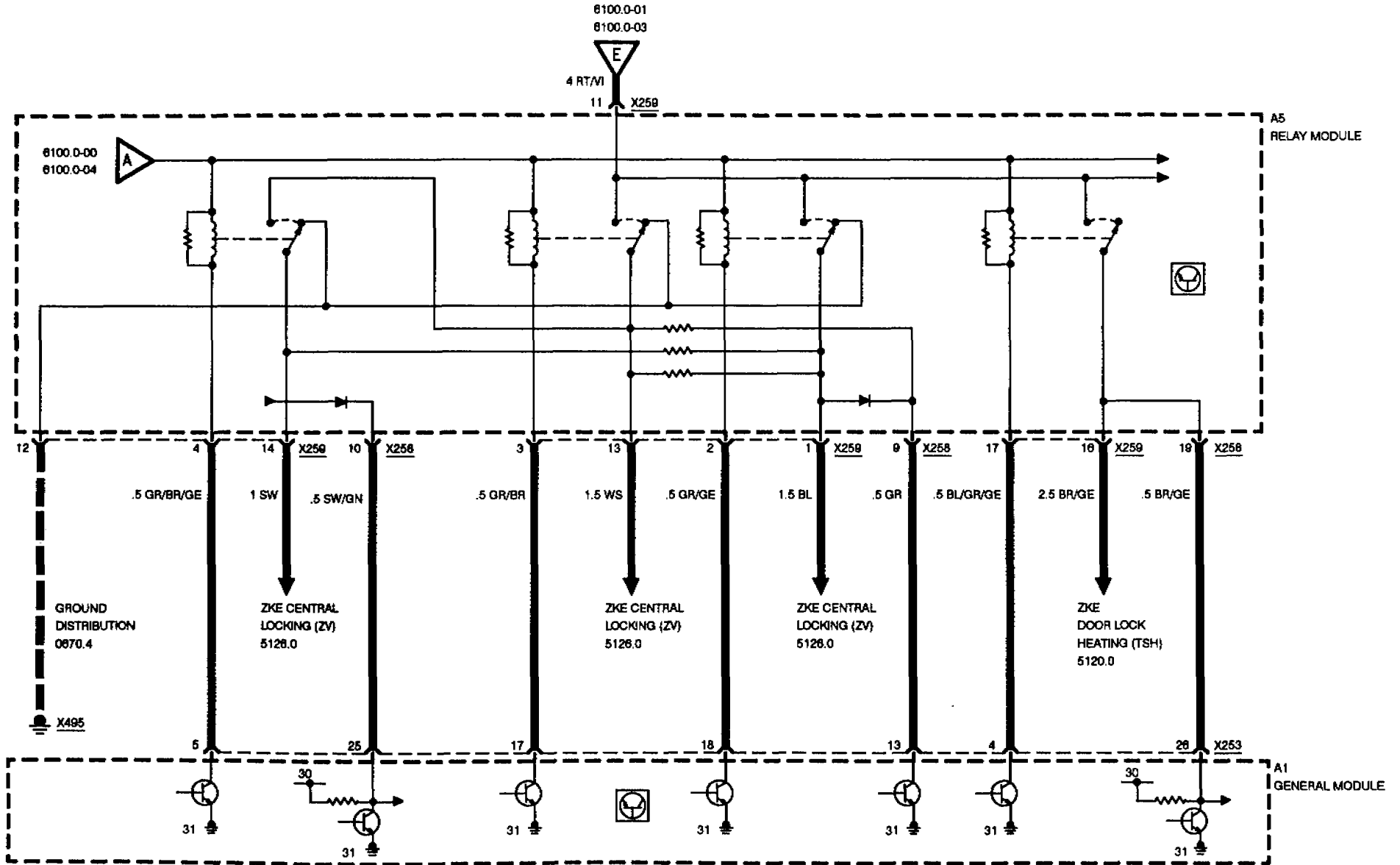


# CENTRAL BODY ELECTRONICS (ZKE) RELAY MODULE



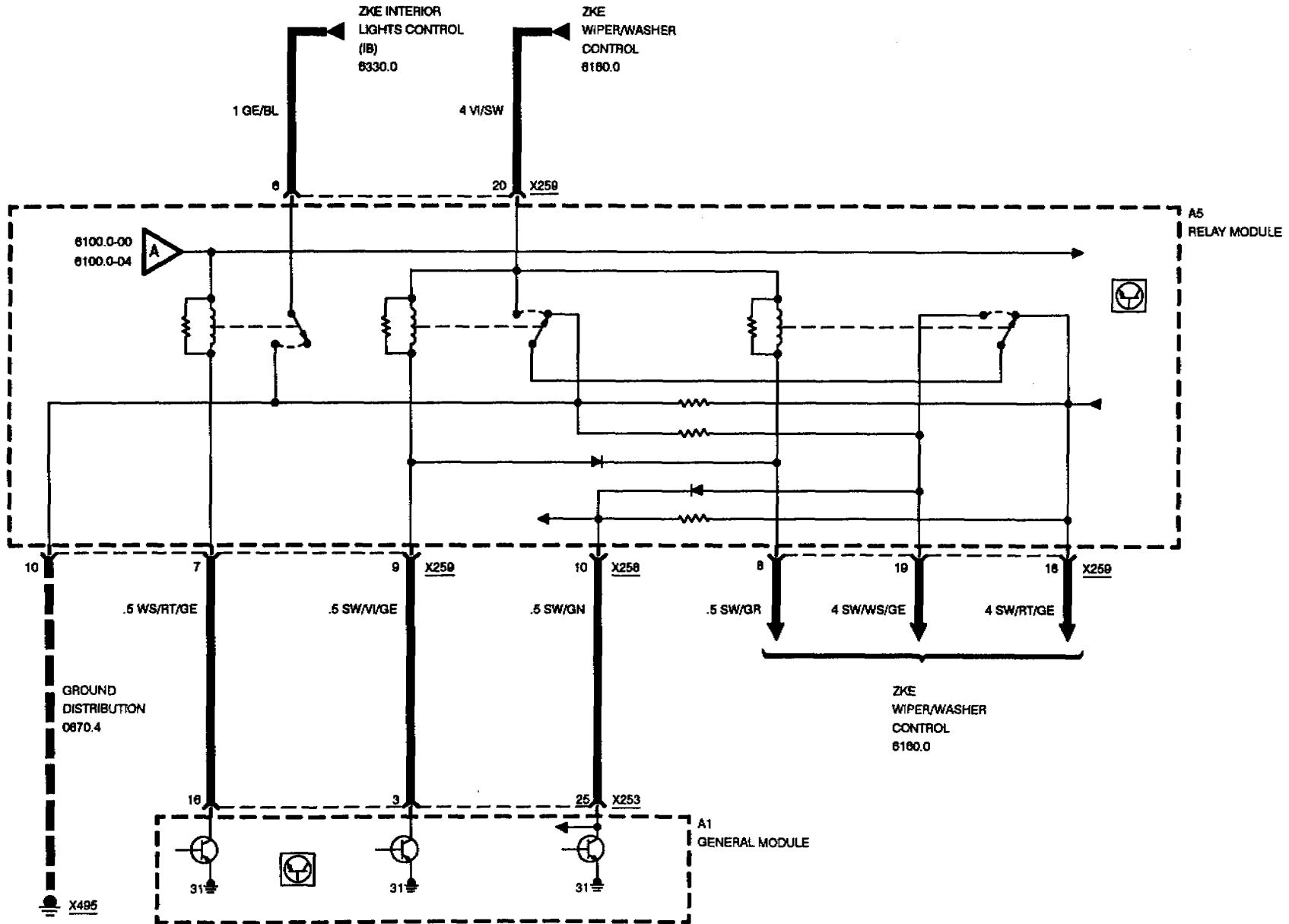


# CENTRAL BODY ELECTRONICS (ZKE) RELAY MODULE





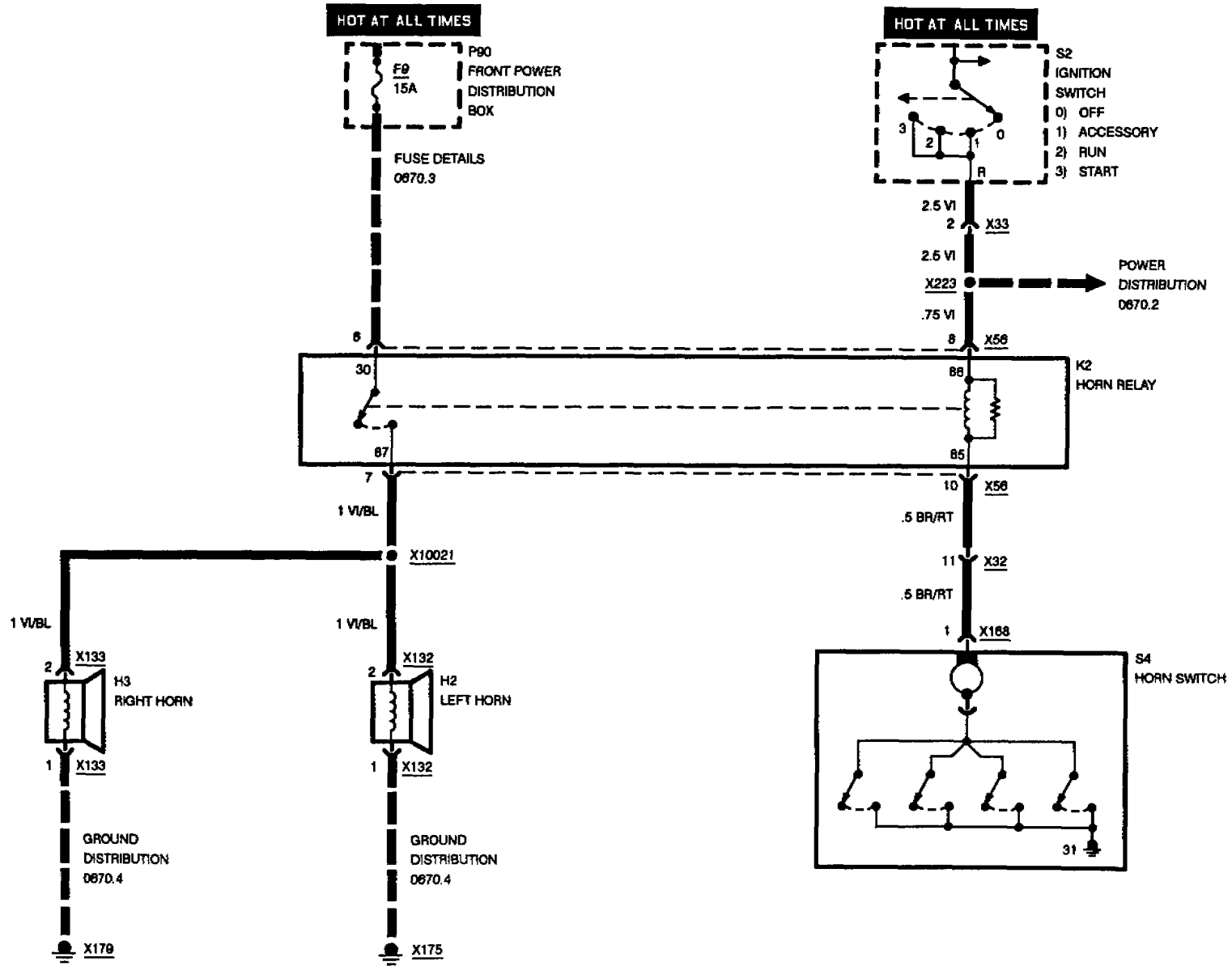
# CENTRAL BODY ELECTRONICS (ZKE) RELAY MODULE



BMW  
5

6133.0





BMW  
**5**

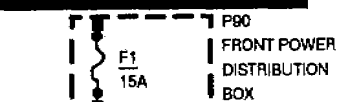
6160.0



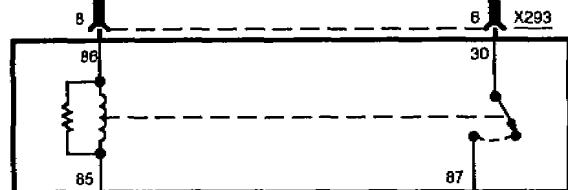
# ZKE WIPER/WASHER CONTROL

## INPUT DETAILS

HOT IN ACCY, RUN AND START



FUSE DETAILS  
0670.3



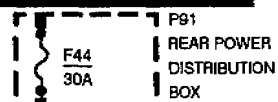
2.5 VI/SW

4 VI/WS

GROUND DISTRIBUTION  
0670.4

X493

HOT IN ACCY, RUN AND START



FUSE DETAILS  
0670.3

X293

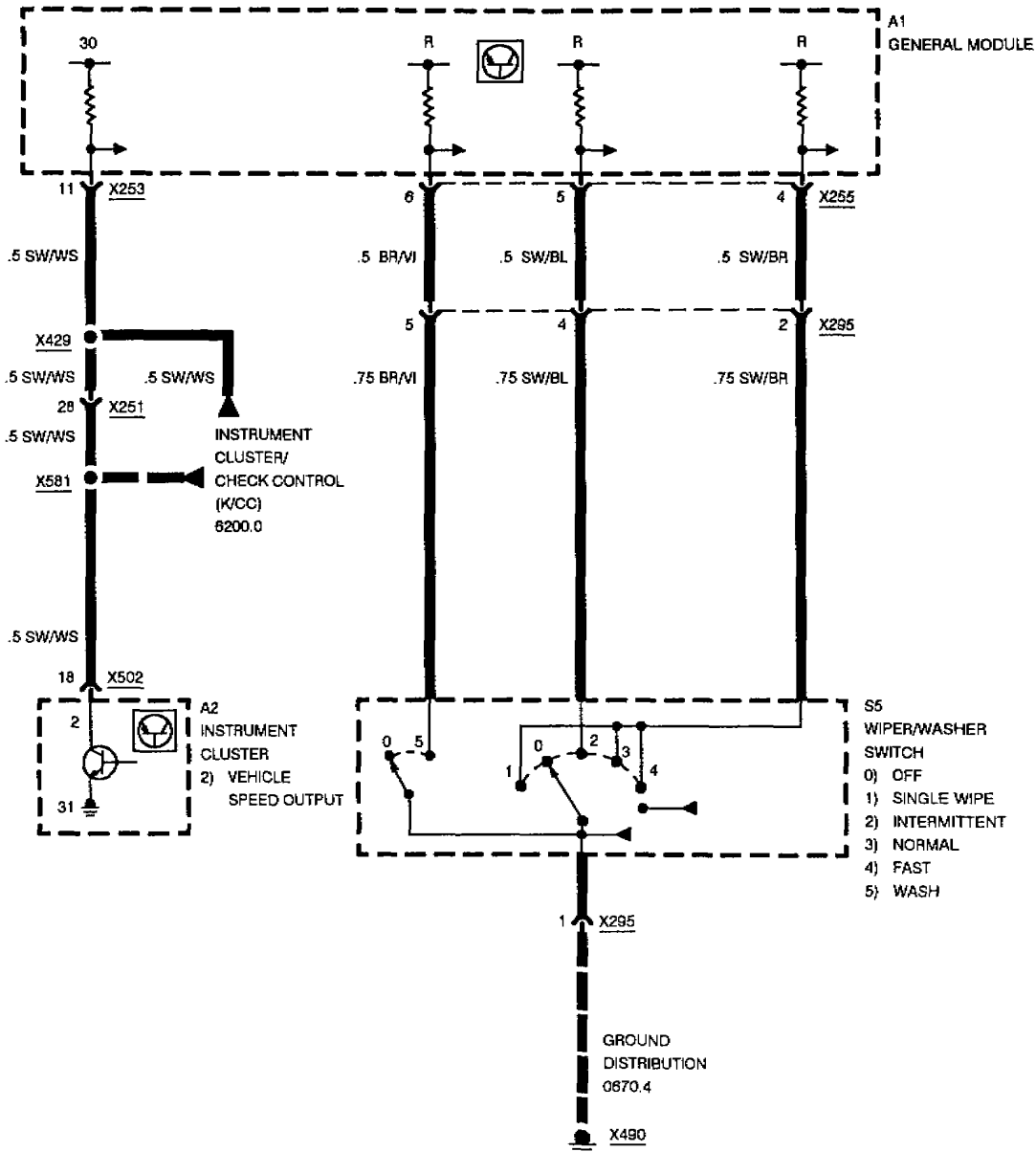
K11 WIPER RELAY

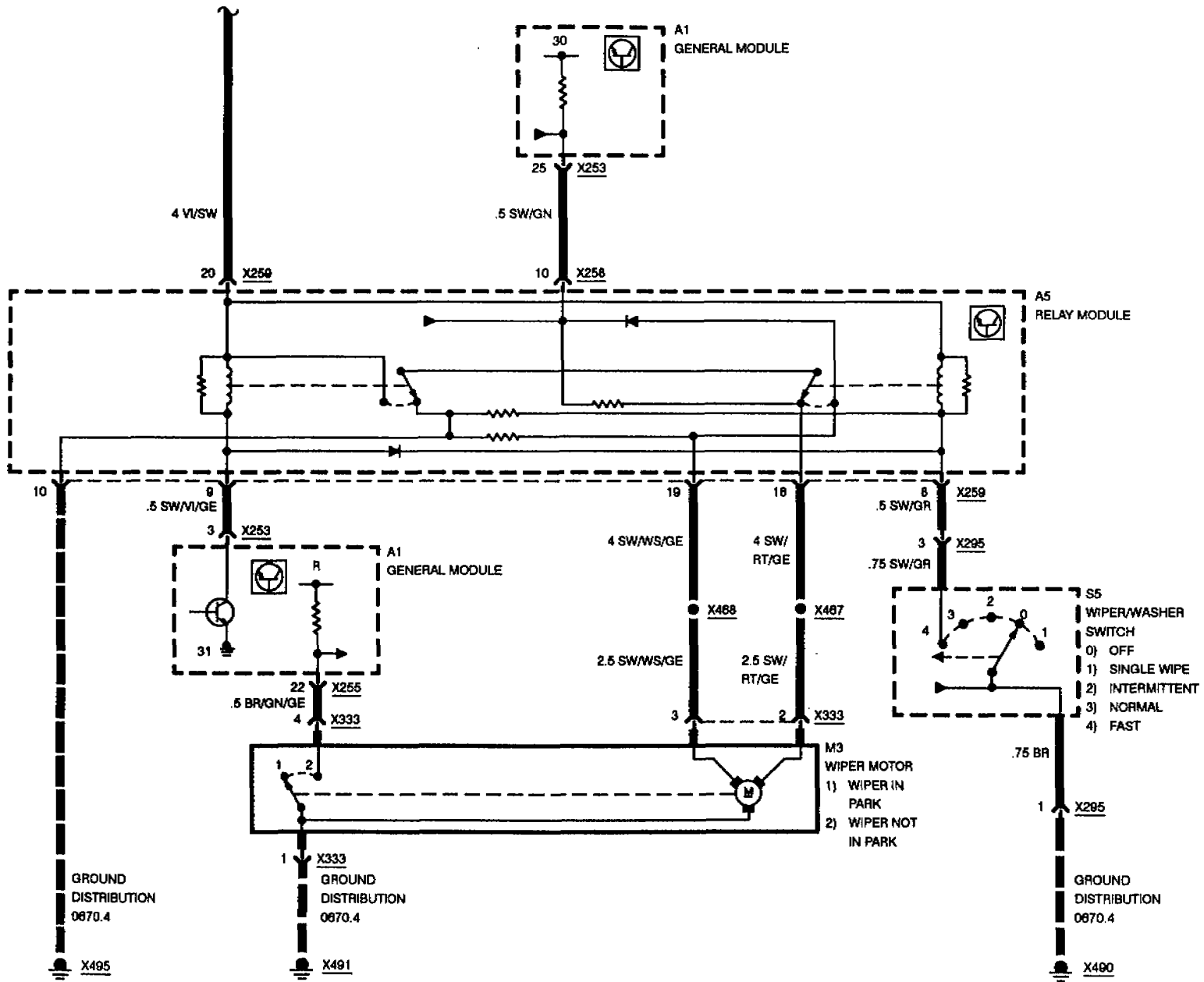
X293

X452

4 VI/WS

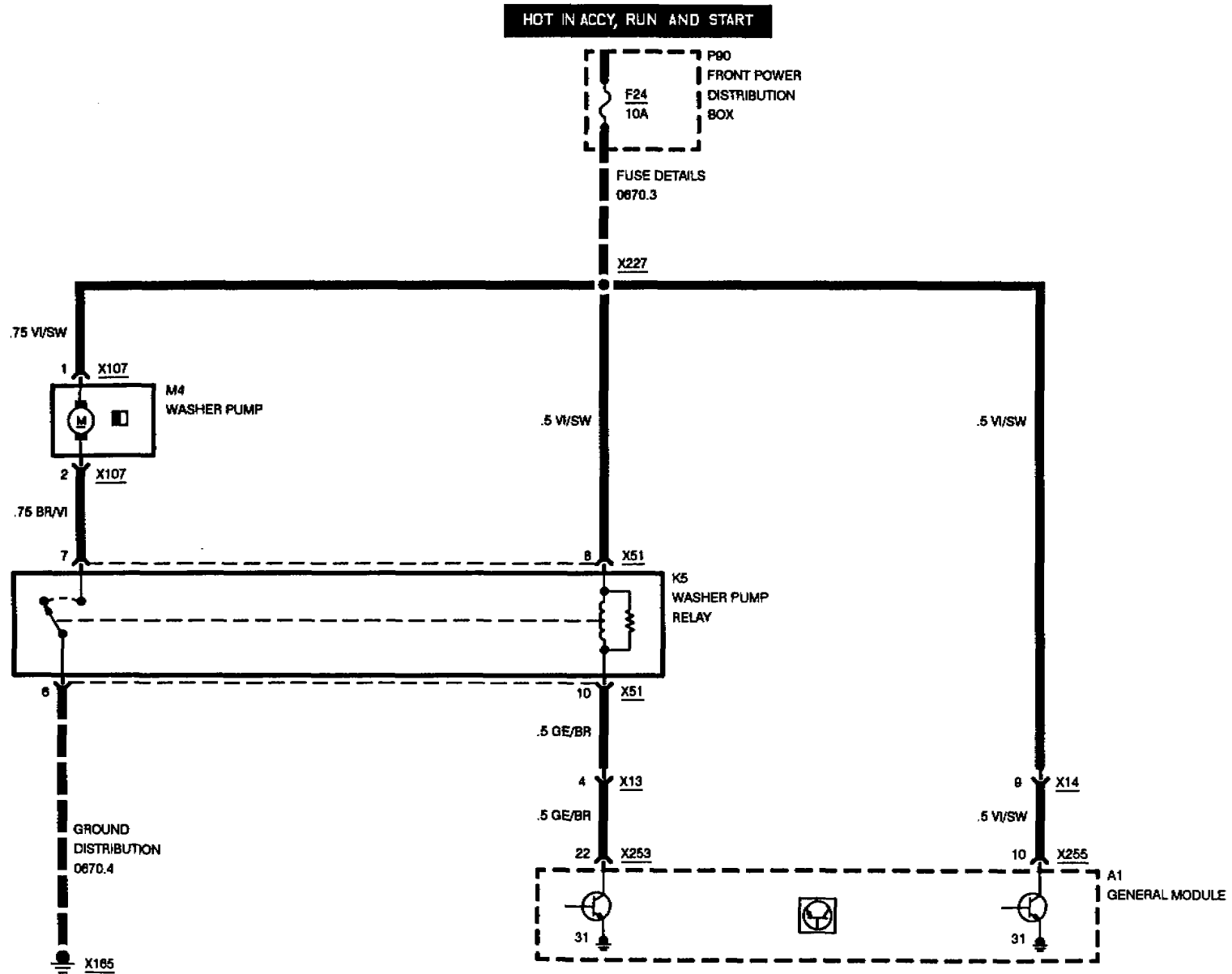
X493







# ZKE WIPER/WASHER CONTROL



BMW  
**5**

6162.0

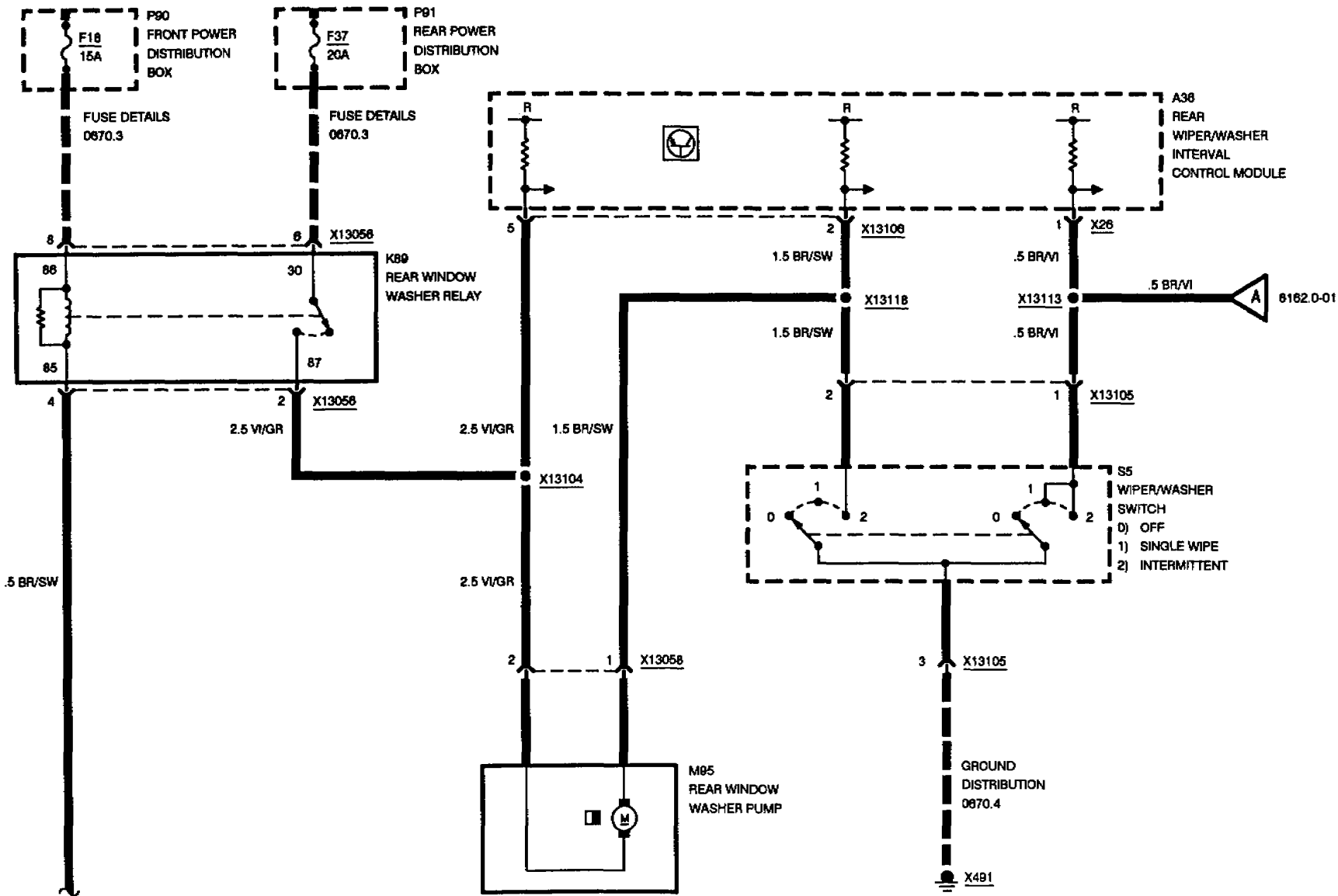


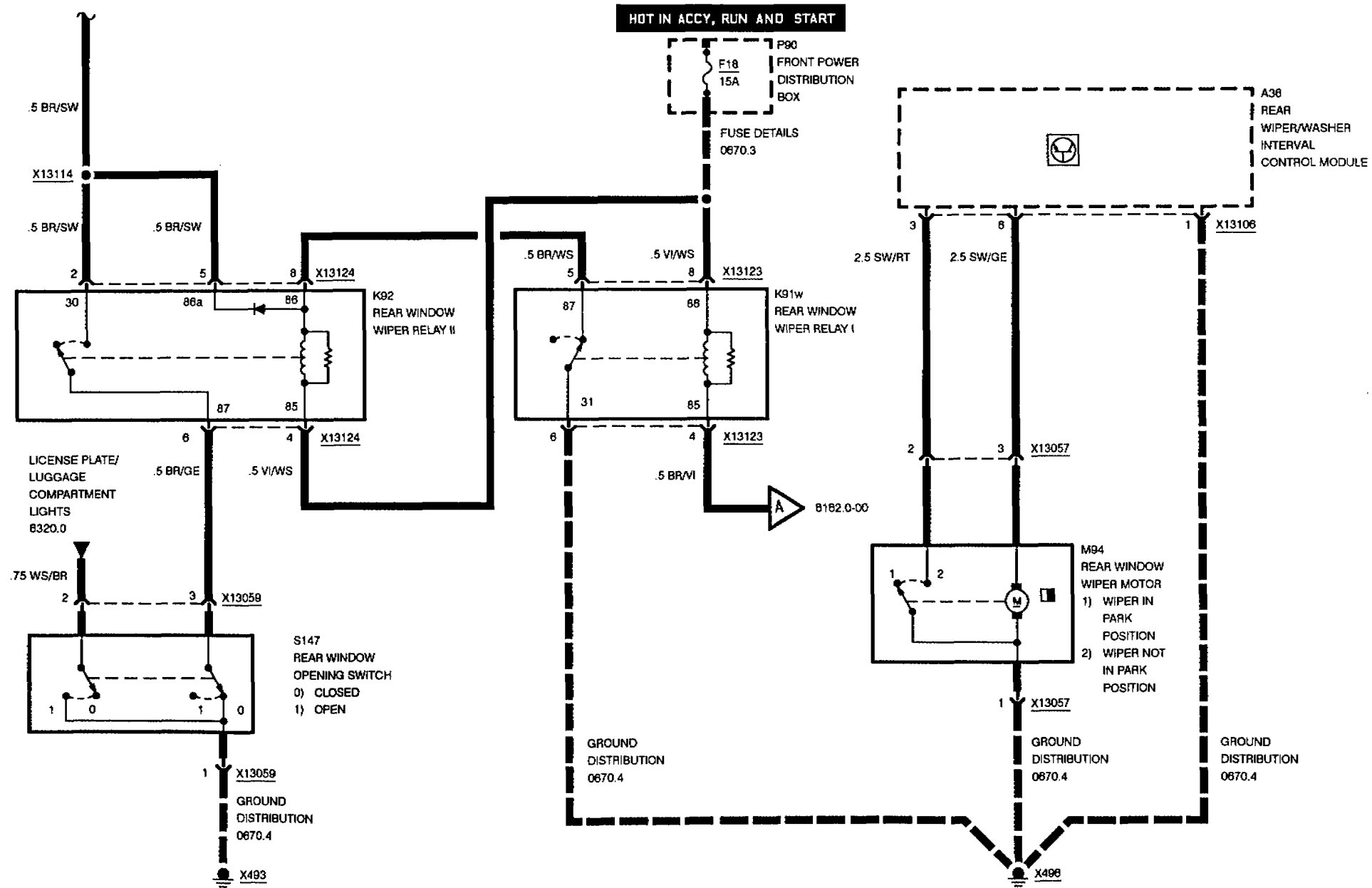
# REAR WINDOW WIPER/WASHER CONTROL

525it

HOT IN ACCY, RUN AND START

HOT AT ALL TIMES





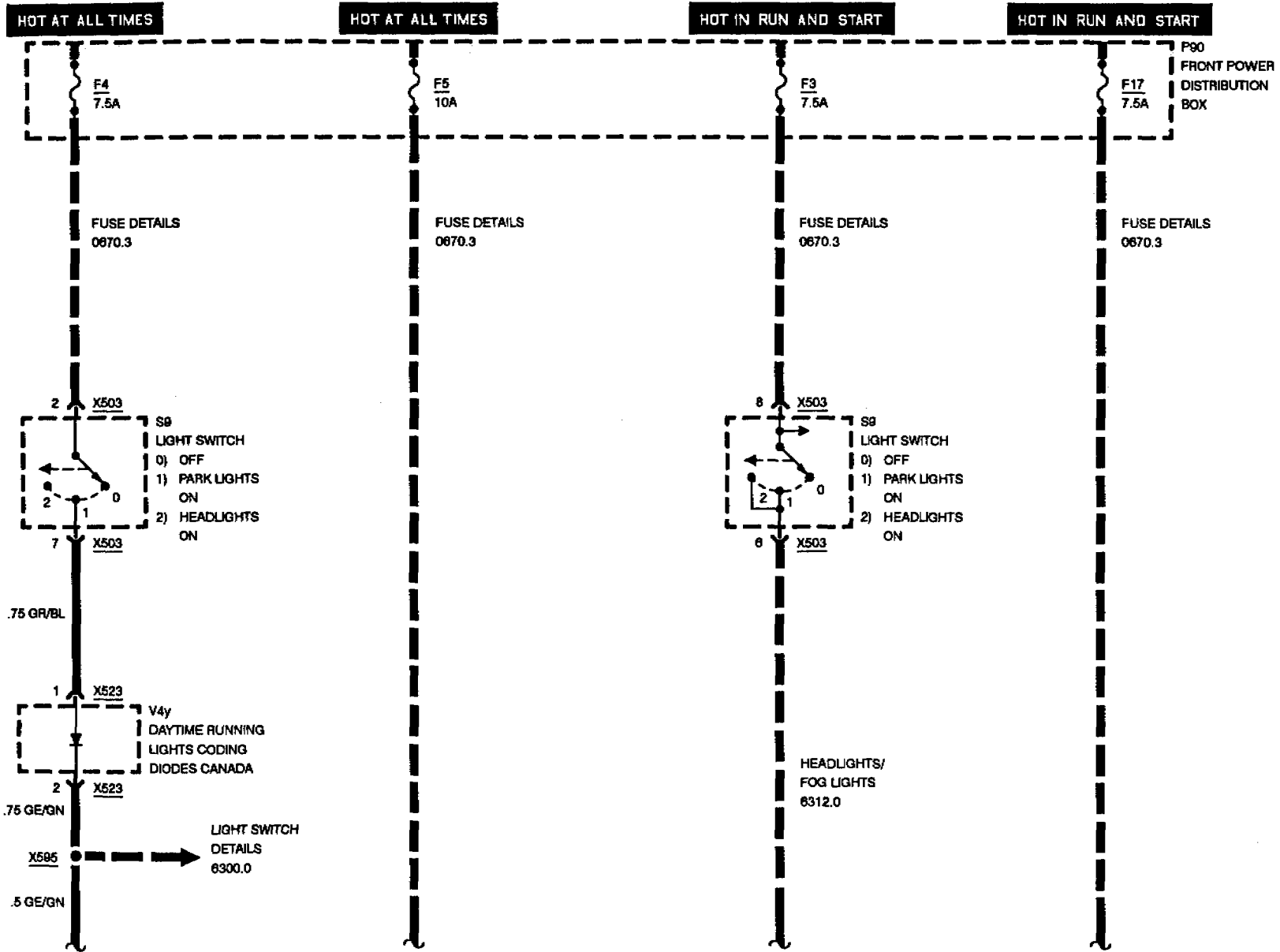


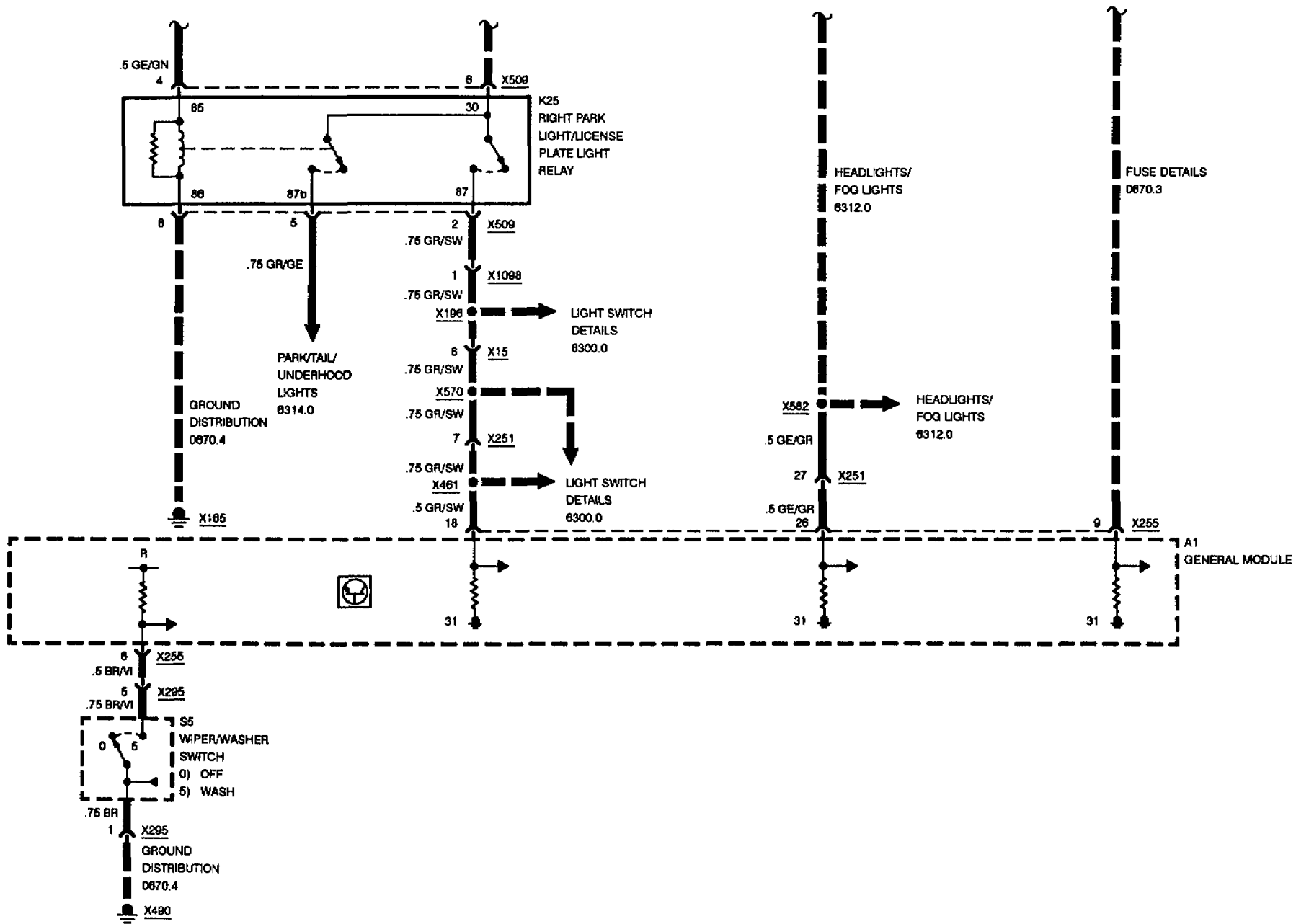


# ZKE HEADLIGHT WASHER (SRA)



## INPUT DETAILS



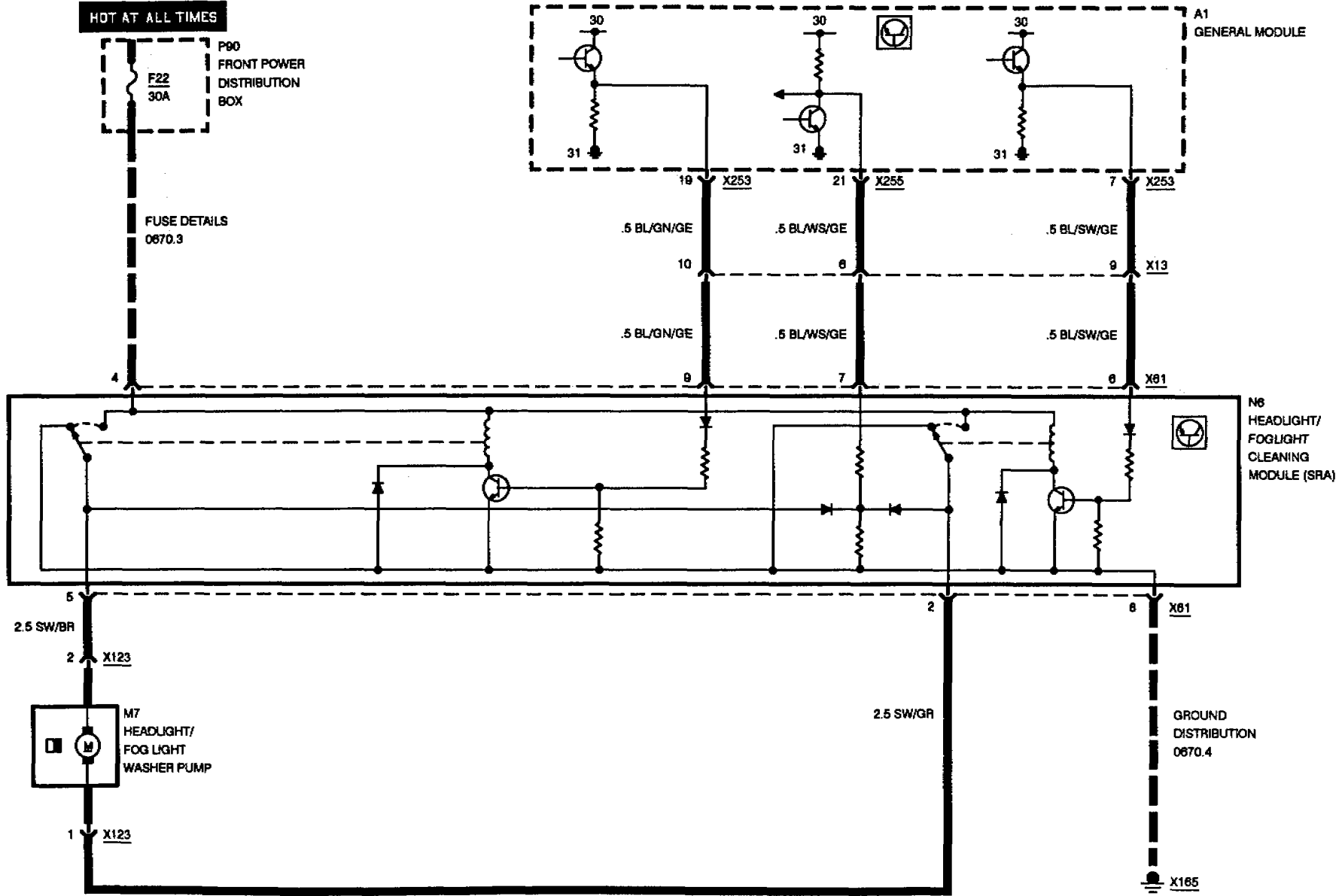




# ZKE HEADLIGHT WASHER (SRA)



## OUTPUT DETAILS

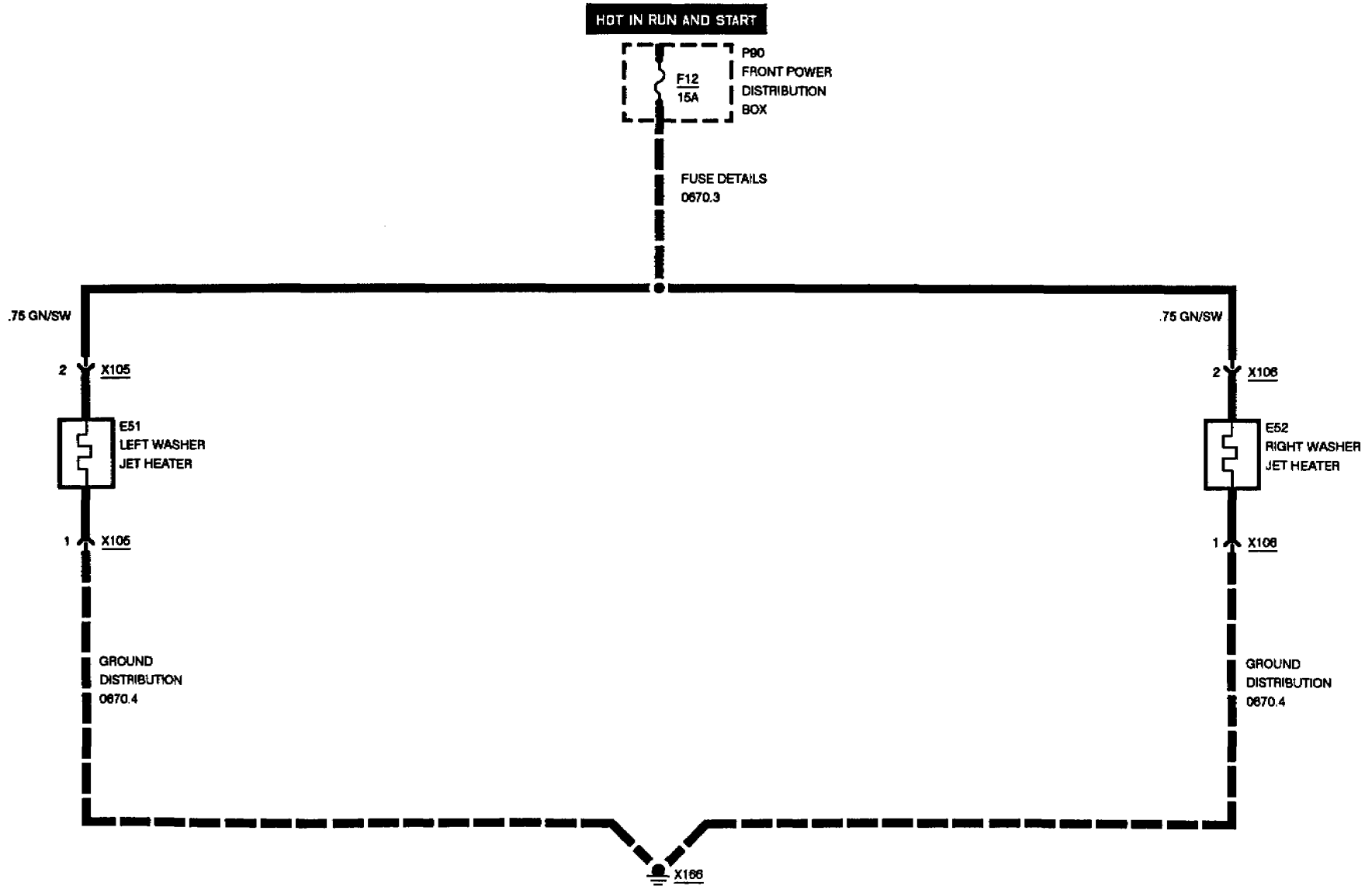


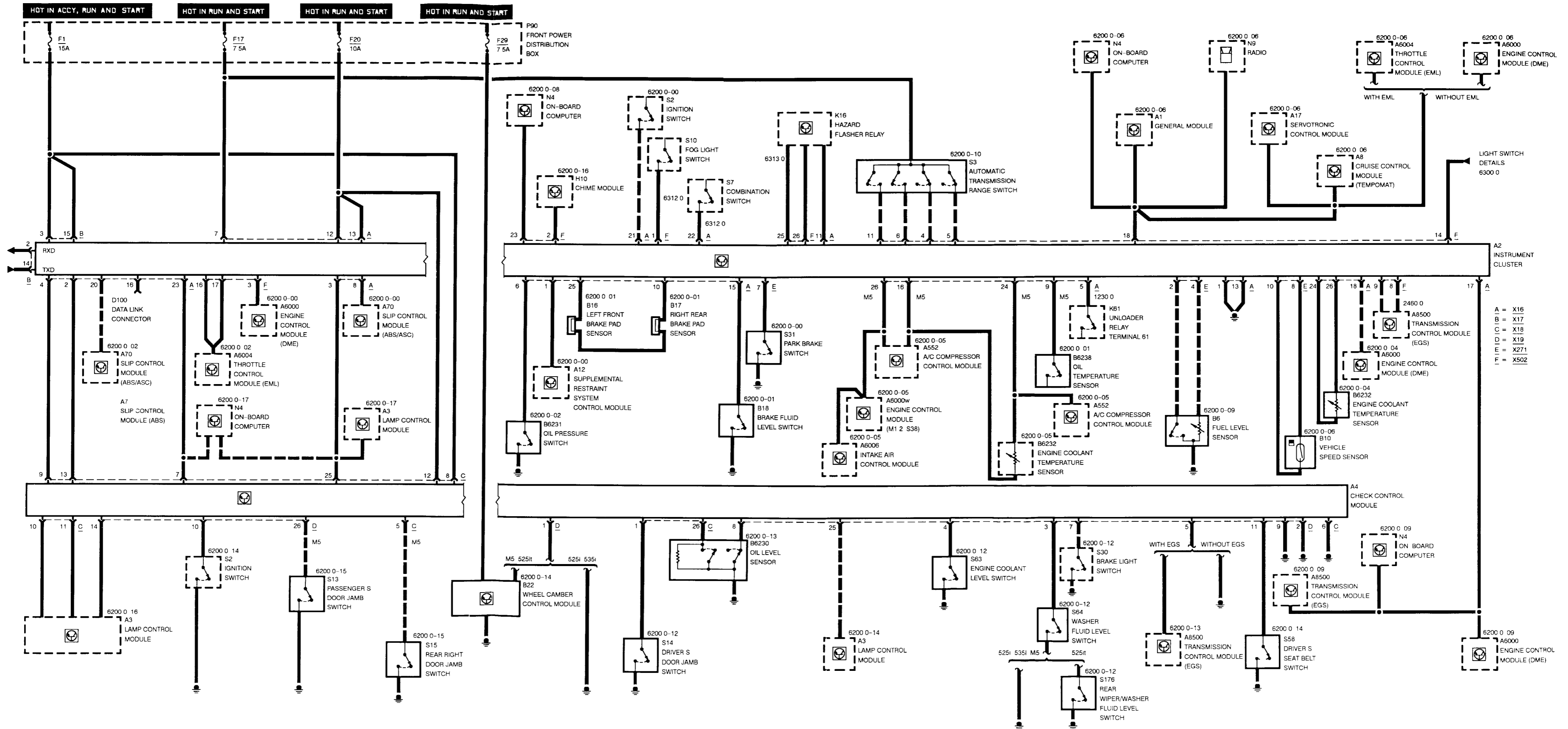
BMW  
**5**

6169.0



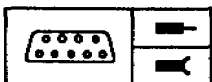
# WINDSHIELD WASHER JET HEATERS







# INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)



## Pin Assignments

- A=X16 26 Pins, beige
- B=X17 6 Pins, brown
- C=X18 26 Pins, blue
- D=X19 26 Pins, green
- E=X271 12 Pins, gray
- F=X502 26 Pins, white

### X16

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Airbag indicator control	Diagnostic module (SRS)	Ground		
2	E	Data line	Check control module			
3	A	Data line	Check control module, Lamp control module, On-board computer and radio			
4	E	Data line	Check control module			
5	E	Charge indicator control	Alternator			
6	E	Oil pressure indicator control	Oil pressure switch	Ground		
7	E	Terminal 15 power	Fuse			
8	E	ASC indicator control	ABS/ASC control module	Ground		
9	E	Oil temperature signal (M5)	Oil temperature sensor			
10	M	Ground, brake pad signal	Brake pad sensor			
11	E	Trailer turn signal indicator	Hazard flasher relay			



## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
12	E	Terminal 30 power	Fuse	approx. 12 V		
13	E	Terminal 30 power	Fuse	approx. 12 V		
14		Not used				
15	E	Brake fluid warning	Brake fluid level switch			
16	A	SIA reset	Diagnostic connector			
17	E	ti signal for fuel economy	DME control unit			
18	E	TD signal for tachometer	DME control unit			
19		Not used				
20	E	ABS indicator control	ABS/ASC control unit			
21	E	Airbag indicator power	Terminal R, ignition switch			
22	E	High beam indicator power	Combination switch			
23	A	Data line	Check control module, On-board computer and radio			
24	M	Temperature sensor ground	Ground			
25	E	Brake pad warning	Brake pad sensor			
26	E	Temperature gauge signal	Coolant temperature sensor			

### X17

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	M	Ground	Ground	Ground		
2	E/A	Diagnosis (RxD)	Diagnostic connector			
3	E	Terminal R power	Fuse	approx. 12 V		
4		Cluster programming	NV-RAM			
5		Cluster programming	NV-RAM			





## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
5		Cluster programming	NV-RAM			
7		Cluster programming	NV-RAM			
8		Cluster programming	NV-RAM			
9		Cluster programming	NV-RAM			
10		Cluster programming	NV-RAM			
11		Cluster programming	NV-RAM			
12		Cluster programming	NV-RAM			
13	M	Ground	Ground	Ground		
14	E	Diagnosis (TxD)	Diagnostic connection			
15	E	Terminal R power	Fuse	approx. 12 V		
16		Cluster programming	NV-RAM			
17		Cluster programming	NV-RAM			
18		Cluster programming	NV-RAM			
19		Cluster programming	NV-RAM			
20		Cluster programming	NV-RAM			
21		Cluster programming	NV-RAM			
22		Cluster programming	NV-RAM			
23		Cluster programming	NV-RAM			
24		Cluster programming	NV-RAM			

### X18

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Door open signal	Drivers door jamb switch	Ground		
2		Not used				



## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
3		Not used				
4		Not used				
5	E	Door open signal (M5)	Rear door jamb switches	Ground		
6	M	Module ground	Ground	Ground		
7		Data line	Instrument cluster, on-board computer and radio			
8	E	Terminal 30 power	Fuse	approx. 12 V		
9	A	Data line	Instrument cluster			
10	E	Data line	Lamp control module			
11	E	Data line	Lamp control module			
12	E	Terminal R power	Fuse			
13	A	Data line	Instrument cluster			
14		Not used				
15		Not used				
16		Not used				
17		Not used				
18		Not used				
19		Not used				
20		Not used				
21		Not used				
22		Not used				
23		Not used				
24		Not used				



## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
25	E	Data line	Instrument cluster, on-board computer, lamp control module and radio			
26	E	Oil level signal	Oil level sensor			

### X19

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	M E	Ground, 525i/535i	Ground Wheel camber control unit	Ground		
2	M	Ground, control unit	Ground	Ground		
3	E	Washer fluid level signal	Washer fluid level switch	Ground		
4	E	Coolant level signal	Coolant level switch	Ground		
5	M E	Ground, without EGS EGS fault signal	Ground EGS control unit	Ground		
6		Not used				
7	E	Brake pedal status	Brake light switch	Ground		
8	E	Oil level signal	Oil level sensor	Ground		
9	M	Ground, control unit	Ground	Ground		
10	E	Ignition switch status	Ignition switch	Ground		
11	E	Seat belt status	Drivers seat belt switch	Ground		
12		Not used				
13		Not used				
14	E	Data line	Lamp control module			
15		Not used				
16		Not used				



## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
17		Not used				
18		Not used				
19		Lift gate open warning light	Lift gate open switch			
20		Not used				
21		Not used				
22		Not used				
23		Not used				
24		Not used				
25		Light switch ON signal	Lamp control module			
26	E	Door open signal (M5)	Passengers door jamb switch	Ground		

### X271

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1		Not used				
2	E	Fuel level warning signal	Fuel tank sensor	Ground		
3		Not used				
4	E	Fuel level signal	Fuel tank sensor			
5		Not used				
6		Not used				
7	E	Park brake indicator control	Park brake switch	Ground		
8	E	Vehicle speed input (+)	Vehicle speed sensor			
9		Not used				
10	E	Vehicle speed input (-)	Vehicle speed sensor			



## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
11		Not used				
12		Not used				

### X502

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Fog light indicator control	Lamp control module	approx. 12 V		
2	A	Sound tone signal	Chime module			
3	E	Check engine indicator control	DME control unit	Ground		
4	E	Gear range signal	Transmission range switch (L2)	approx. 12 V		
5	E	Gear range signal	Transmission range switch (L1)	approx. 12 V		
6	E	Gear range signal	Transmission range switch (L3)	approx. 12 V		
7		Not used				
8	E	Transmission mode signal	EGS control unit			
9	E	Transmission mode signal	EGS control unit			
10		Not used				
11	E	Gear range signal	Transmission range switch (L4)	approx. 12 V		
12		Not used				
13		Not used				
14	E	Instrument illumination power	Dimmer			
15		Not used				
16	E	EML fault indicator control	EML control unit			



## INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)

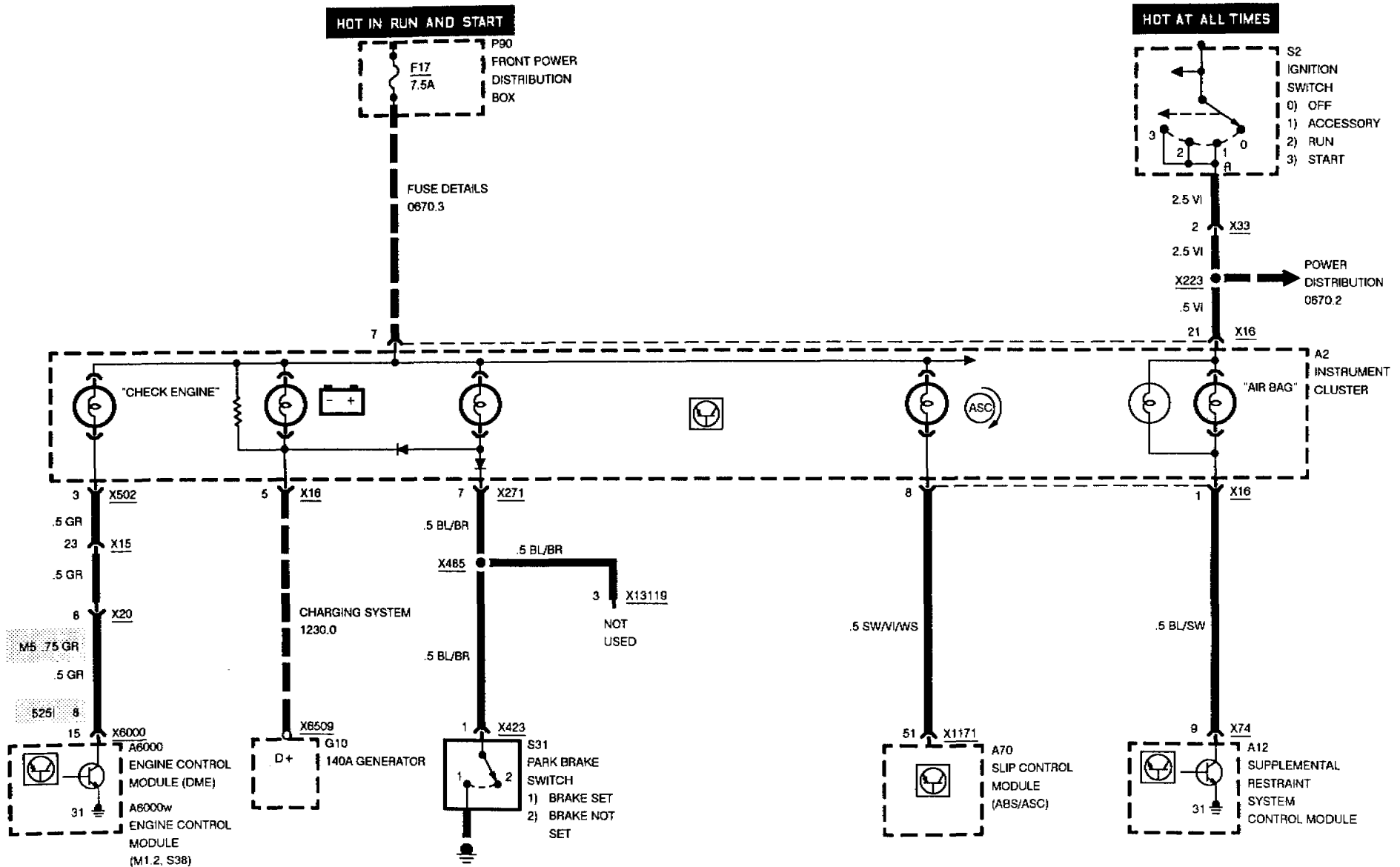
Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
17	E	EML fault indicator control	EML control unit			
18	A	Vehicle speed signal	On-board computer, general module, radio, IHKR control unit, servotronic control unit, EML control unit, DME control unit, cruise control module			
19		Not used				
20		Not used				
21		Not used				
22		Not used				
23	A	Check control reset signal	On-board computer			
24		Not used				
25	E	Left turn indicator control	Hazard flasher relay			
26	E	Right turn indicator control	Hazard flasher relay			

BMW  
5

6200.0



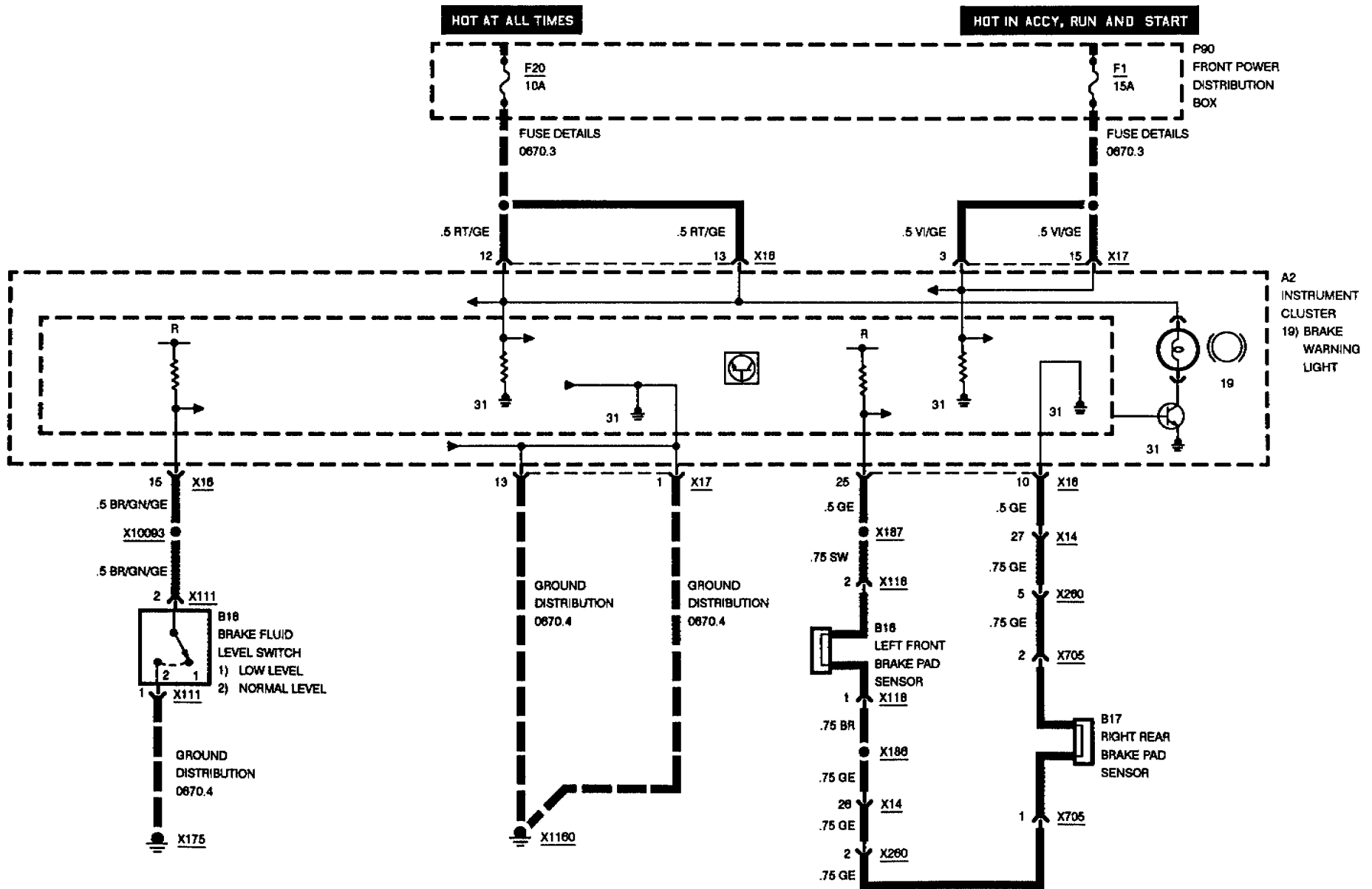
# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC) INDICATORS





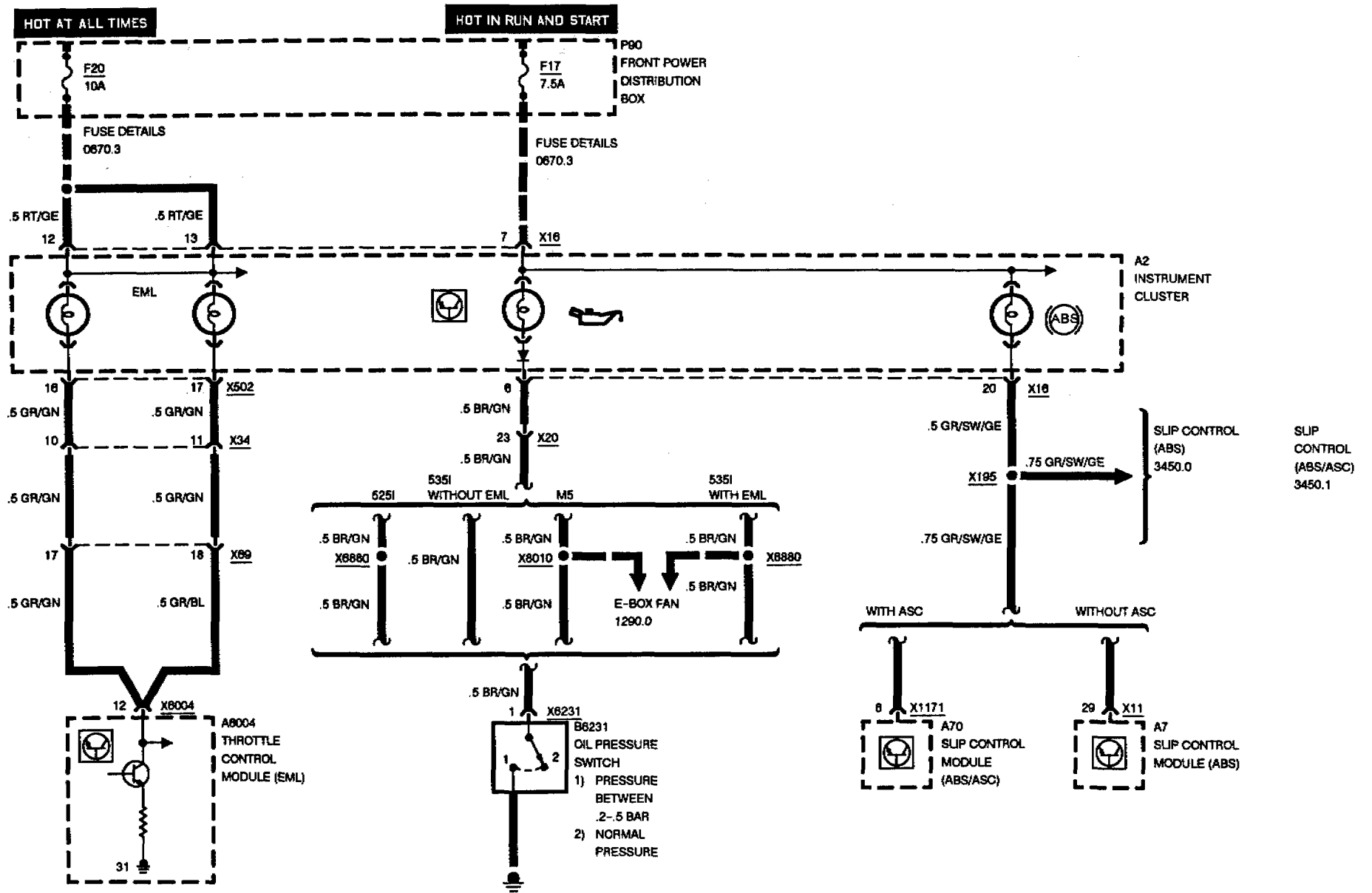


# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC) INDICATORS



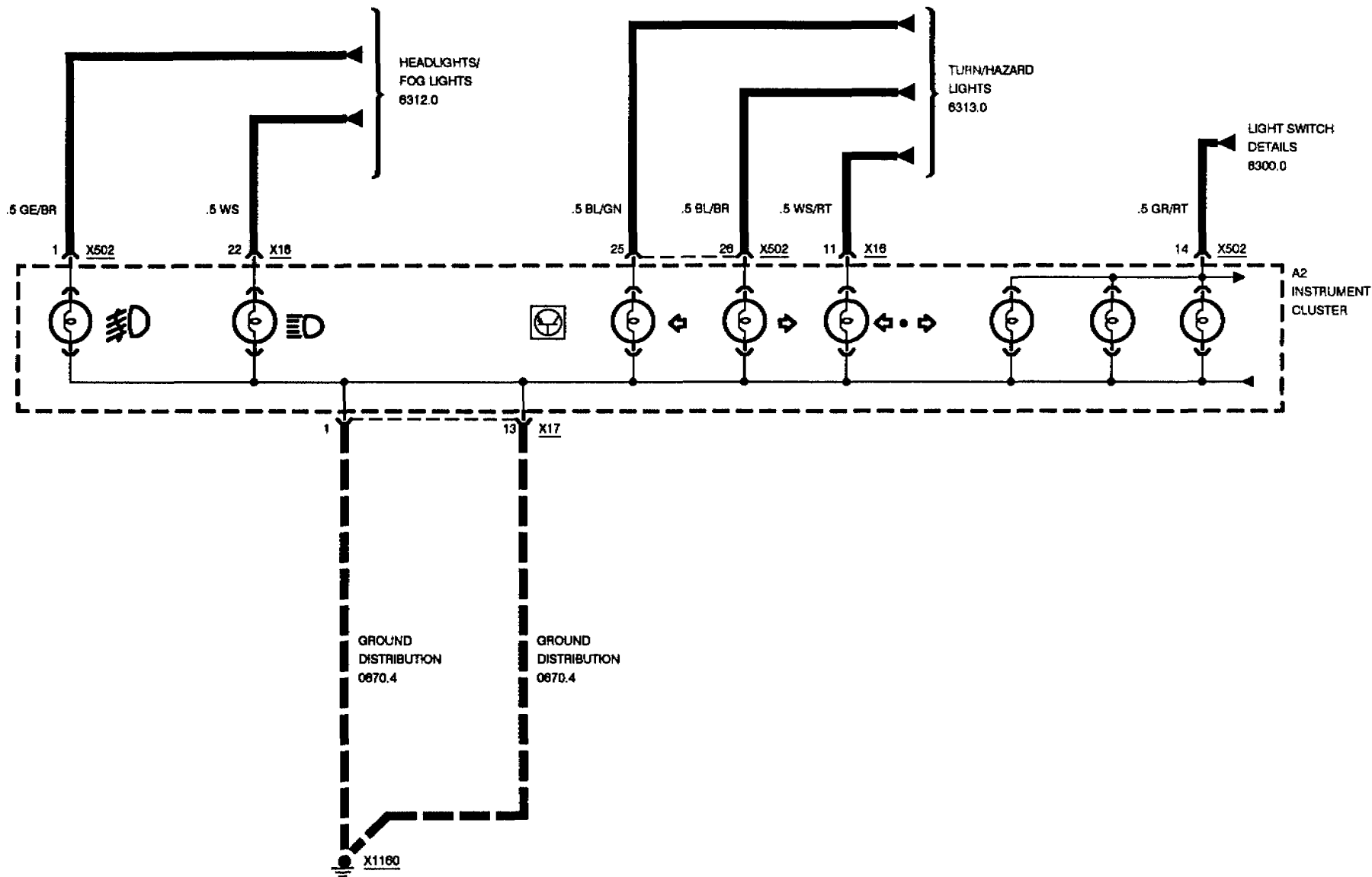


# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC) INDICATORS





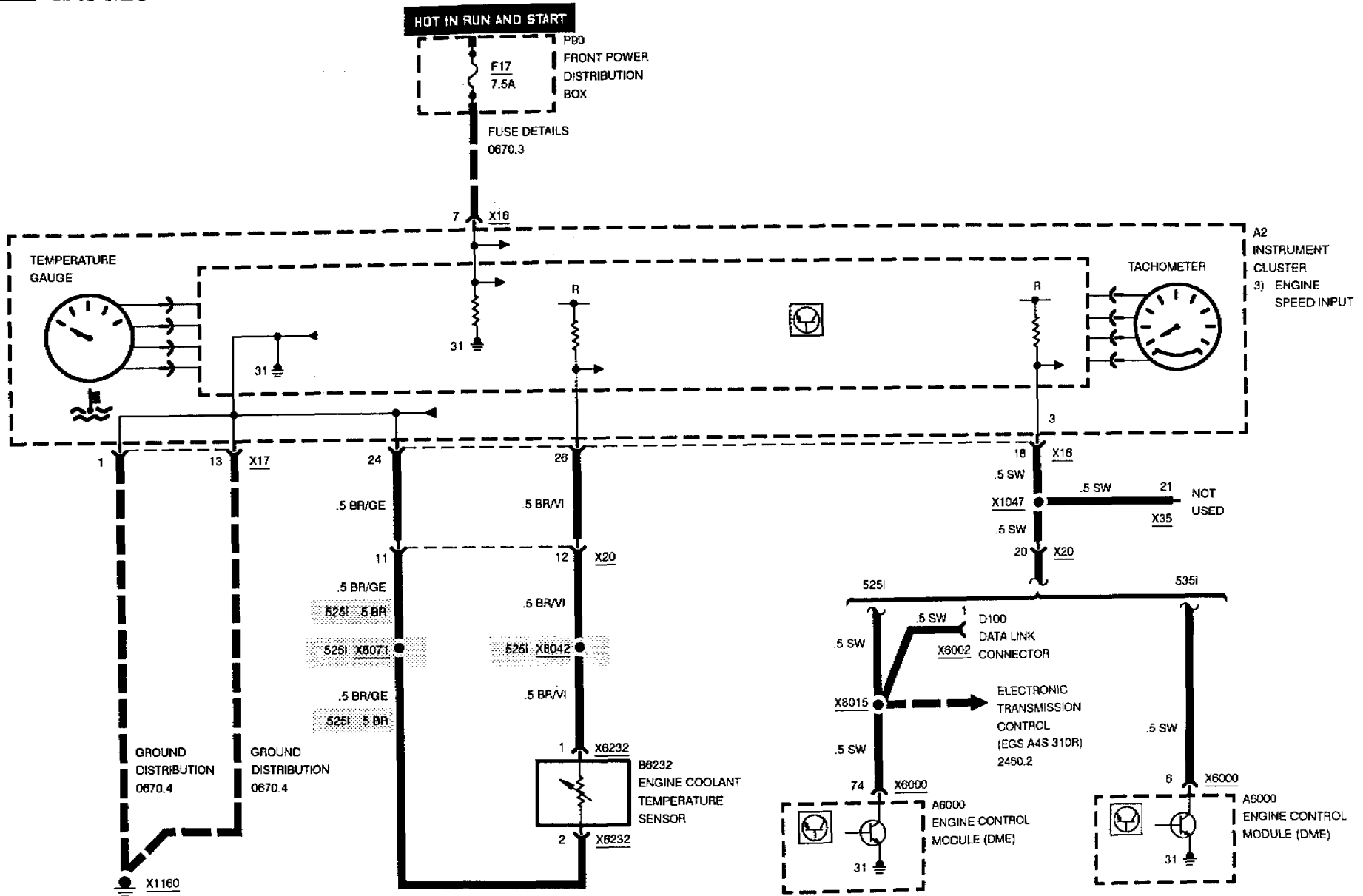
# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC) INDICATORS

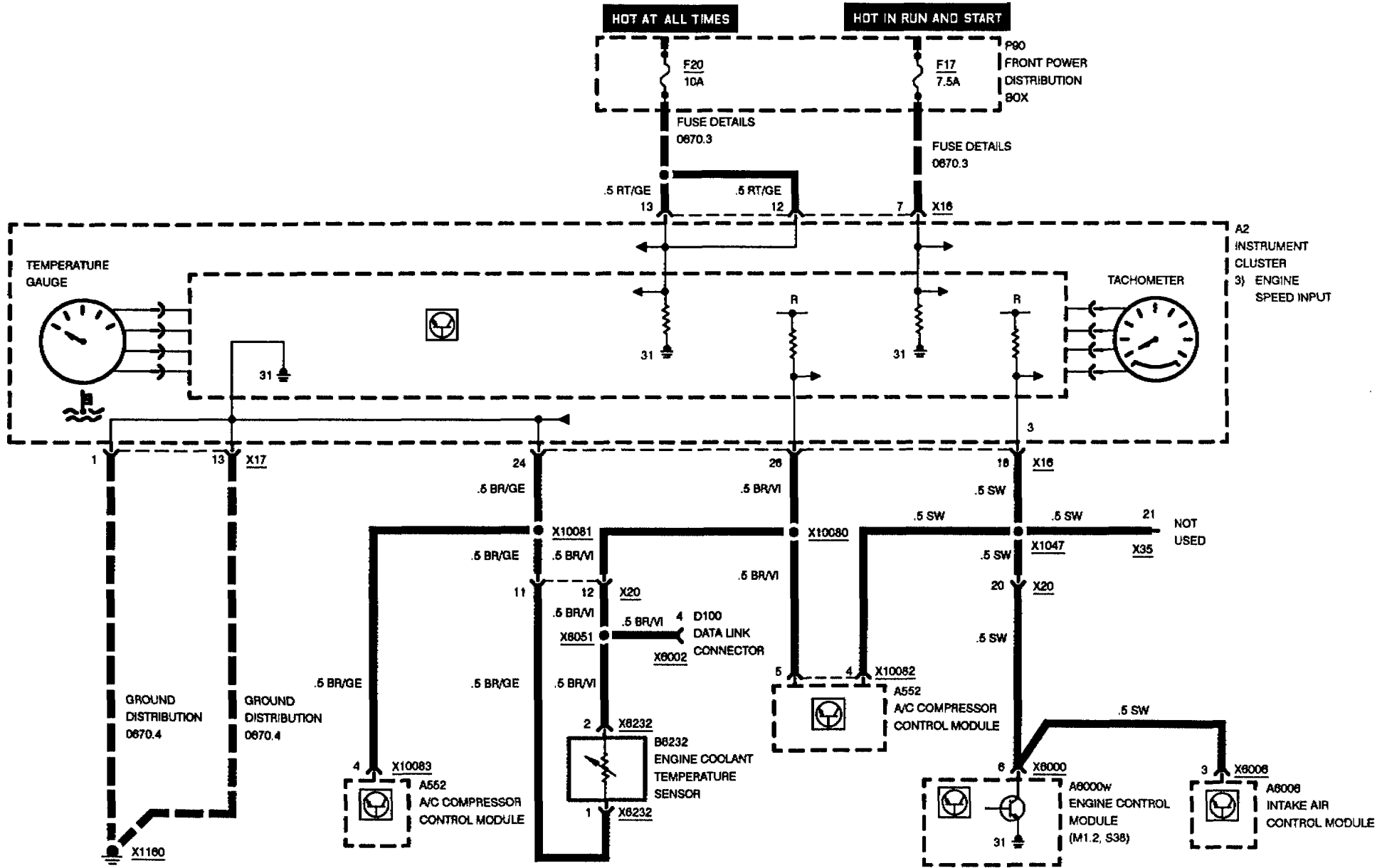




# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC) GAUGES

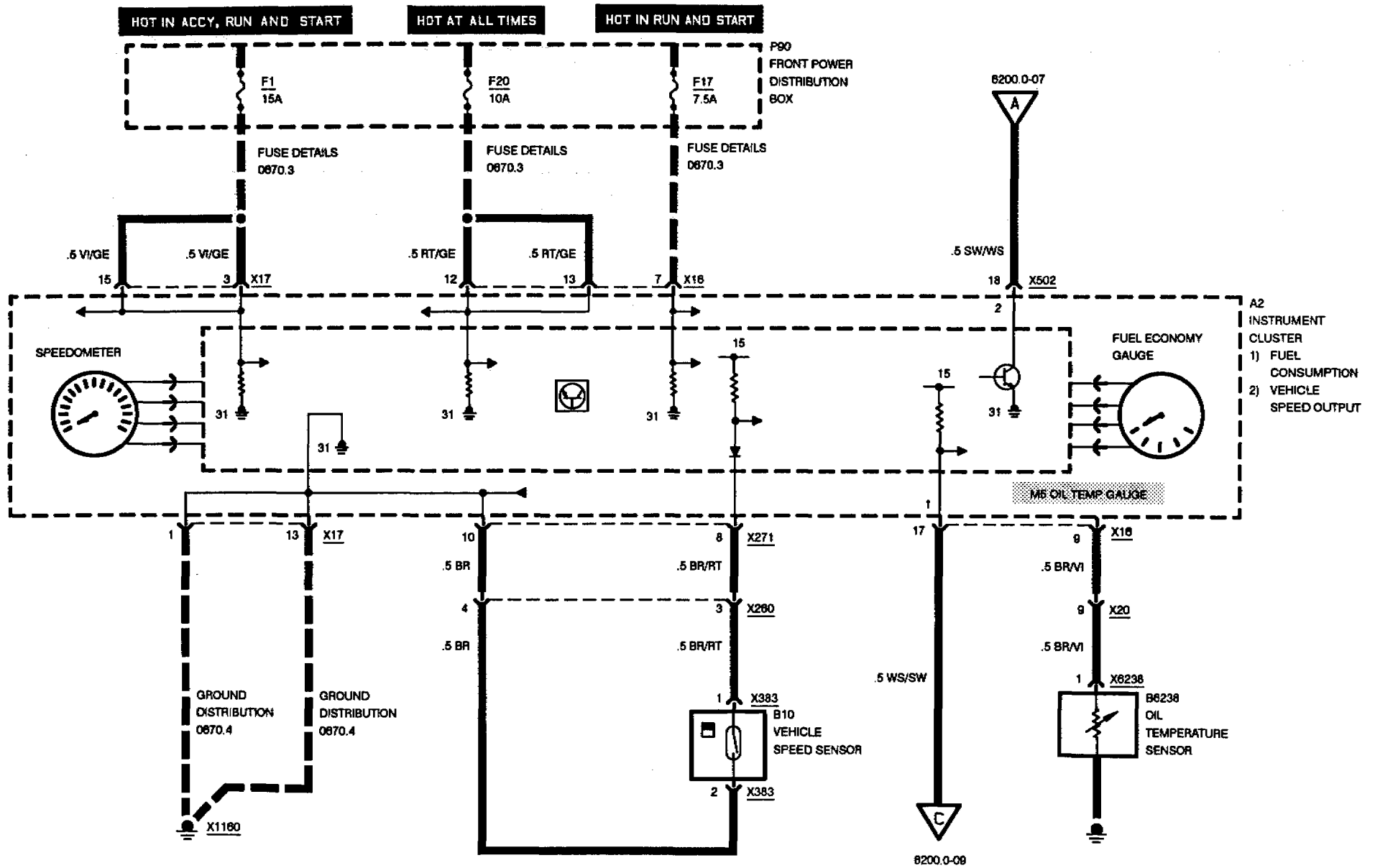
525i, 535i







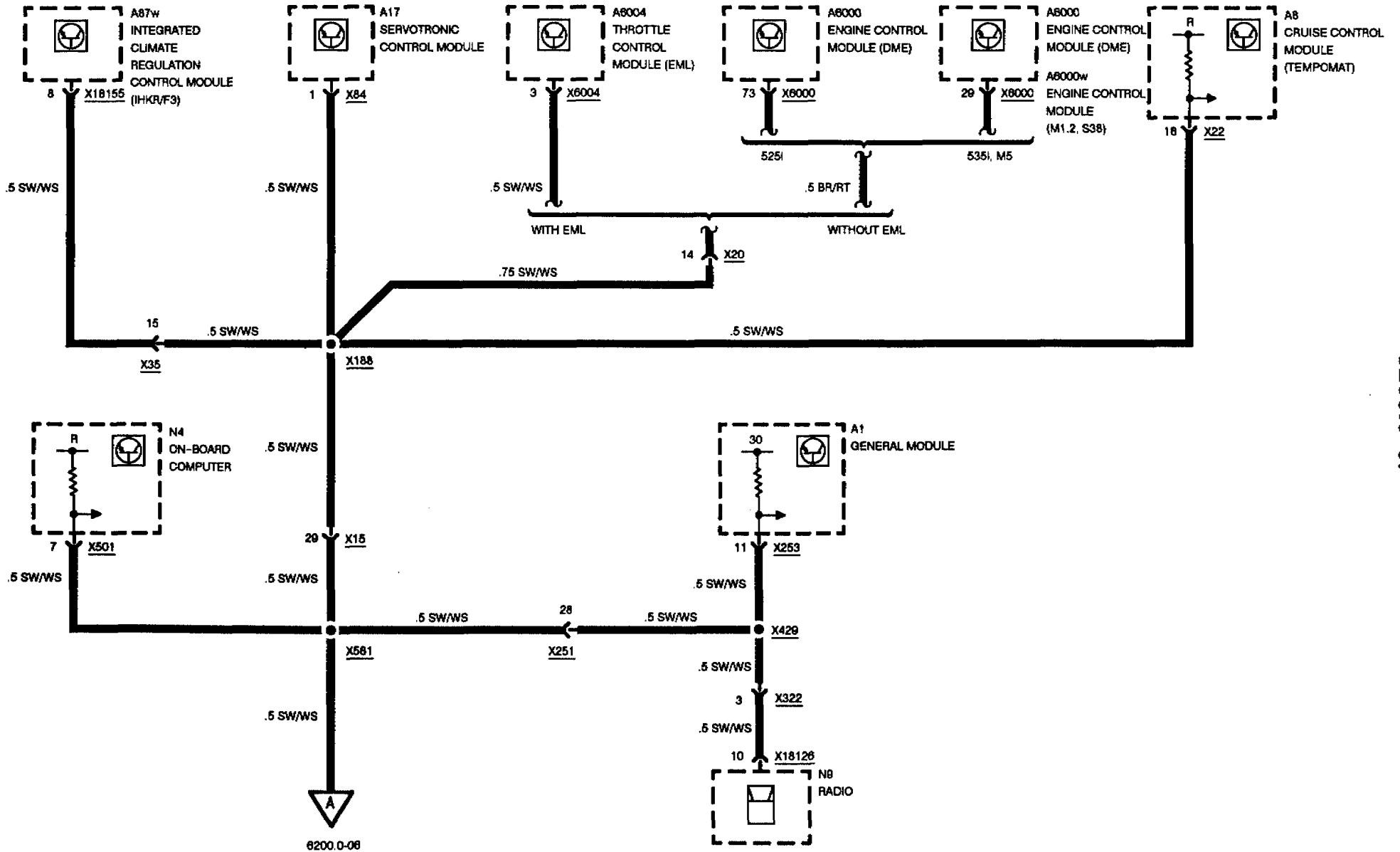
# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC) GAUGES





# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)

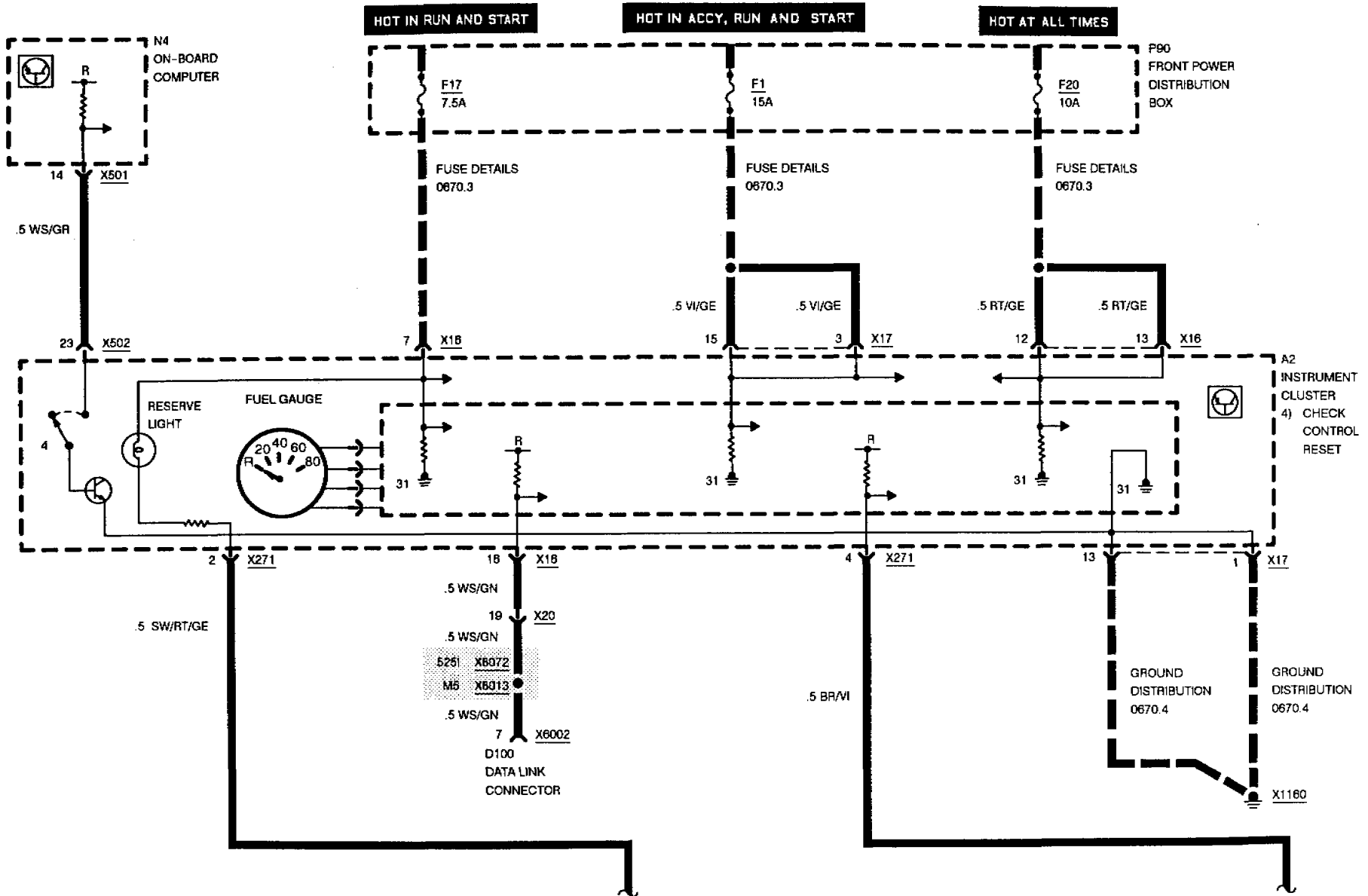
## SPEED SIGNAL



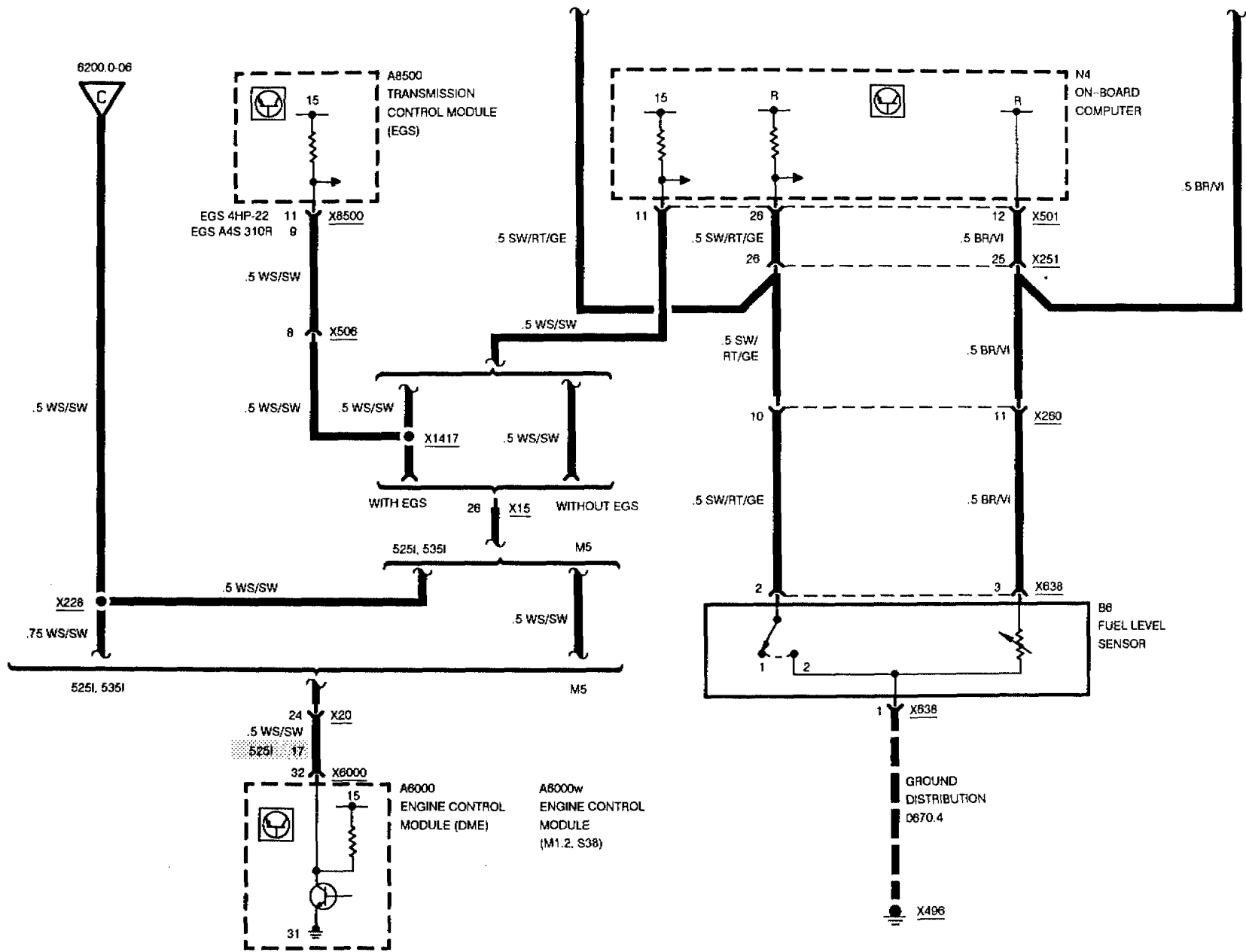


# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)

## GAUGES





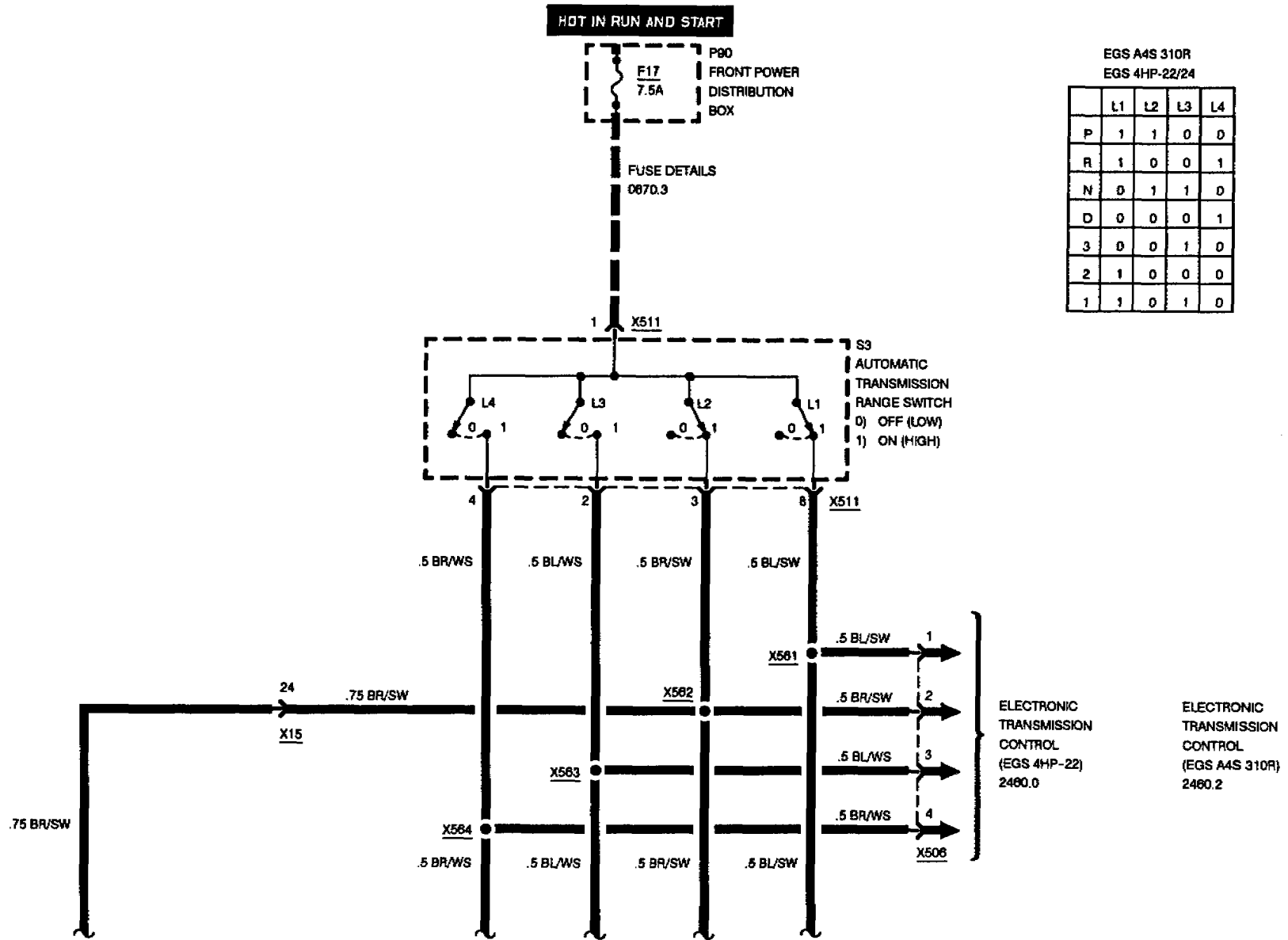




# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)

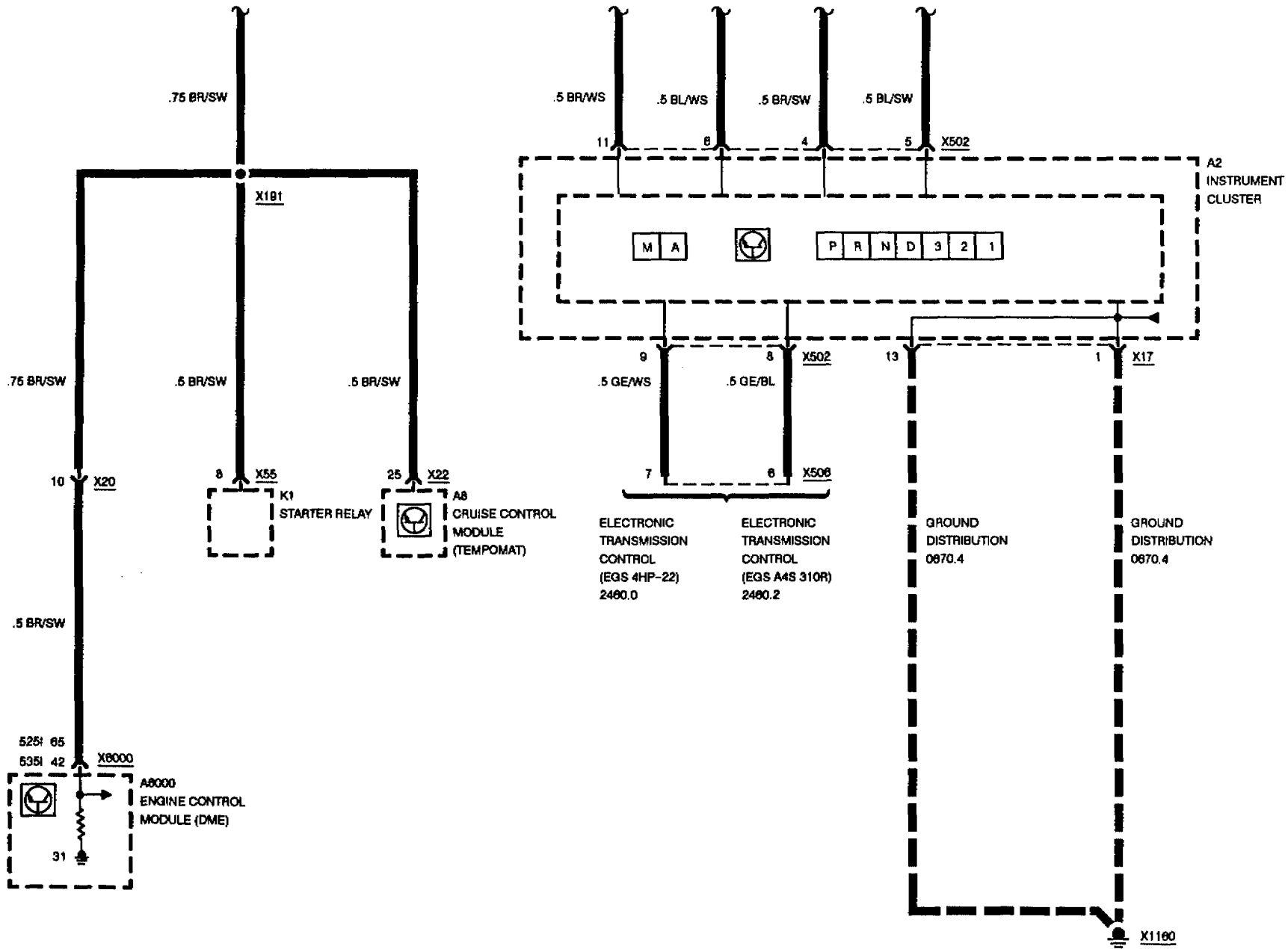
## GEAR SELECTOR

525i, 535i



EGS A4S 310R  
EGS 4HP-22/24

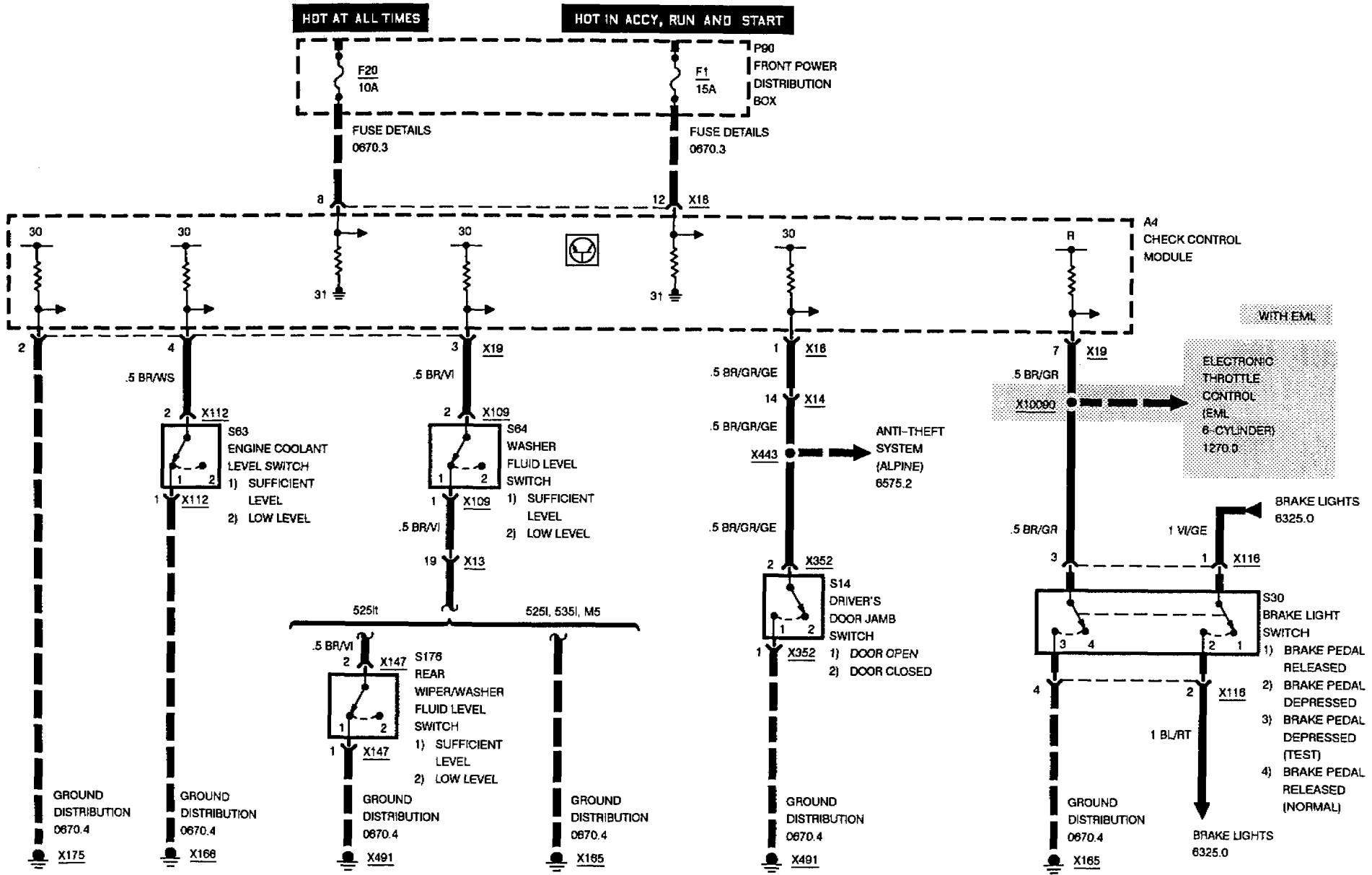
	L1	L2	L3	L4
P	1	1	0	0
R	1	0	0	1
N	0	1	1	0
D	0	0	0	1
3	0	0	1	0
2	1	0	0	0
1	1	0	1	0



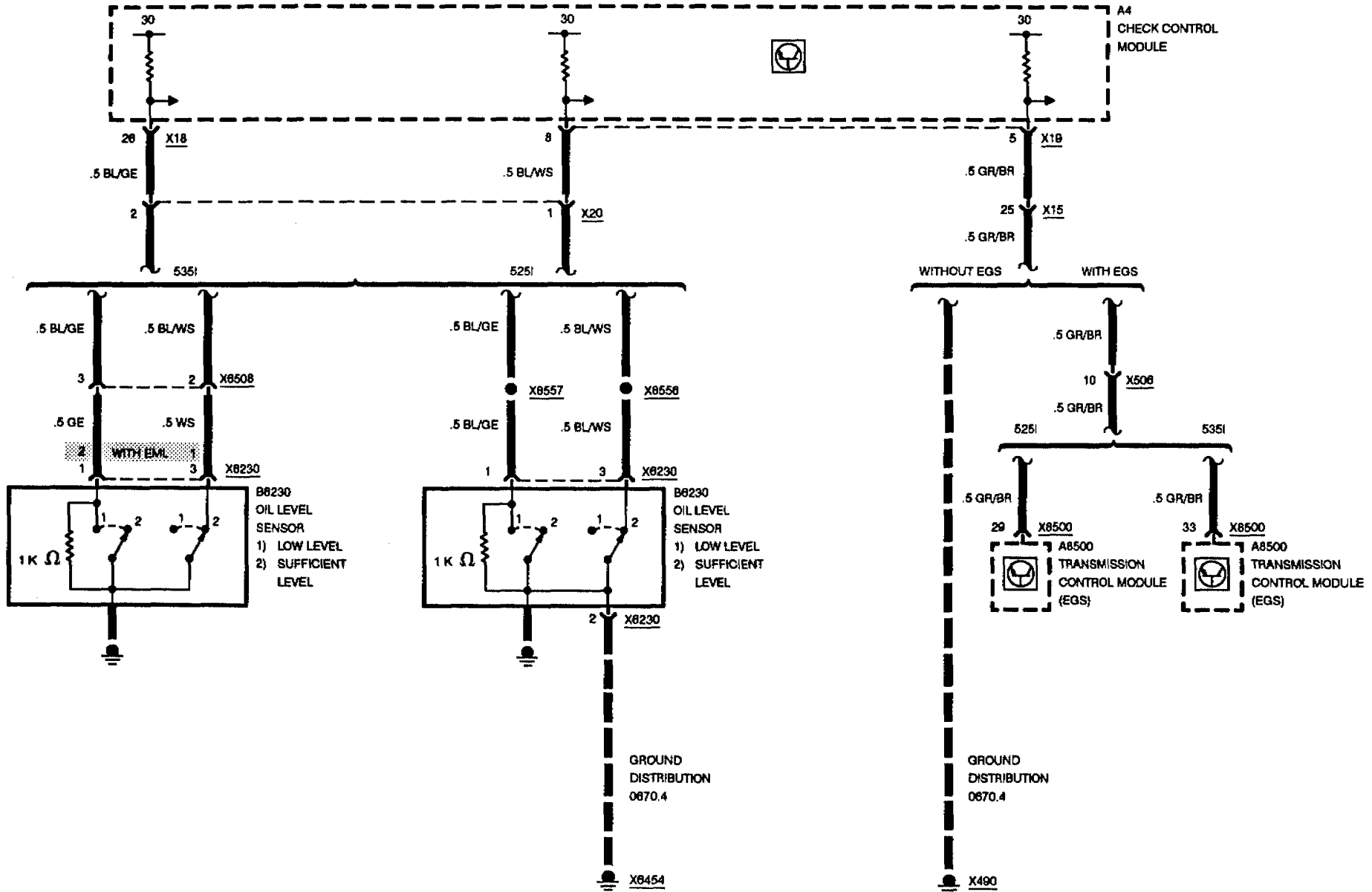


# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)

## CHECK CONTROL



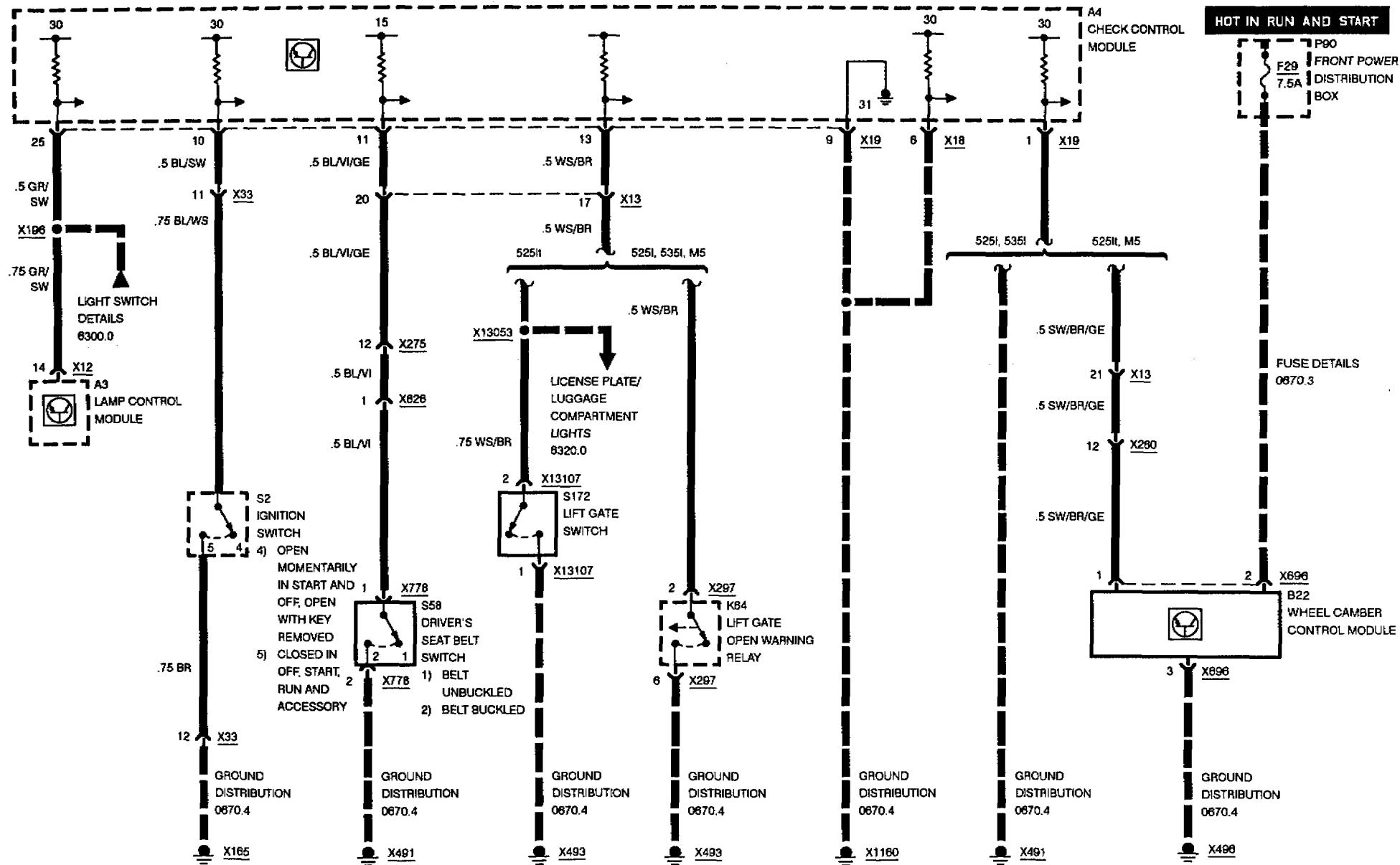
CHECK CONTROL



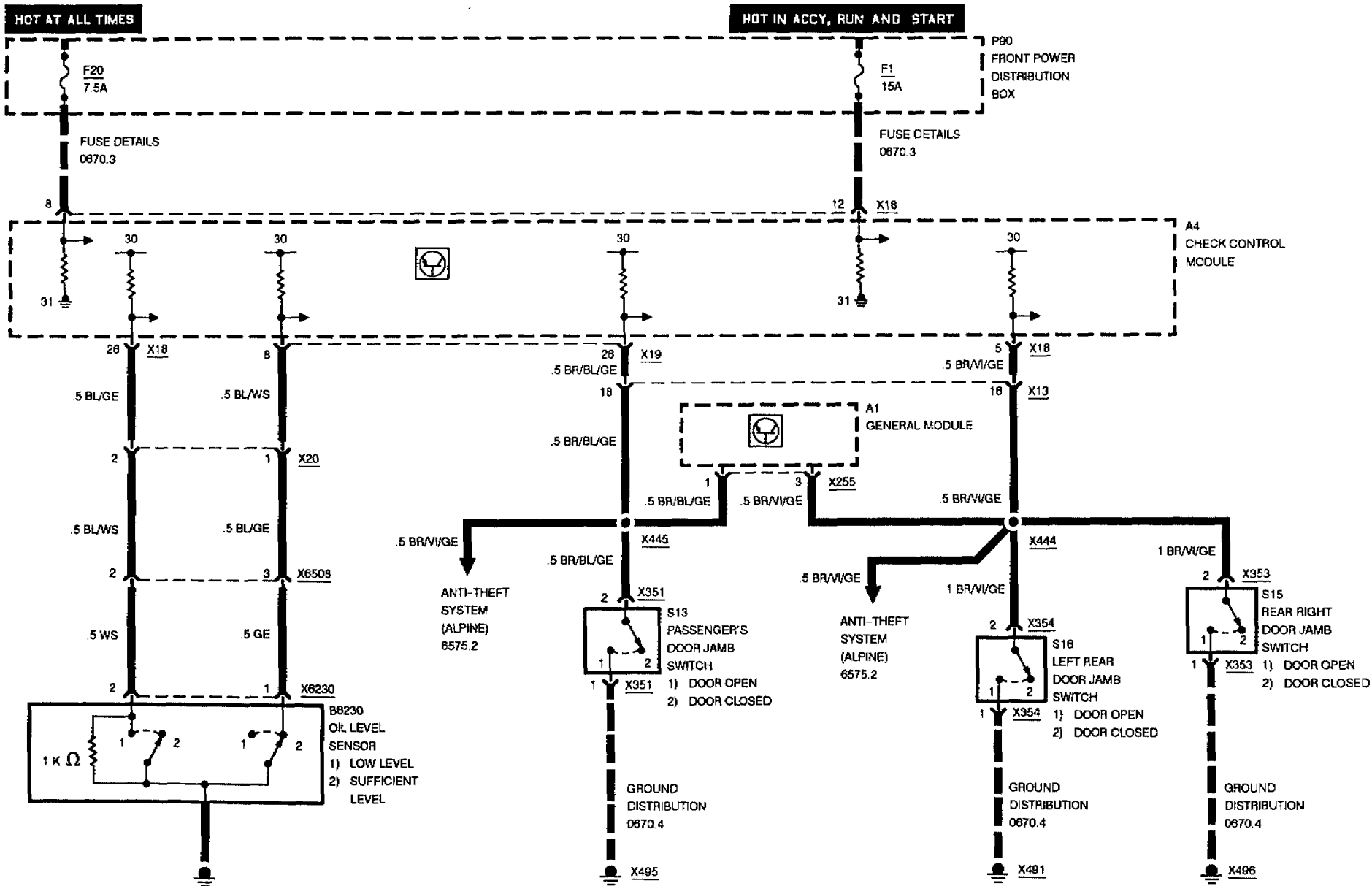


# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)

## CHECK CONTROL



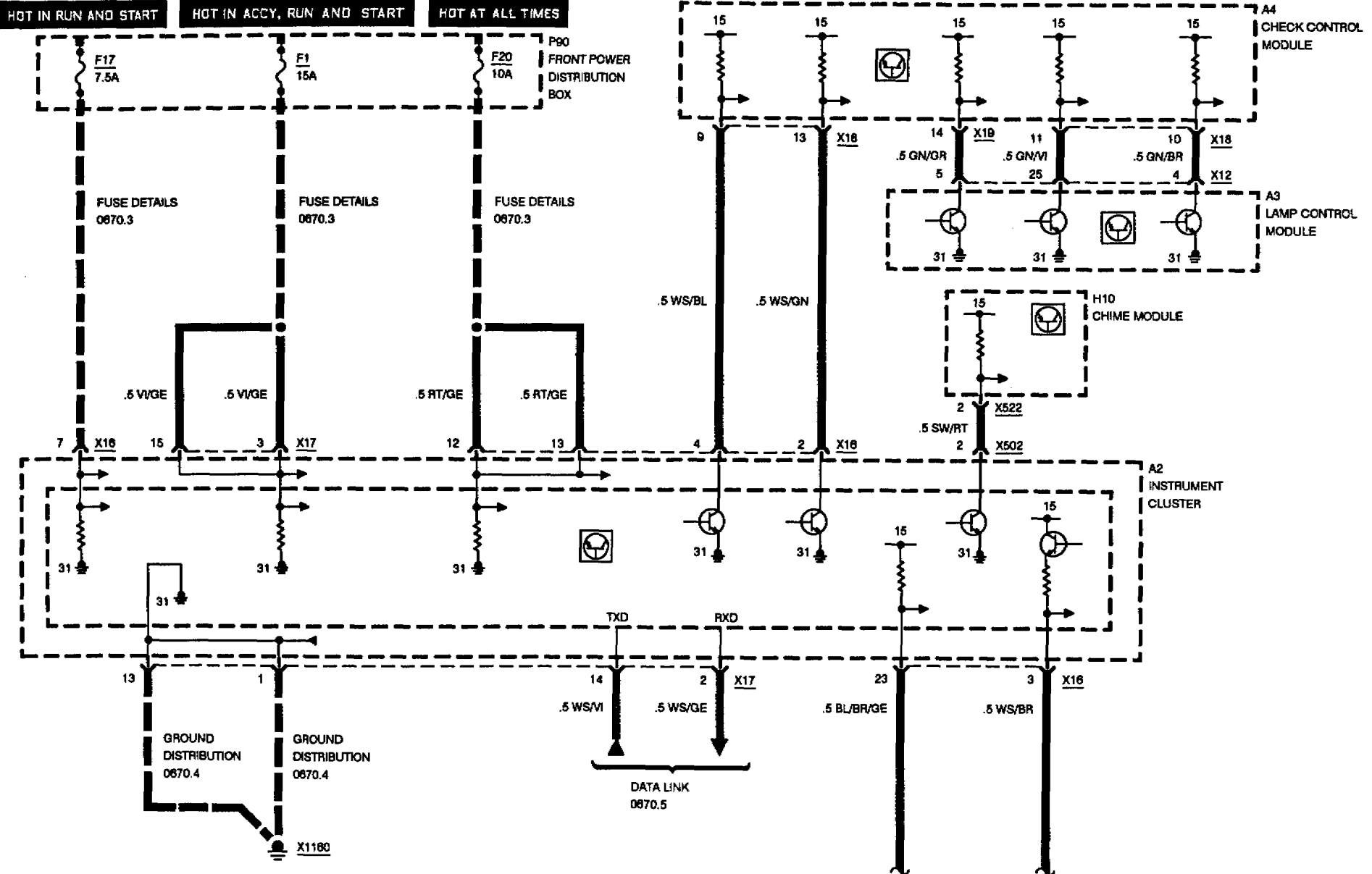
CHECK CONTROL



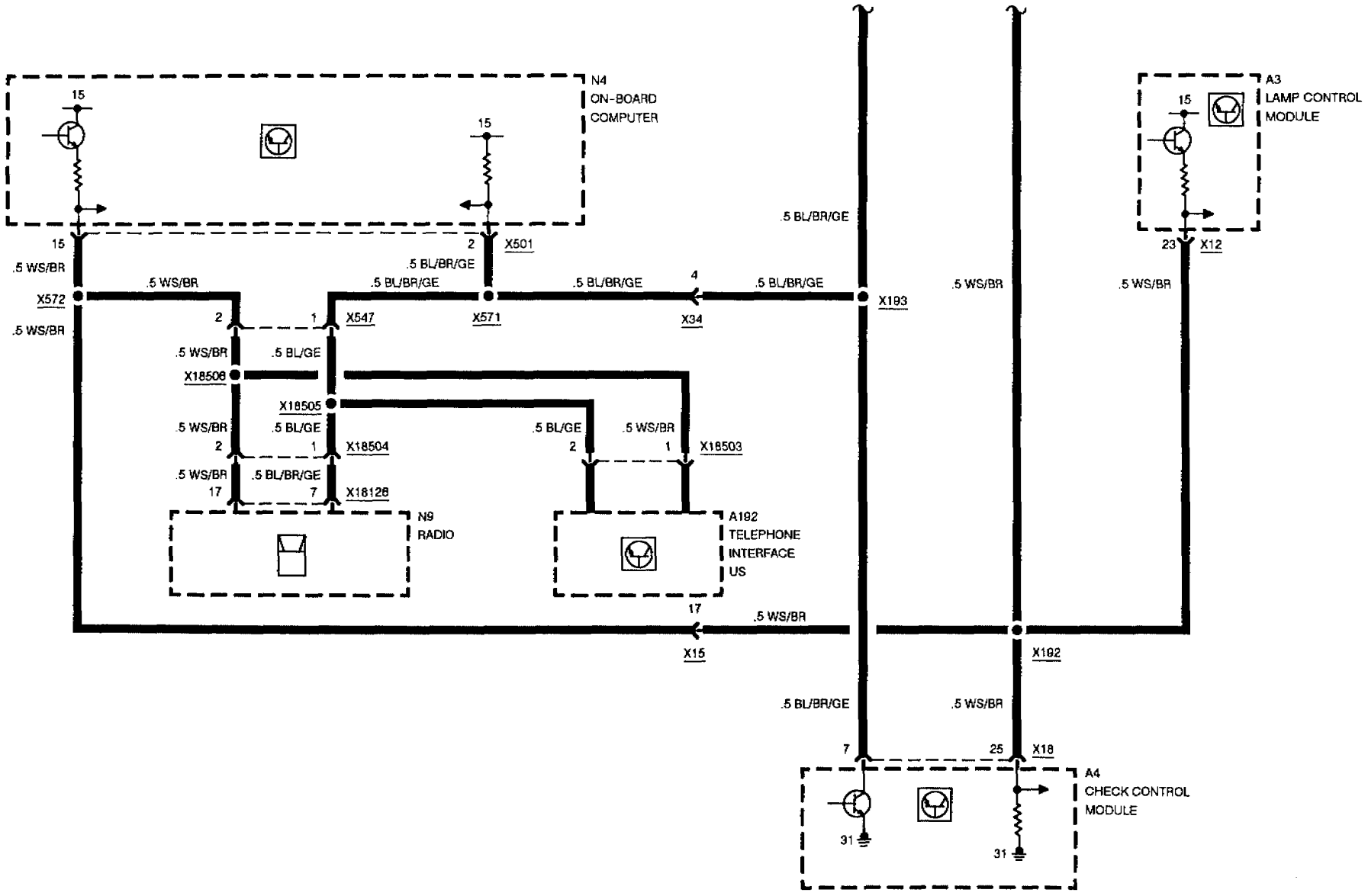


# INSTRUMENT CLUSTER/ CHECK CONTROL (K/CC)

## DATA LINK





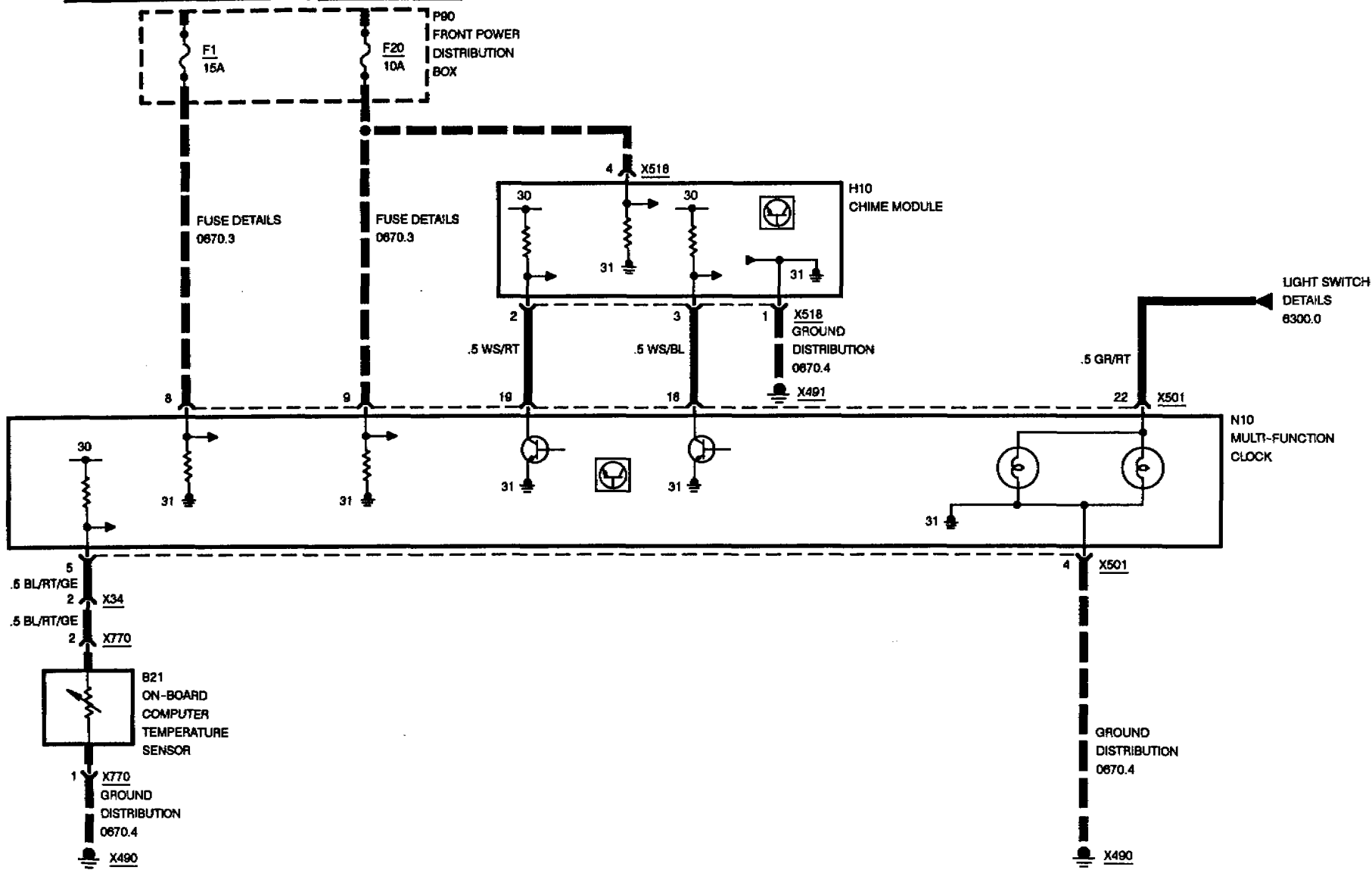




# CLOCK WITHOUT ON-BOARD COMPUTER

HOT IN ACCY, RUN AND START

HOT AT ALL TIMES

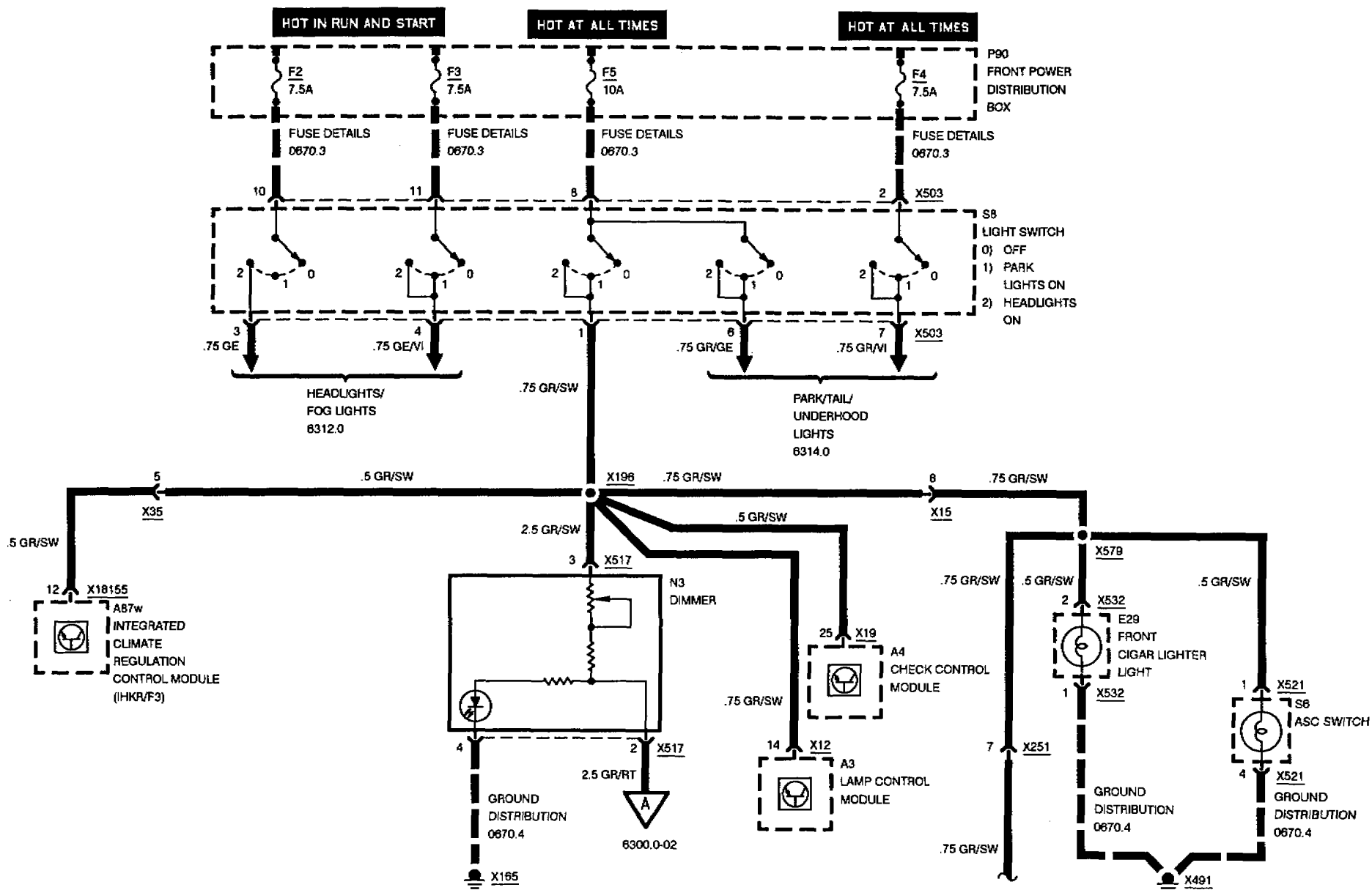


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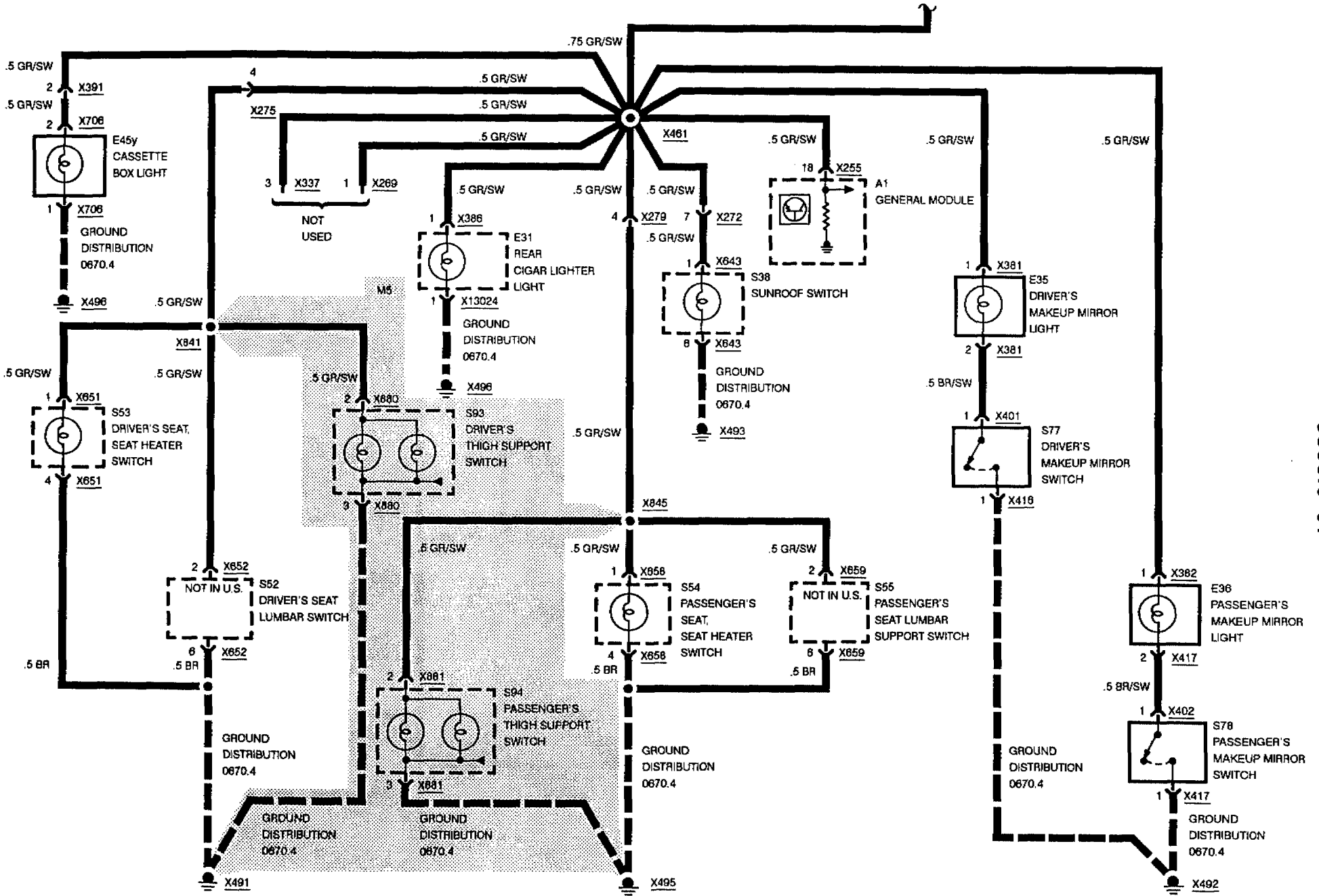
# LIGHT SWITCH DETAILS



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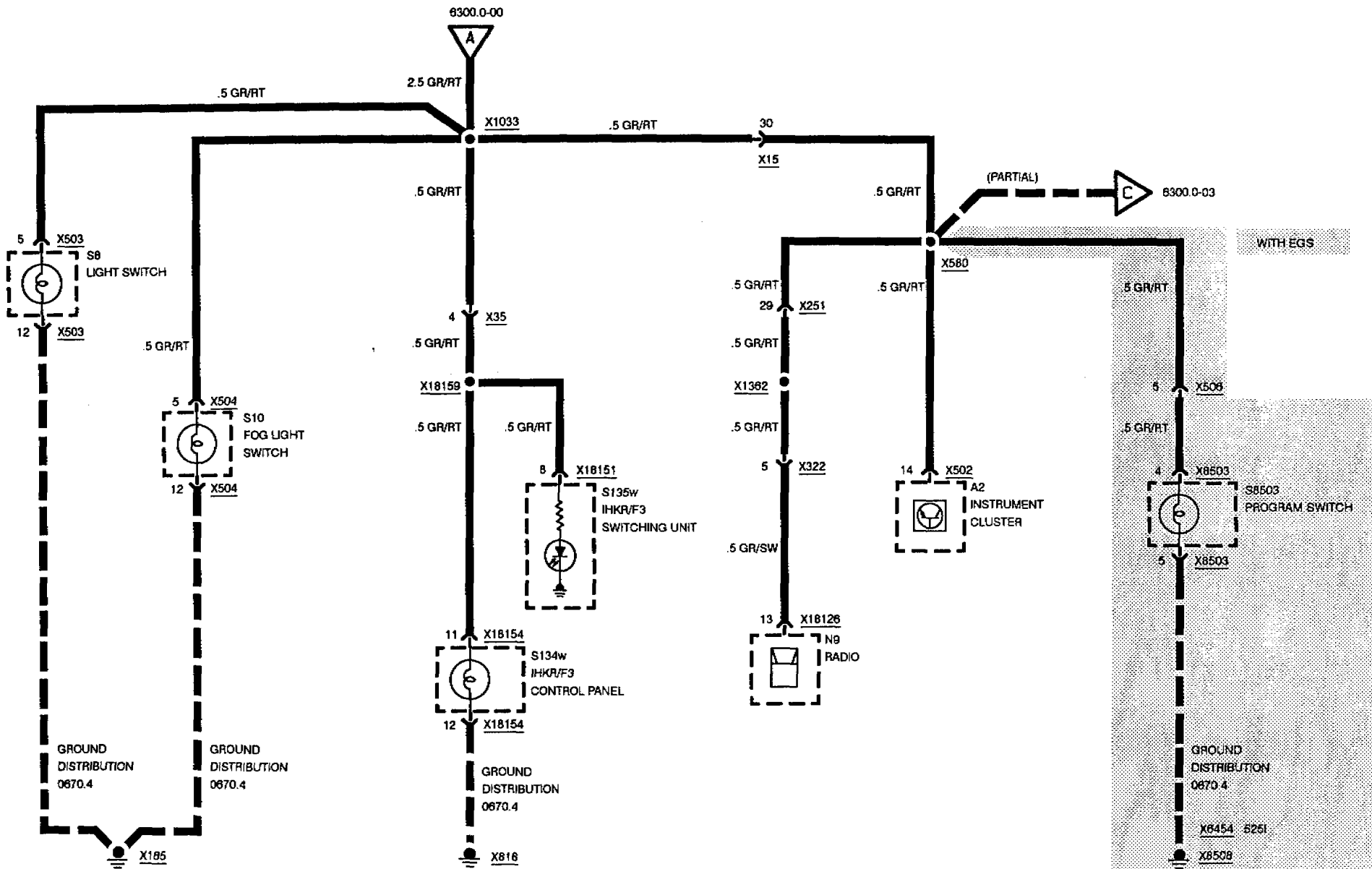
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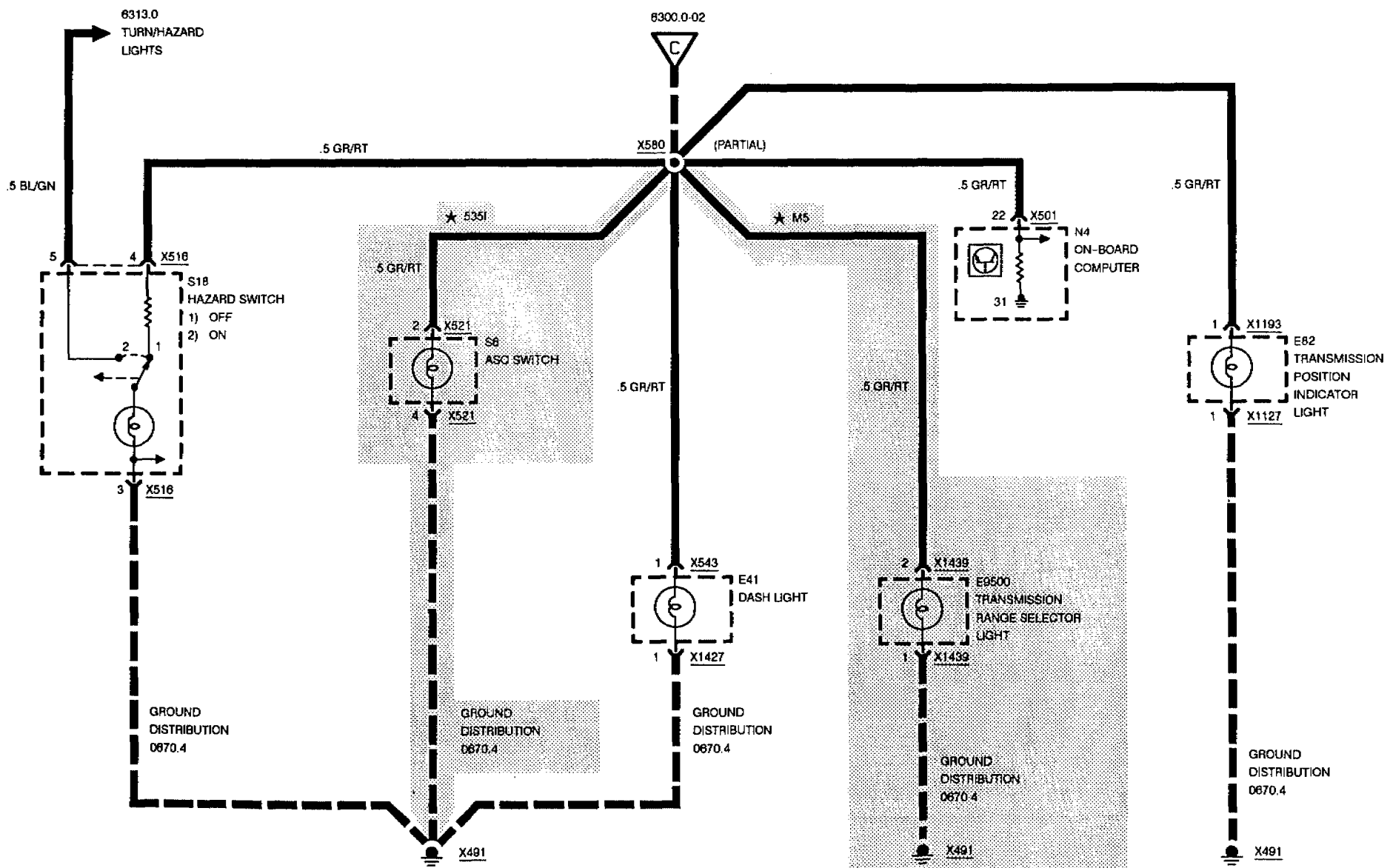


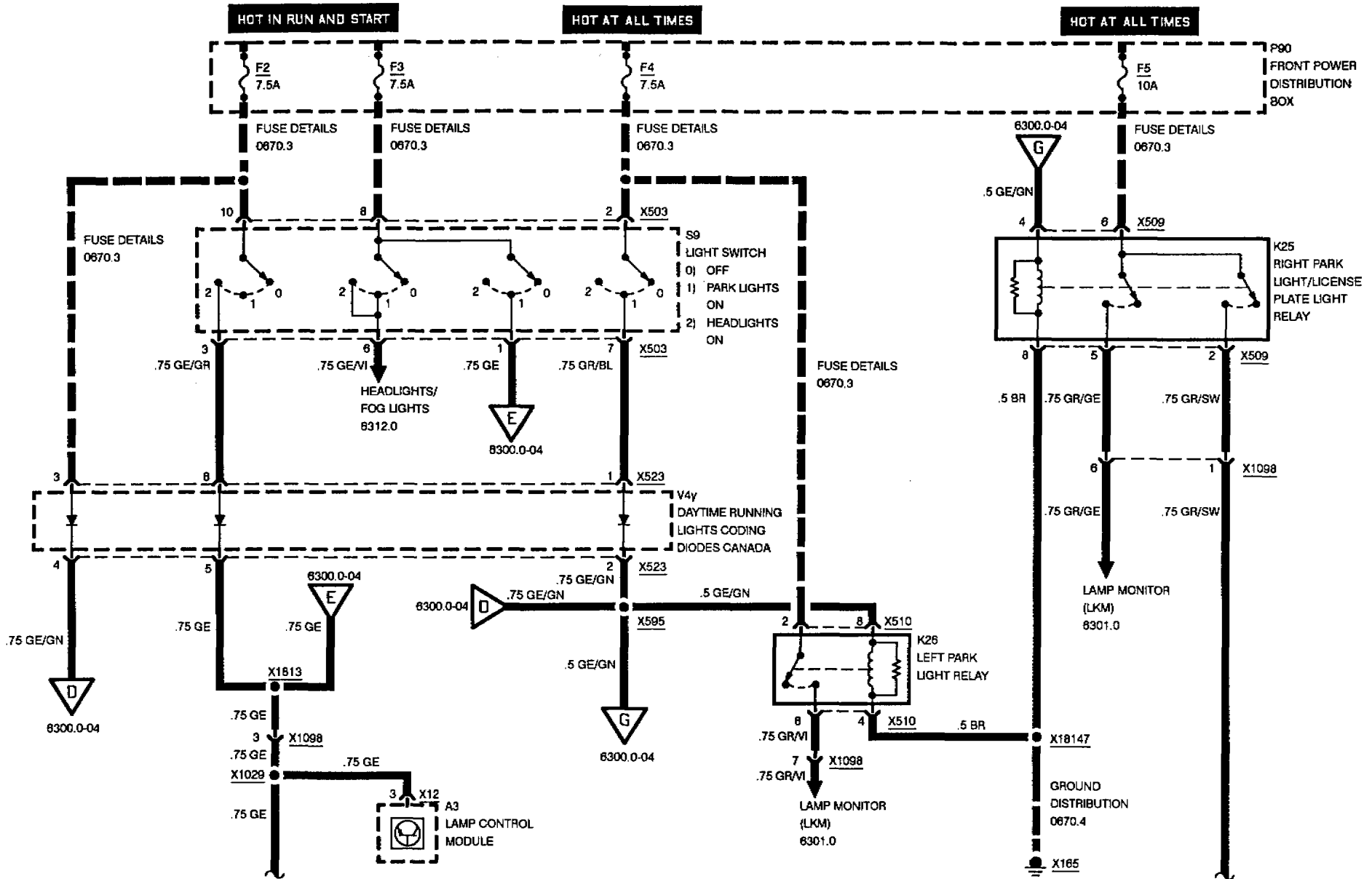
# LIGHT SWITCH DETAILS



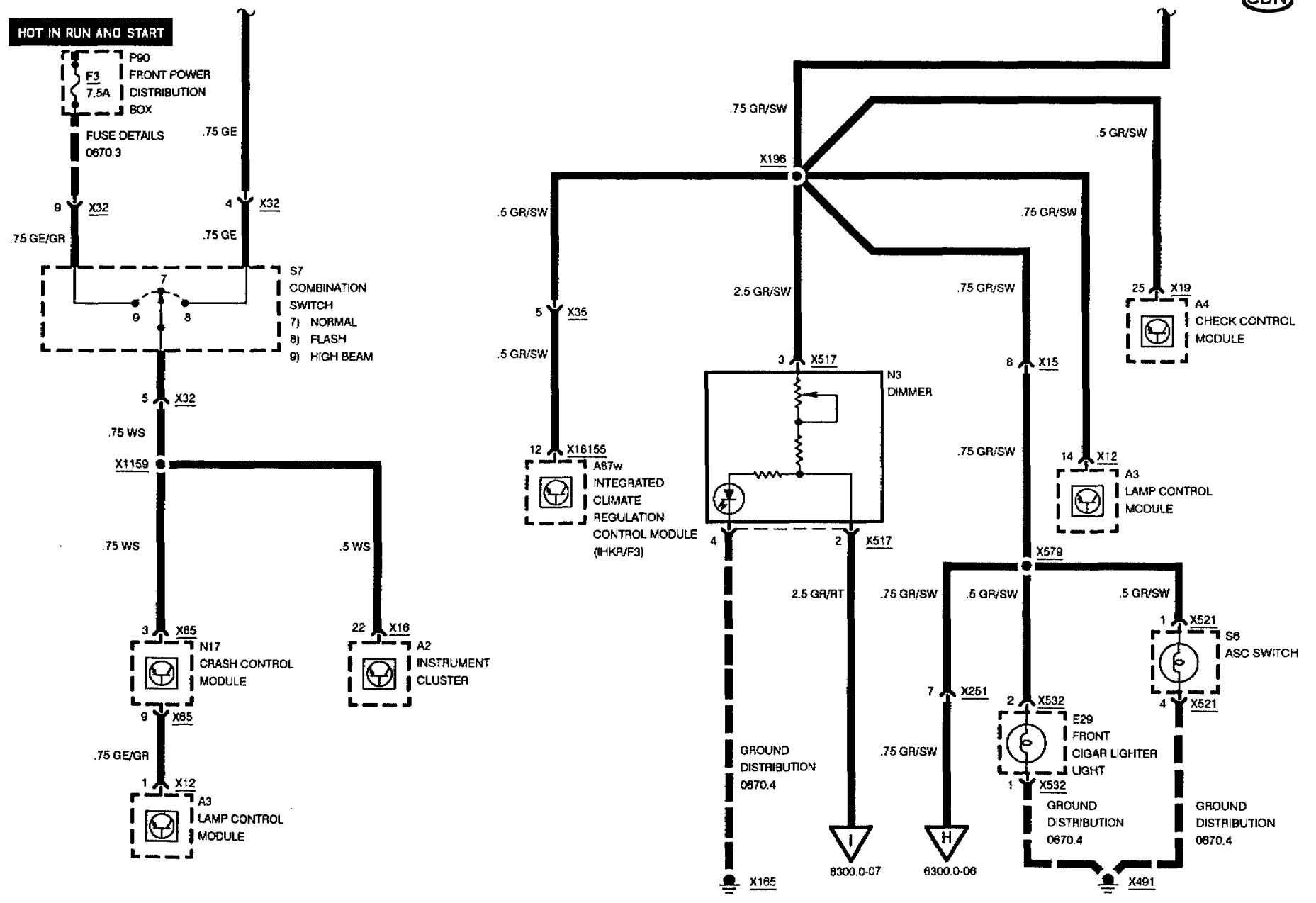


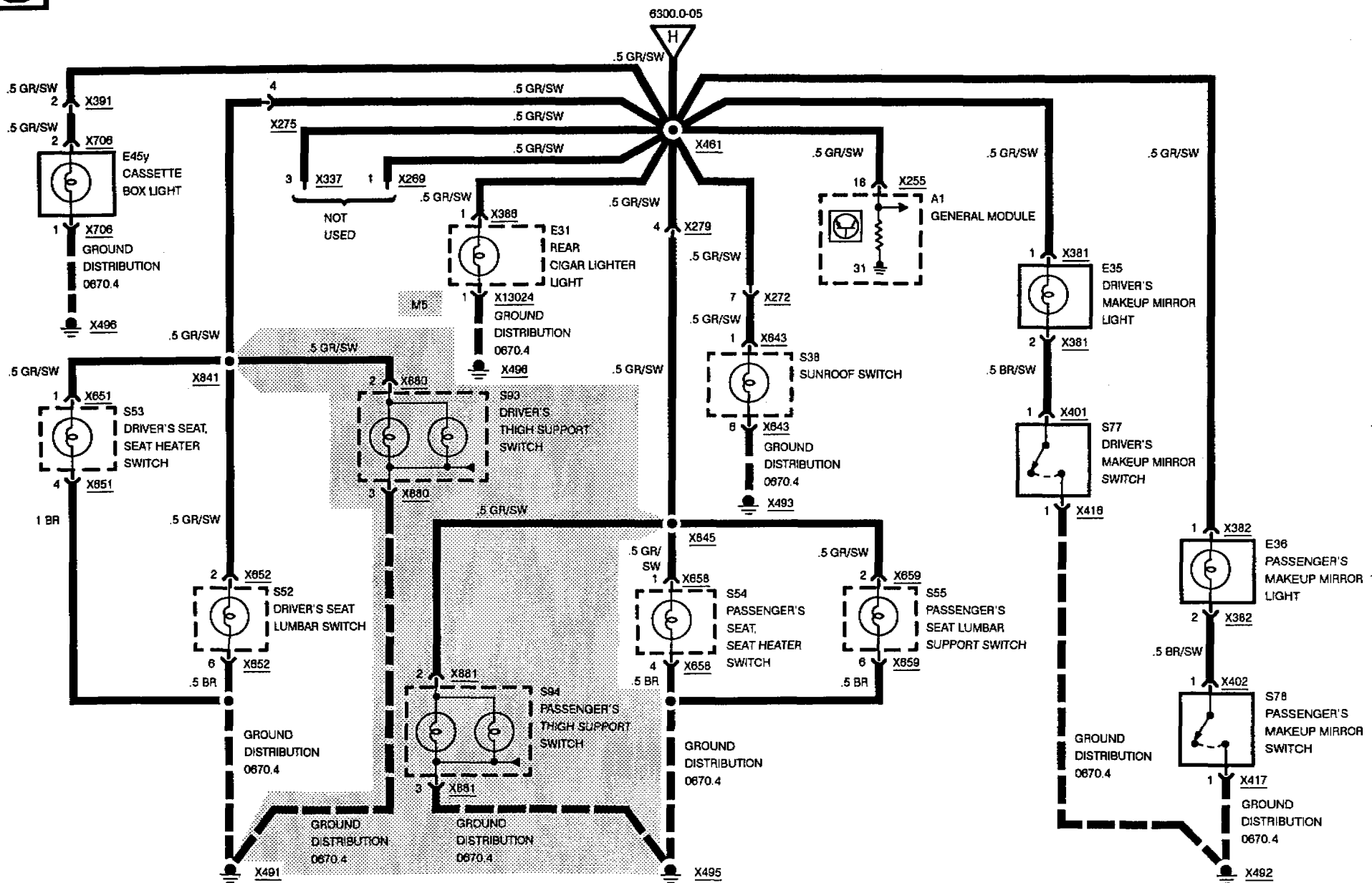
# LIGHT SWITCH DETAILS

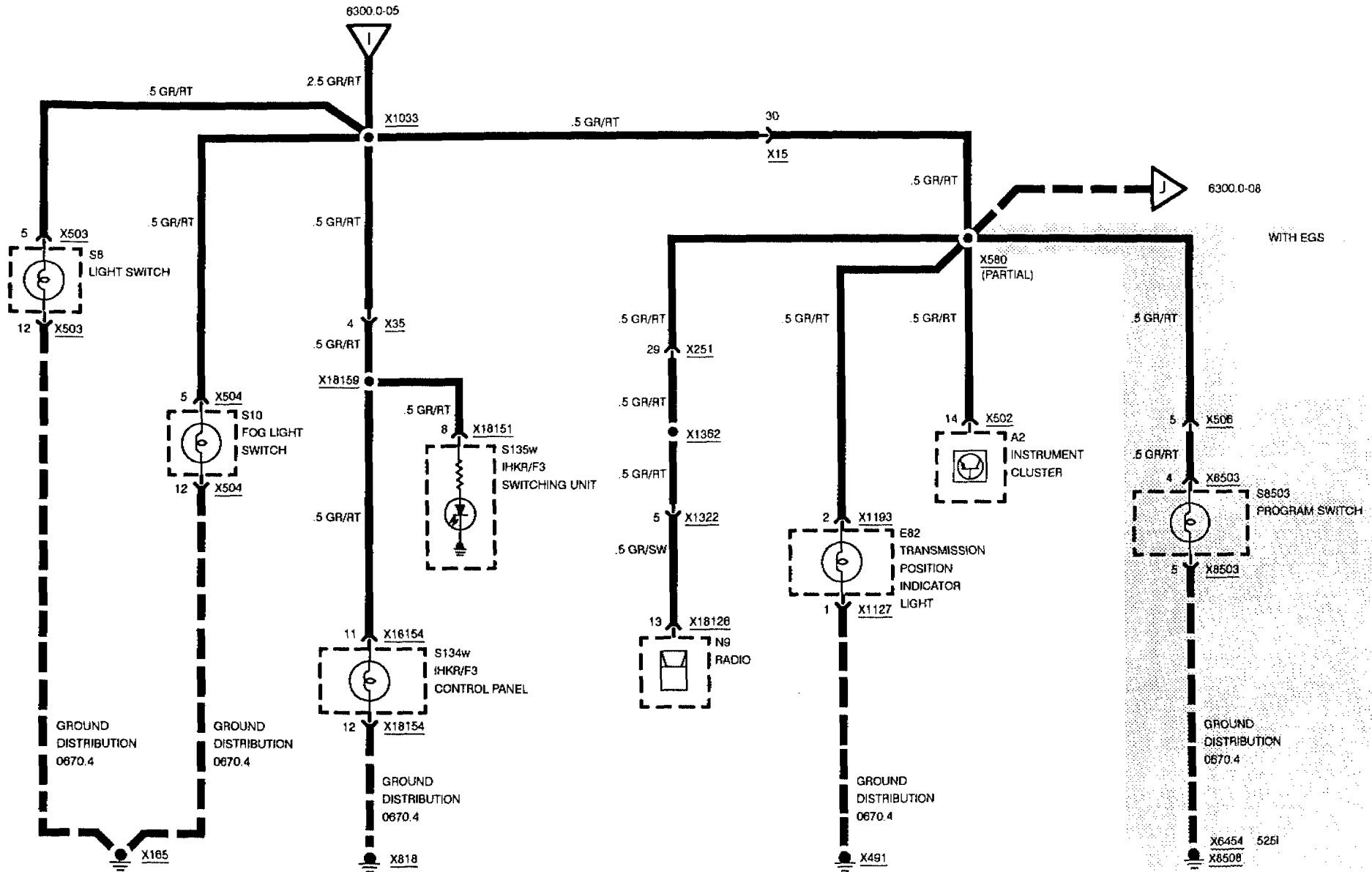










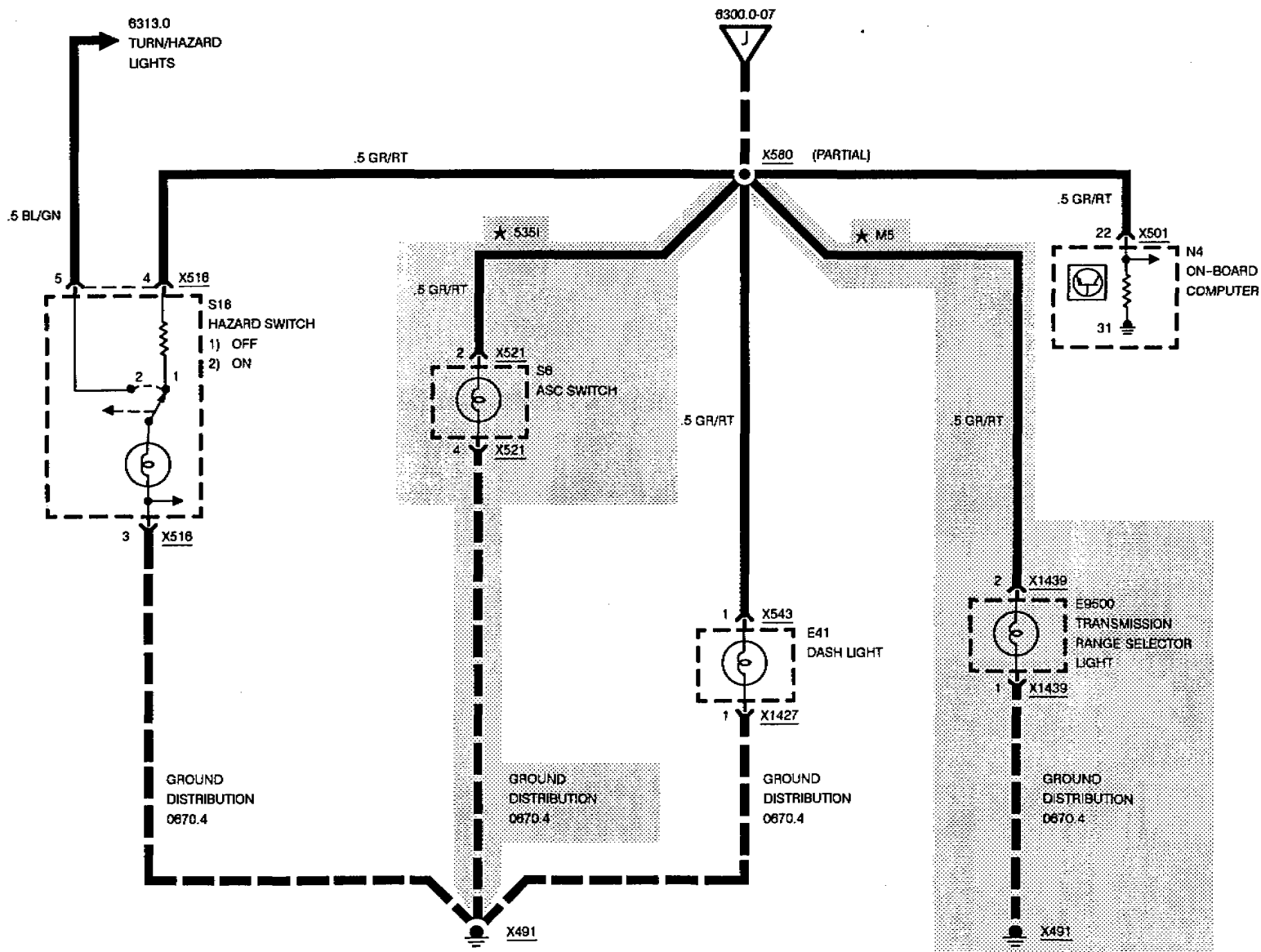




# LIGHT SWITCH DETAILS

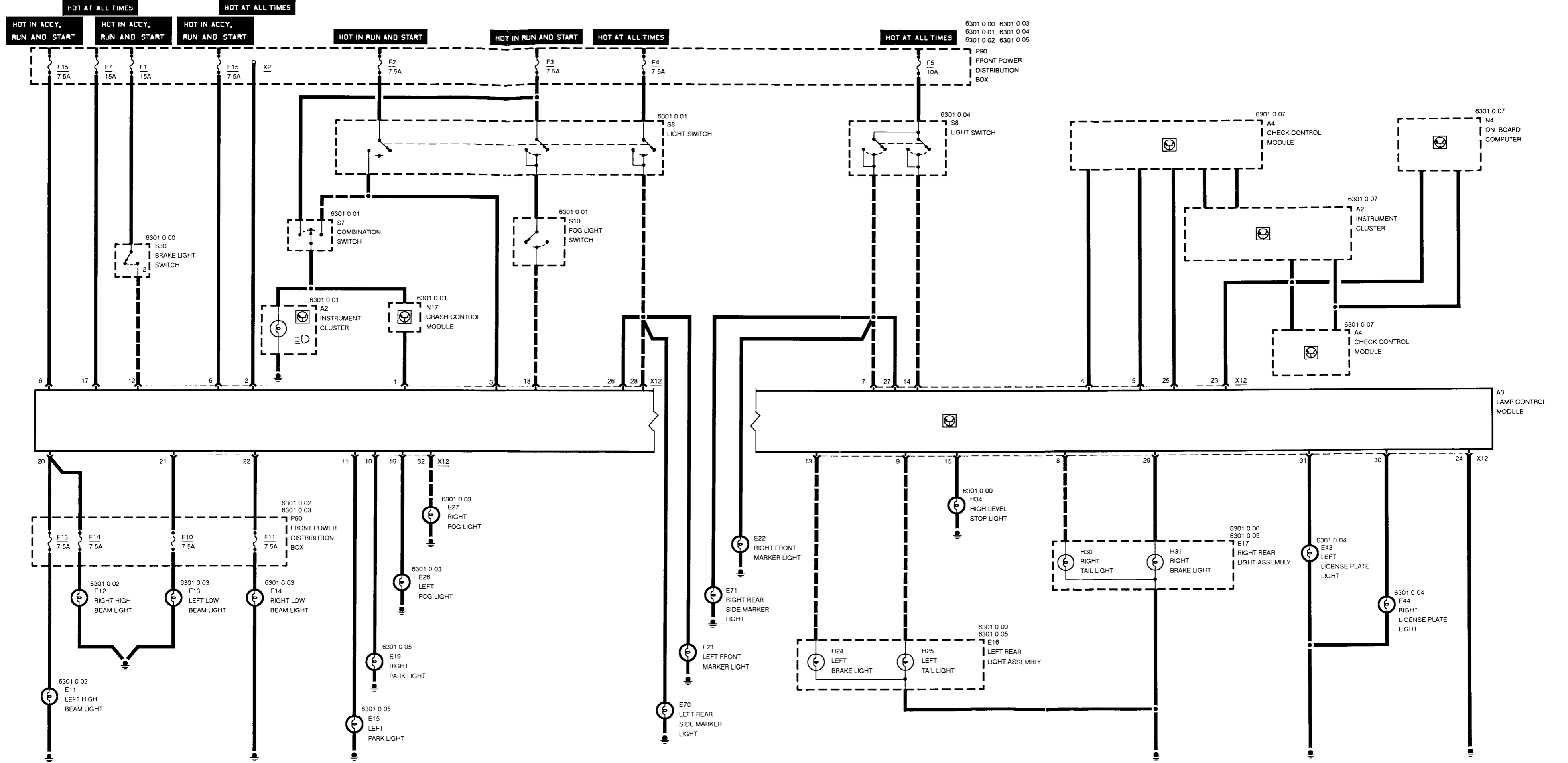


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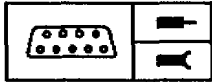
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# LAMP MONITOR (LKM)



## Pin Assignments

### X12

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	High beam signal	Crash control unit	approx. 3.5 V-5 V approx. 0 V	ON OFF	
2	E	LKM voltage supply	Power distribution box	approx. 12 V		
3	E	Headlights signal	Light switch	approx. 3.5 V-5 V approx. 0 V	ON OFF	
4	A	Data link to CCM	Check control module			
5	A	Data link to CCM	Check control module			
6	E	Terminal R power	Power distribution box	approx. 12 V		
7	E	Right tail light signal	Light switch	approx. 12 V approx. 0 V	ON OFF	
8	A	Right tail light power	Right rear light assembly	approx. 12 V approx. 0 V	ON OFF	
9	A	Left tail light power	Left rear light assembly	approx. 12 V approx. 0 V	ON OFF	
10	A	Right park light power	Right front light assembly	approx. 12 V approx. 0 V	ON OFF	
11	A	Left park light power	Left front light assembly	approx. 12 V approx. 0 V	ON OFF	
12	E	Brake pedal status	Brake light switch	approx. 12 V approx. 0 V	ON OFF	

# LAMP MONITOR (LKM)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
13	A	Left brake light power	Left rear light assembly	approx. 12 V approx. 0 V	ON OFF	
14	E	Park lights signal	Light switch	approx. 12 V approx. 0 V	ON OFF	
15	A	High level stop light power	High level stop light	approx. 12 V approx. 0 V	ON OFF	
16	A	Left fog light power	Left fog light	approx. 12 V approx. 0 V	ON OFF	
17	E	Fog lights power	Power distribution box	approx. 12 V		
18	E	Fog light signal	Fog light switch	approx. 12 V approx. 0 V	ON OFF	
19		Not used				
20	A	High beam light power	Fuses/Power distribution box	approx. 12 V approx. 0 V	ON OFF	
21	A	Left low beam power	Left low beam light	approx. 12 V approx. 0 V	ON OFF	
22	A	Right low beam power	Right low beam light	approx. 12 V approx. 0 V	ON OFF	
23	E	Data link to CCM	Check control module			
24	M	Ground, control unit	Body ground	approx. 0 V	None	
25	E	Data link to CCM	Check control module			
26	E	Left tail light signal	Light switch	approx. 12 V approx. 0 V	ON OFF	
27	E	Right park light signal	Light switch	approx. 12 V approx. 0 V	ON OFF	
28	E	Left park light signal	Light switch	approx. 12 V approx. 0 V	ON OFF	



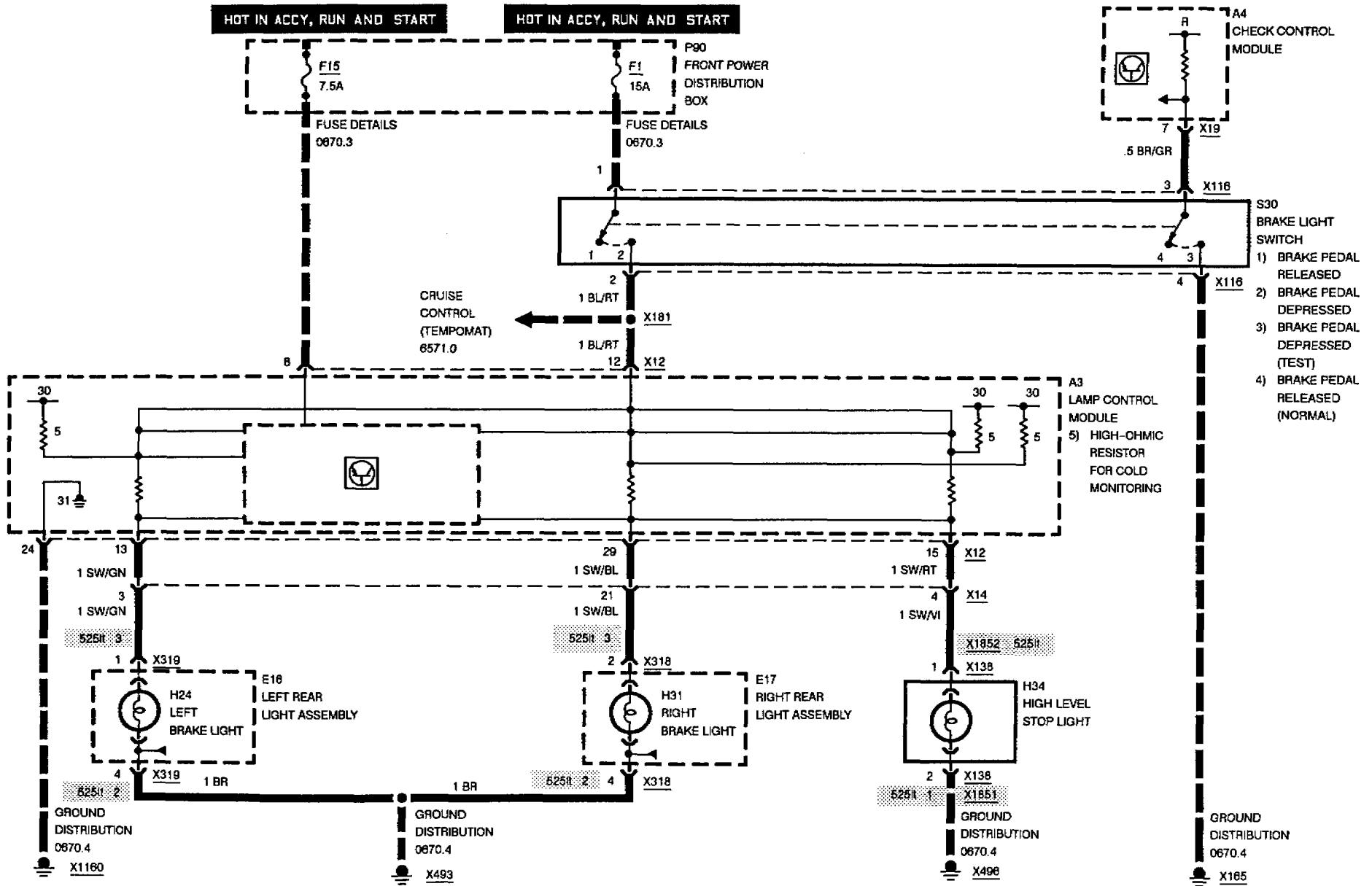
## LAMP MONITOR (LKM)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
29	A	Right brake light power	Right brake light	approx. 12 V approx. 0 V	ON OFF	
30	A	Right license plate light power	Right license plate light	approx. 12 V approx. 0 V	ON OFF	
31	A	Left license plate light power	Left license plate light	approx. 12 V approx. 0 V	ON OFF	
32	A	Right fog light power	Right fog light	approx. 12 V approx. 0 V	ON OFF	



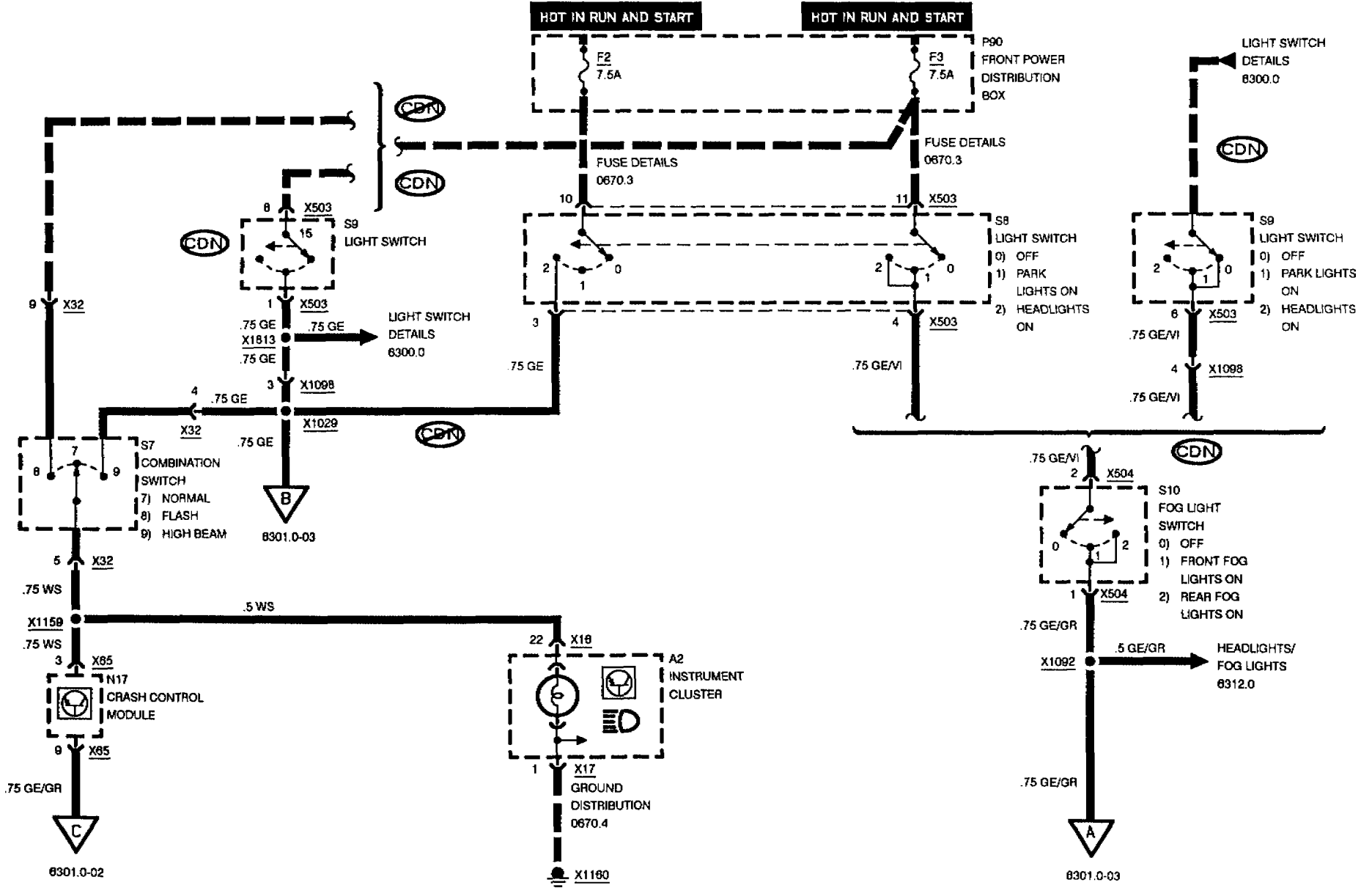


# LAMP MONITOR (LKM)



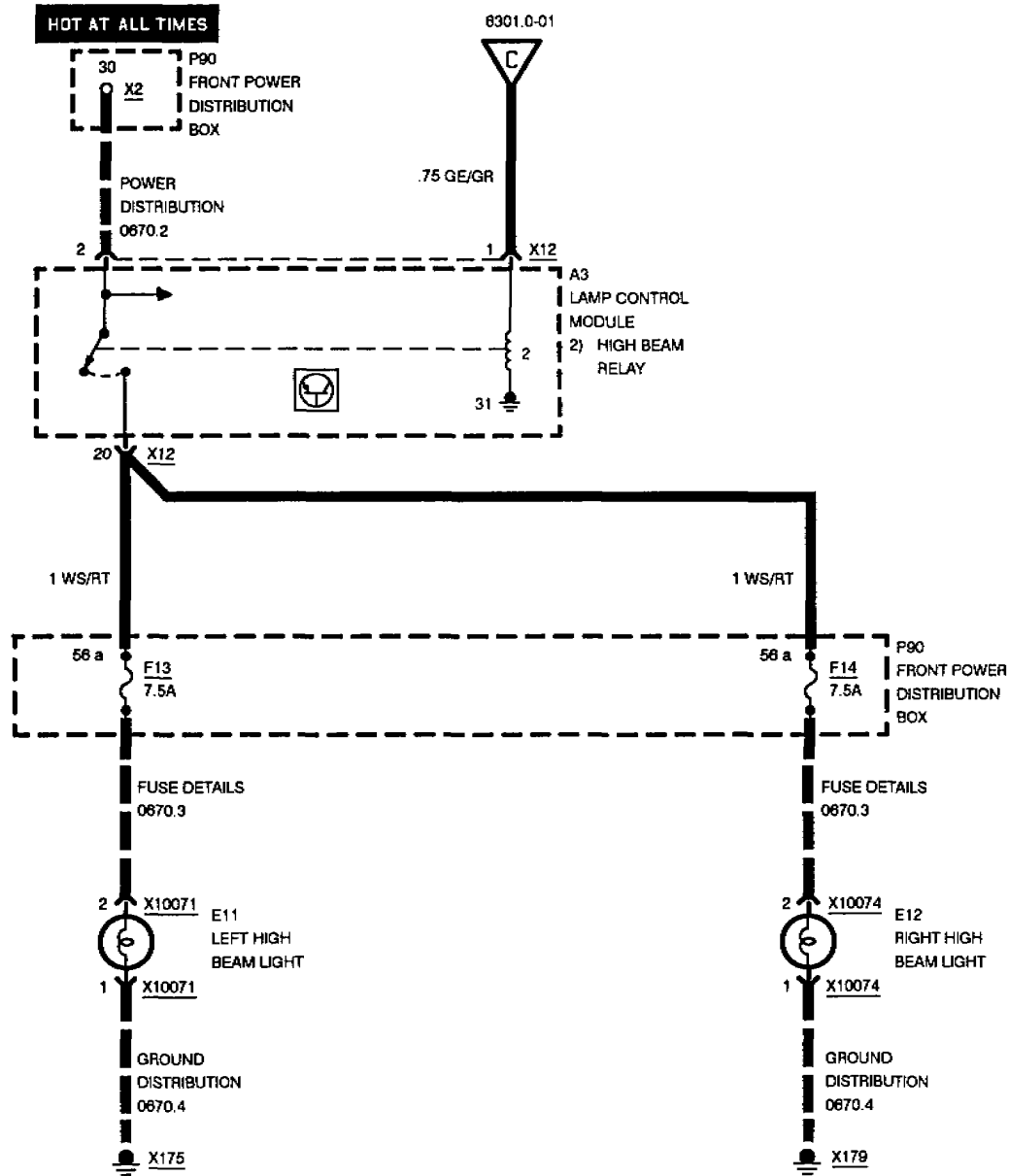


# LAMP MONITOR (LKM)

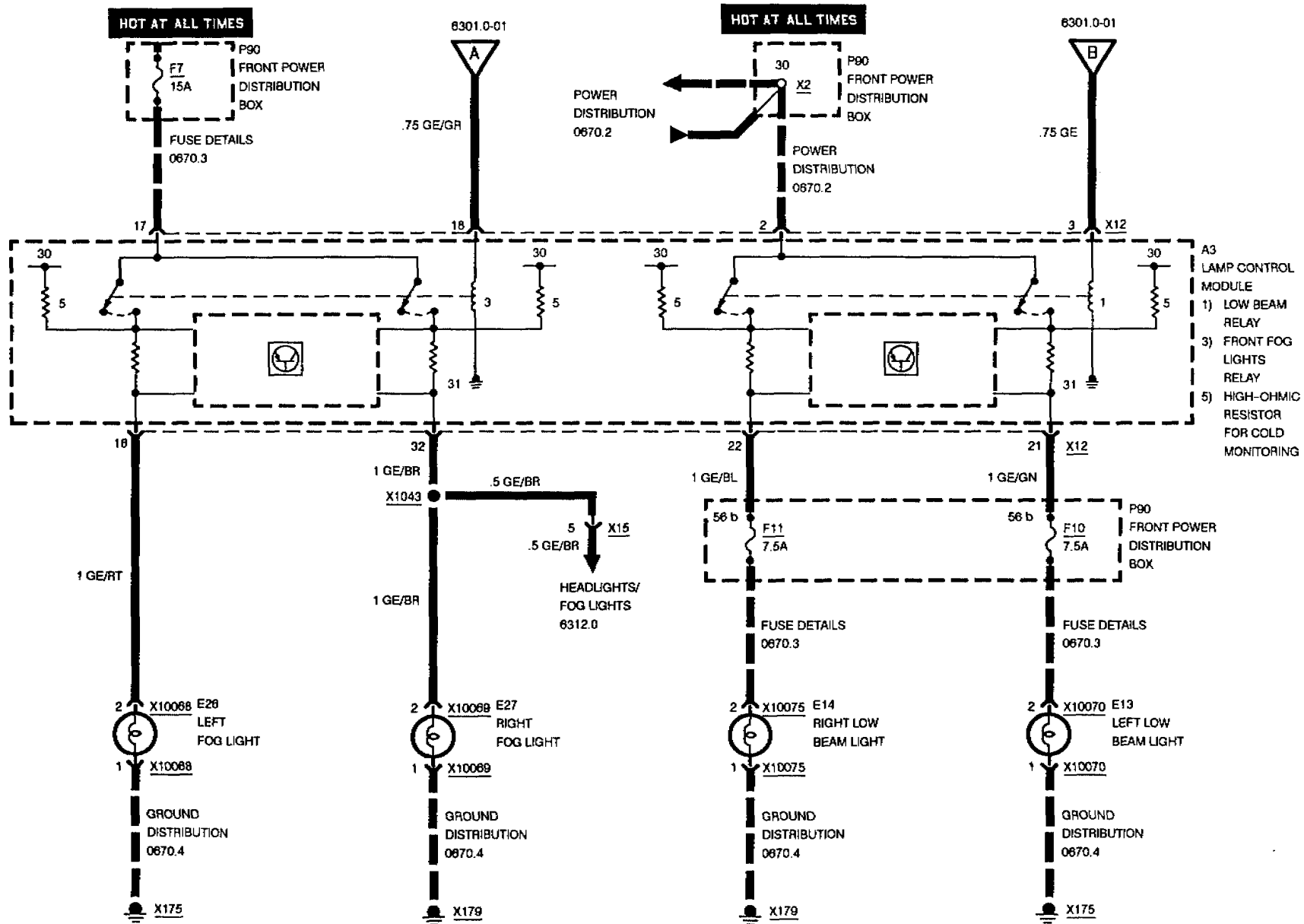




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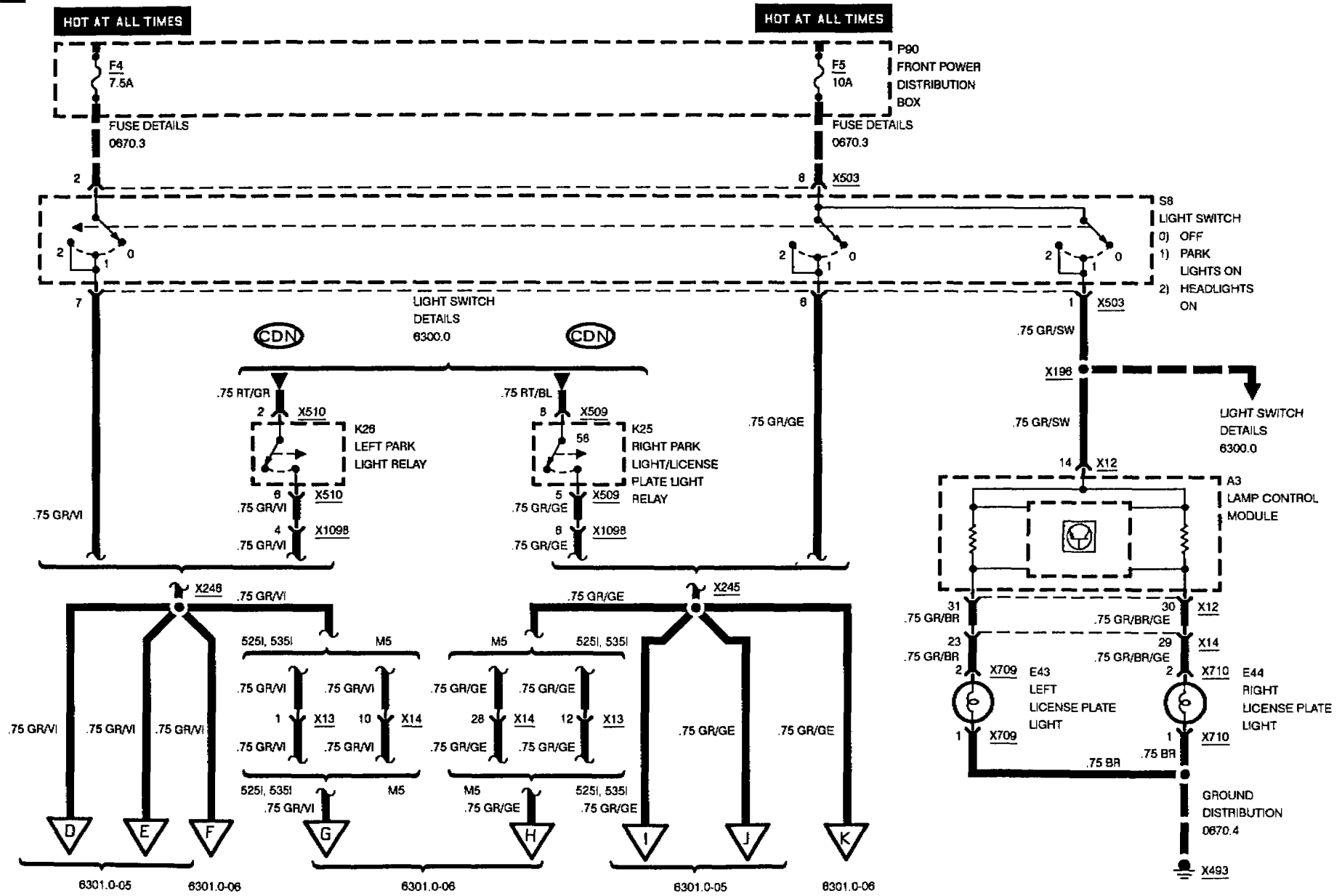


# LAMP MONITOR (LKM)





# LAMP MONITOR (LKM)



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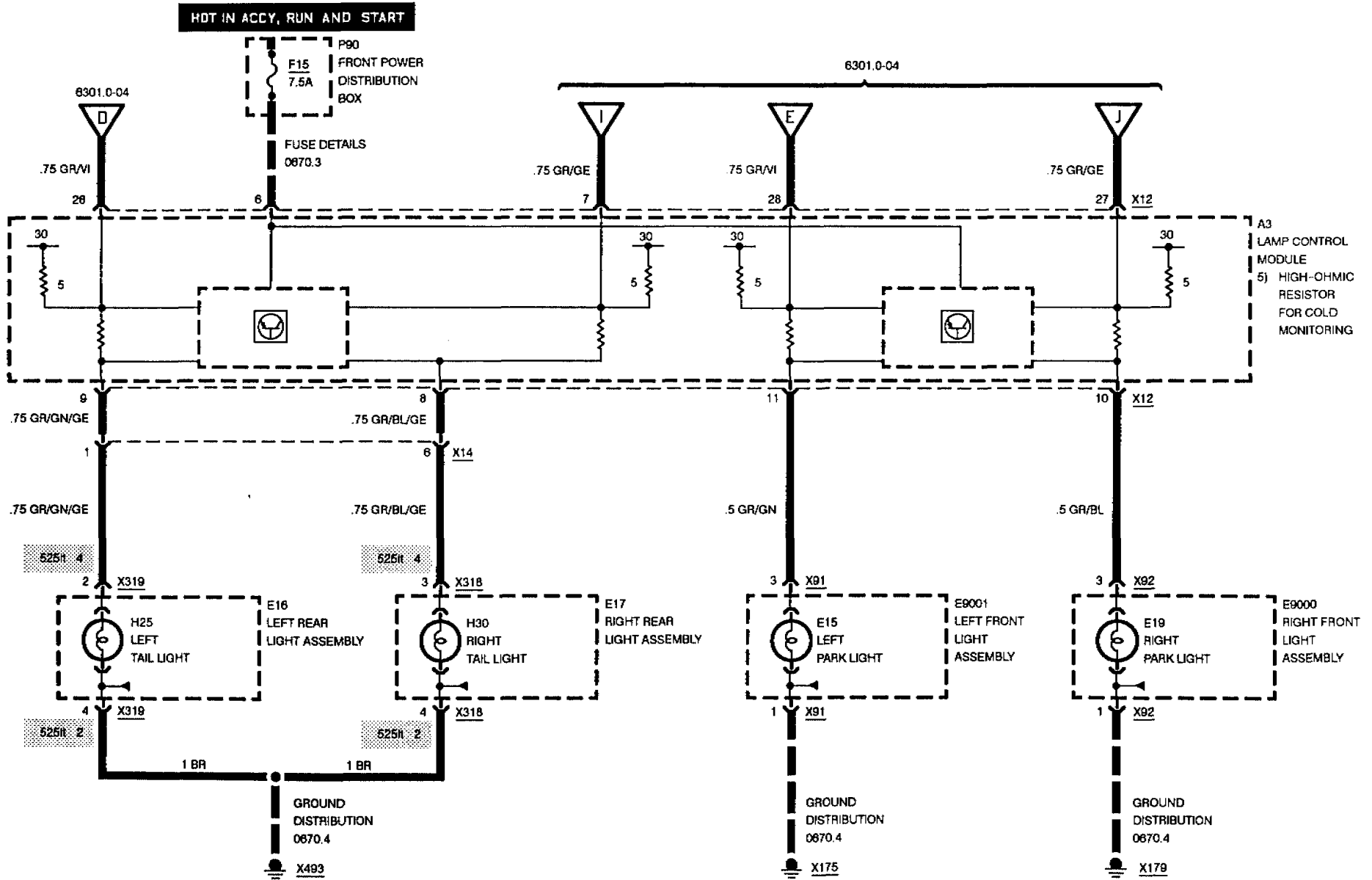
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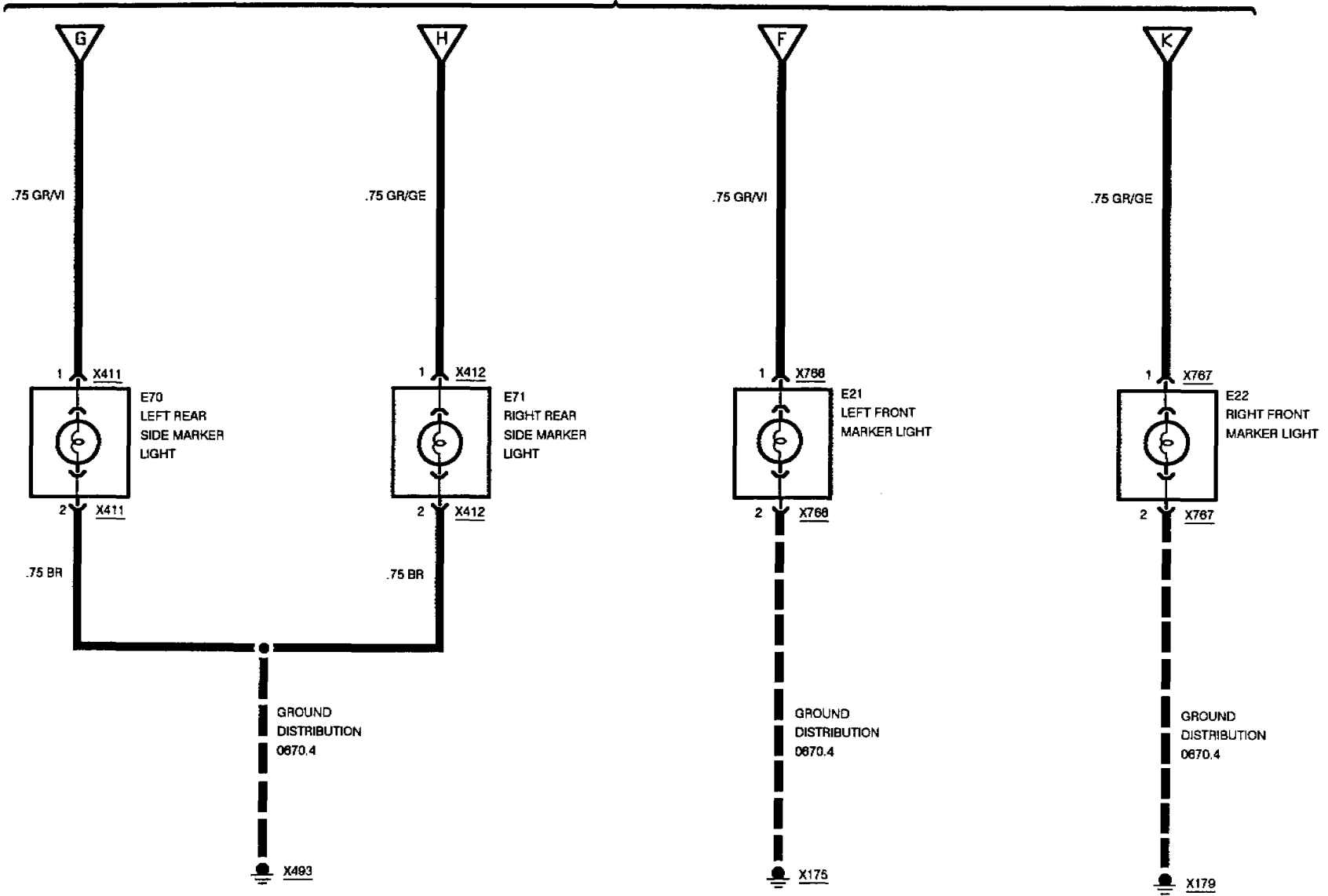
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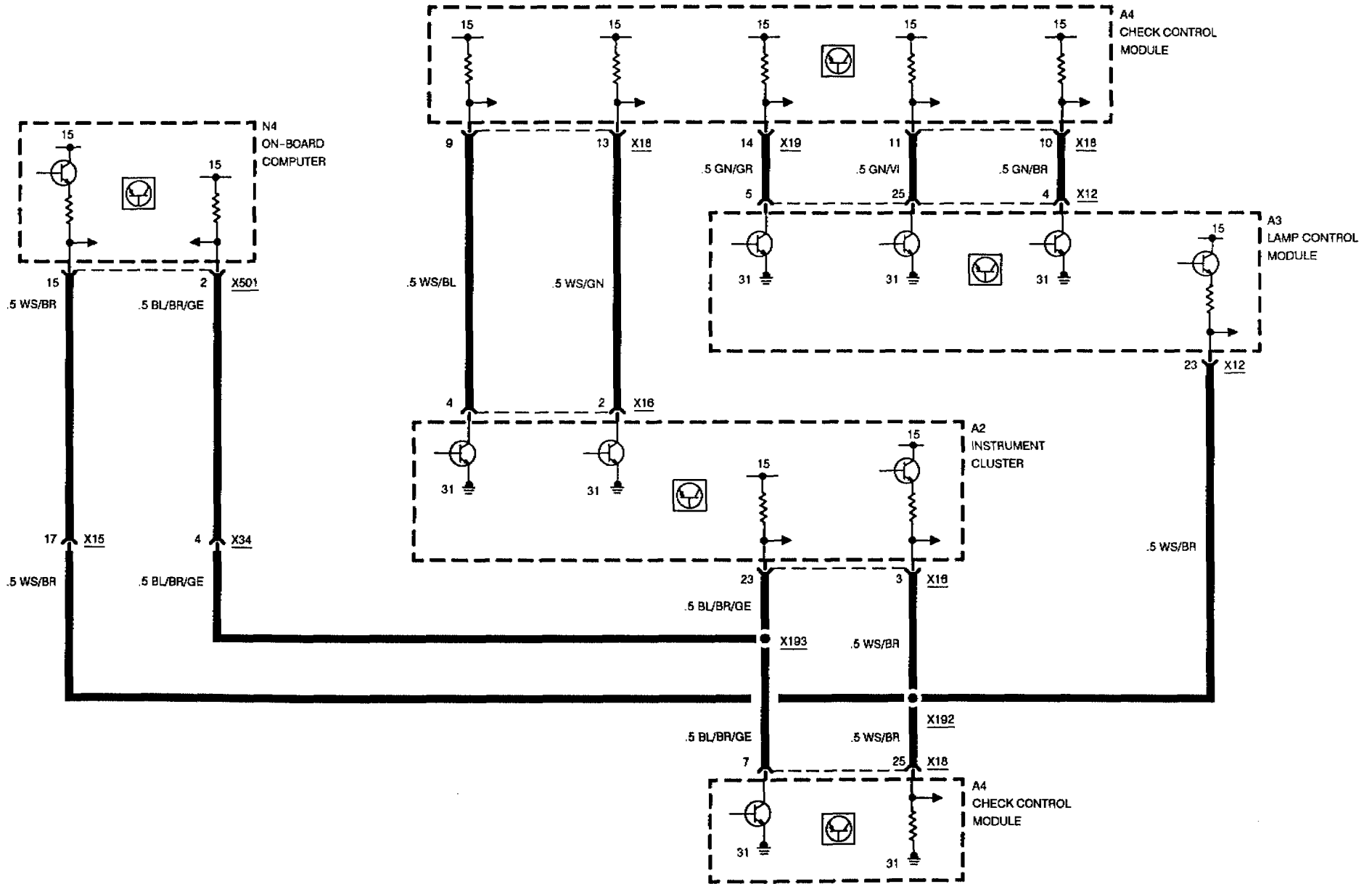


# LAMP MONITOR (LKM)

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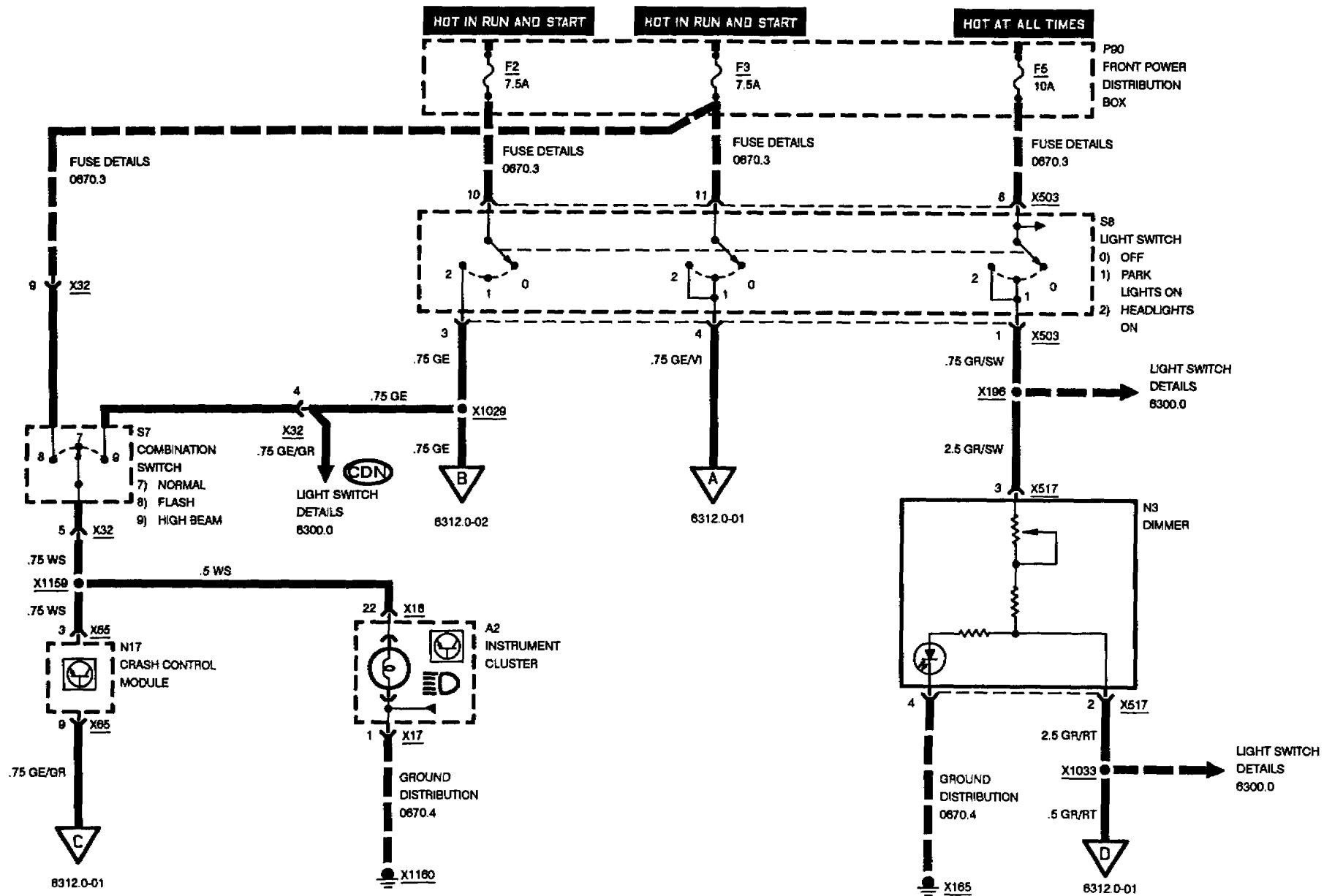
# LAMP MONITOR (LKM)



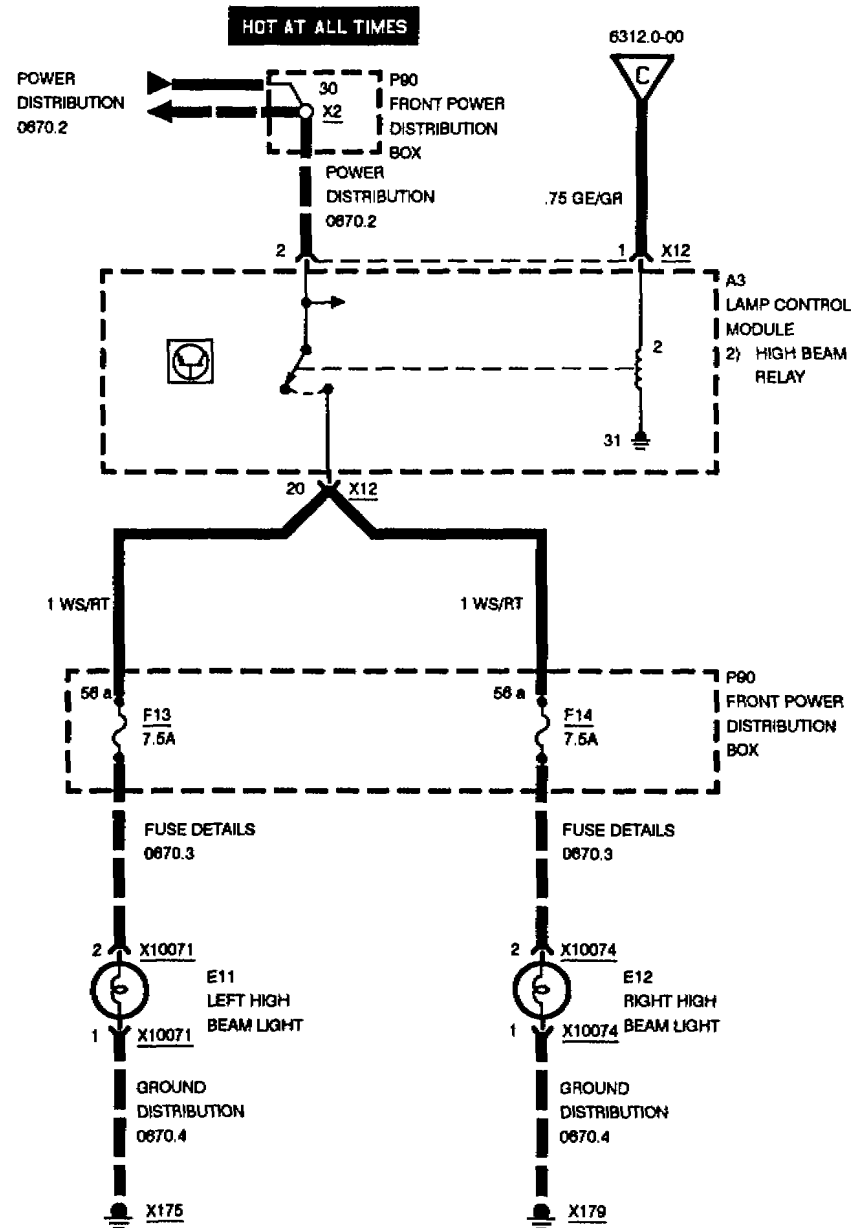
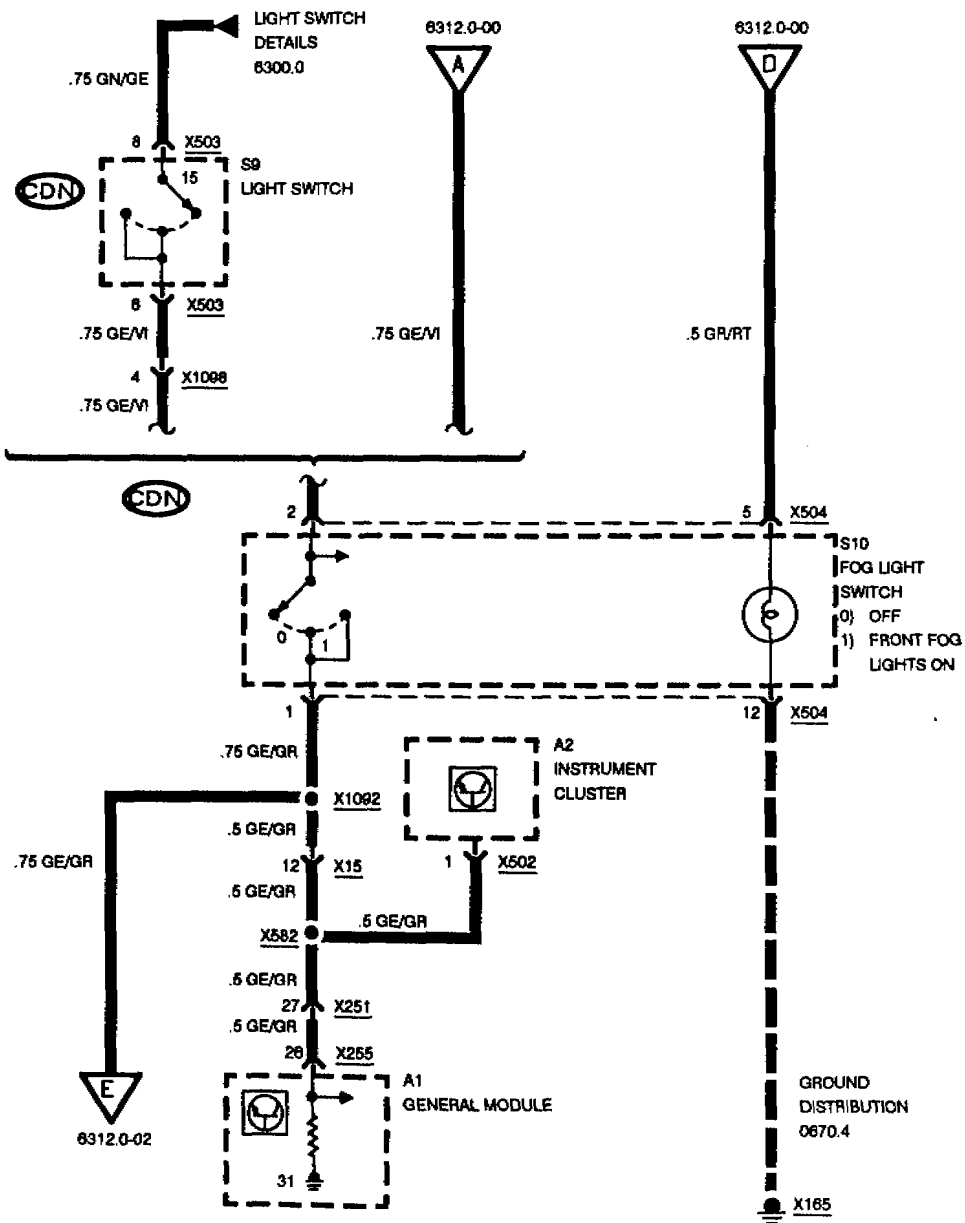




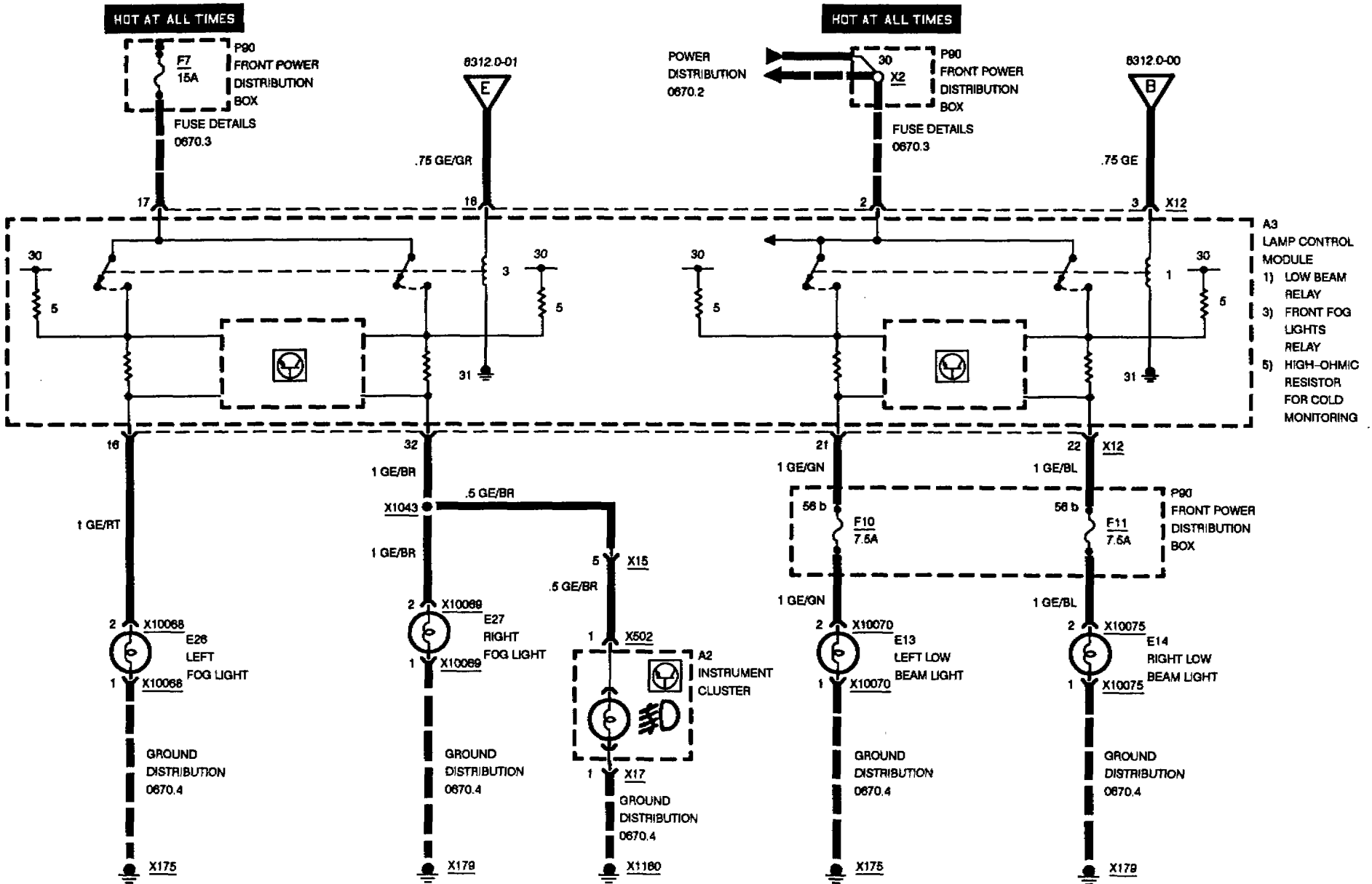
# HEADLIGHTS/ FOG LIGHTS



# HEADLIGHTS/ FOG LIGHTS



# HEADLIGHTS/ FOG LIGHTS

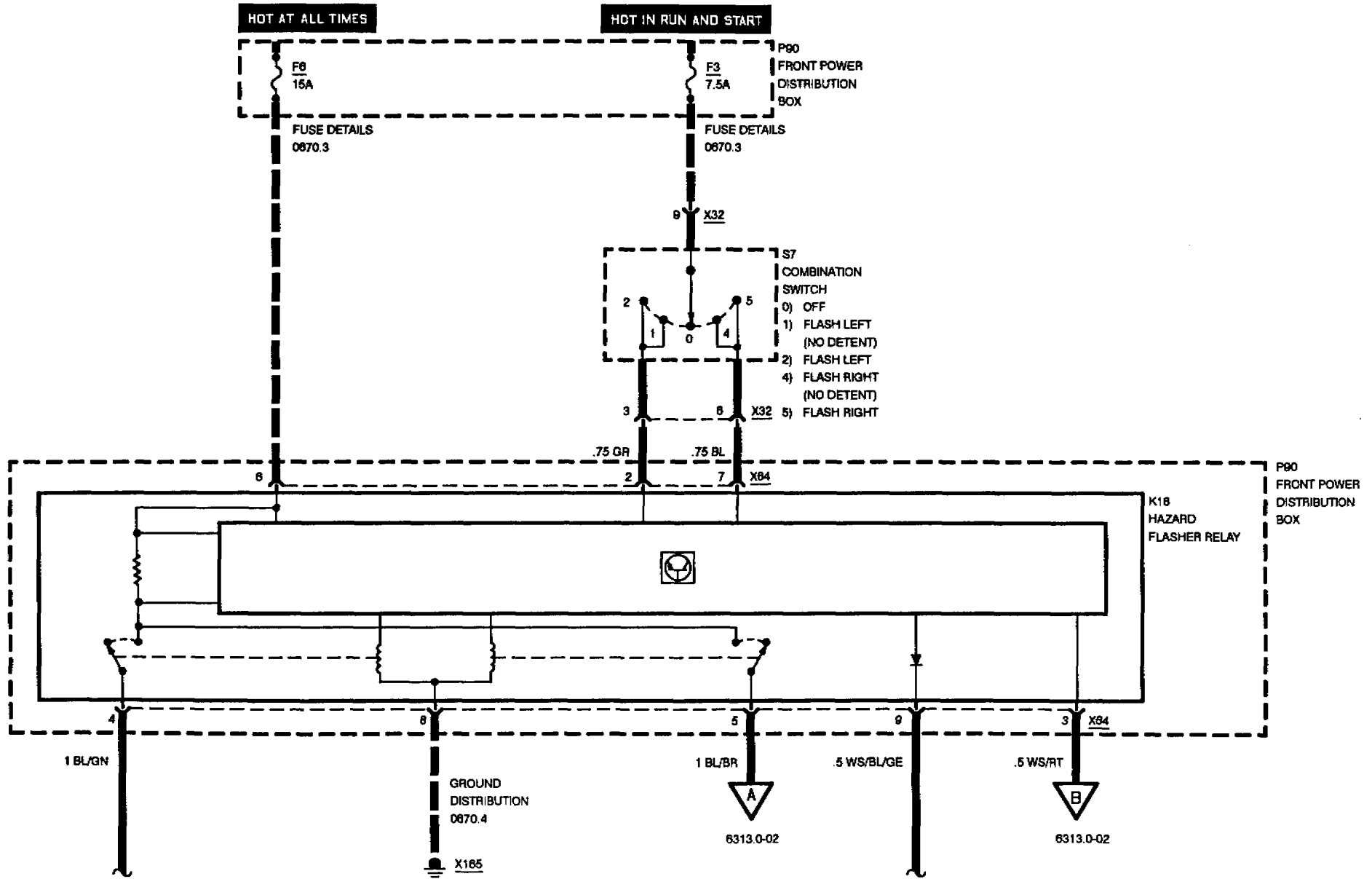


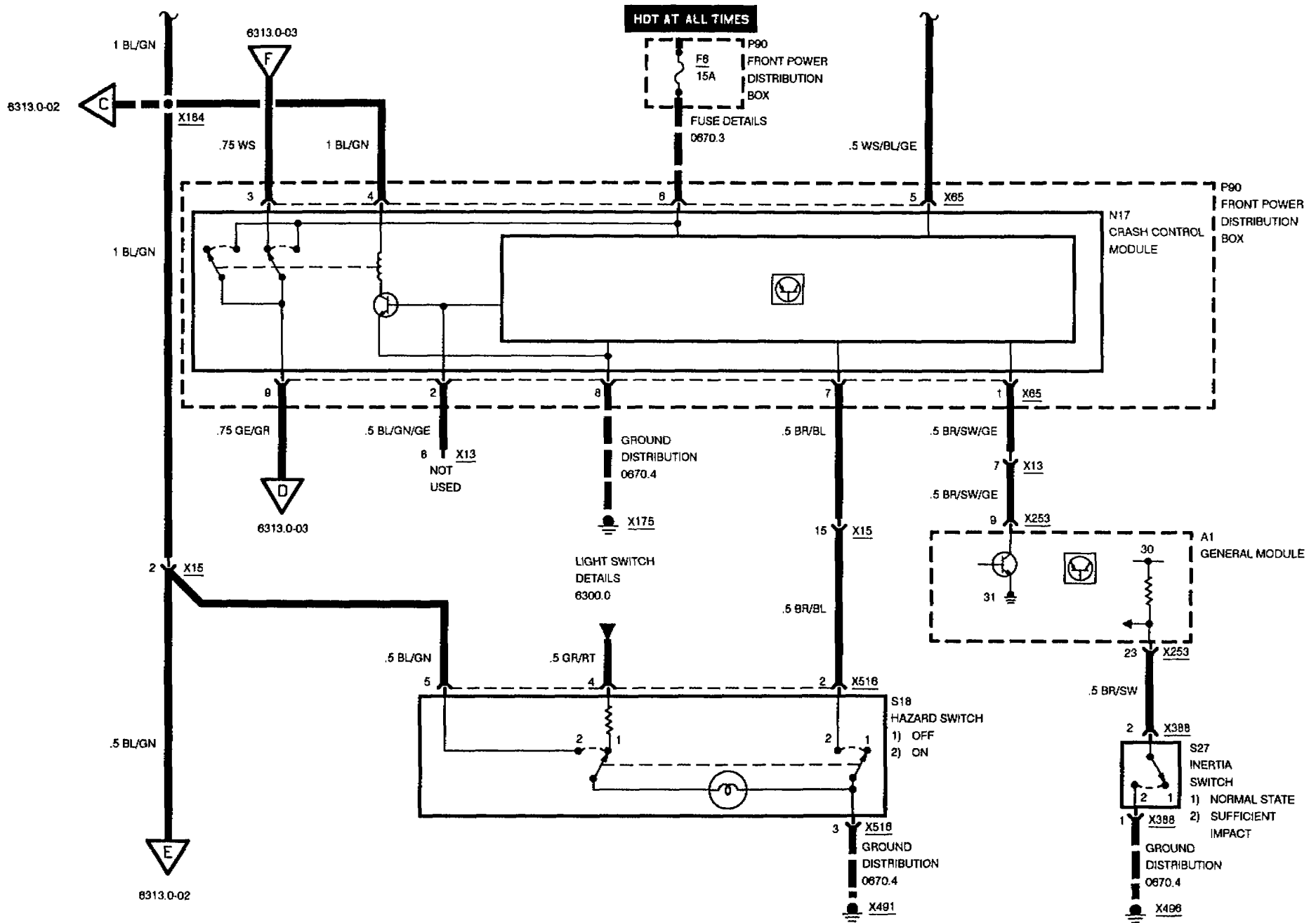
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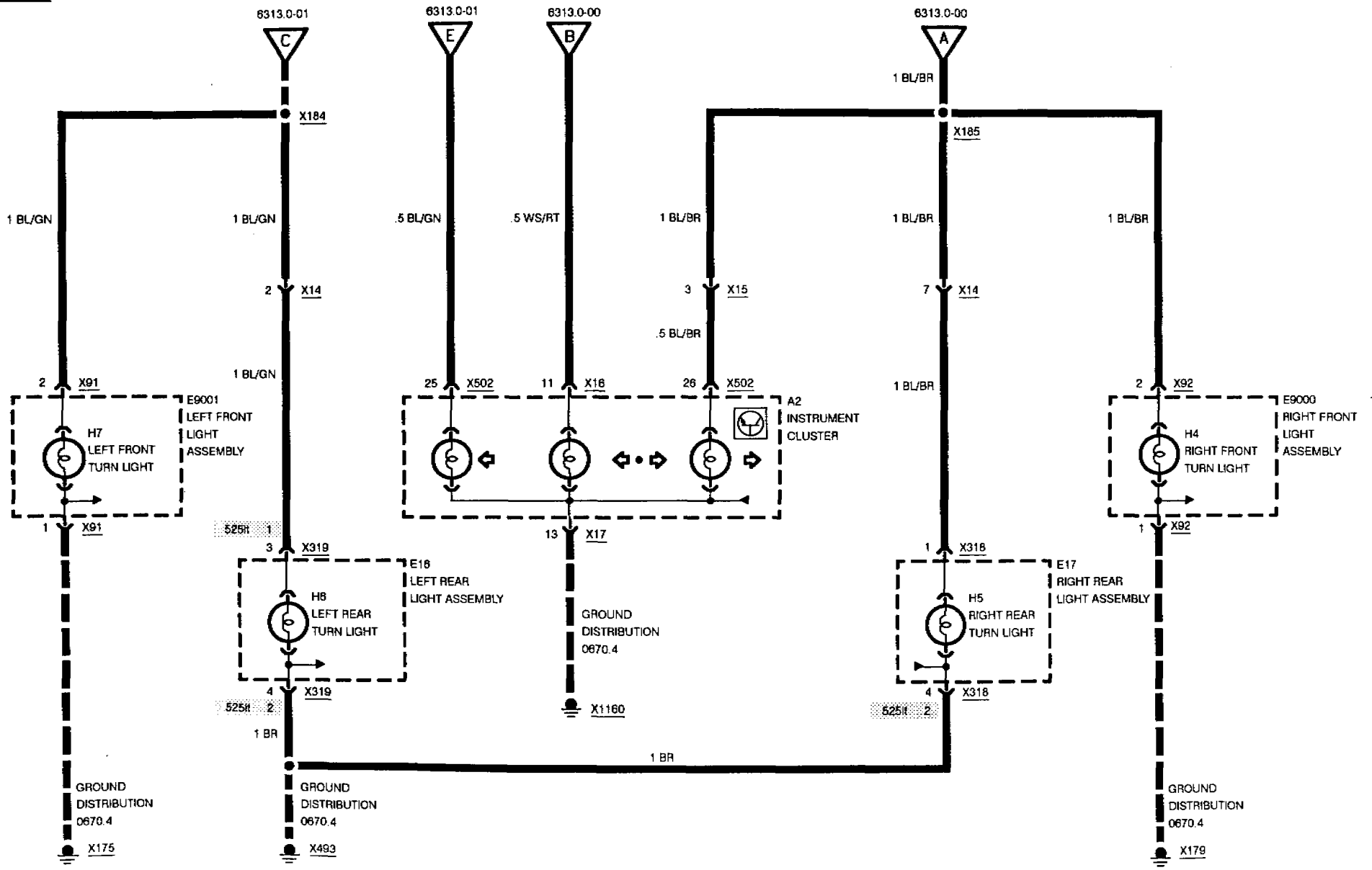


# TURN/HAZARD LIGHTS

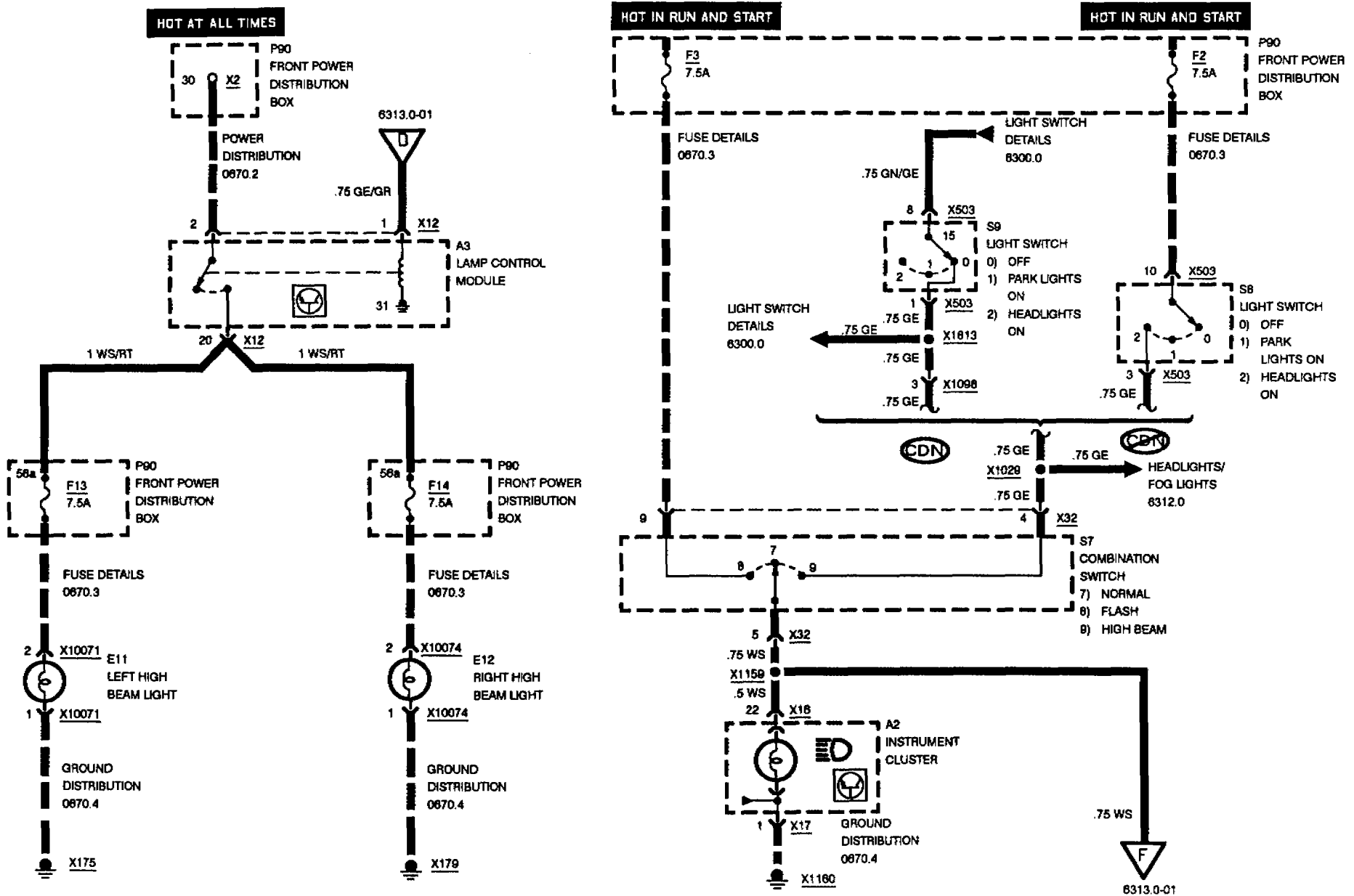




# TURN/HAZARD LIGHTS



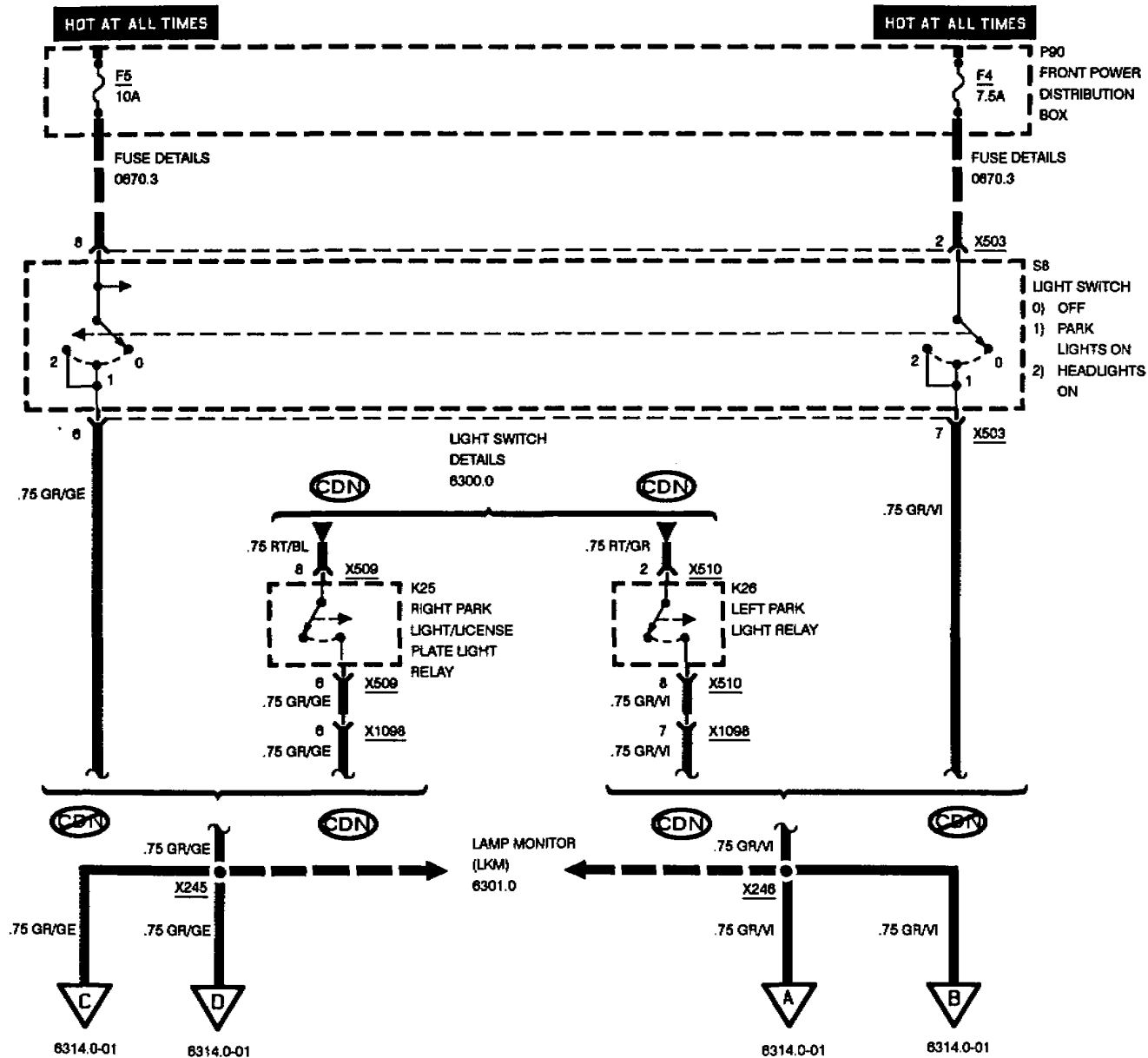
# TURN/HAZARD LIGHTS







# PARK/TAIL LIGHTS

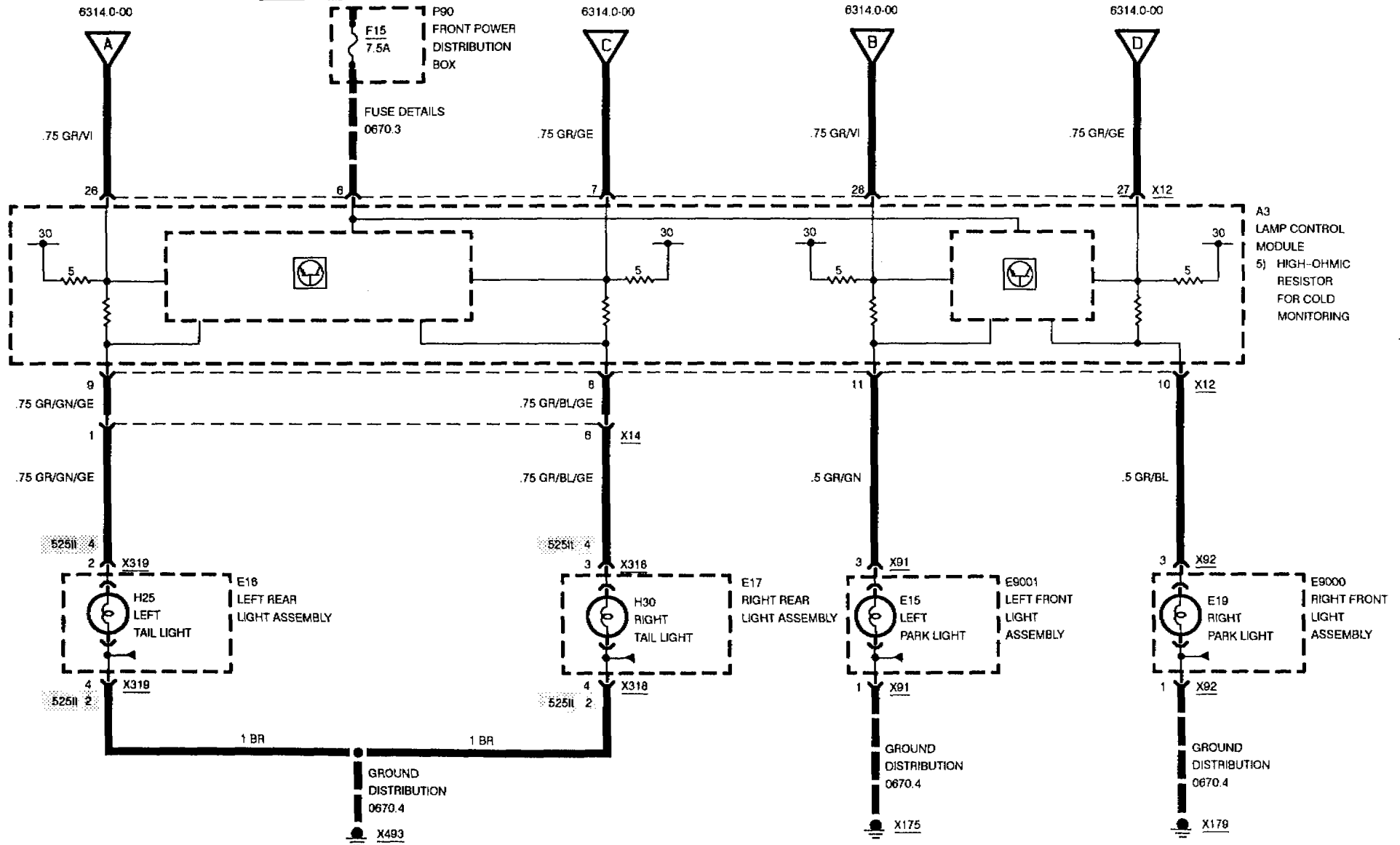




# PARK/TAIL LIGHTS

## FRONT AND REAR PARK LIGHTS

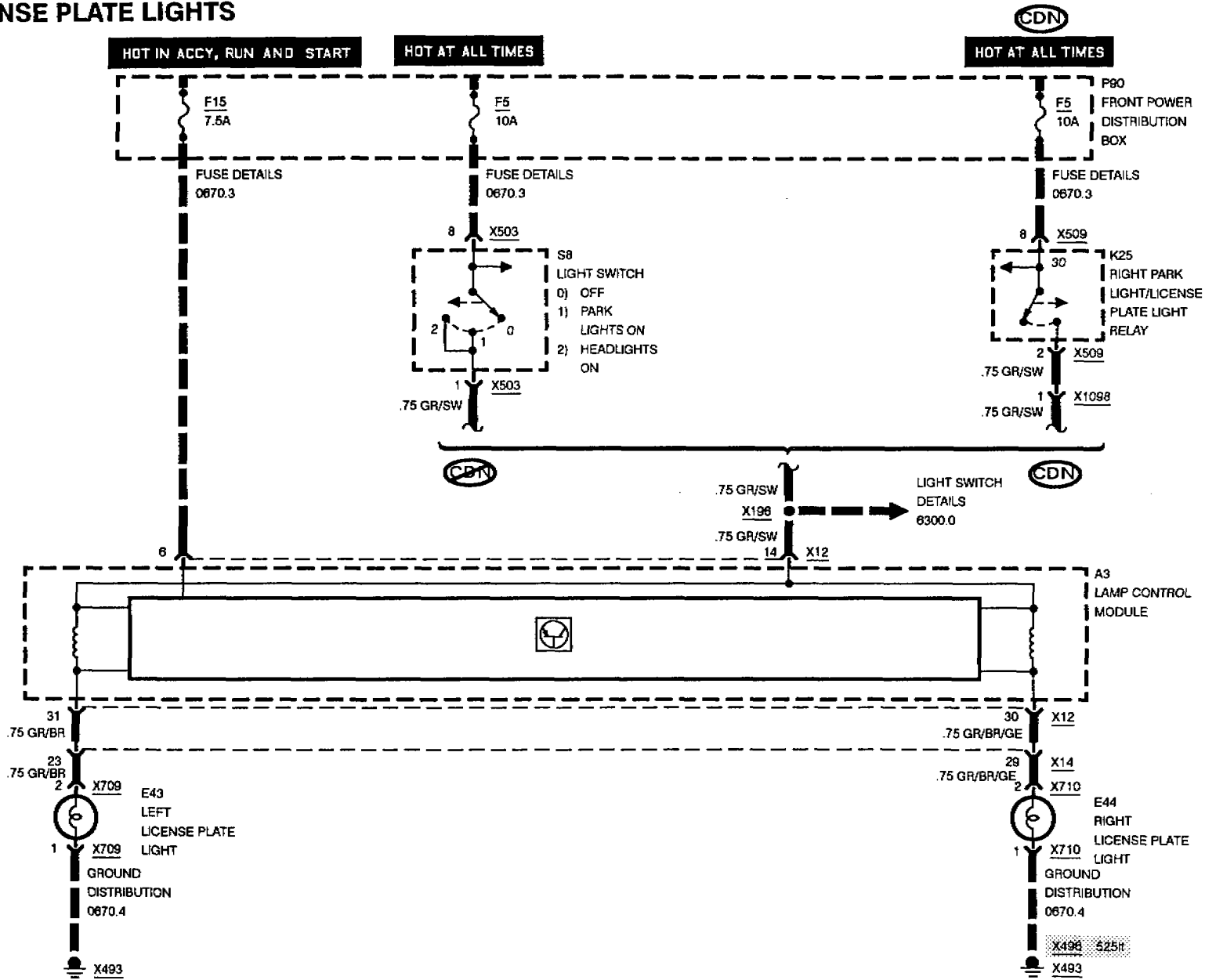
HOT IN ACCY, RUN AND START





# LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS

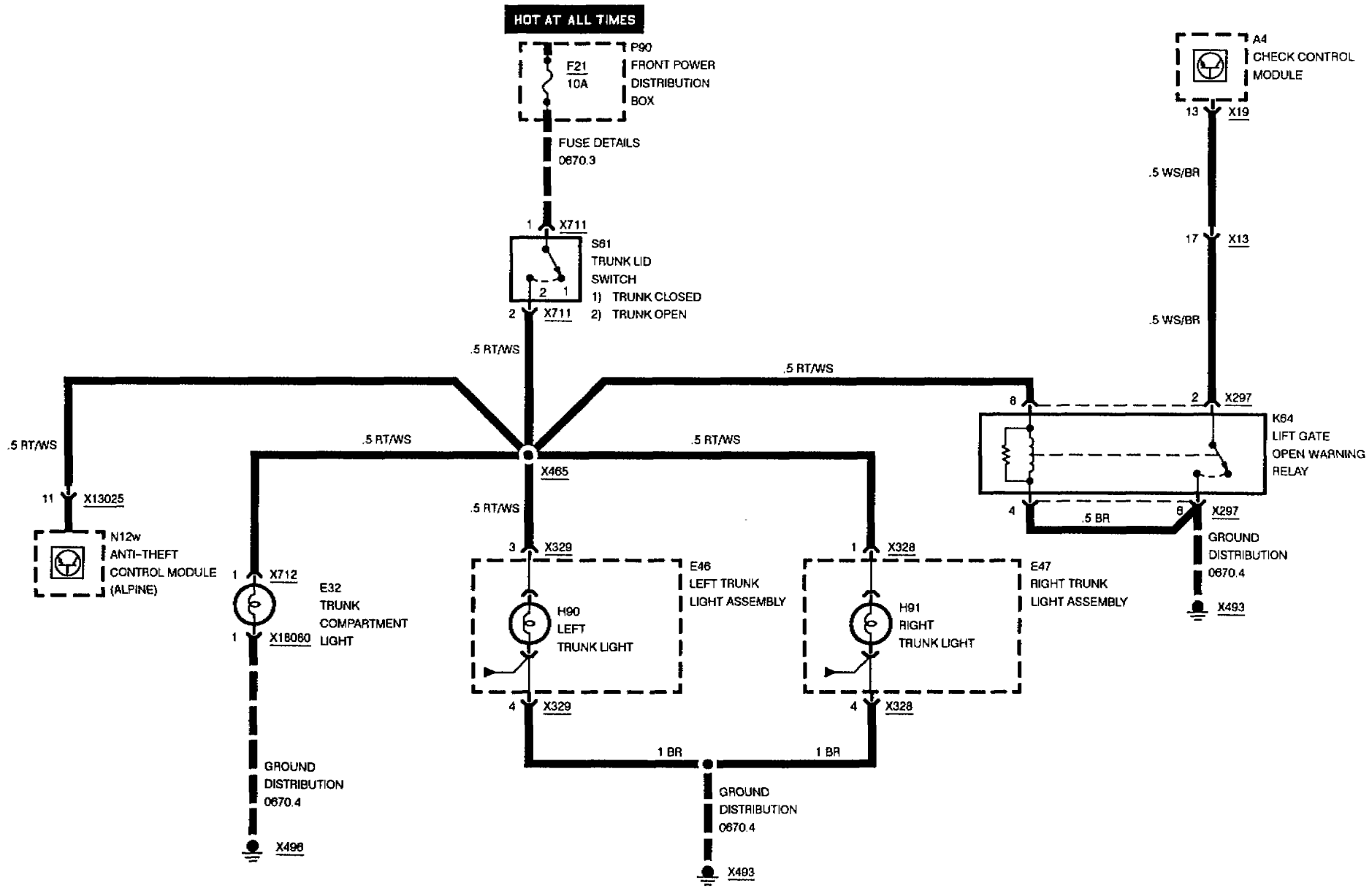
## LICENSE PLATE LIGHTS





# LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS

## TRUNK LIGHTS

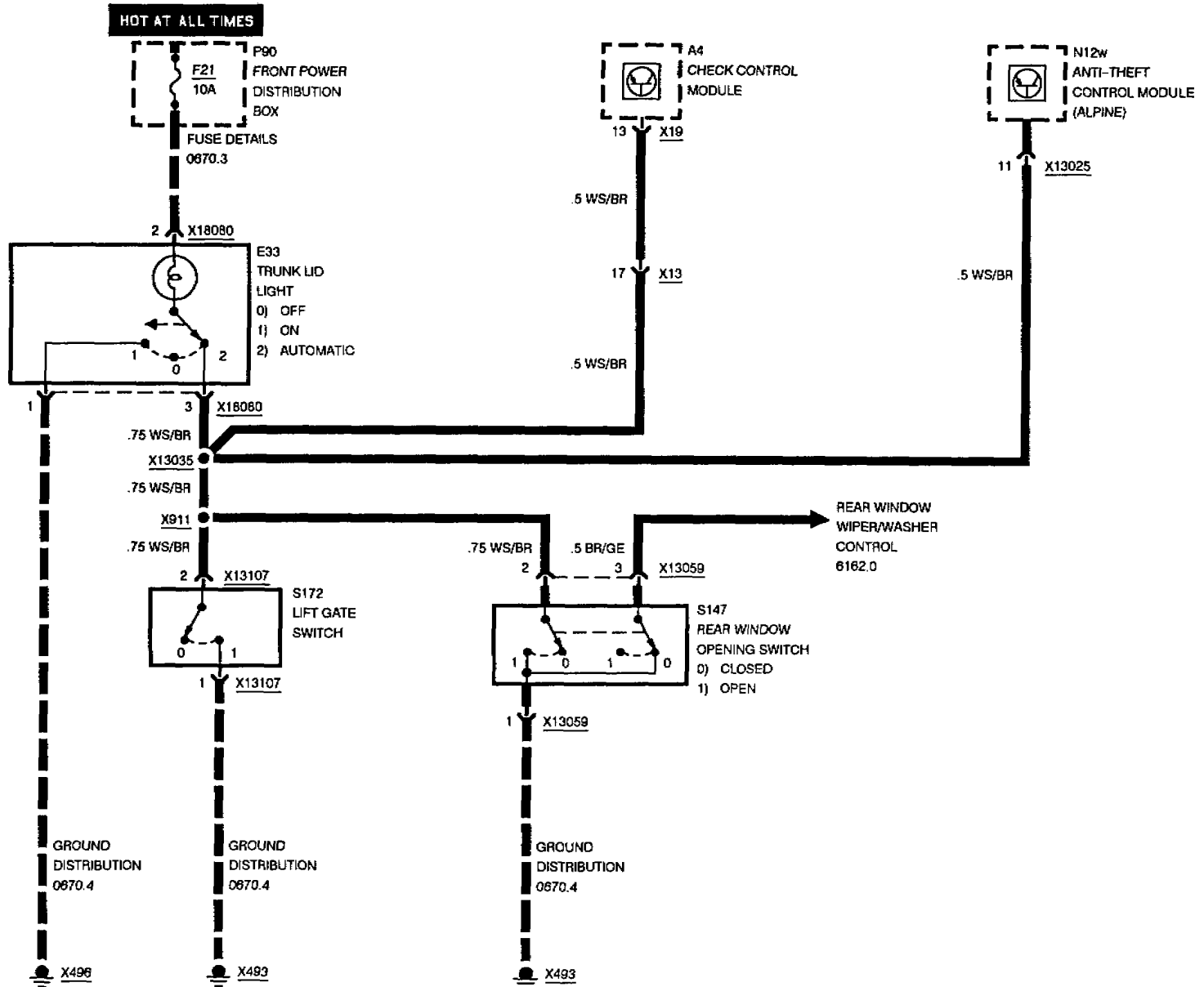




# LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS

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## TRUNK LIGHTS

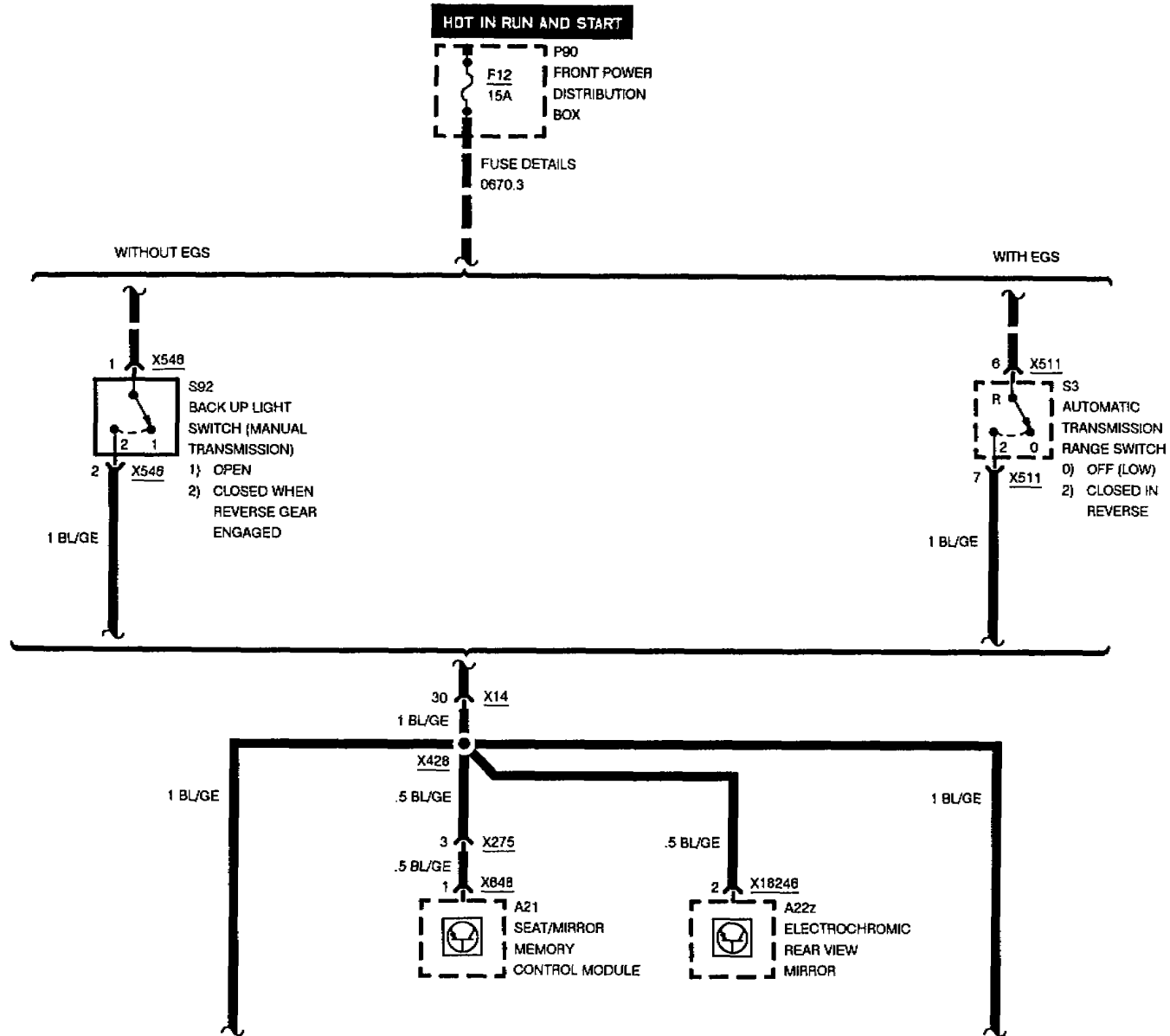


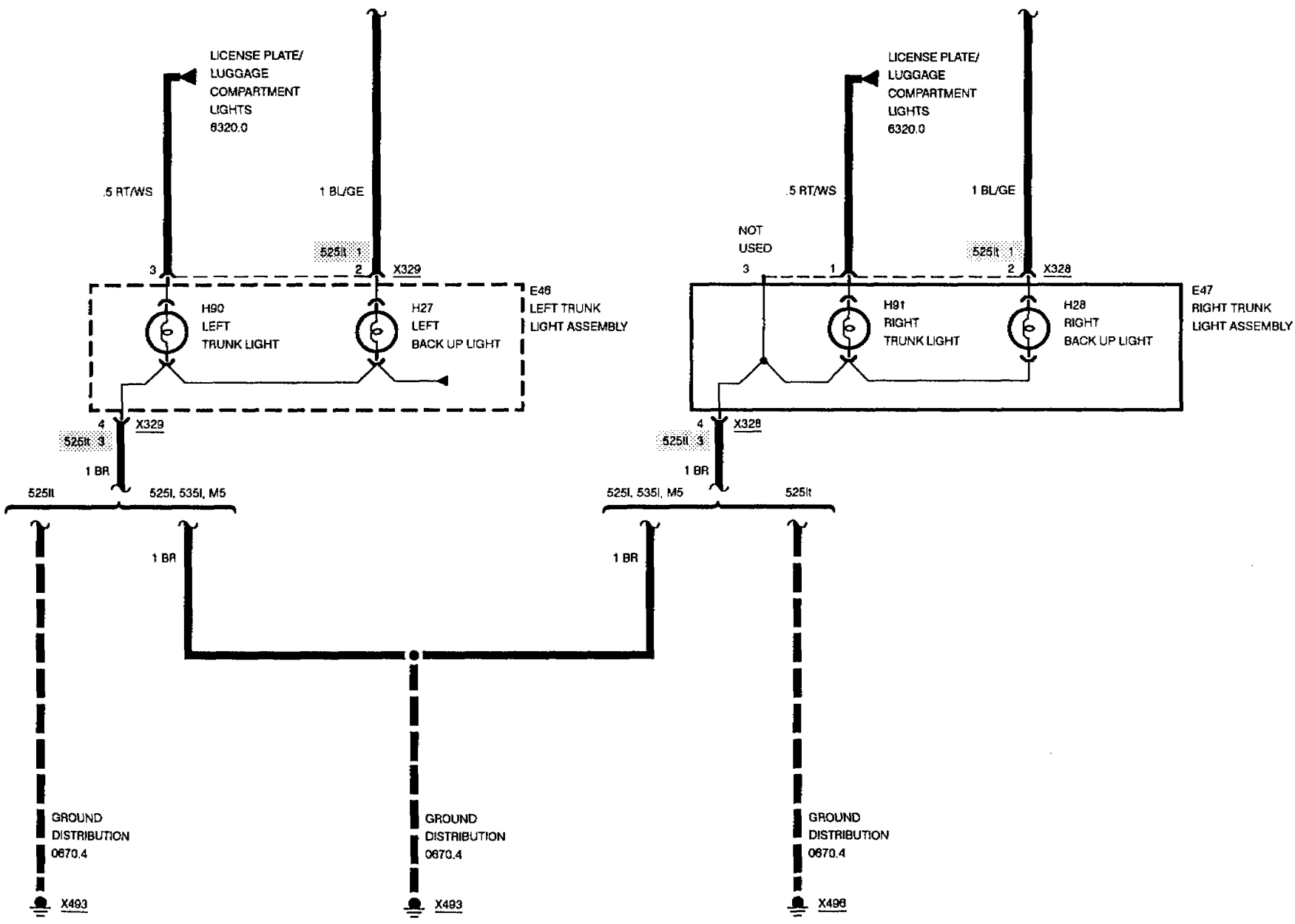
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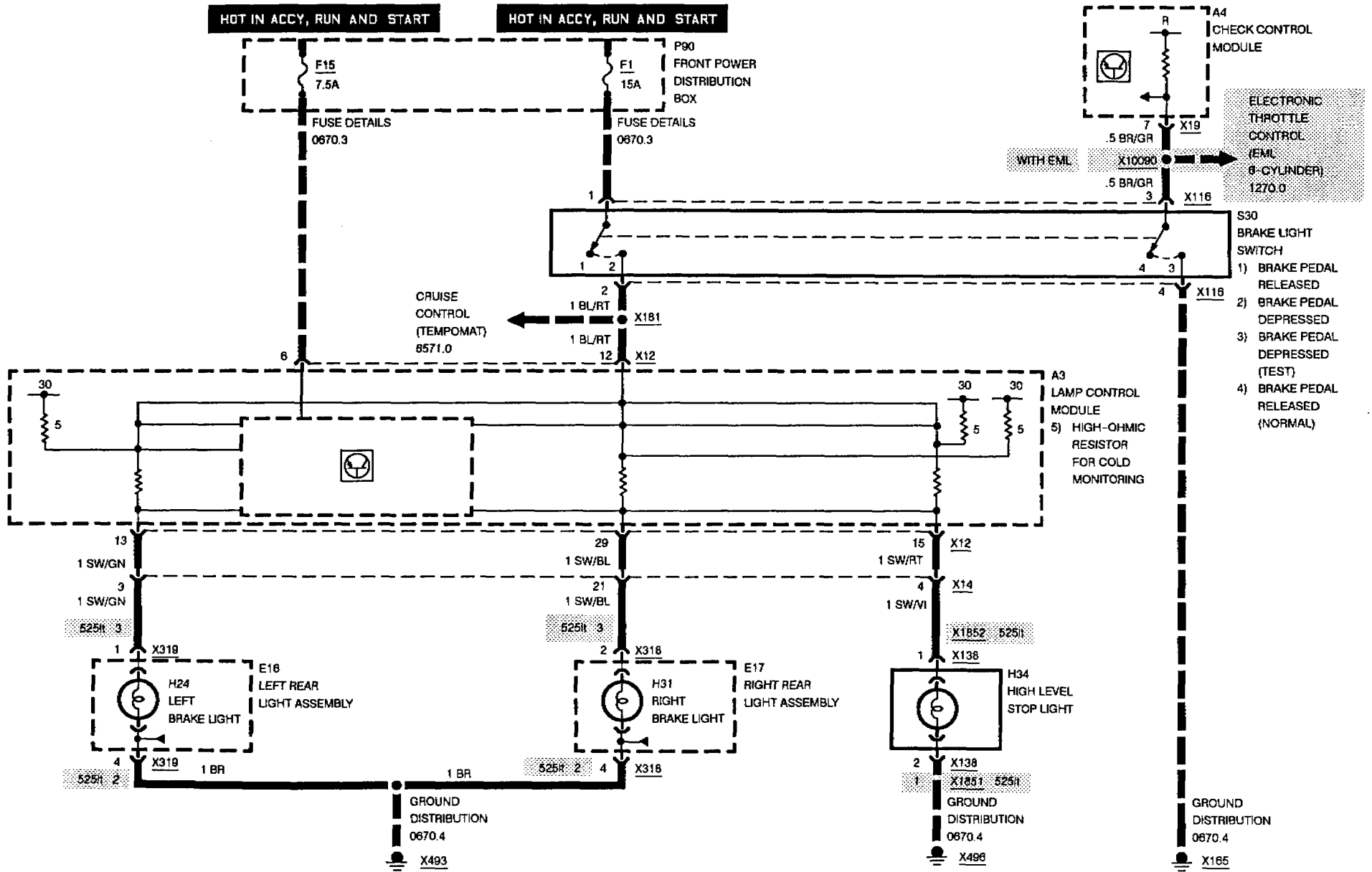
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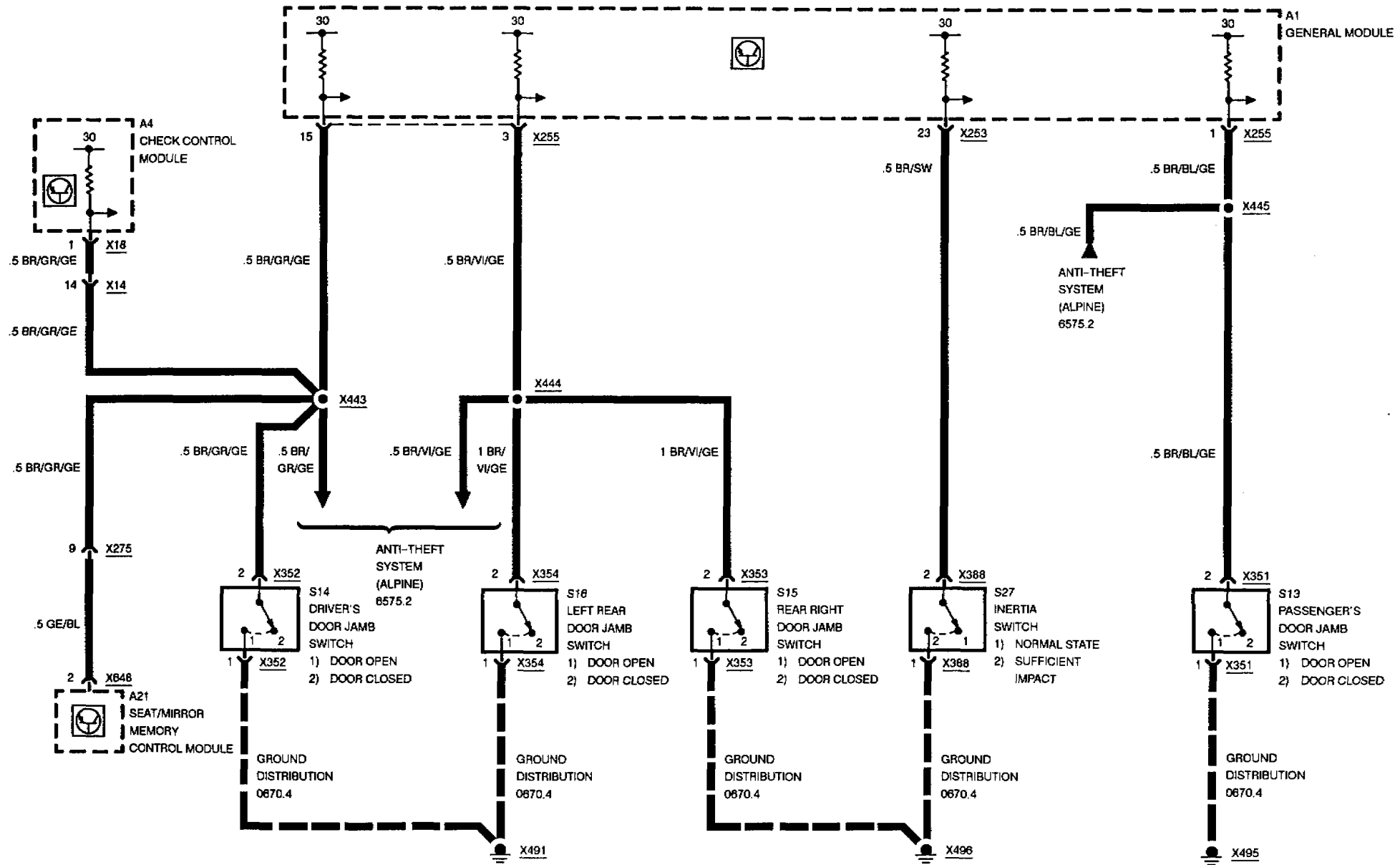
# BRAKE LIGHTS



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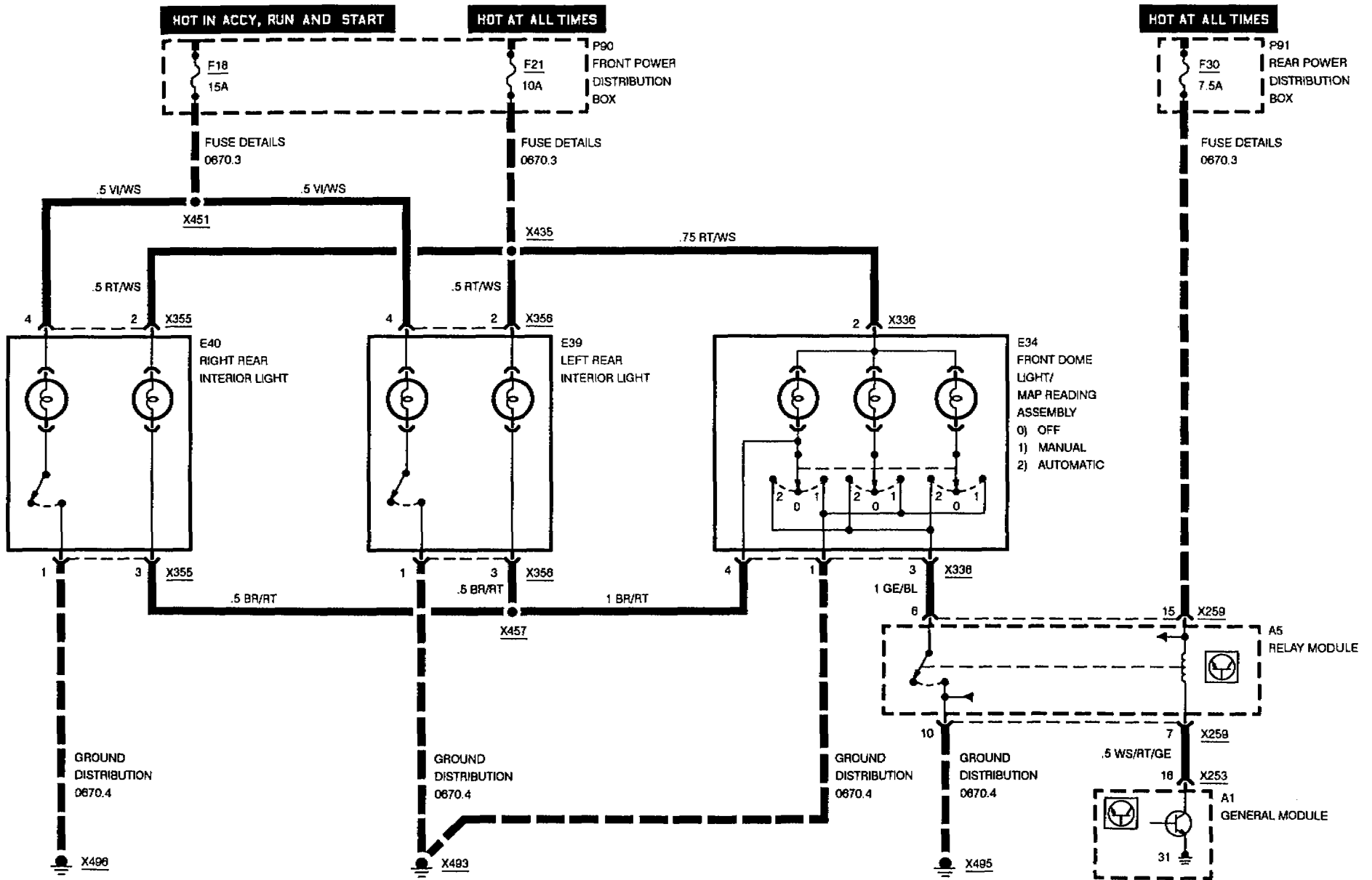
**BMW 5** ZKE INTERIOR LIGHTS CONTROL (IB)  
**INPUT DETAILS**



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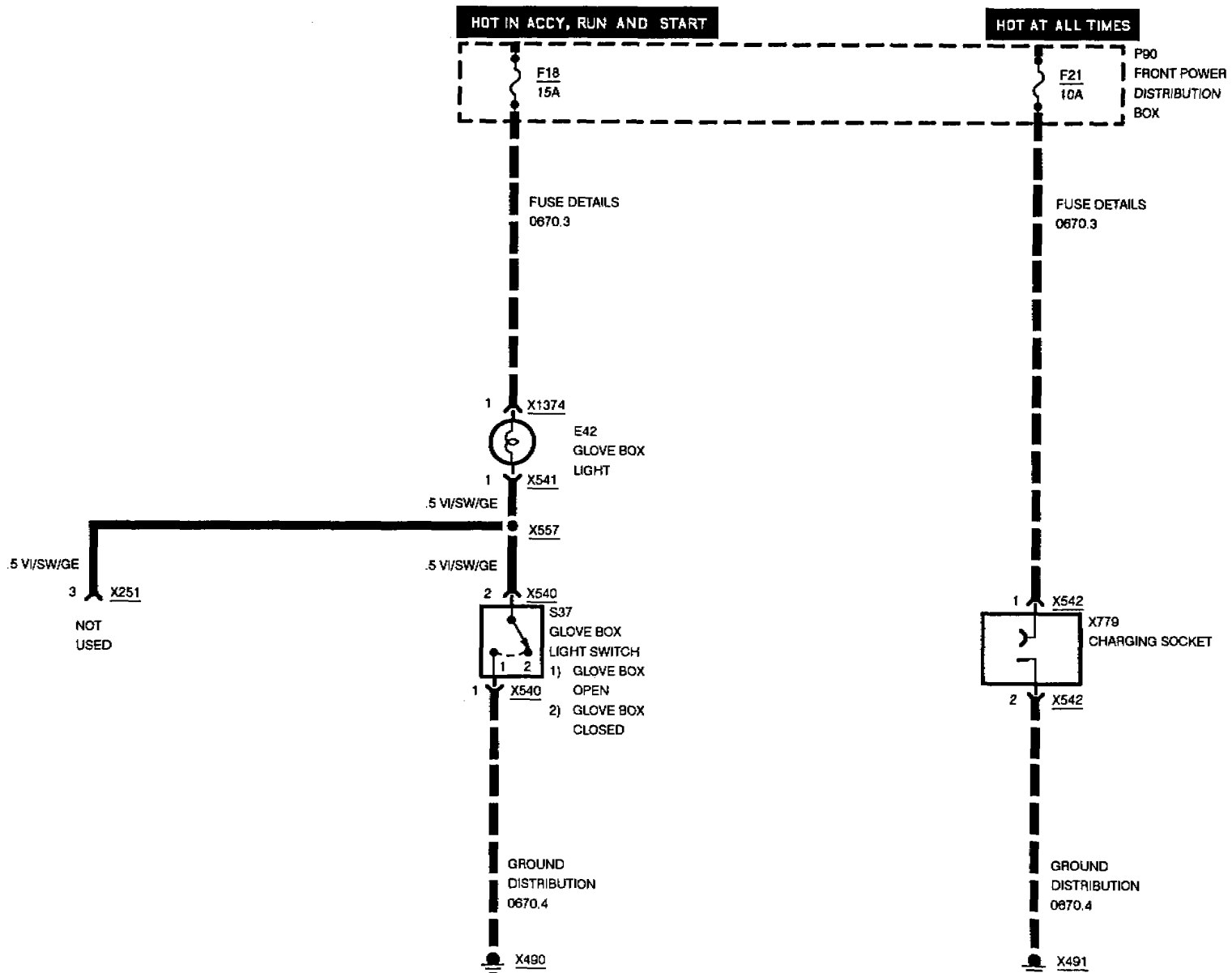


# ZKE INTERIOR LIGHTS CONTROL (IB) OUTPUT DETAILS

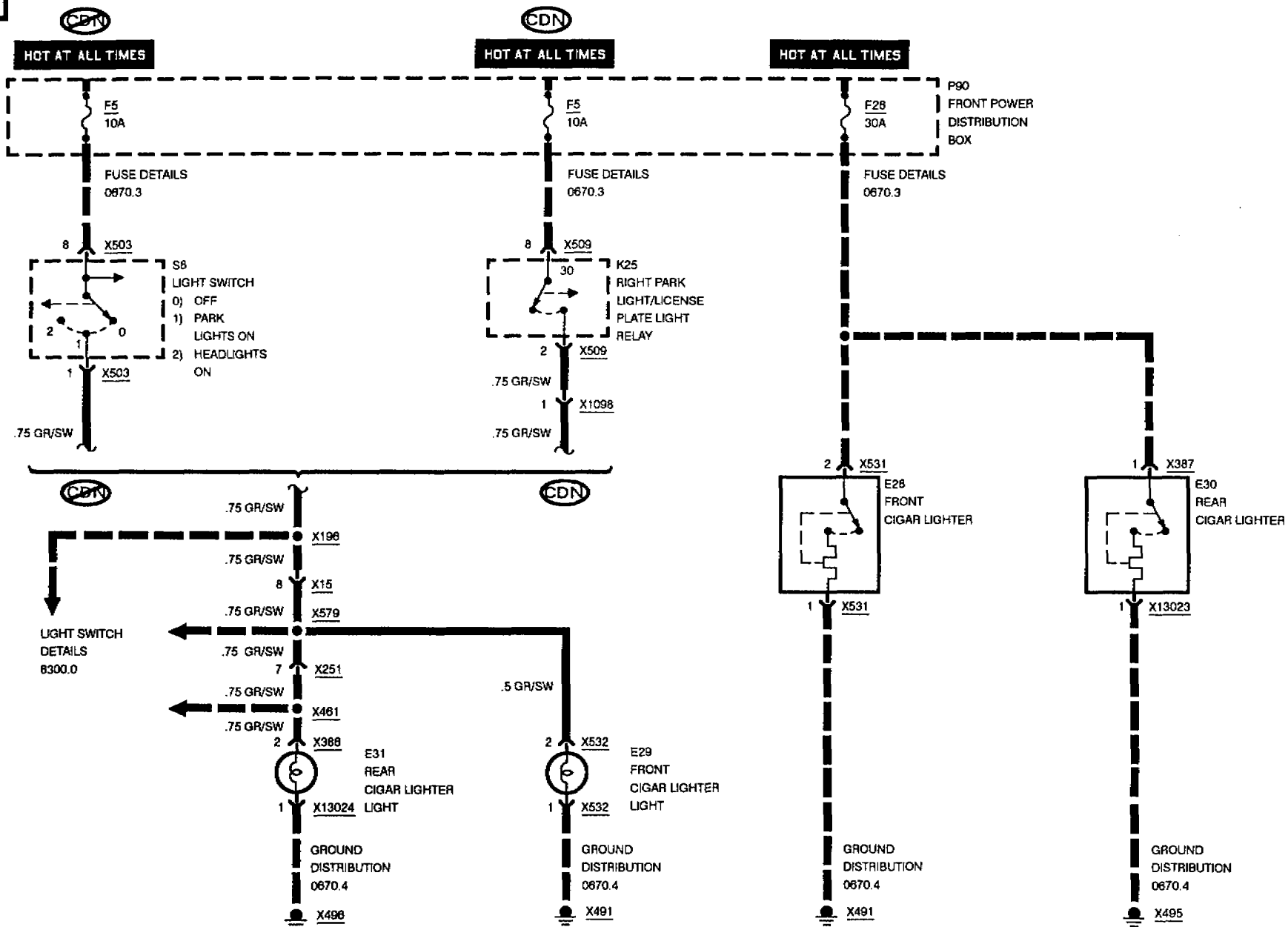




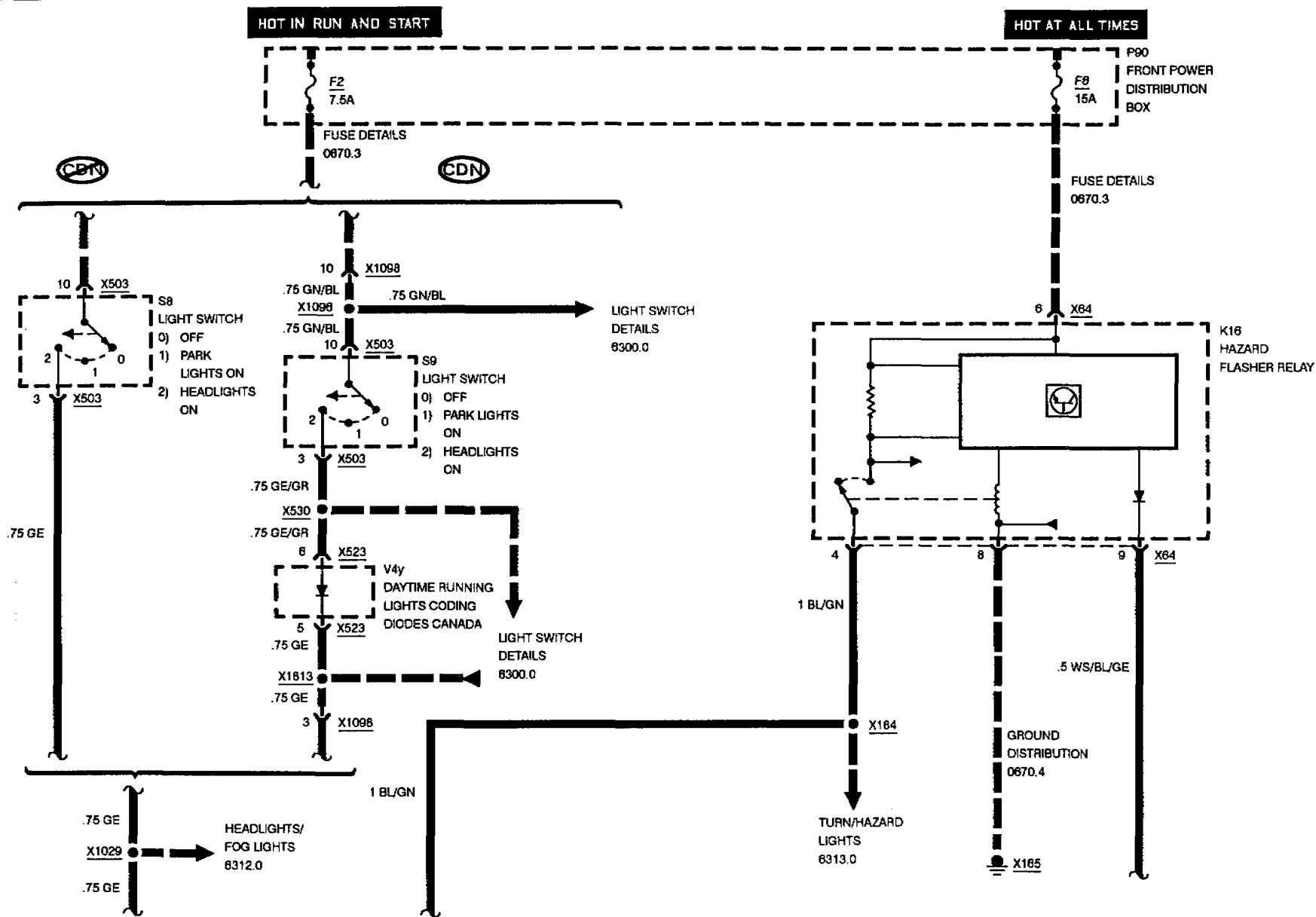
# INTERIOR ACCESSORIES

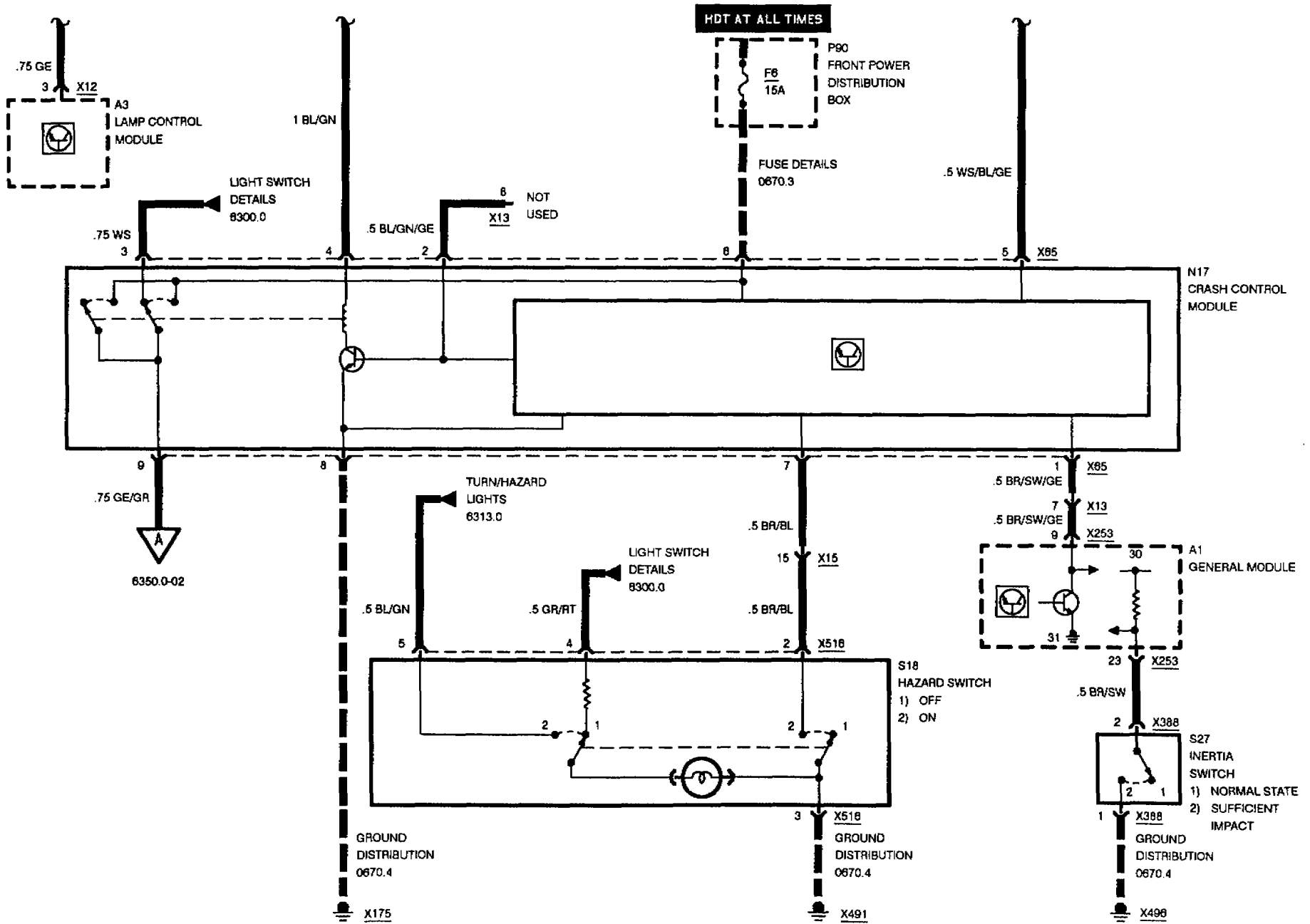


# INTERIOR ACCESSORIES



# CRASH CONTROL MODULE

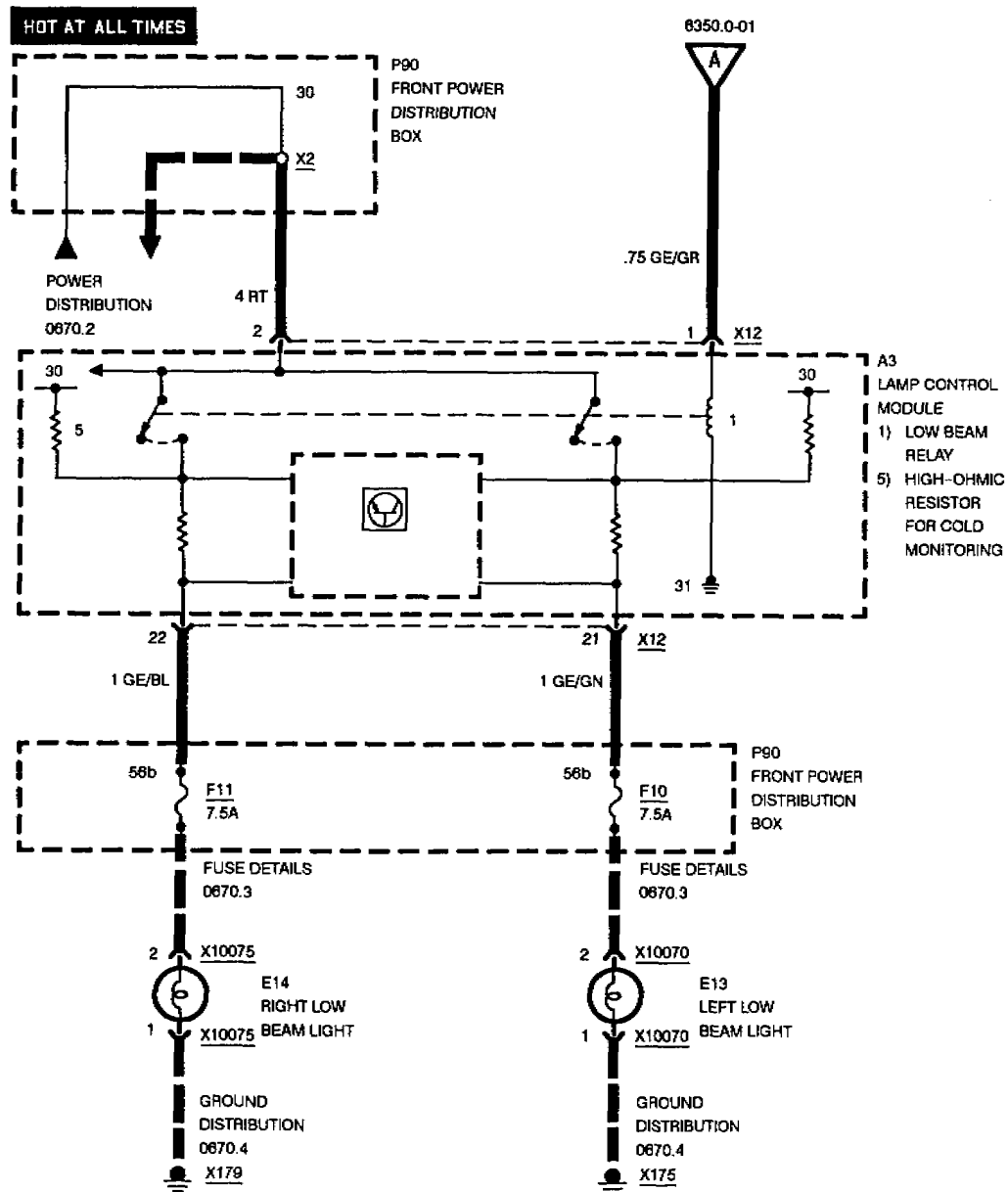






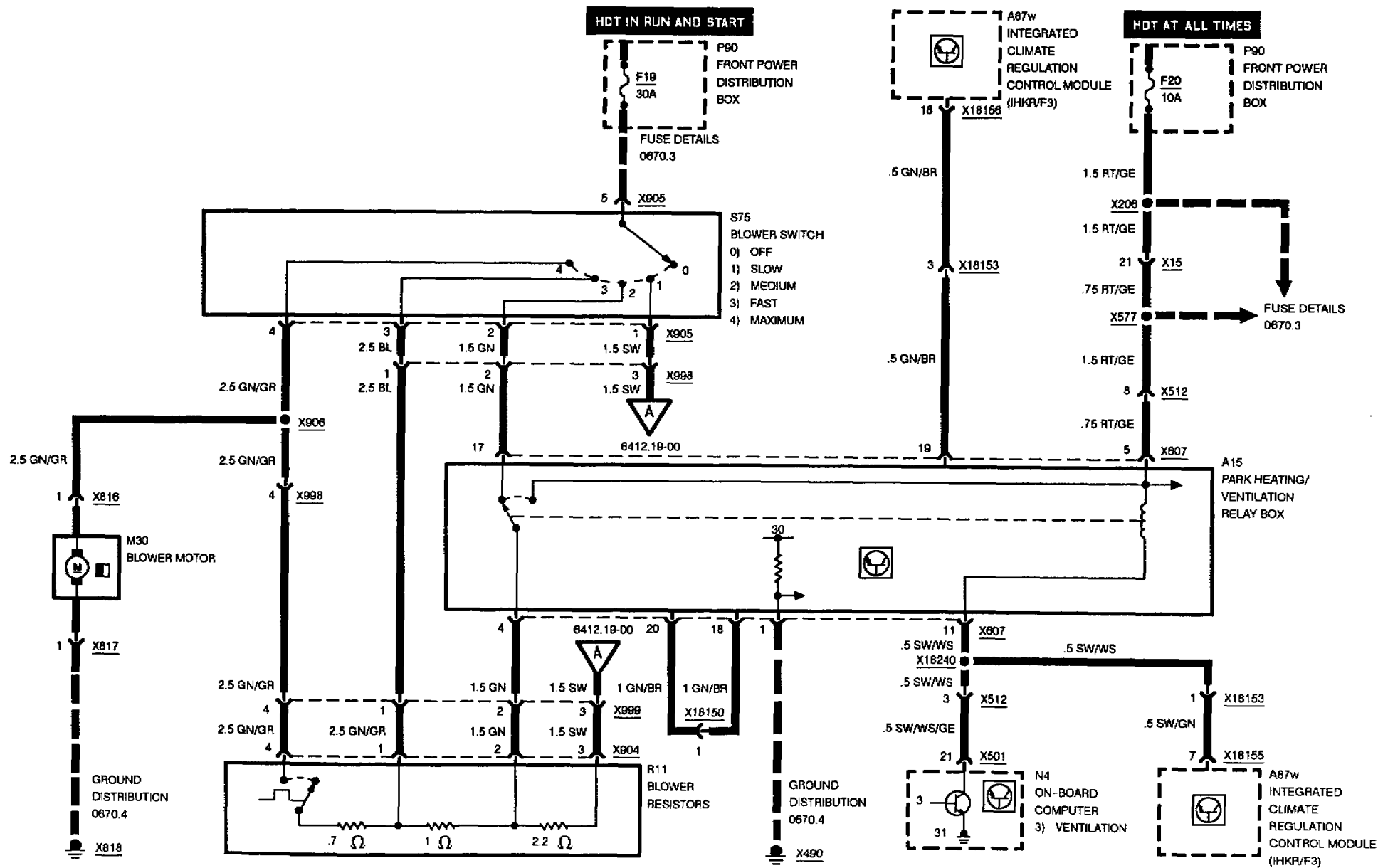


# CRASH CONTROL MODULE





**PARK VENTILATION WITH IHKR/F3**

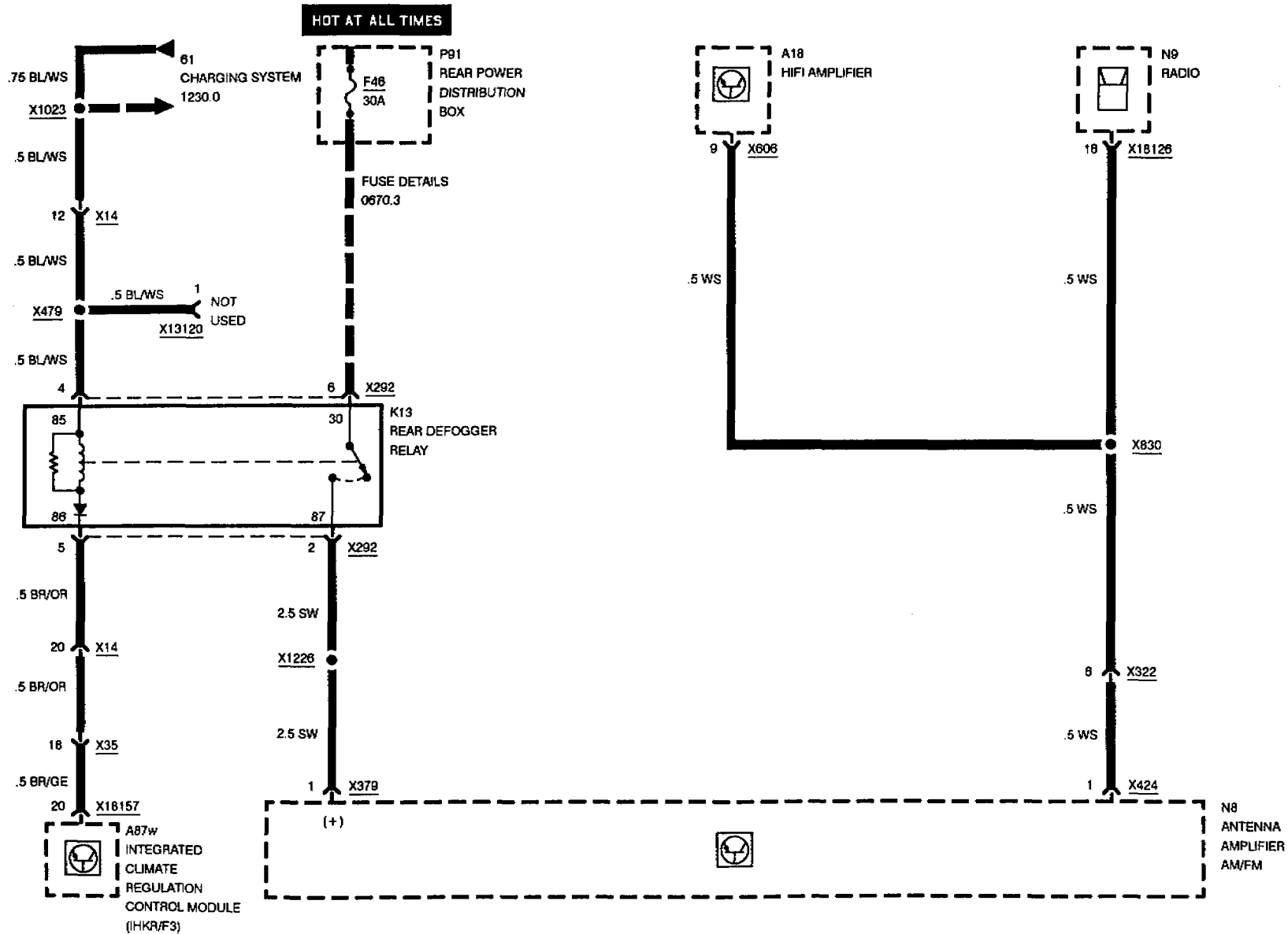


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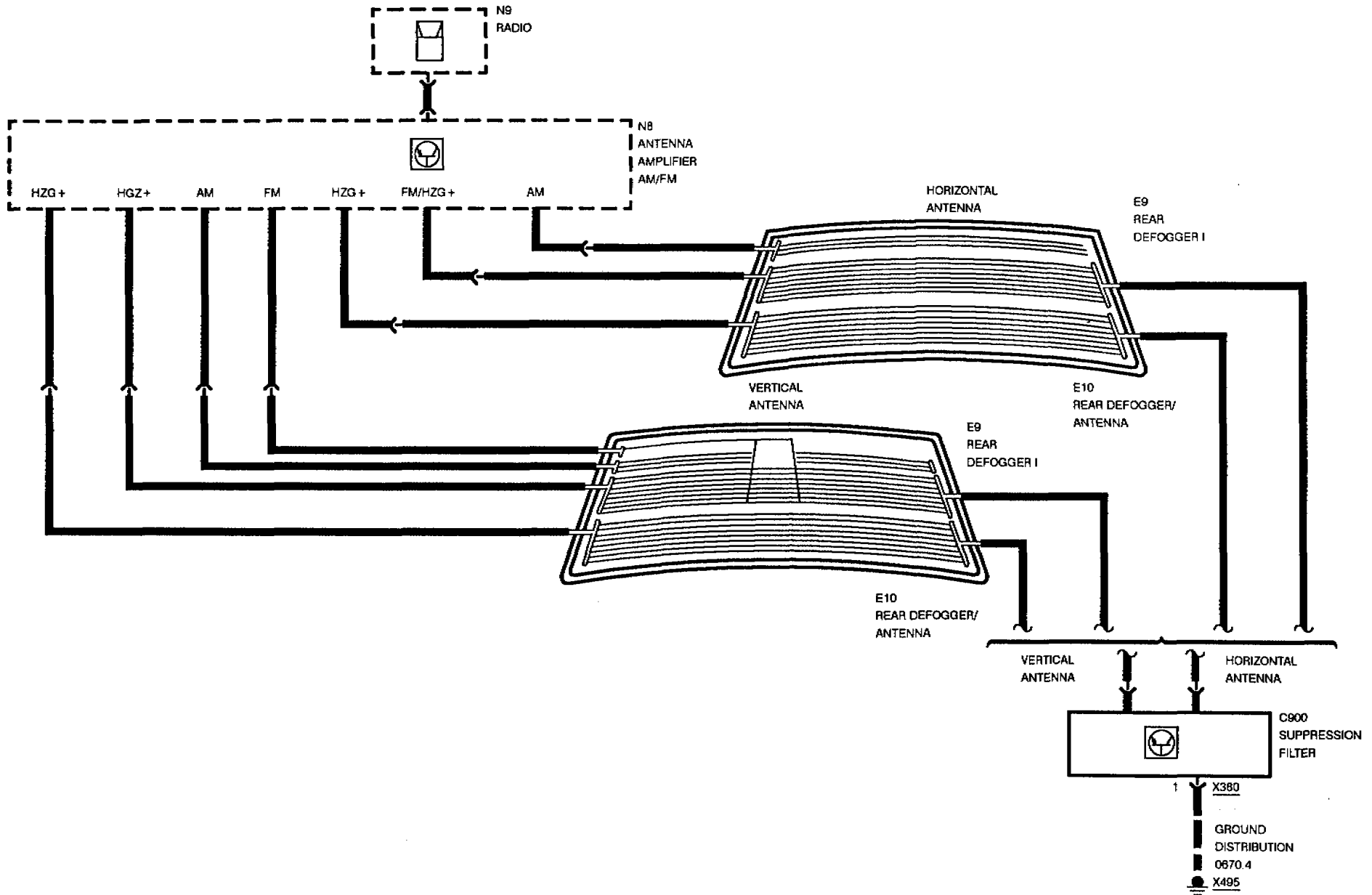
# REAR WINDOW DEFOGGER





# REAR WINDOW DEFOGGER

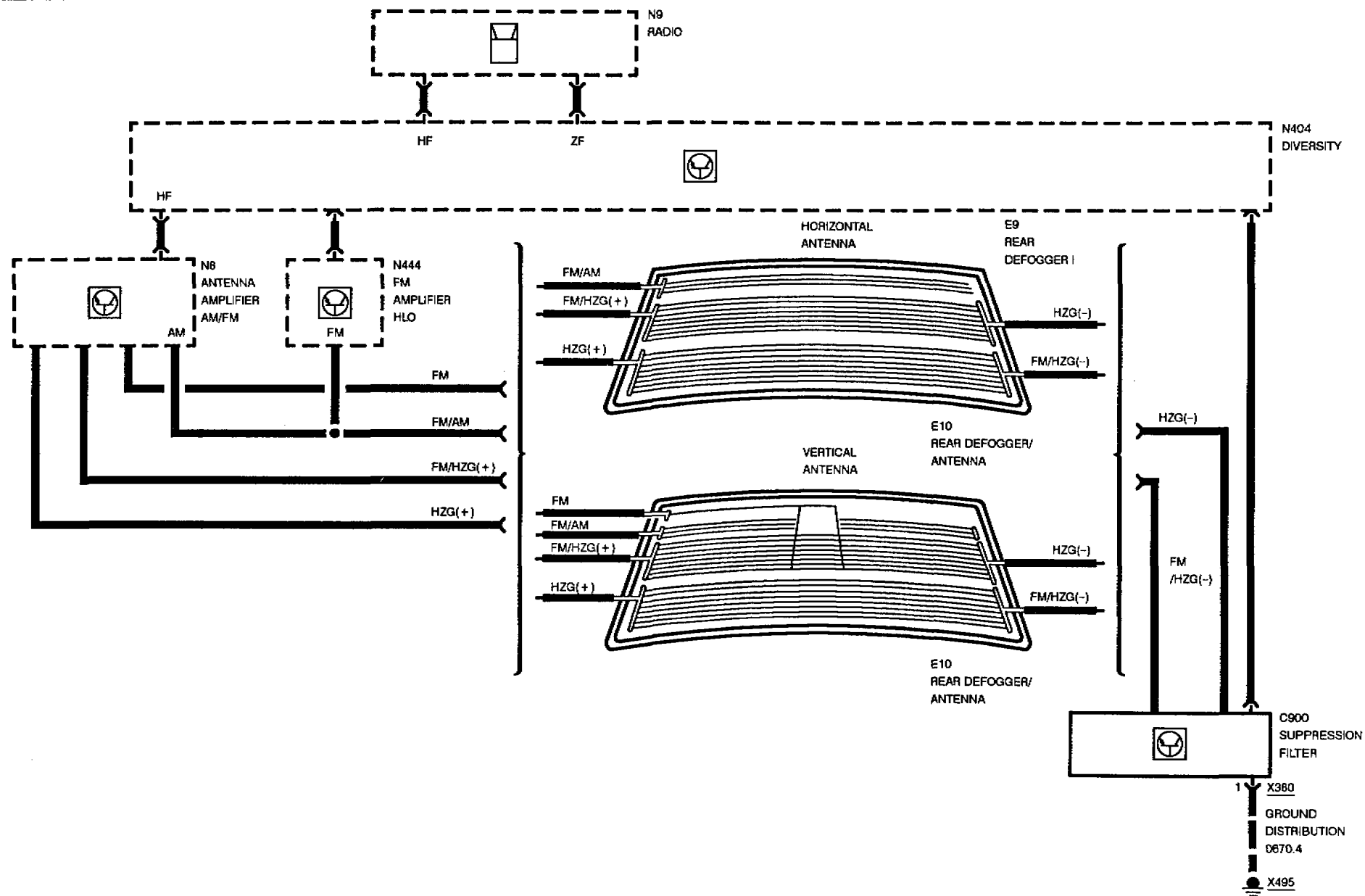
## REAR WINDOW ANTENNA

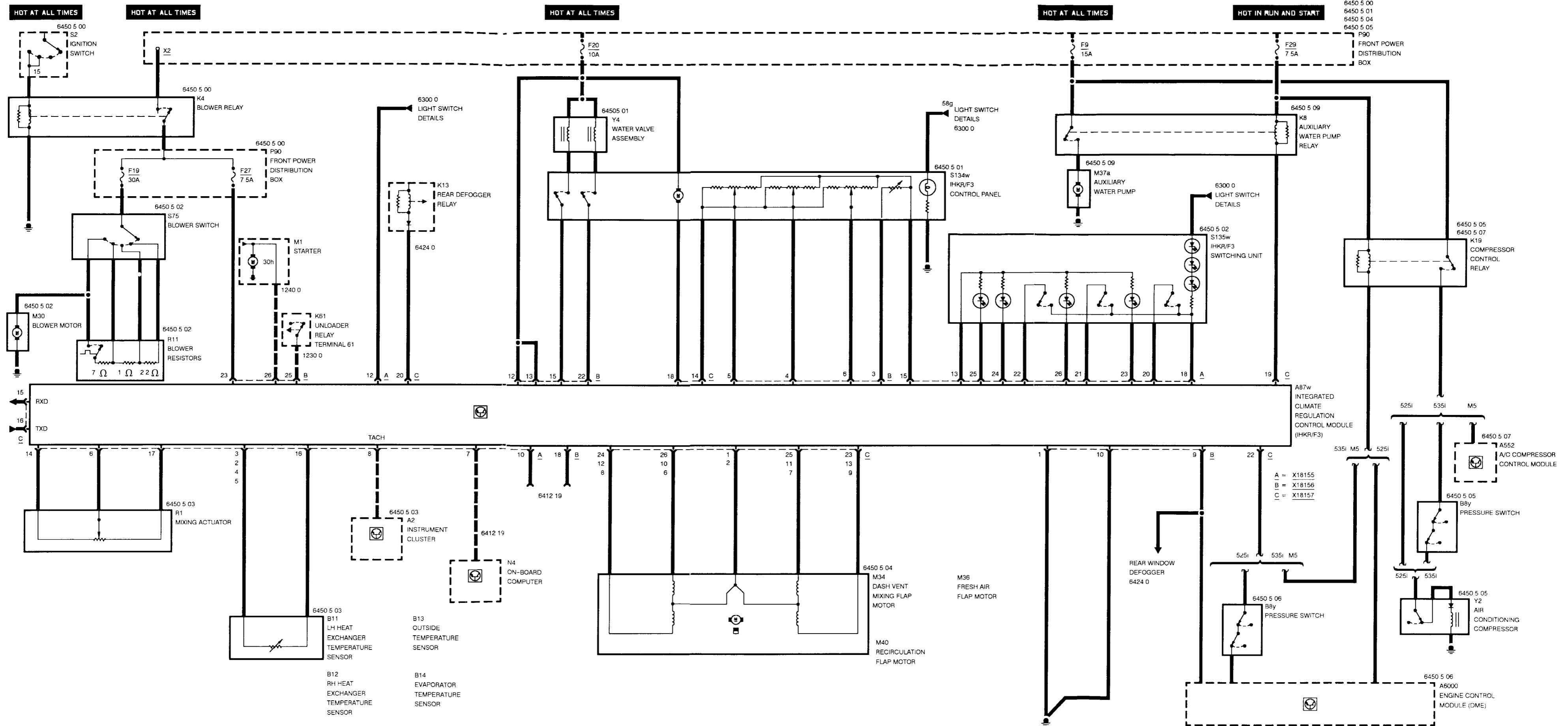




# REAR WINDOW DEFOGGER

## 3-ANTENNA-DIVERSITY

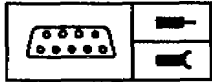








## INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)



### Pin Assignments

- A= 18155 26 Pins, white
- B= 18156 26 Pins, black
- C= 18157 26 Pins, blue

### X18155

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1		Not used				
2	E	Right heater temperature	Right heater sensor	approx. 0.7 V to 4.3 V	0° C to 90° C	approx. 5 V with temperature sensor disconnected
3	E	Left heater temperature	Left heater sensor	approx. 0.7 V to 4.3 V	0° C to 90° C	approx. 5 V with temperature sensor disconnected
4	E	Outside temperature	Outside temperature sensor	approx. 0.5 V to 4.5 V	-40° C to 40° C	approx. 5 V with temperature sensor disconnected
5	E	Evaporator temperature	Evaporator sensor	approx. 1.6 V to 3.4 V	-5° C to 26° C	approx. 5 V with temperature sensor disconnected
6	E	Nominal mixing value	Temp. dist. pot.	approx. 1.6 V to 2.7 V	approx. 0% to 100%	
7	E	Independent ventilation	Relay box	approx. 0 V approx. 11 V	ON OFF	



## INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
8	E	Road speed signal	Instrument cluster	Frequency (square-wave)	km/h	
9		Not used				
10	E	Independent heating	Relay box	approx. 0 V approx. 11 V	ON OFF	
11		Not used				
12	E	Terminal 58K	Light switches	approx. 12 V		Light ON
13	A	Voltage supply for function light	Switching unit	approx. 10 V approx. 4 V approx. 6 V		Light OFF Light ON, function light On Light ON, function light OFF
14	A	Plus for mixing air control	Temp. dist. pot.	approx. 4.7 V		
15	A	Ground for control wheels and interior sensors	Control switch	approx. 0 V		
16	A	Ground for temperature sensors	Temperature sensors	approx. 0 V		
17	A	Ground for mixing air control	Temp. dist. pot.	approx. 0 V		
18	E	Ground for illumination and switches	Switching unit			
19		Not used				
20	E	Push button for air conditioning	Switching unit	approx. 0 V approx. 10 V	ON OFF	
21	E	Push button for air recirculation	Switching unit	approx. 0 V approx. 10 V	ON OFF	
22	E	Push button for rear window defogger	Switching unit	approx. 0 V approx. 10 V	ON OFF	
23	A	Function light, air conditioning	Switching unit	approx. 7.5 V approx. 8.5 V		LED ON (light OFF) LED OFF (light OFF)



## INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
24	A	Function light, rear window defogger	Switching unit	approx. 7.5 V approx. 8.5 V		LED ON (light OFF) LED OFF (light OFF)
25	A	Function light, air recirculation	Switching unit	approx. 7.5 V approx. 8.5 V		LED ON (light OFF) LED OFF (light OFF)
26	A	Function light, air recirculation control	Switching unit	approx. 7.5 V approx. 8.5 V		LED ON (light OFF) LED OFF (light OFF)

### X18156

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	E	Ground for electronics	Ground	0 V		
2		Not used				
3	E	Interior temperature sensor	Control switch	approx. 1.7 V to 3.4 V	10° C to 40° C	approx. 5 V with temperature sensor disconnected
4	E	Nominal air flow value	Control switch	approx. 0.6 V-4 V	OFF (approx. 100%)	
5	E	Nominal temperature value, left	Control switch	approx. 0.5 V to 4.2 V	16° C to 32° C	
6	E	Nominal temperature value, right	Control switch	approx. 0.5 V to 4.2 V	16° C to 32° C	
7		Not used				
8		Not used				
9	A	Auxiliary fan signal	DME control unit	approx. 0 V approx. 12 V	ON OFF	
10	E	Ground for electronics	Ground	0 V		
11		Not used				
12	E	Plus voltage supply for control unit	Connector terminal 30	approx. 12 V		



## INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
13	E	Plus voltage supply for control unit	Connector terminal 30	approx. 12 V		
14		Not used				
15	A	Right water valve activation	Control switch	Frequency (square-wave voltage)	0% to 100%	At 0% approx. 0 V at 100% approx. 12 V
16		Not used				
17		Not used				
18	E	Terminal 15 (independent ventilation only)		approx. 12 V		
19		Not used				
20		Not used				
21		Not used				
22	A	Left water valve activation	Control switch	Frequency (square-wave voltage)	0% to 100%	At 0% approx. 0 V at 100% approx. 12 V
23	E	Plus voltage supply for control unit	Connector terminal 15	approx. 12 V		
24		Not used				
25	E	Terminal 61	Unloader relay terminal 61	approx. 0 V approx. 12 V	OFF ON	when engine stationary when engine running
26	E	Terminal 30h	Starter	approx. 12 V		when starting

### X18157

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	Plus for flap motors	All flap motors	approx. 11 V		
2	A	Plus for flap motors	All flap motors	approx. 11 V		



## INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
3		Not used				
4		Not used				
5		Not used				
6	A	Footwell, flap motor activation	Footwell flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
7	A	Footwell, flap motor activation	Footwell flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
8	A	Footwell, flap motor activation	Footwell flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
9	A	Footwell, flap motor activation	Footwell flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
10	A	Fresh air flap motor activation	Fresh air flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
11	A	Fresh air flap motor activation	Fresh air flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
12	A	Fresh air flap motor activation	Fresh air flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
13	A	Fresh air flap motor activation	Fresh air flap motor	Frequency (square-wave voltage)	0% to 100%	approx. 11 V when motor OFF
14	A	Plus for control wheels in control switch	Control switch	approx. 5 V		

## INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
15	A	Diagnosis RxD	Diagnostic connector	Frequency		
16	E	Diagnosis TxD	Diagnostic connector	Frequency		
17		Not used				
18	A	Switching unit sensor fan activation	Control switch	approx. 0 V approx. 12 V		At ignition ON approx. 3 minutes after ignition OFF
19	A	Auxiliary water pump activation	Relay, auxiliary water pump	Ground		
20	A	Rear window defogger activation	Rear window defogger relay	approx. 0 V approx. 12 V	ON OFF	
21		Not used				
22	A	Activation, A/C compressor	DME control unit	approx. 0 V approx. 12 V	ON OFF	
23	A	Mixing flap motor activation	Mixing flap motor	Frequency (square-wave voltage)	0% - 82% at ventilation flap switch OFF 100% at ventilation switch ON	approx. 11 V with motor OFF
24	A	Mixing flap motor activation	Mixing flap motor	Frequency (square-wave voltage)	0% - 82% at ventilation flap switch OFF 100% at ventilation switch ON	approx. 11 V with motor OFF
25	A	Mixing flap motor activation	Mixing flap motor	Frequency (square-wave voltage)	0% - 82% at ventilation flap switch OFF 100% at ventilation switch ON	approx. 11 V with motor OFF
26	A	Mixing flap motor activation	Mixing flap motor	Frequency (square-wave)	0% - 82% at ventilation flap switch OFF 100% at ventilation switch ON	approx. 11 V with motor OFF

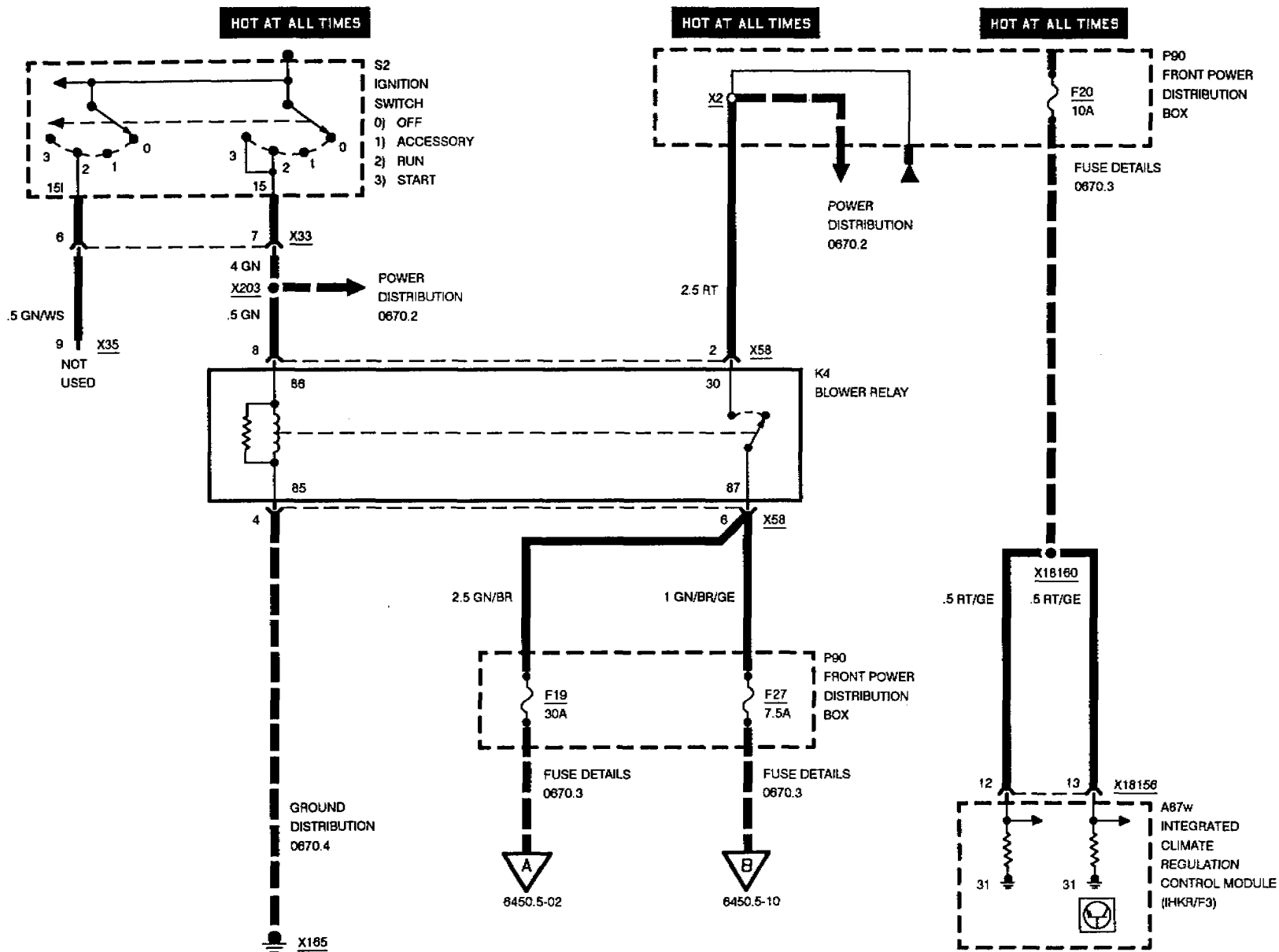
BMW  
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6450.5



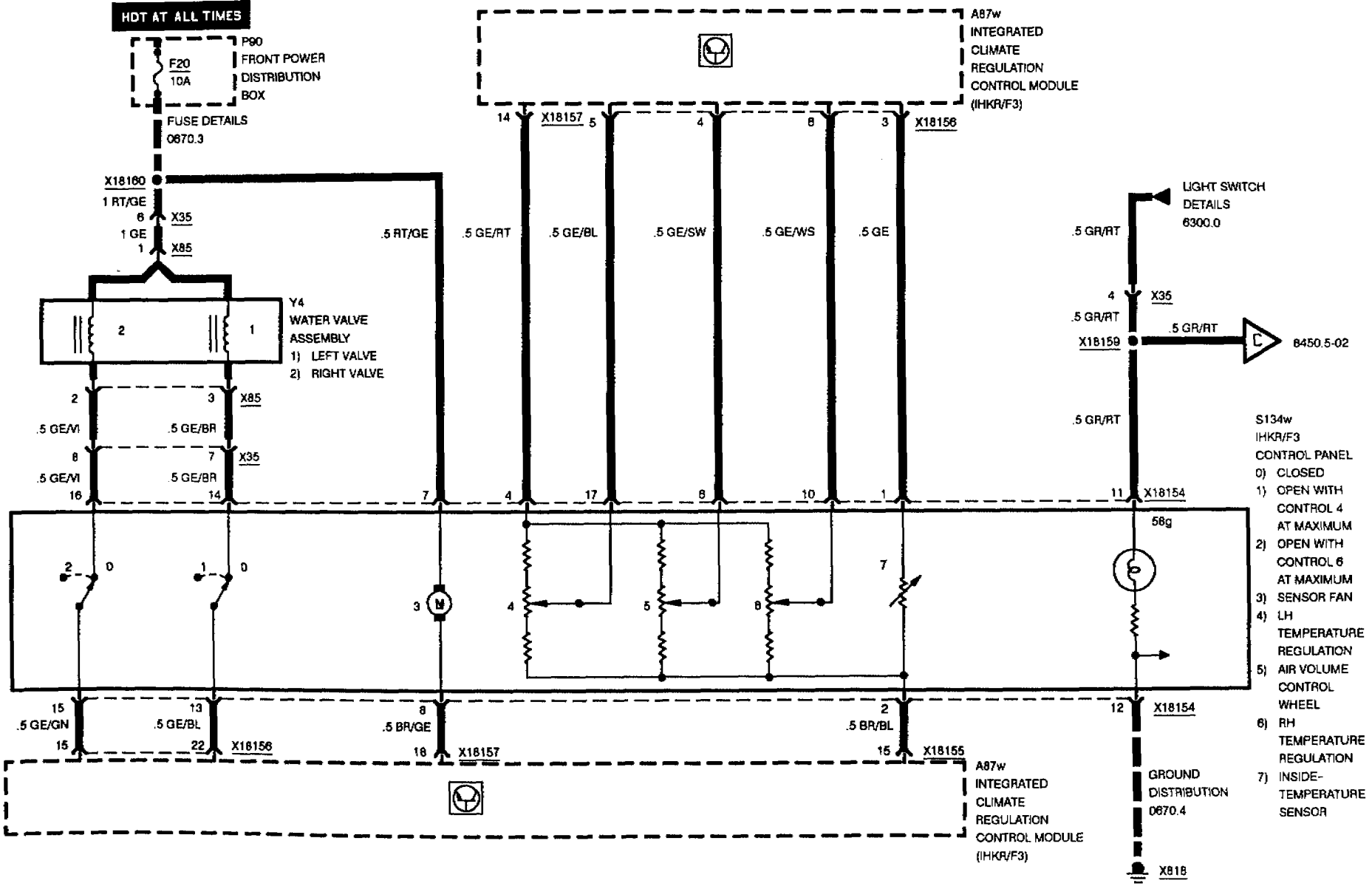
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

## POWER



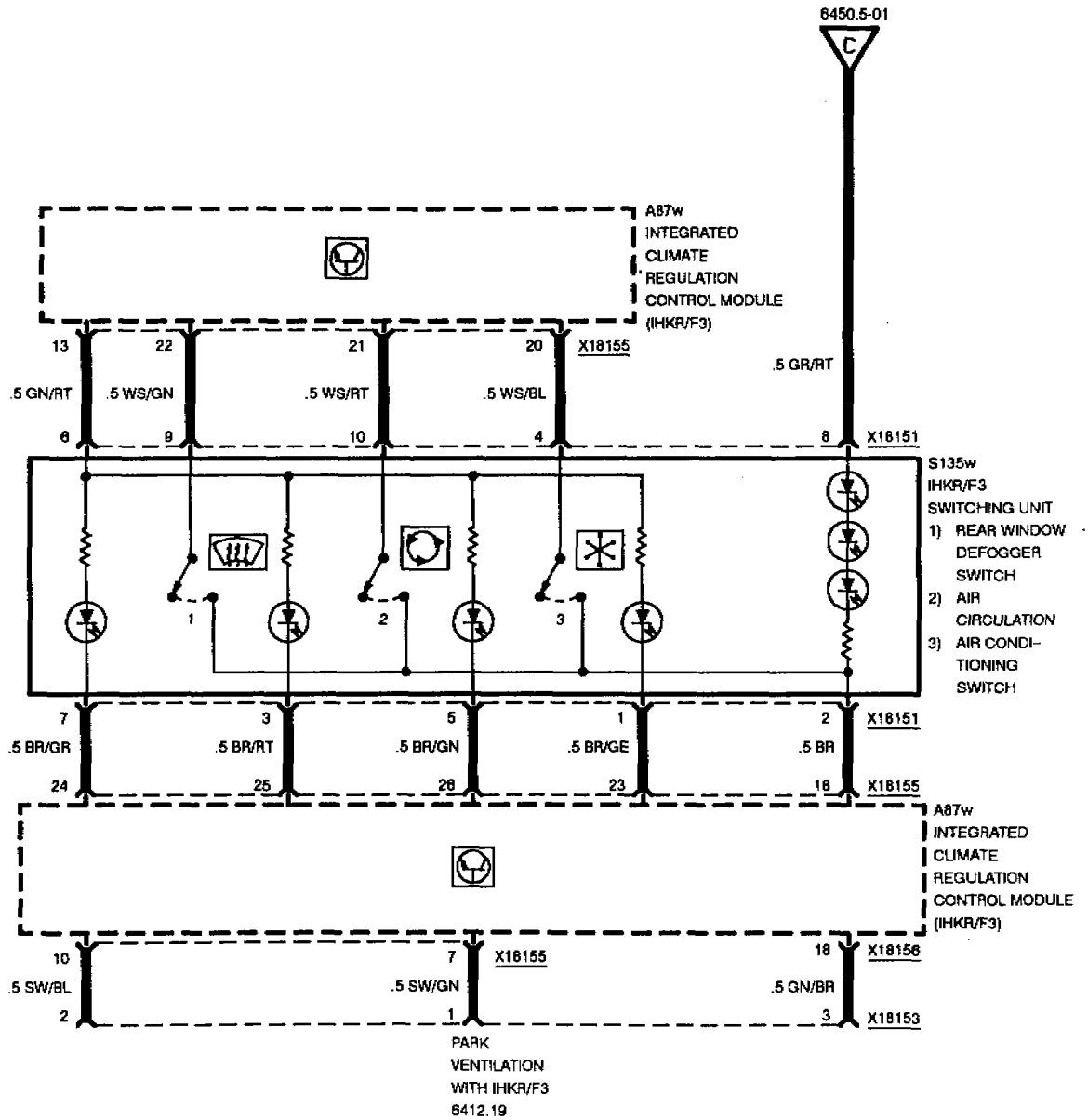
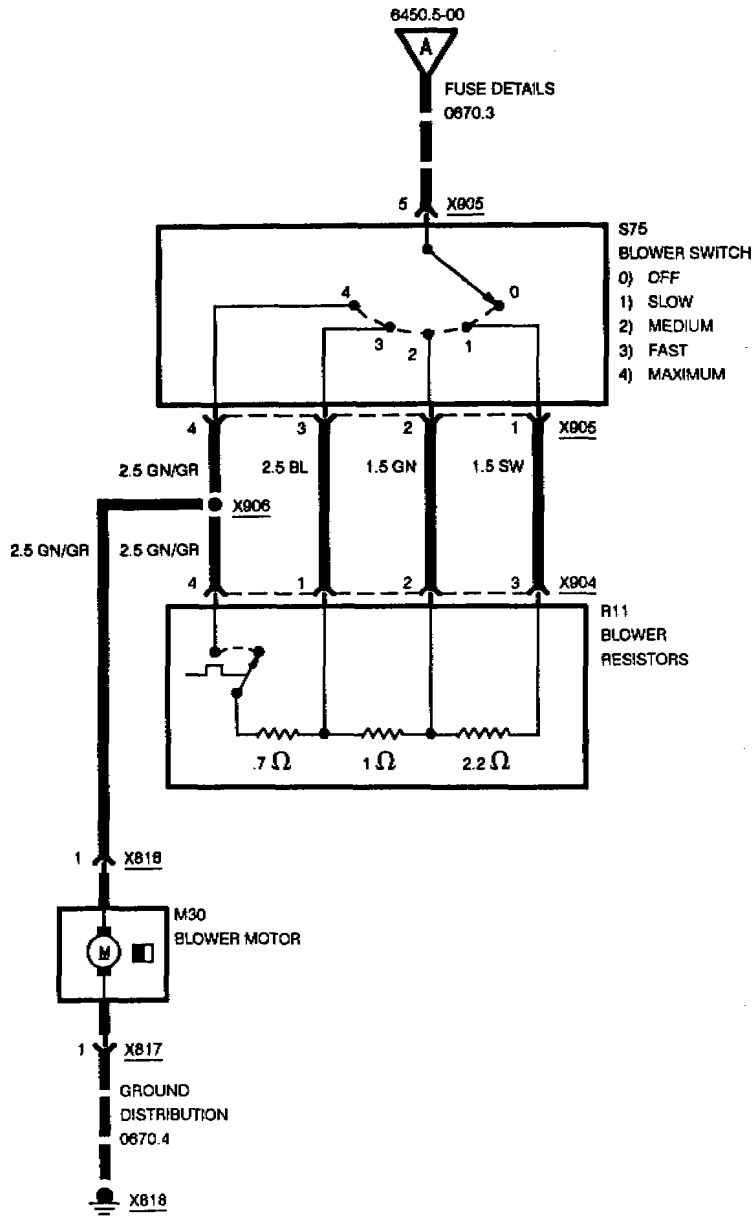


# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)





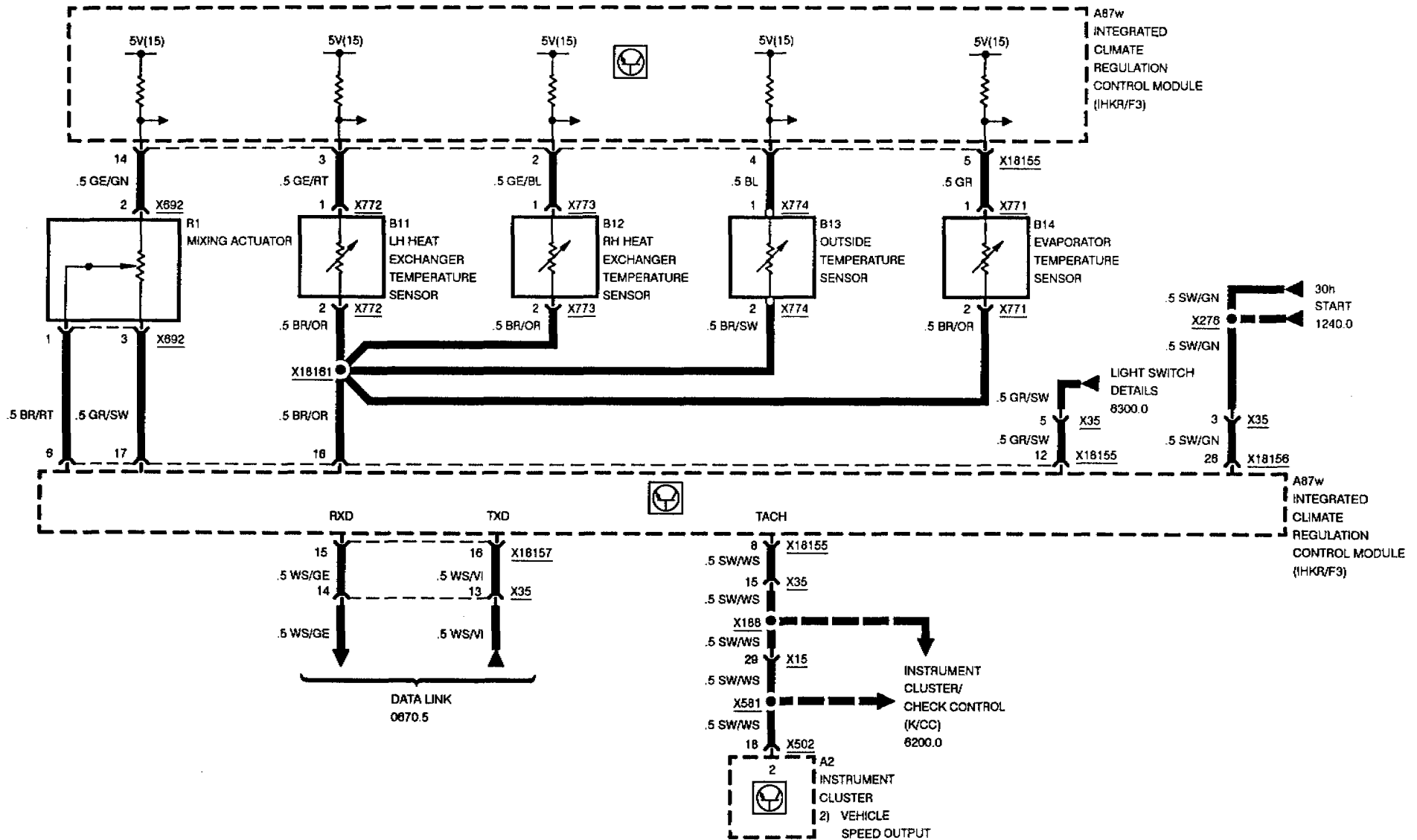
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)





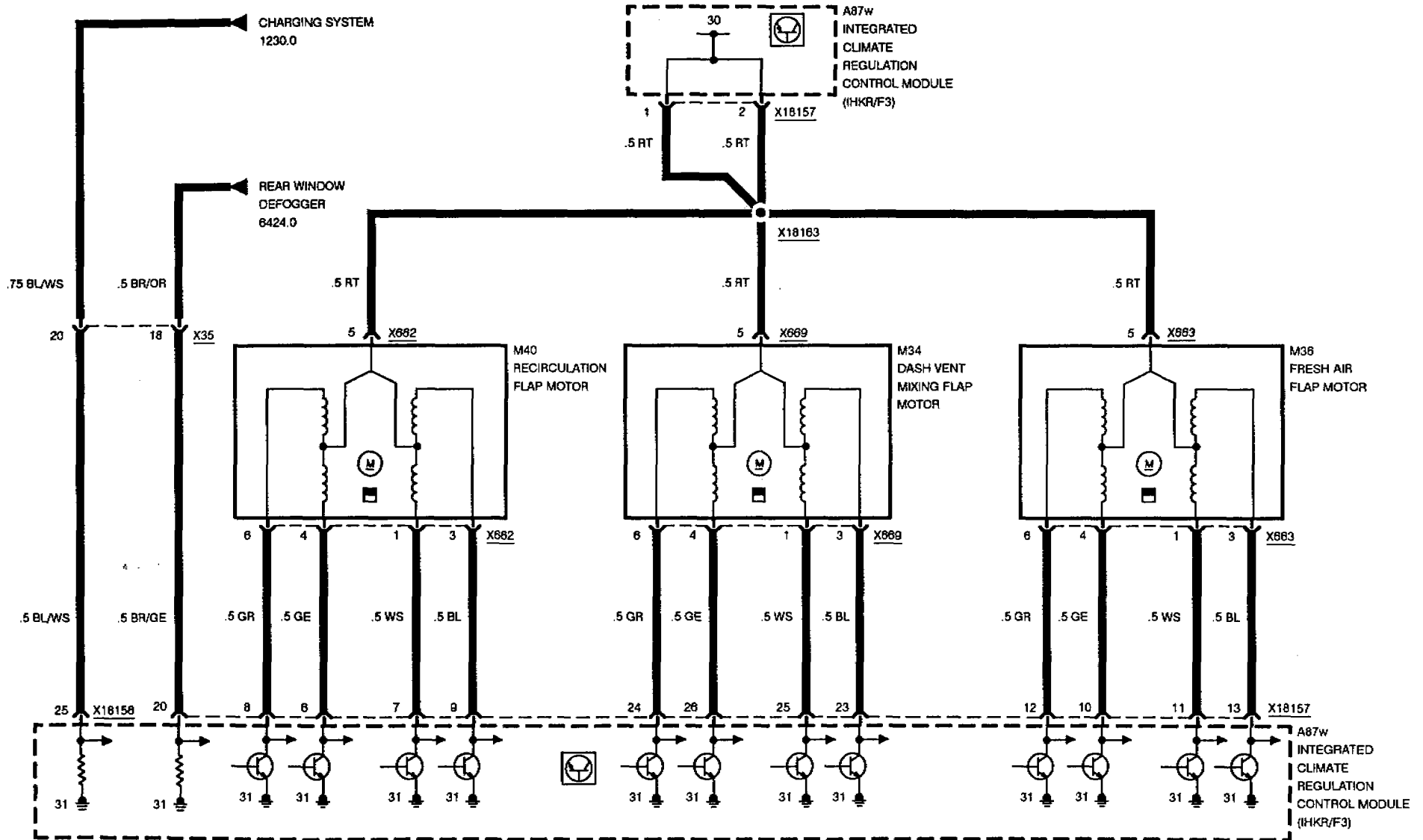
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

## TEMPERATURE CONTROLS





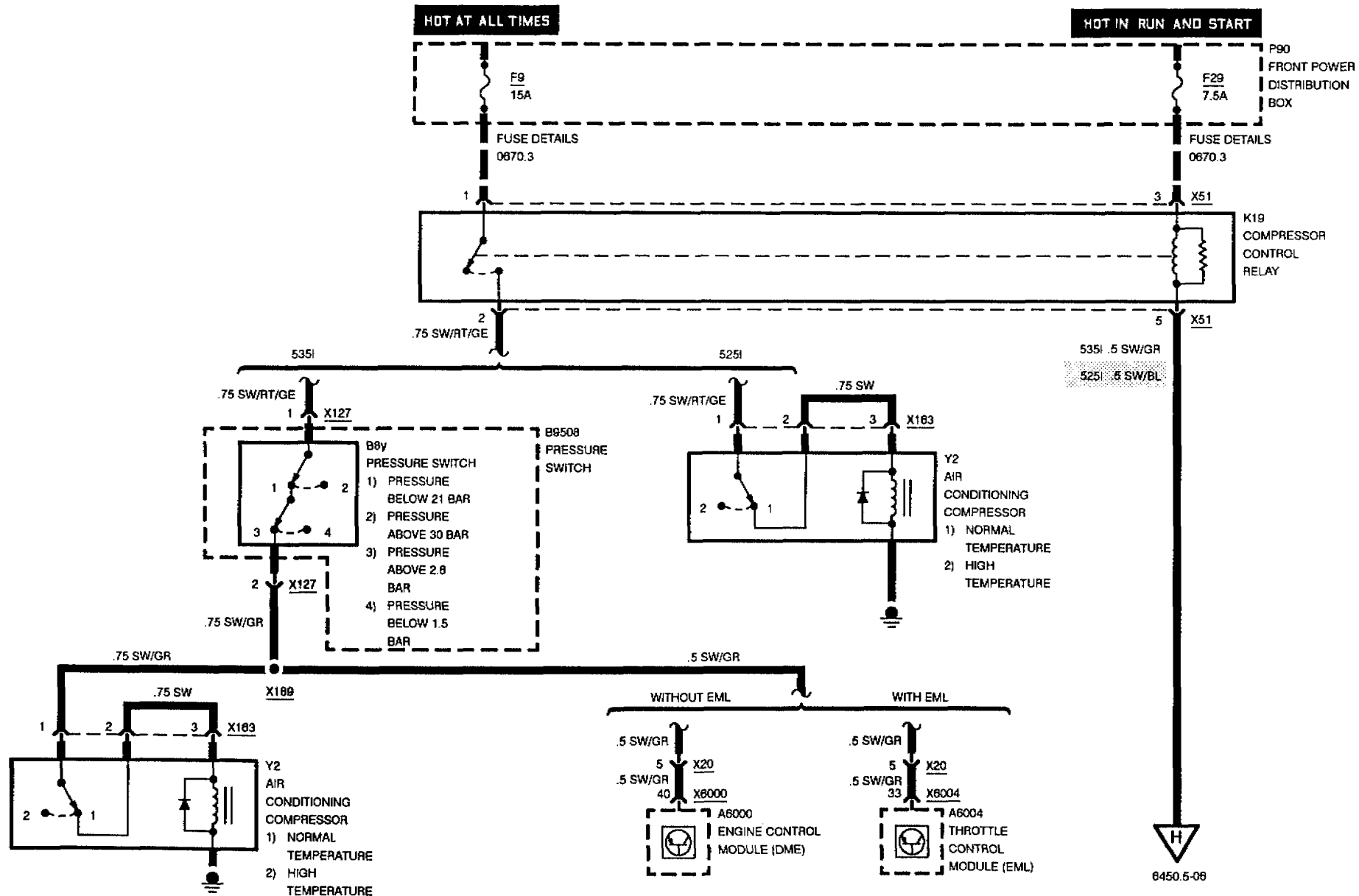
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3) AIR DELIVERY



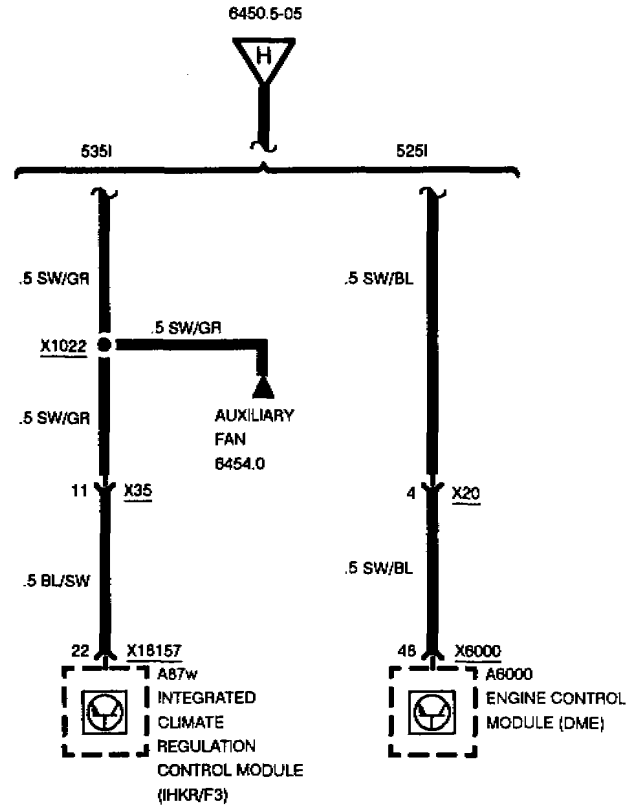
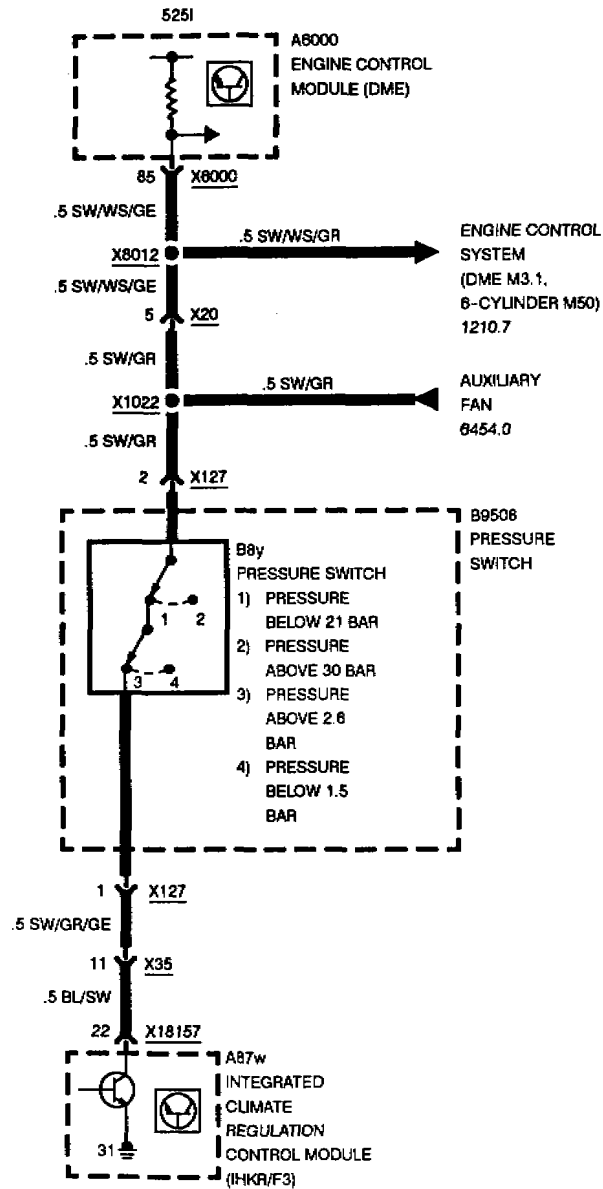


# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

## COMPRESSOR CONTROLS



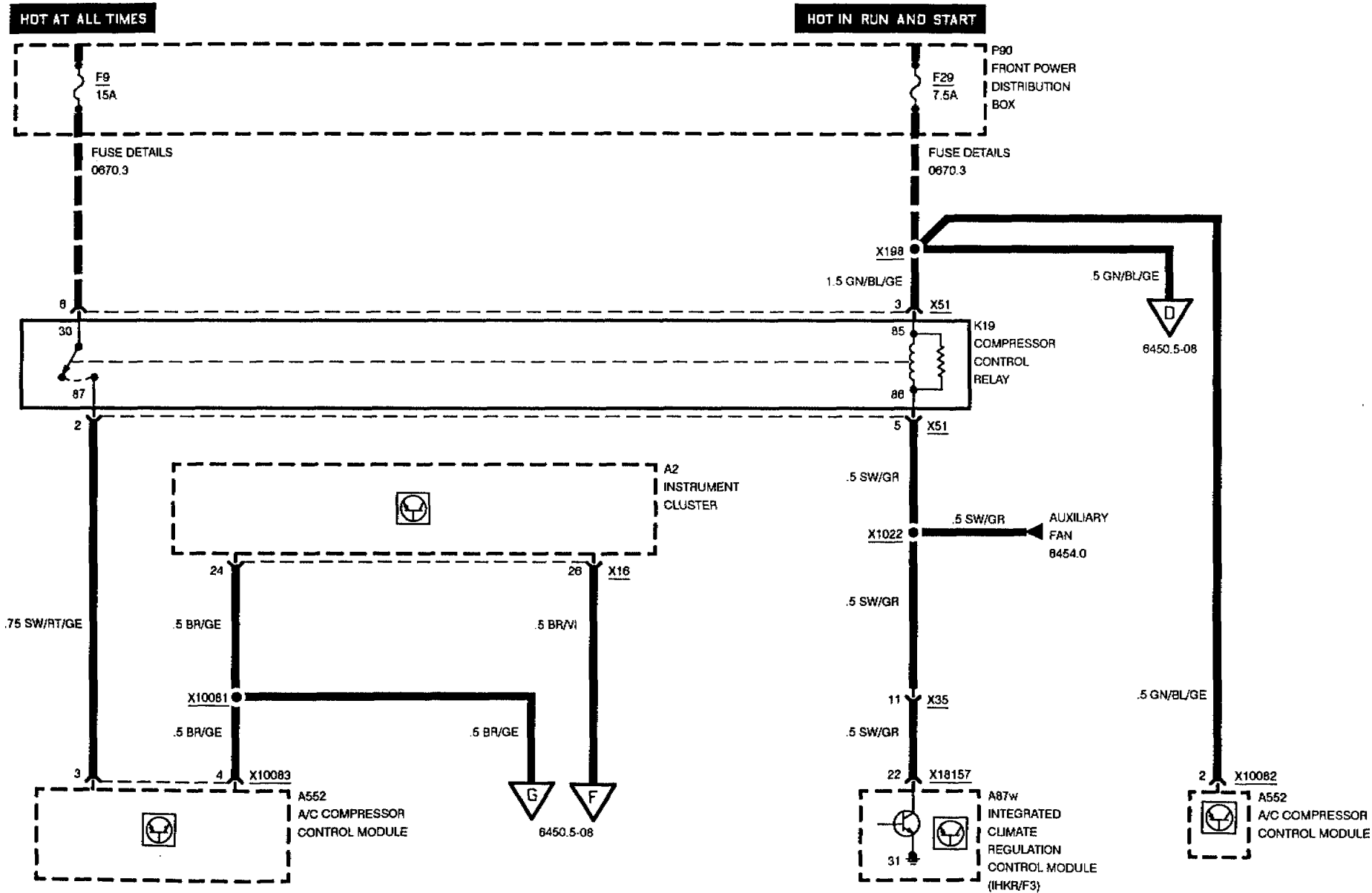
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)





# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

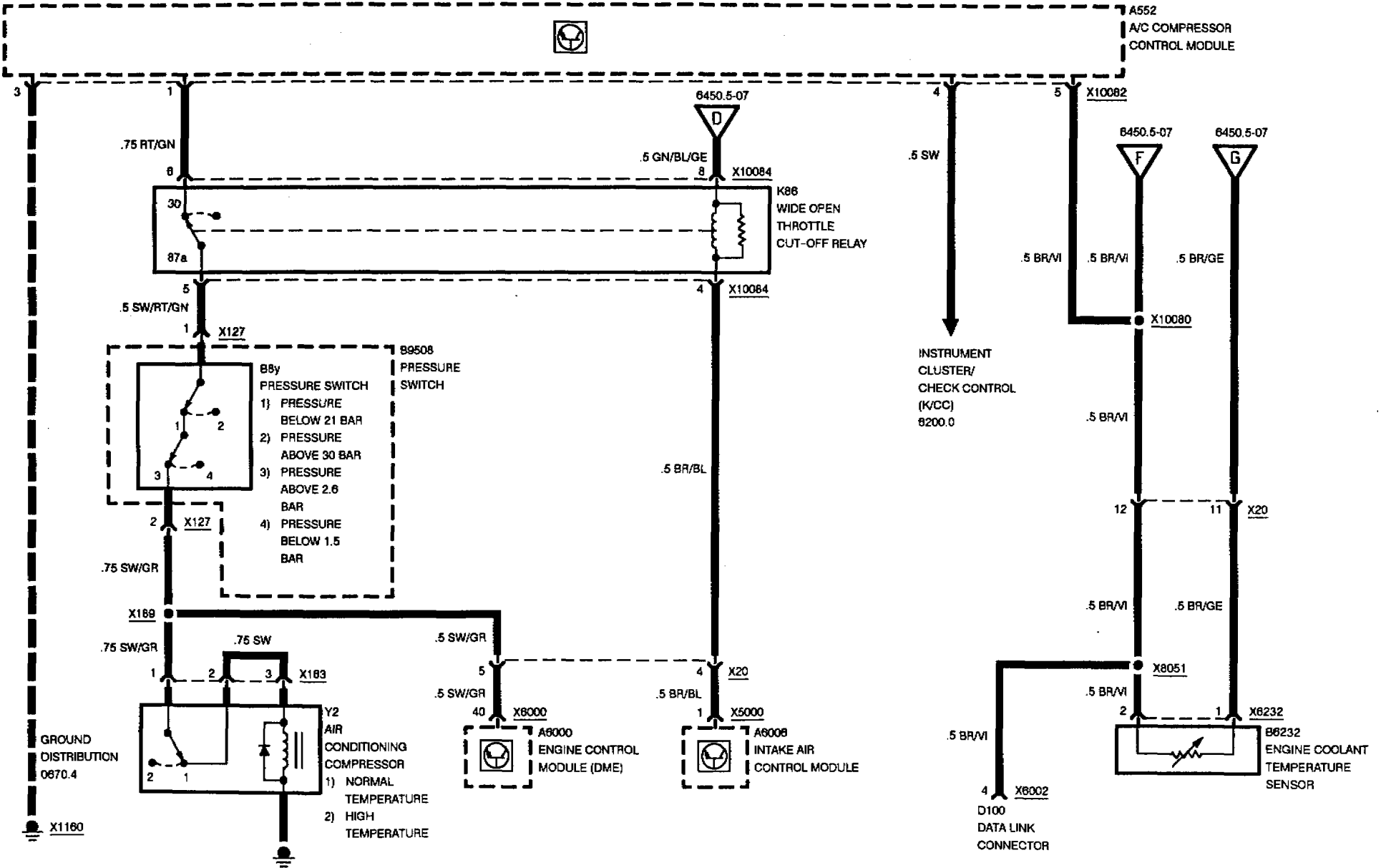
## COMPRESSOR CONTROL FOR M5





# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

## COMPRESSOR CONTROL FOR M5

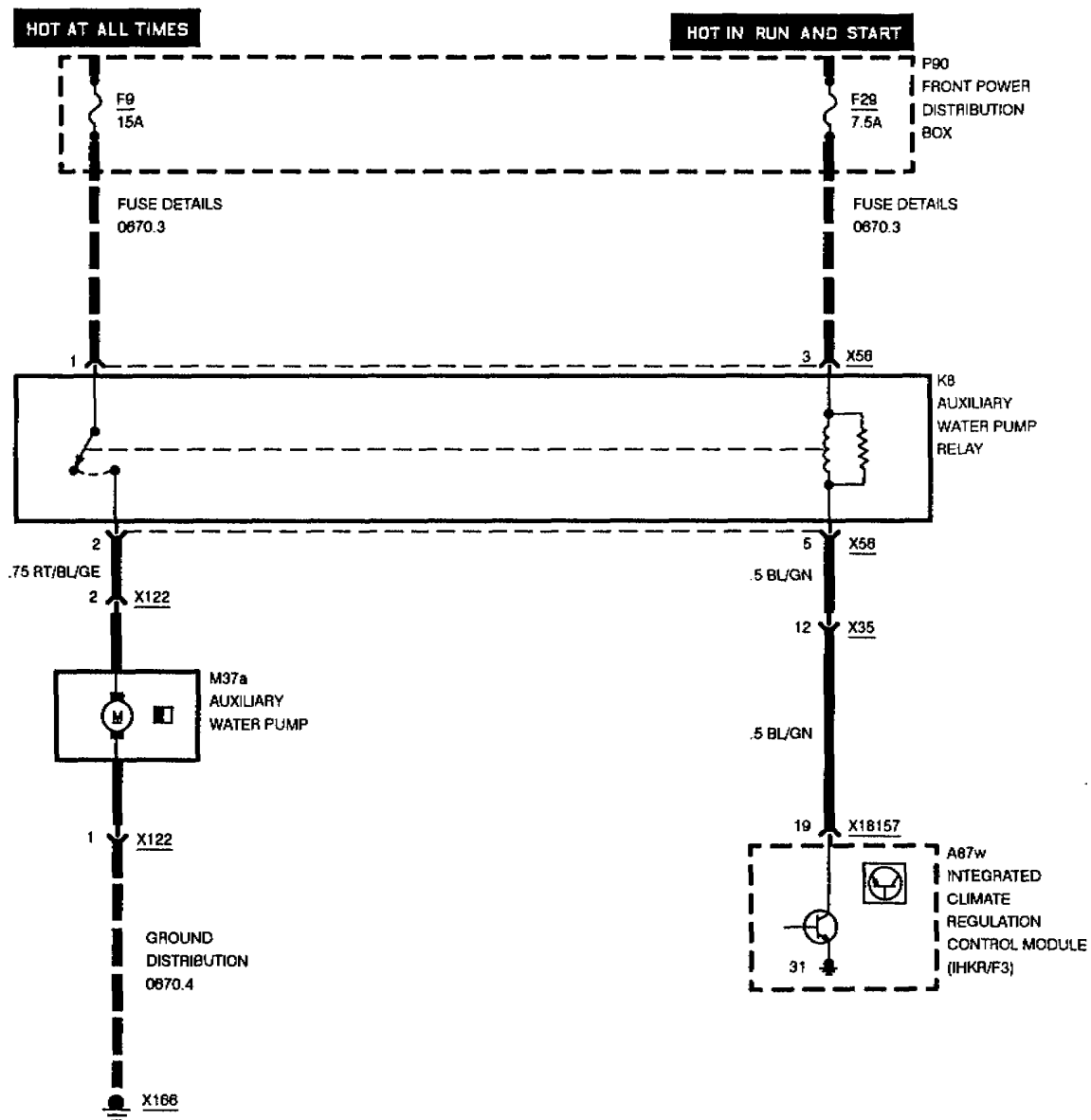






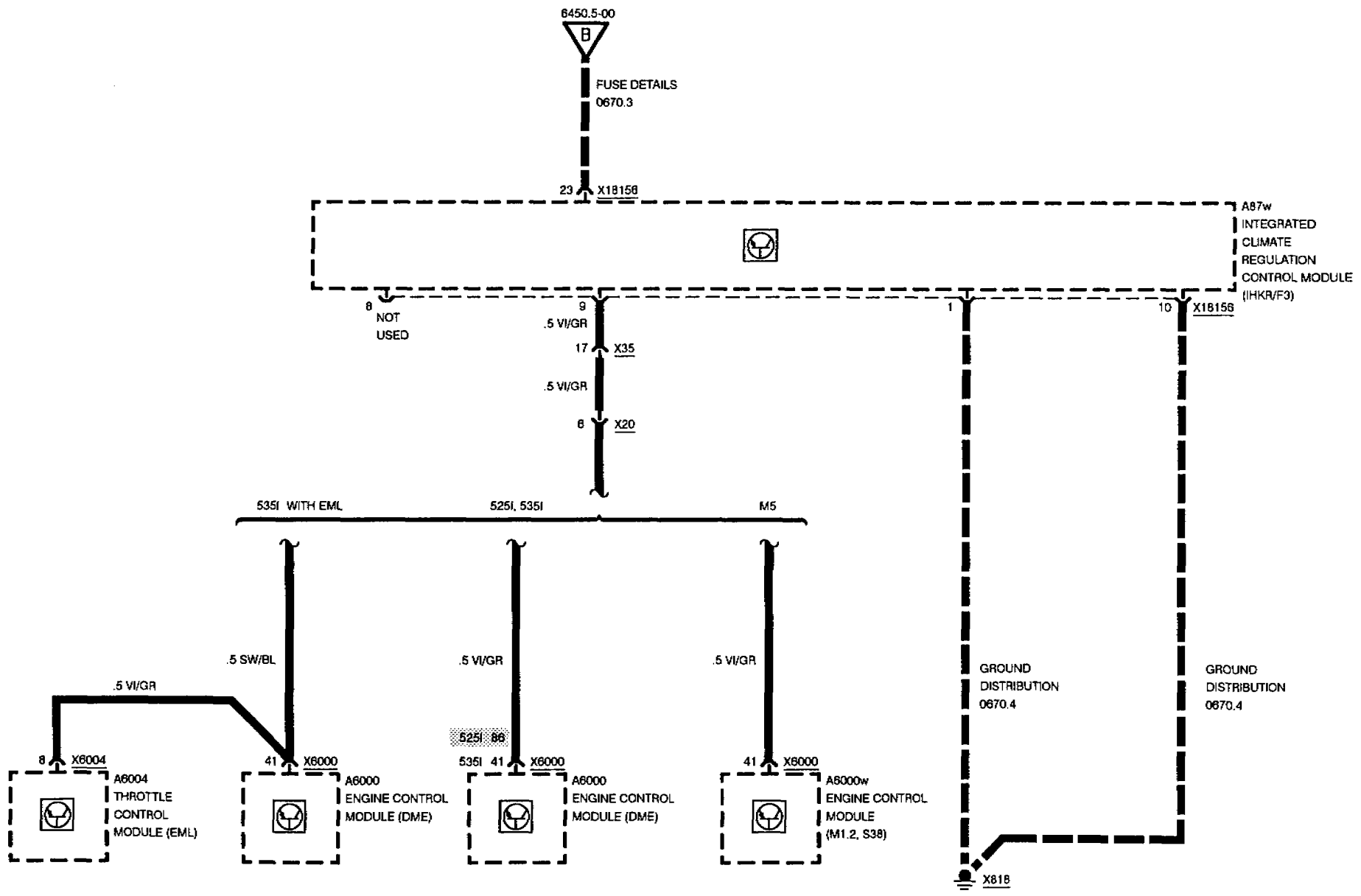
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)

## AUXILIARY WATER PUMP





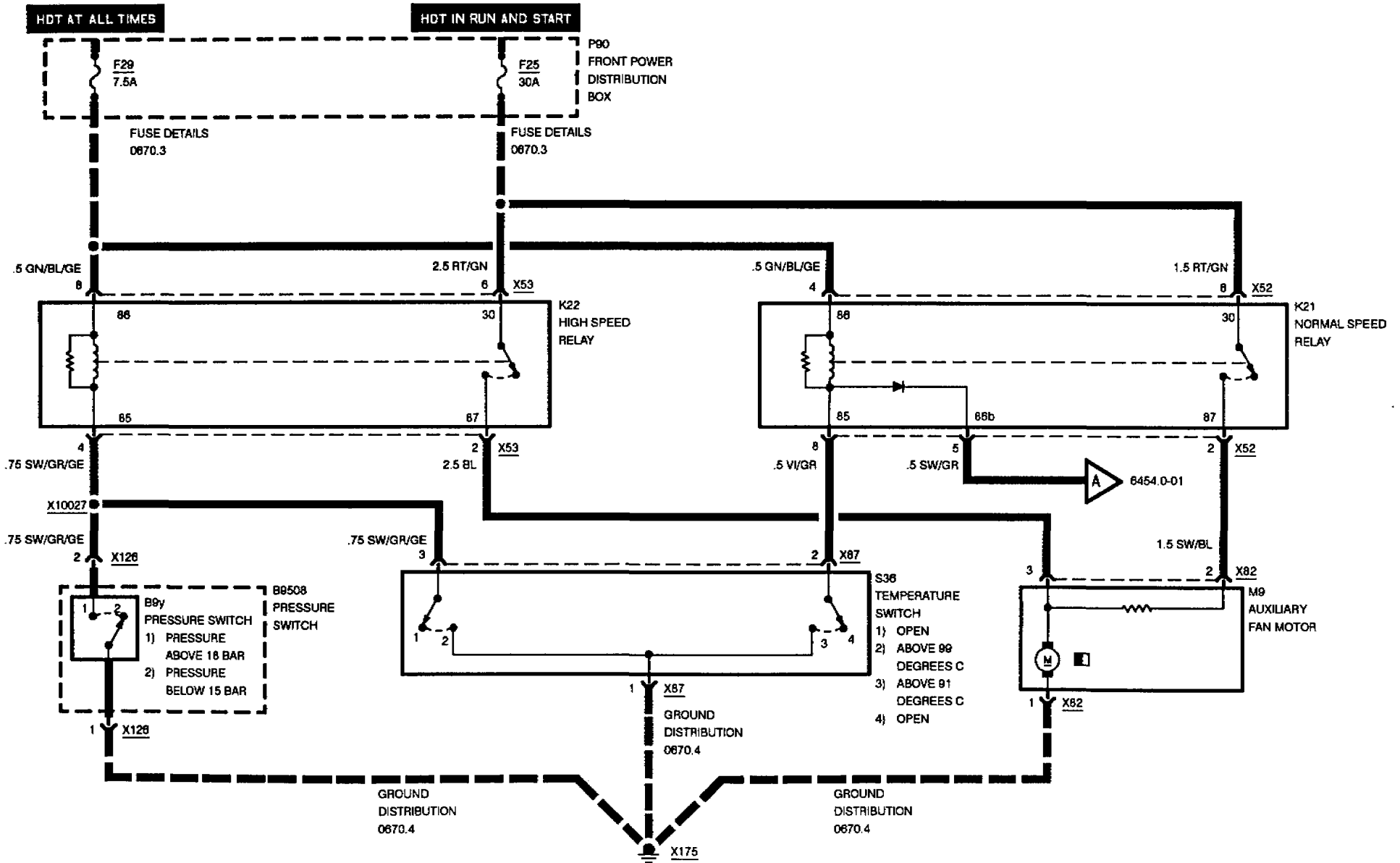
# INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)





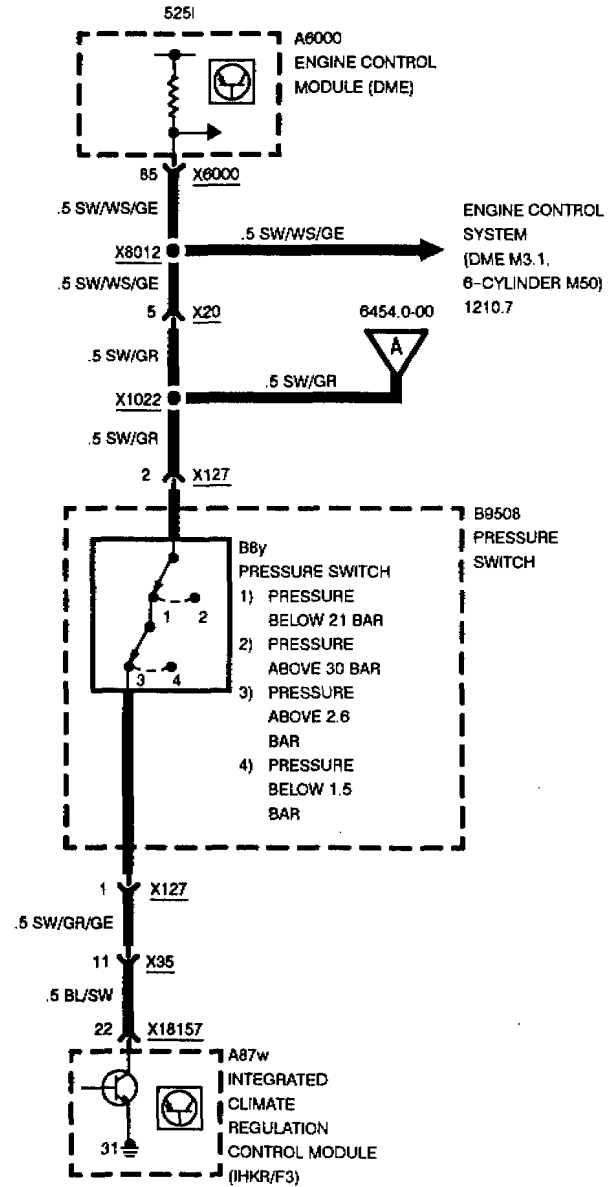
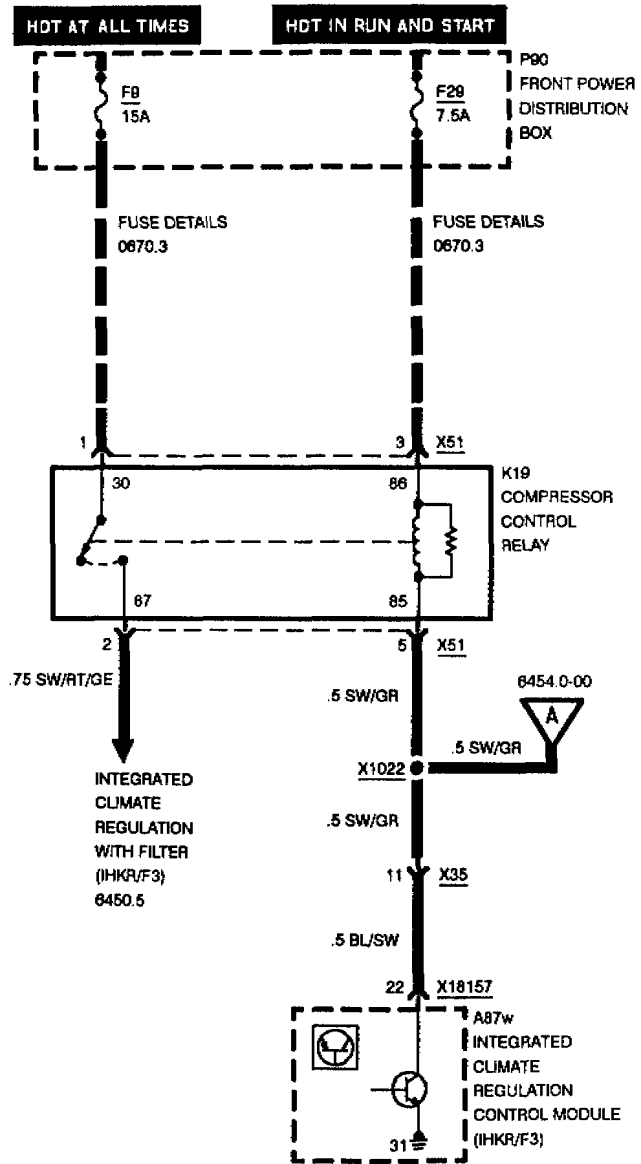
6454.0

# AUXILIARY FAN



# AUXILIARY FAN

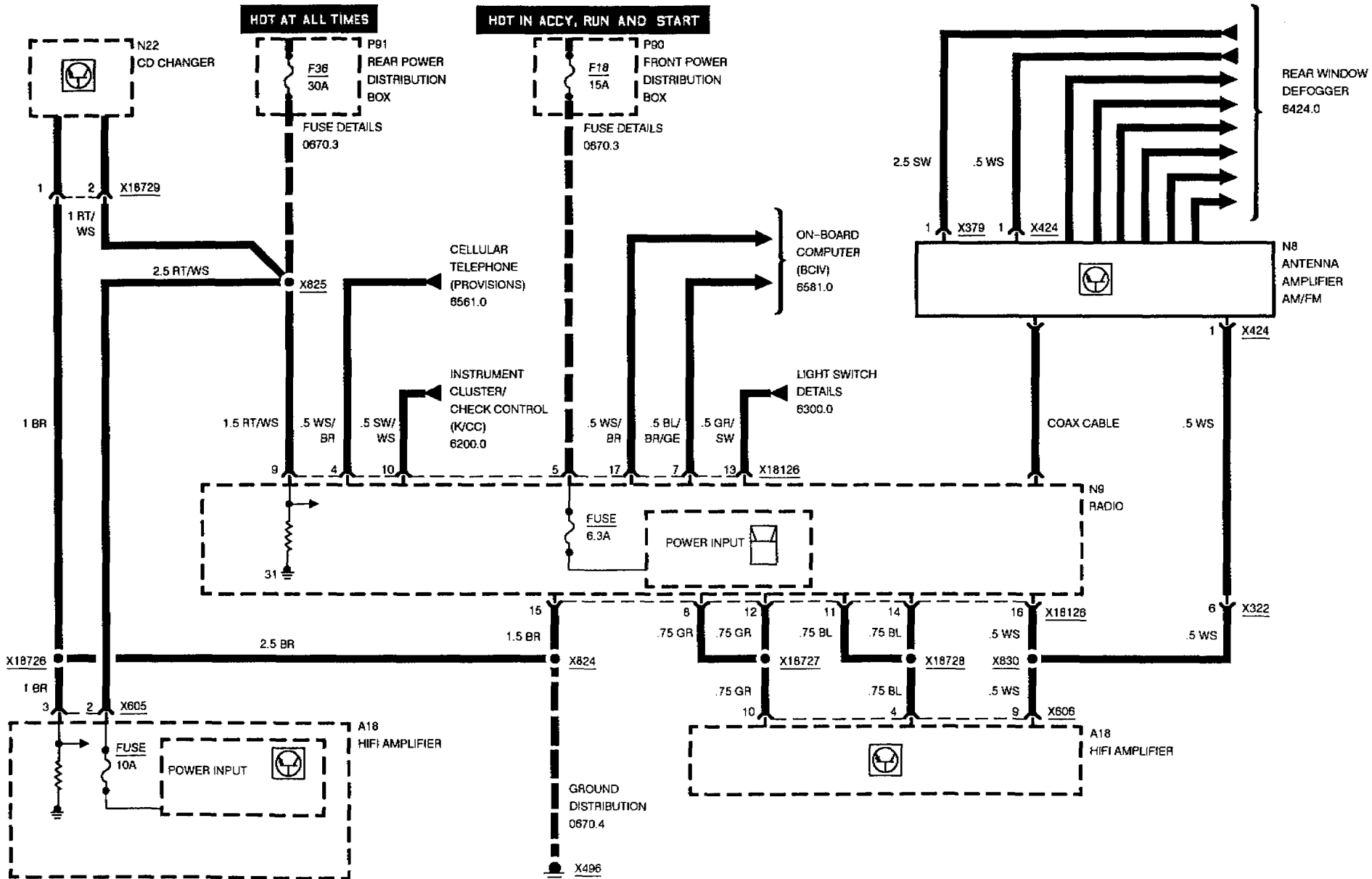
535i, M5





# RADIO/HIFI

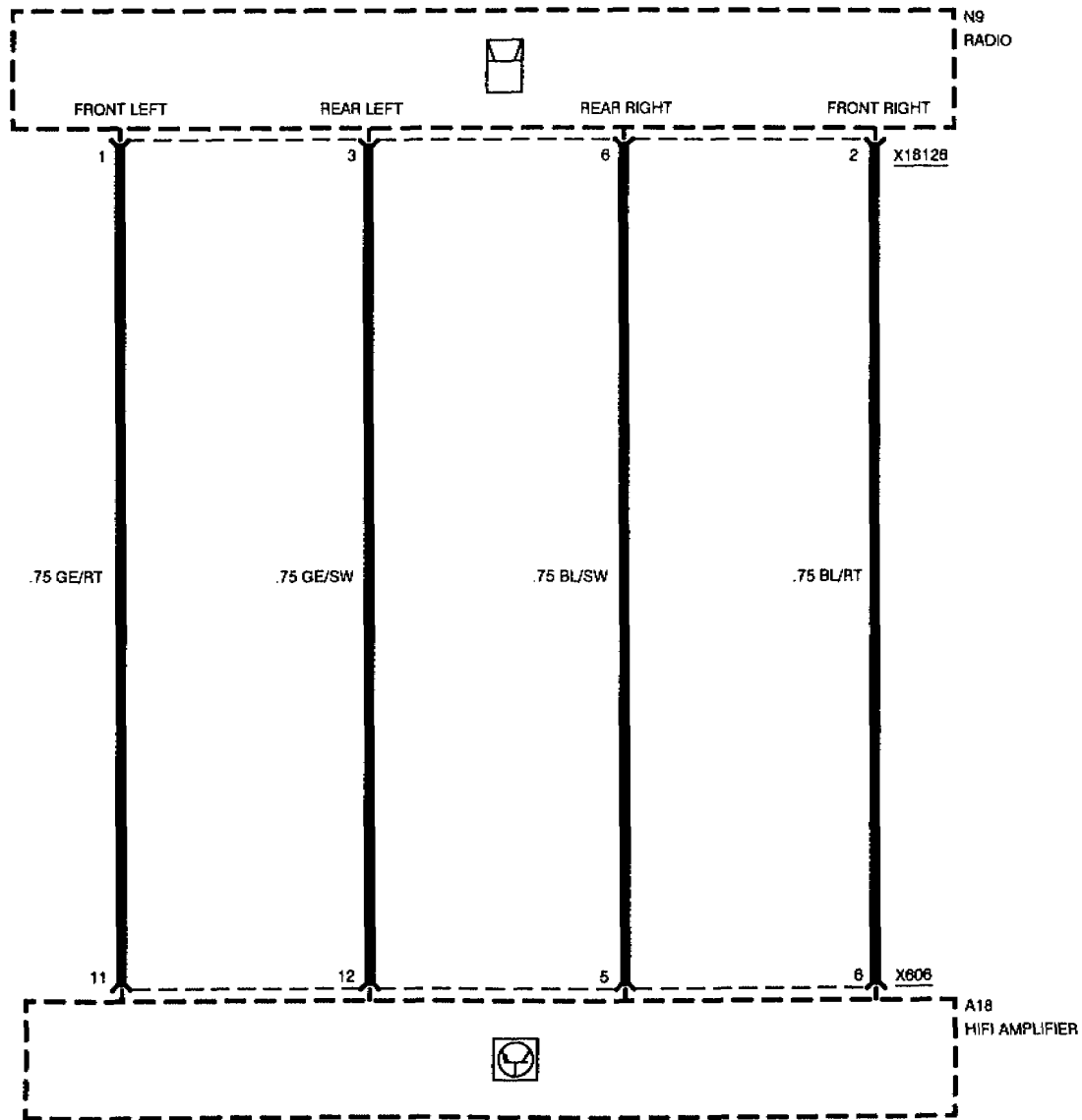
## HIFI, 10-SPEAKER SYSTEM





# RADIO/HIFI

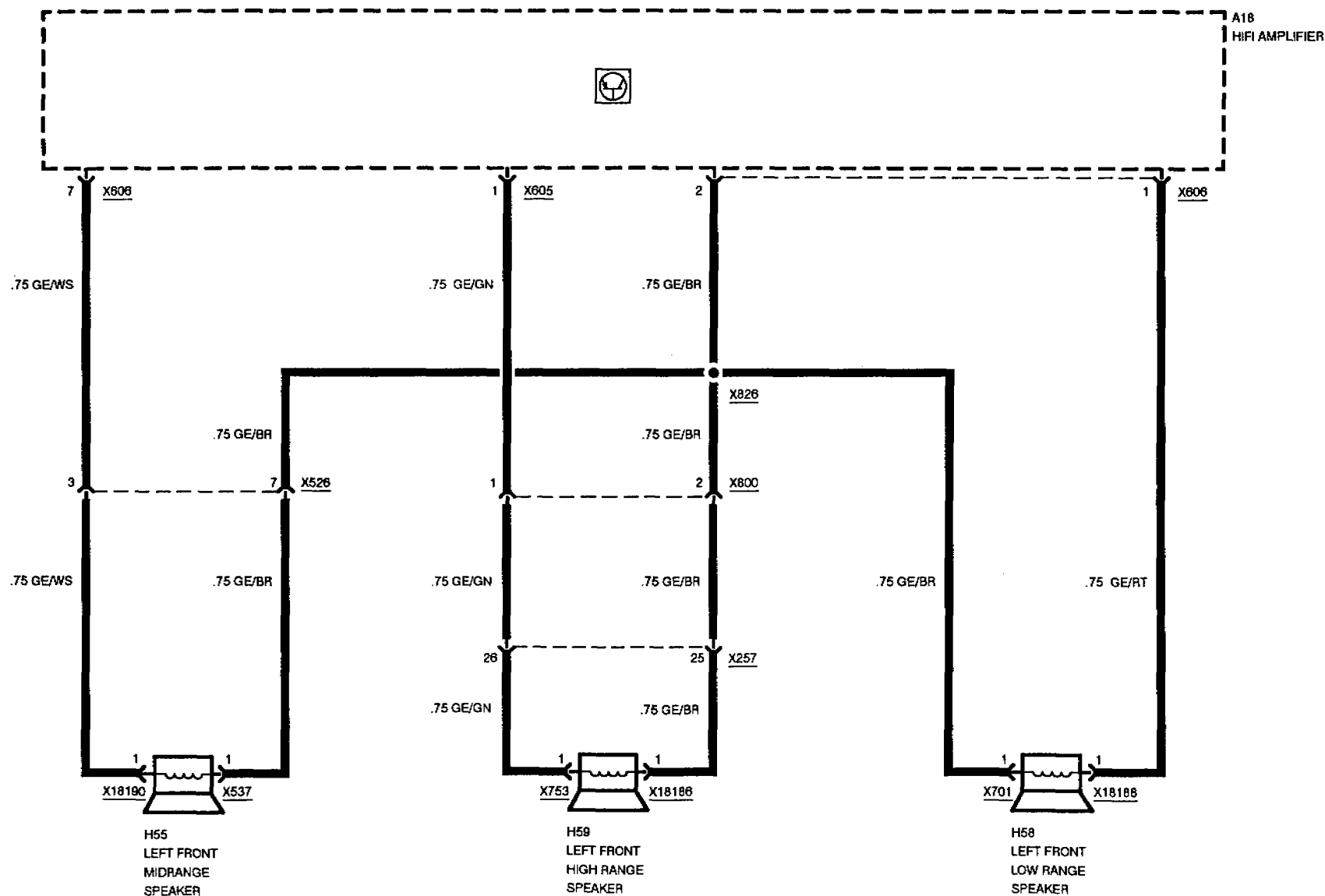
## HIFI, 10-SPEAKER SYSTEM





# RADIO/HIFI

## HIFI, 10-SPEAKER SYSTEM

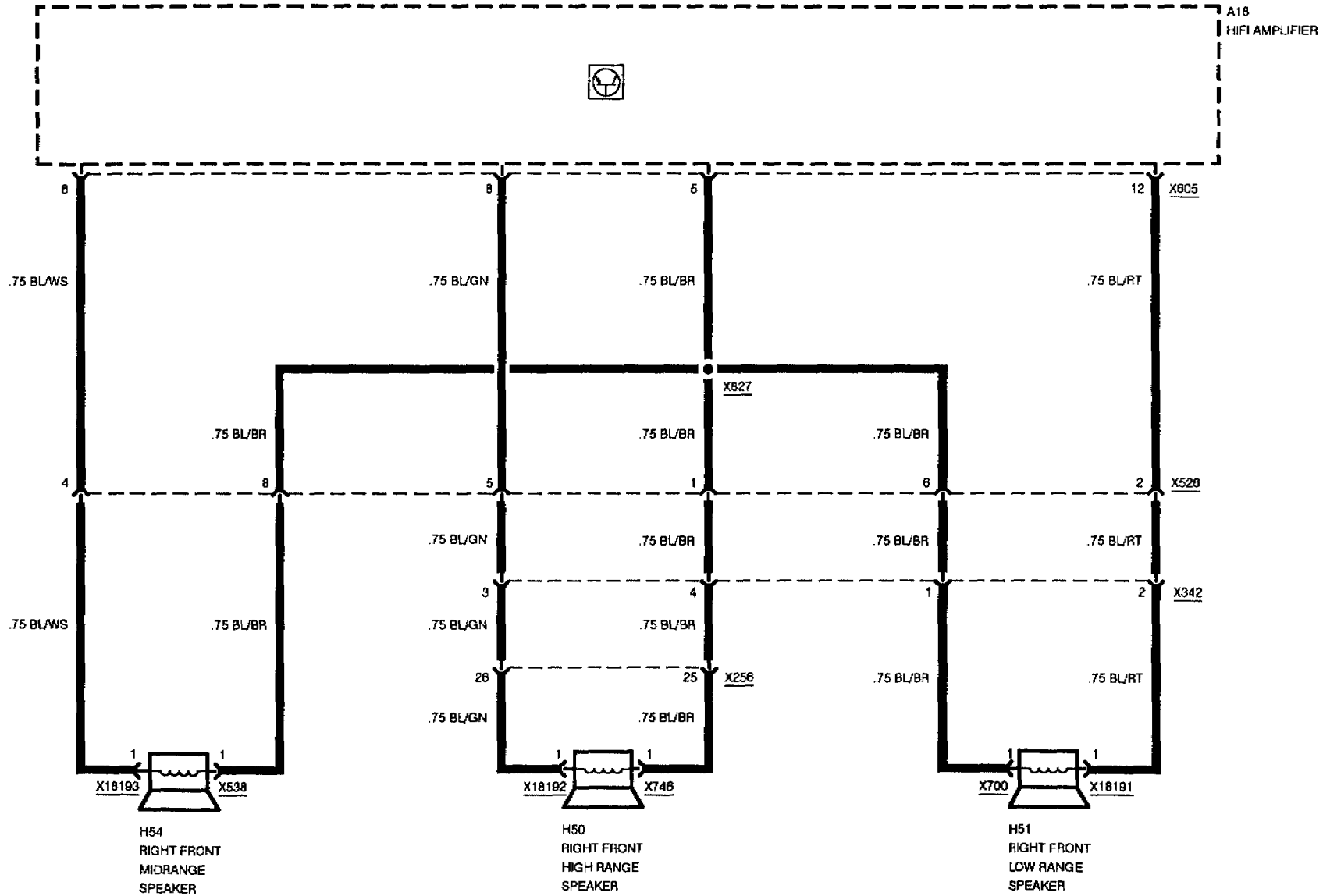






# RADIO/HIFI

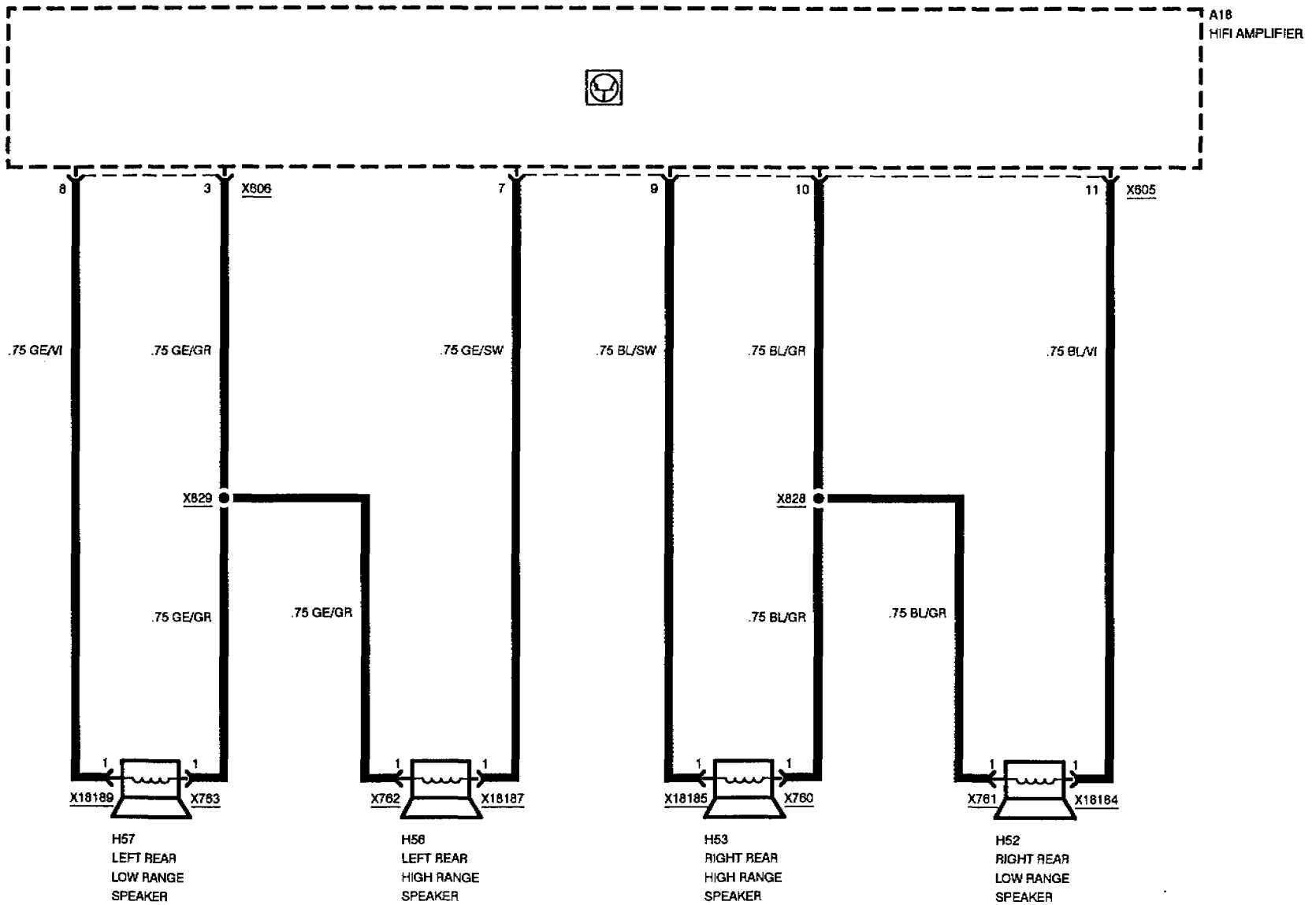
## HIFI, 10-SPEAKER SYSTEM





# RADIO/HIFI

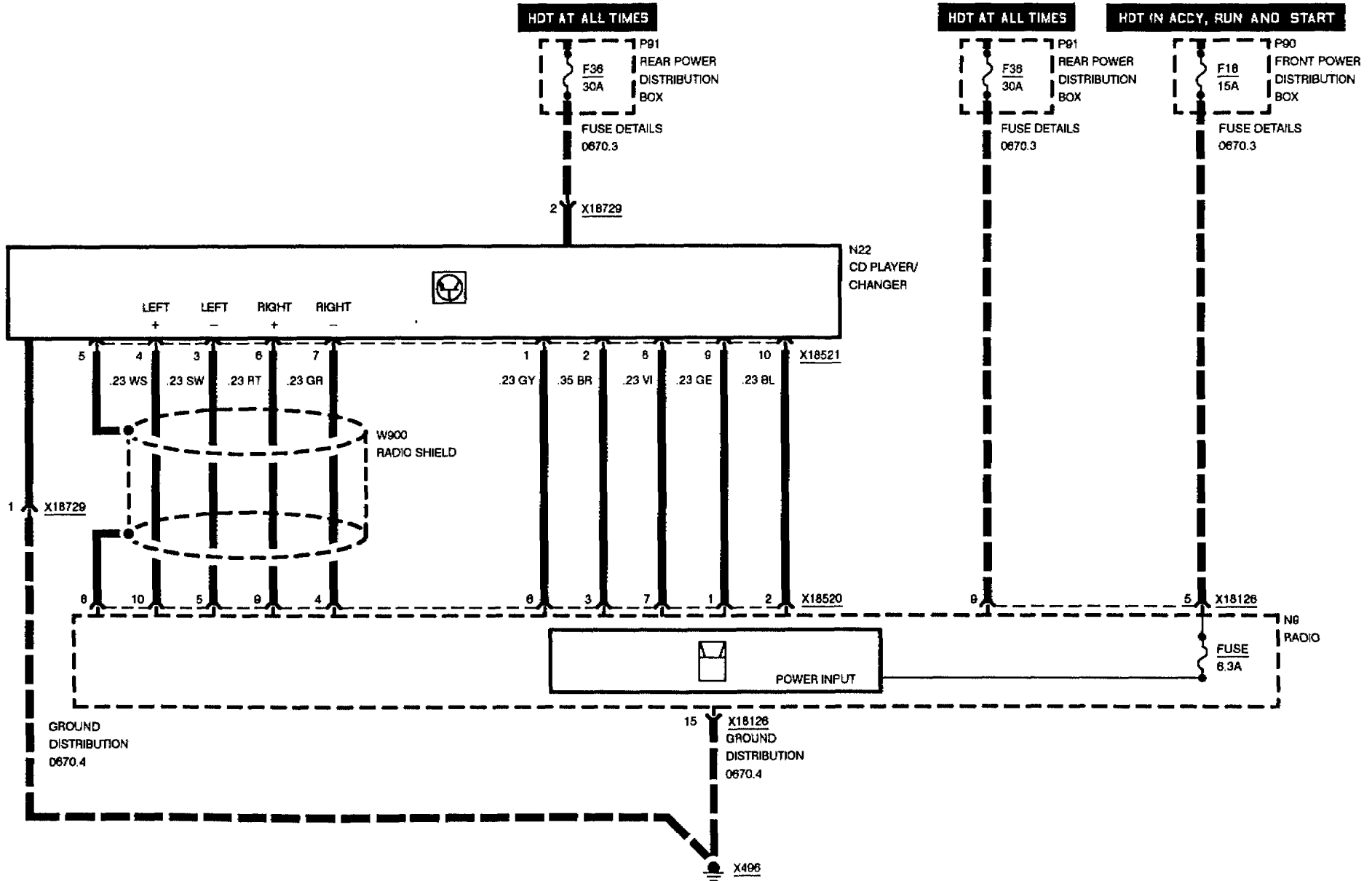
## HIFI, 10-SPEAKER SYSTEM





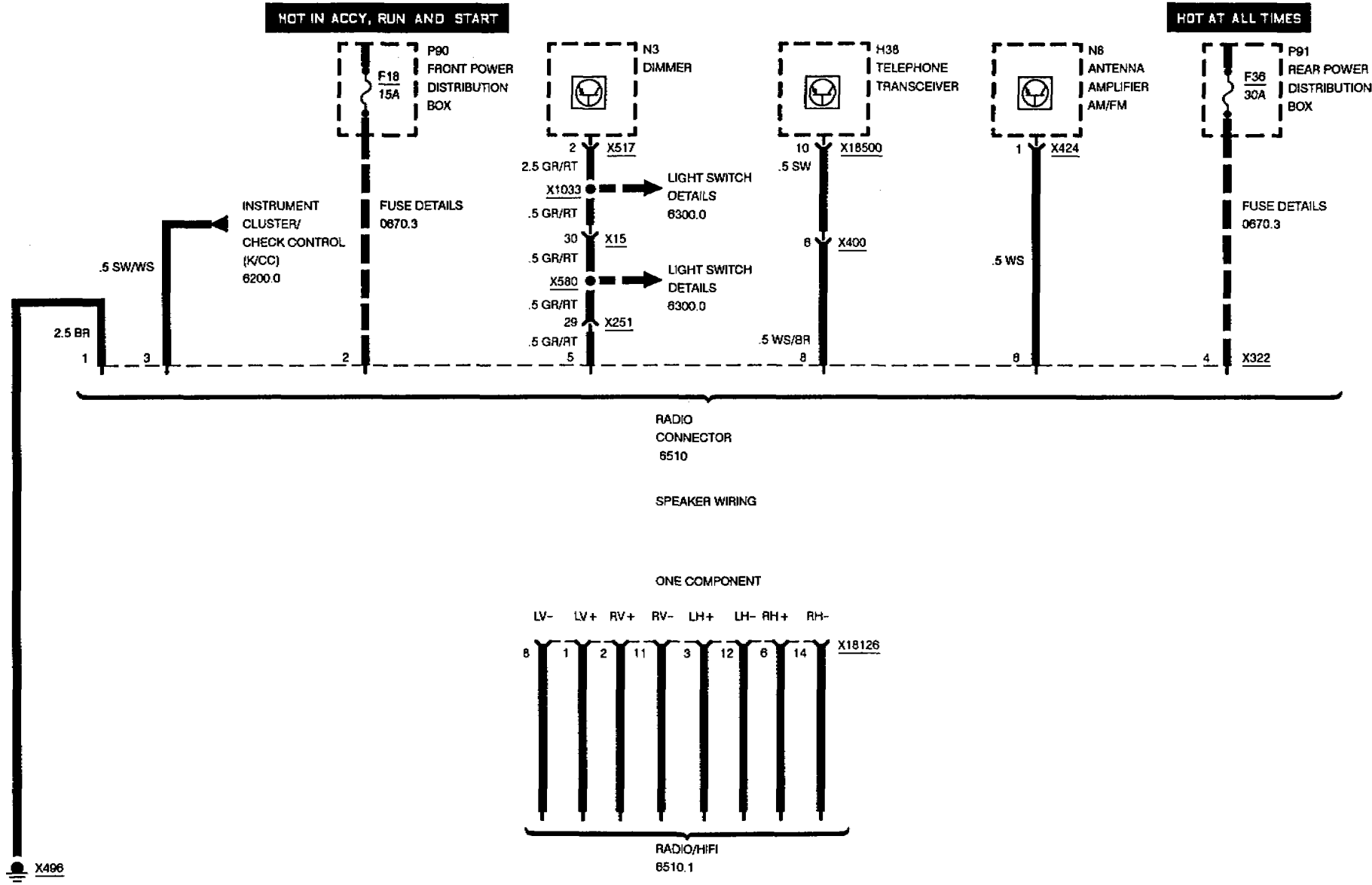
# RADIO/HIFI

## HIFI WITH CD, 10-SPEAKER SYSTEM





# RADIO PROVISIONS



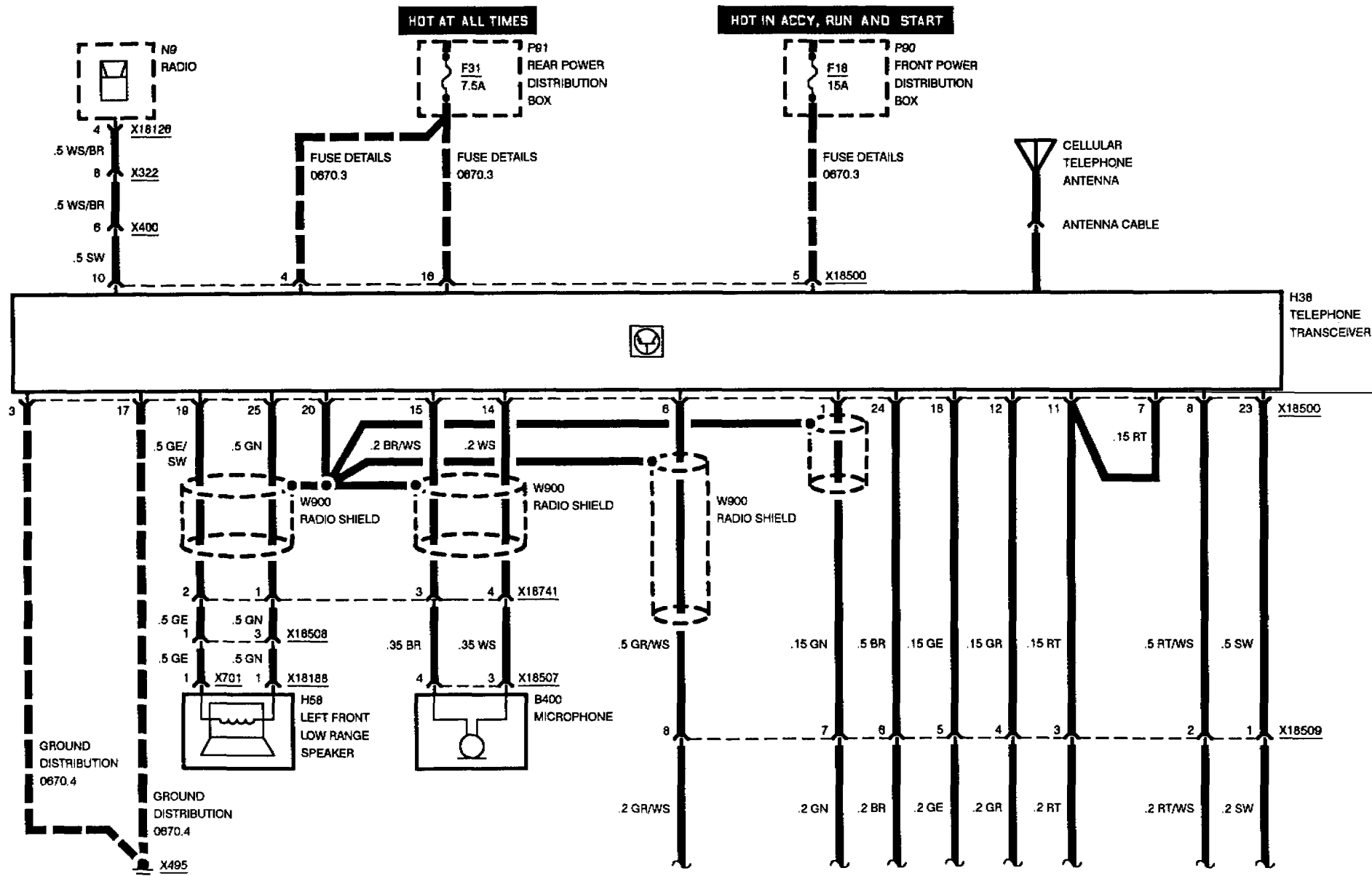
X406

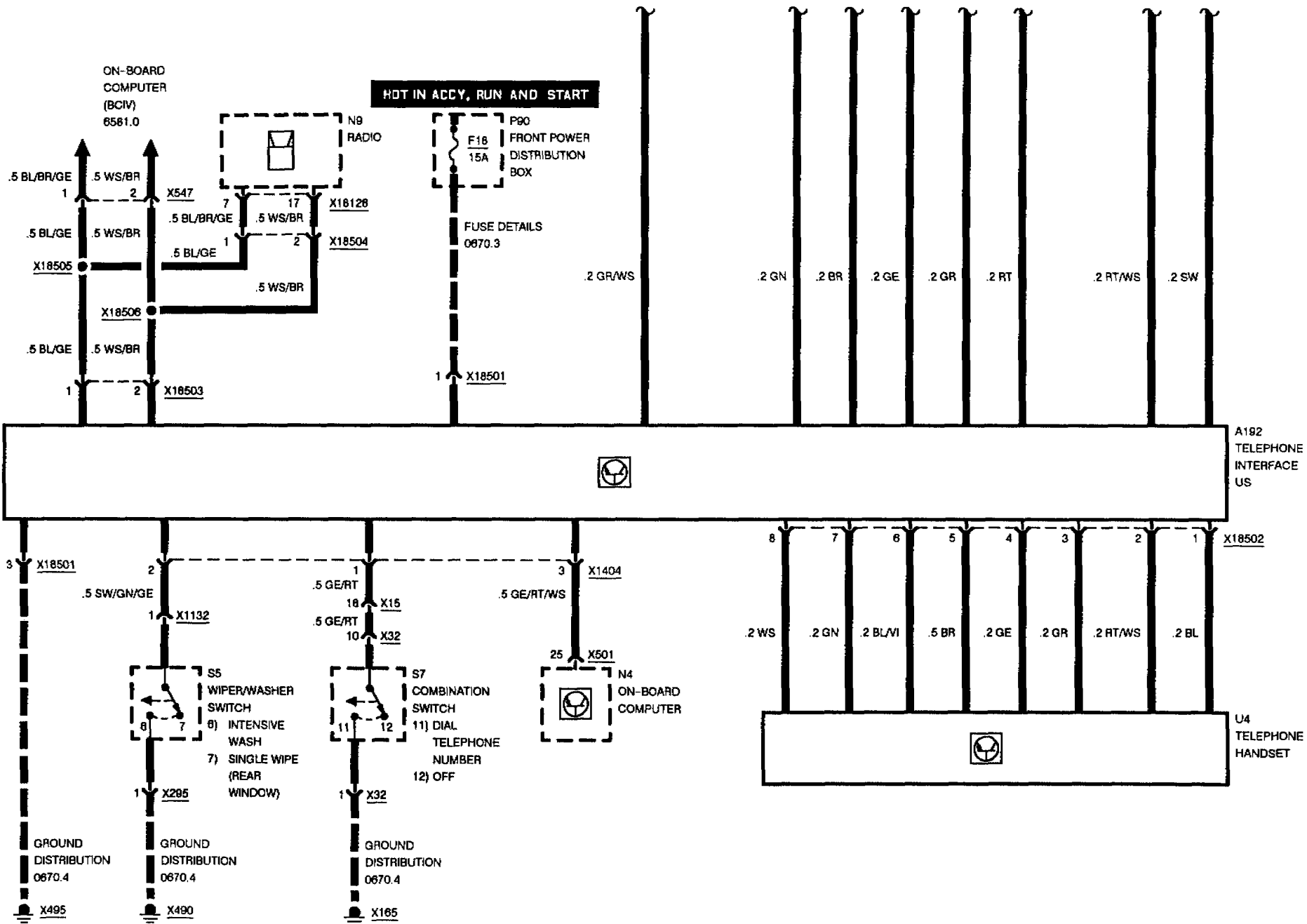
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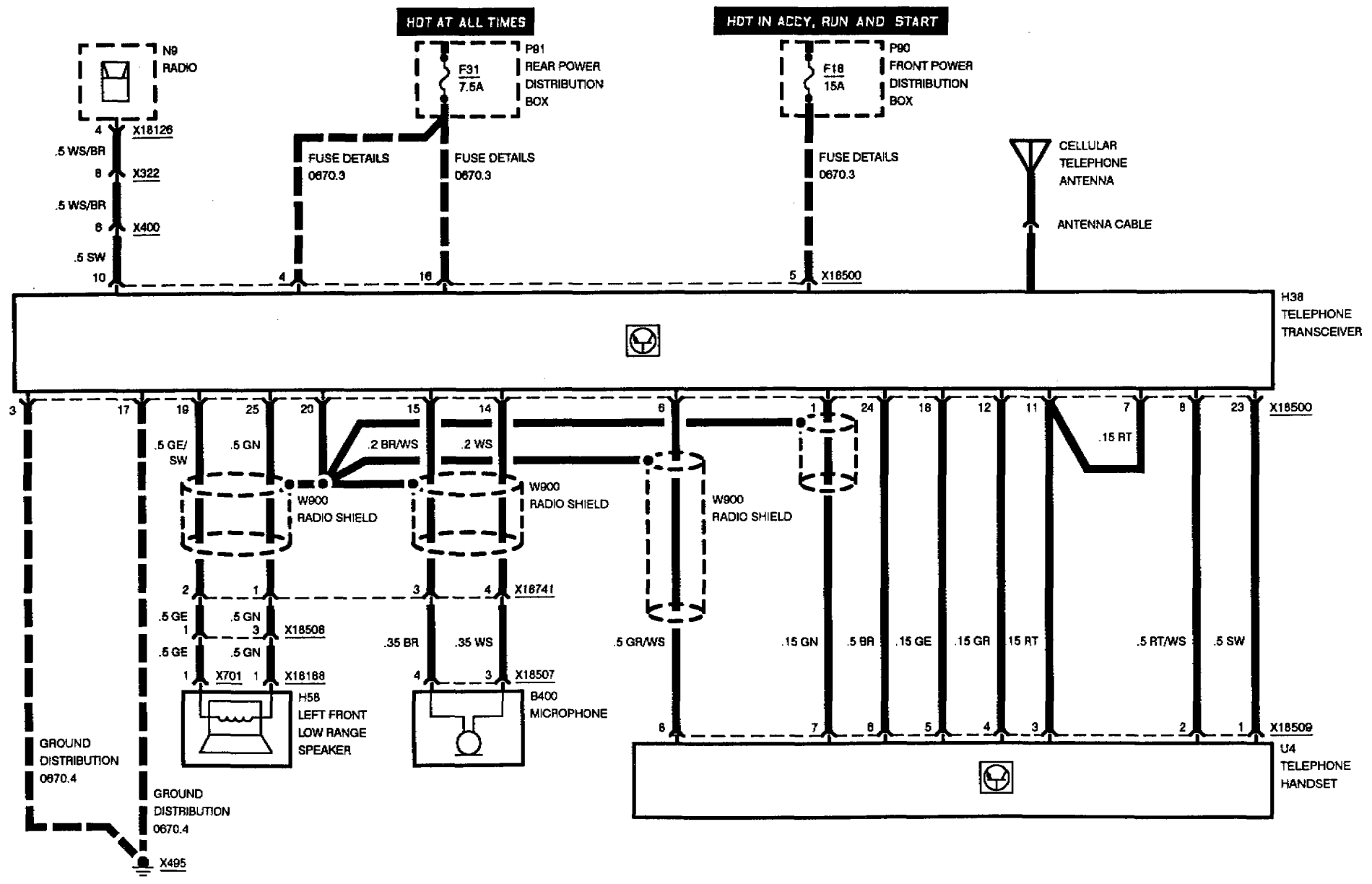
# CELLULAR TELEPHONE (PROVISIONS) WITH INTERFACE







# CELLULAR TELEPHONE (PROVISIONS) WITHOUT INTERFACE



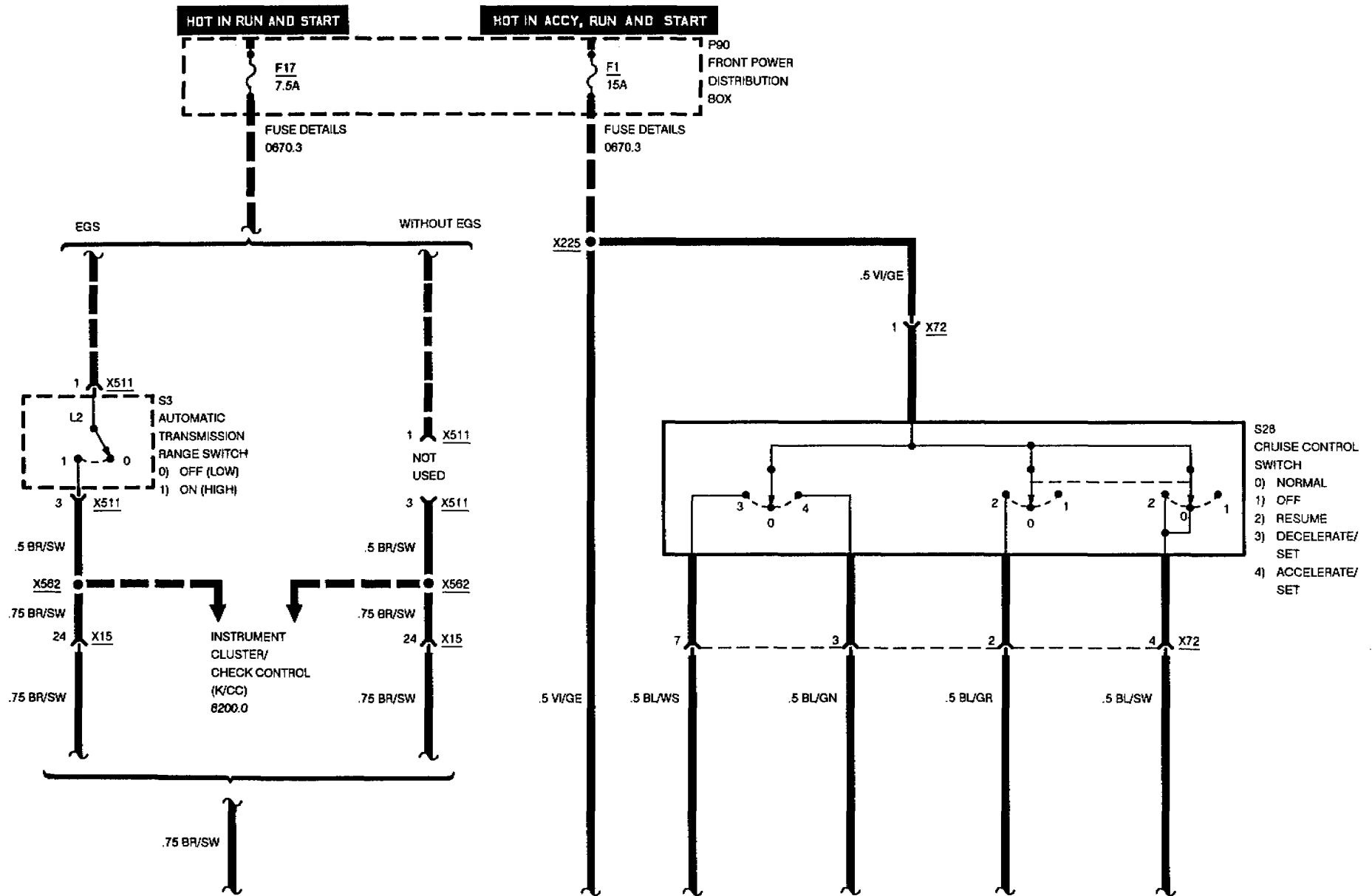


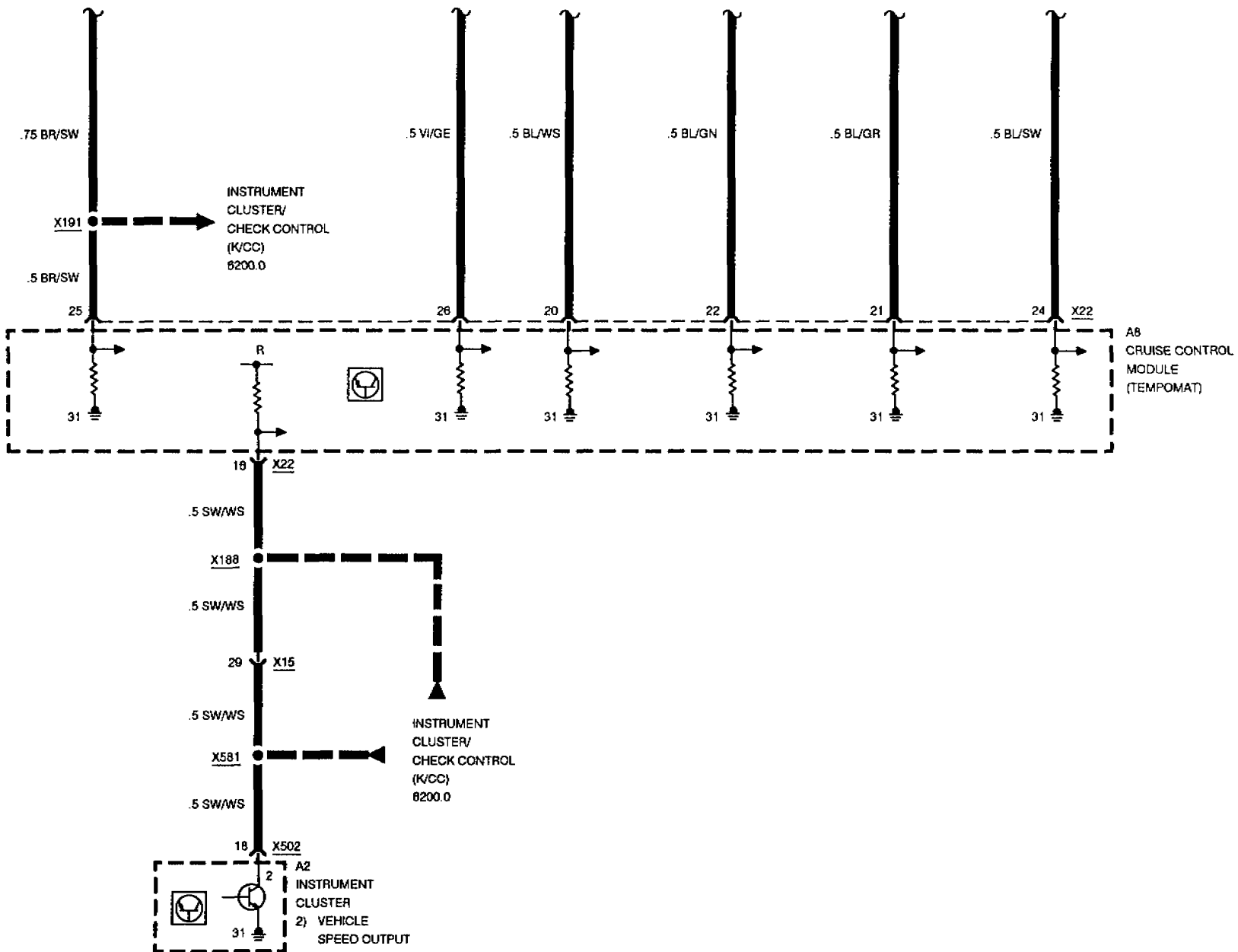
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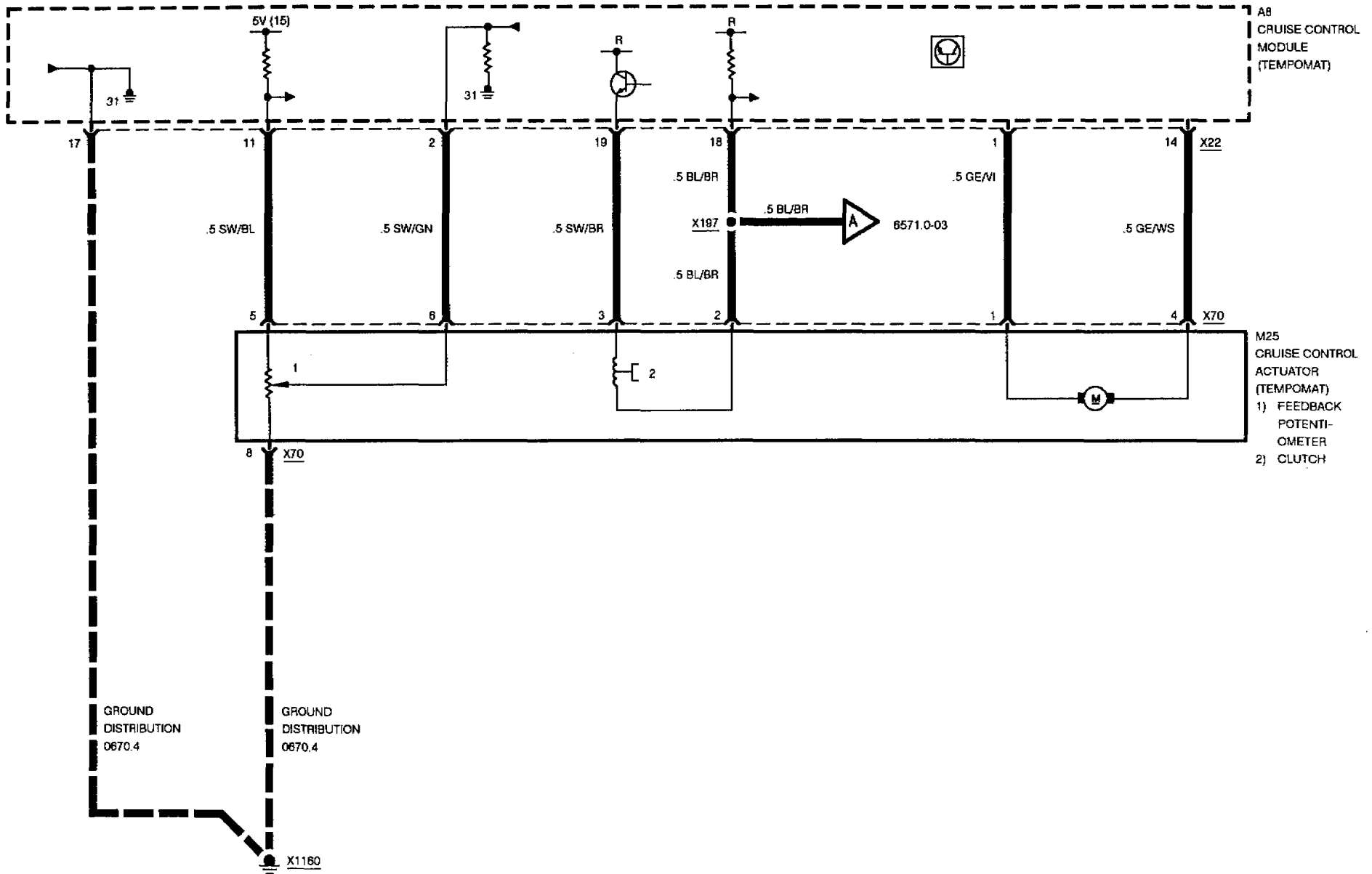


# CRUISE CONTROL (TEMPOMAT)

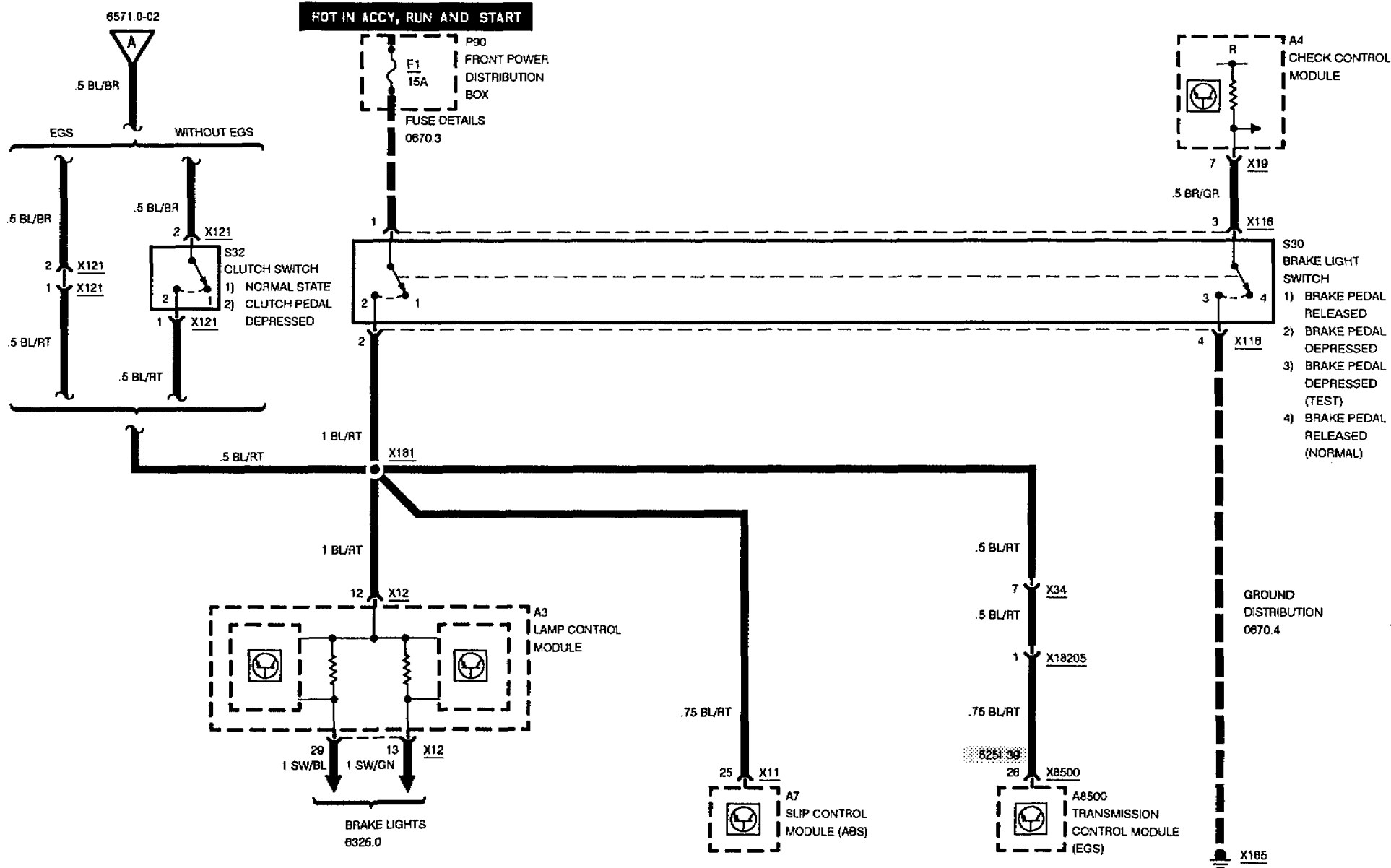




# CRUISE CONTROL (TEMPOMAT)

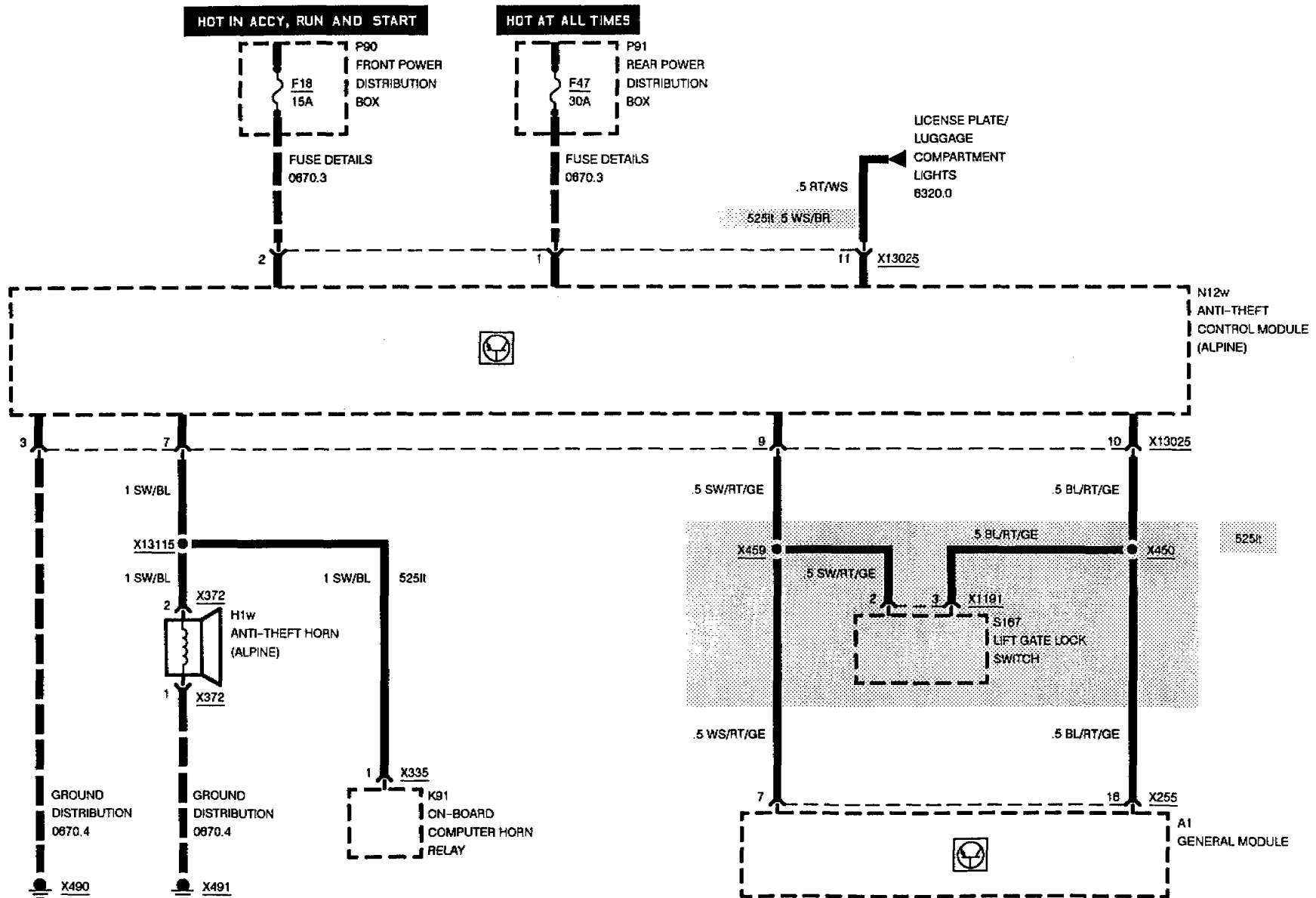


# CRUISE CONTROL (TEMPOMAT)





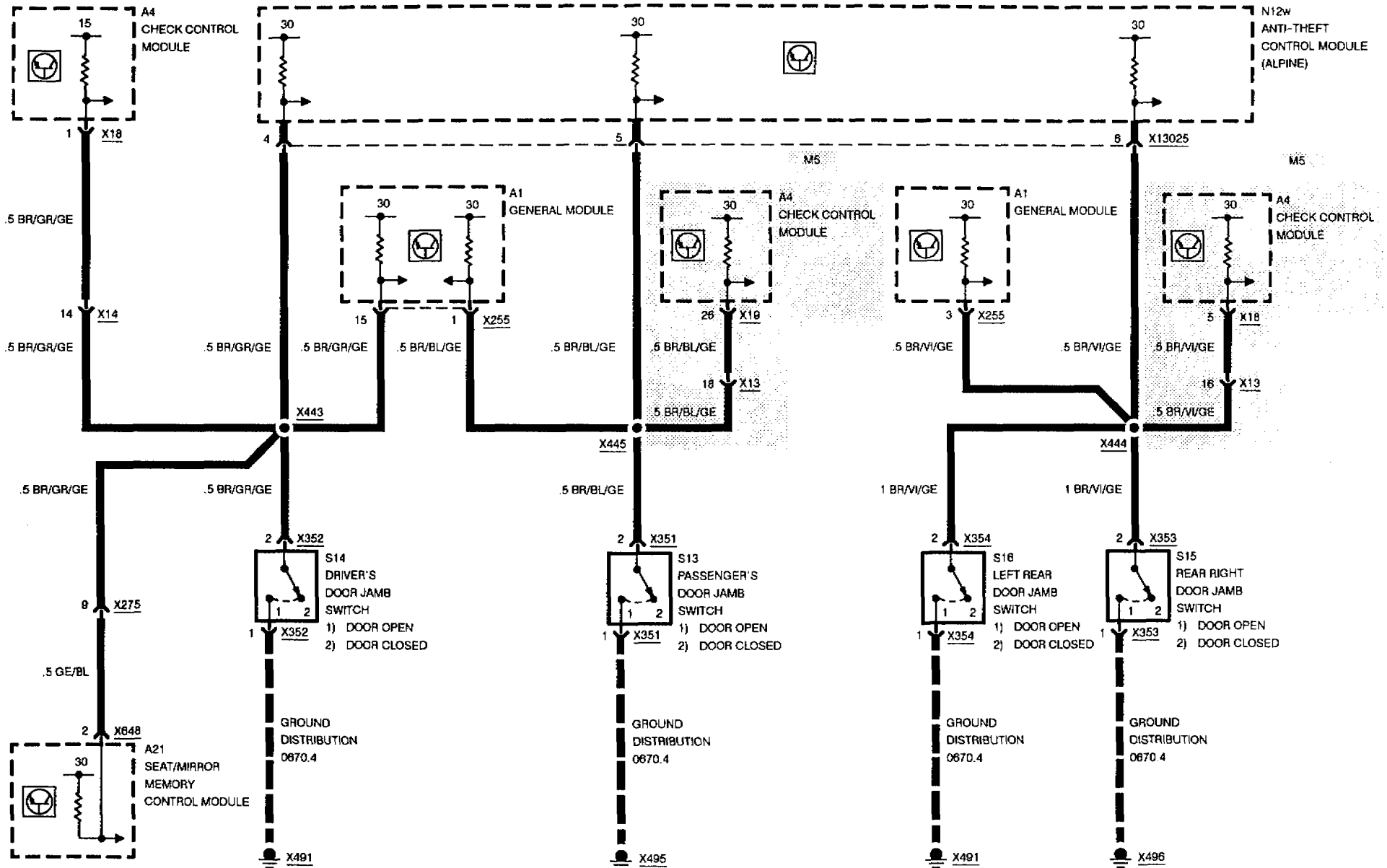
# ANTI-THEFT SYSTEM (ALPINE)





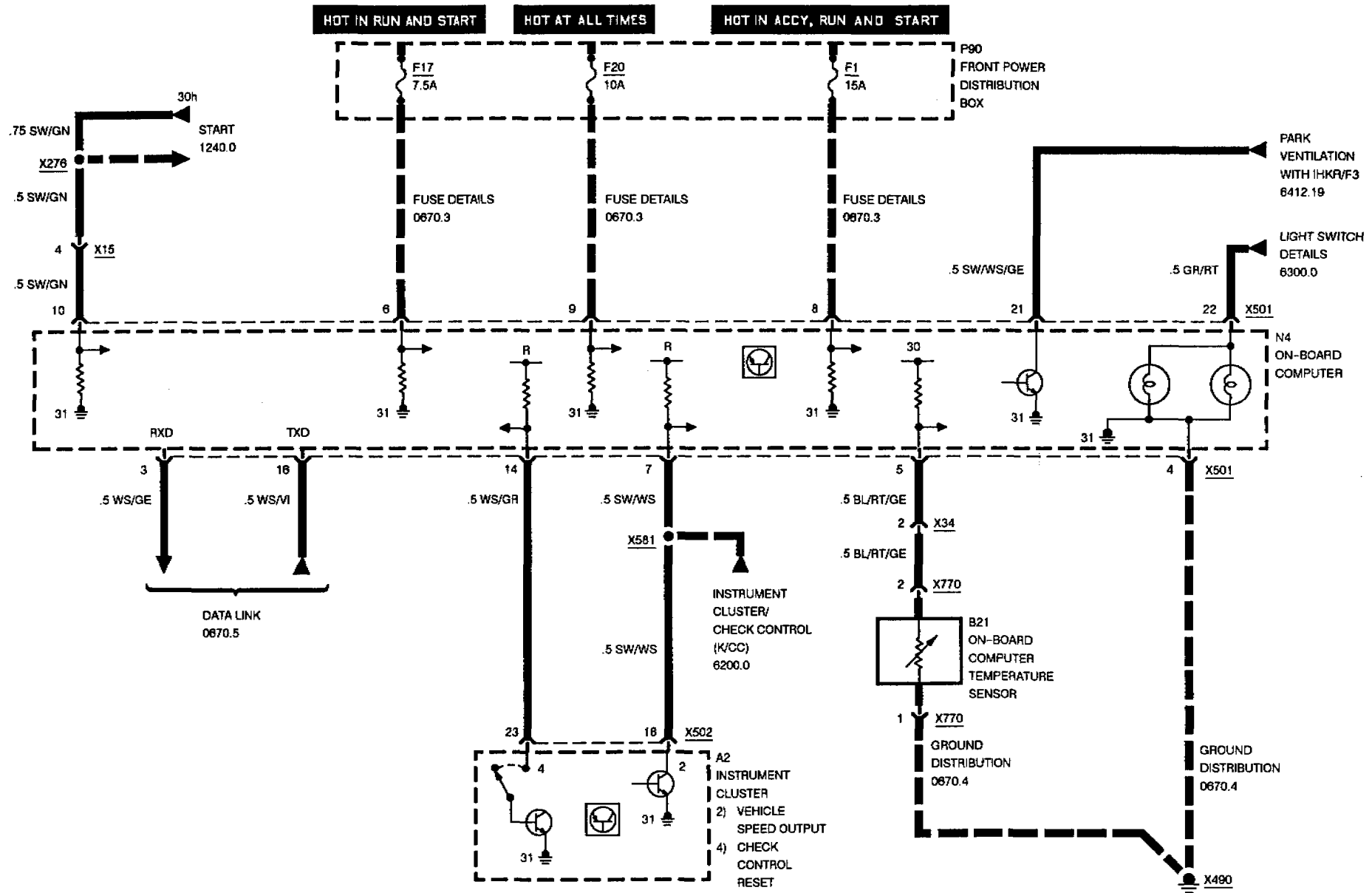
# ANTI-THEFT SYSTEM (ALPINE)

## FRONT AND REAR DOOR JAMB SWITCHES





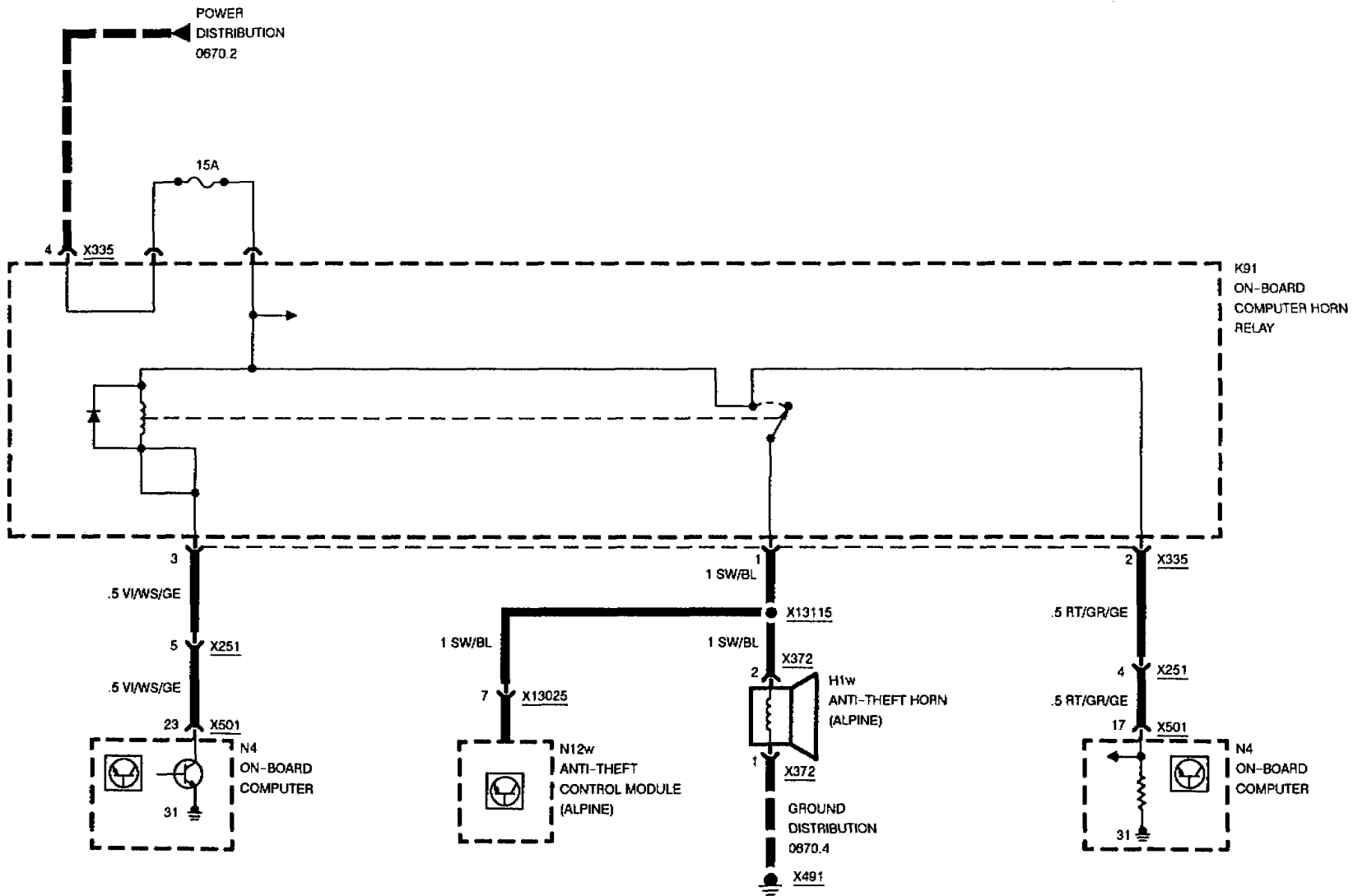
# ON-BOARD COMPUTER (BCIV)







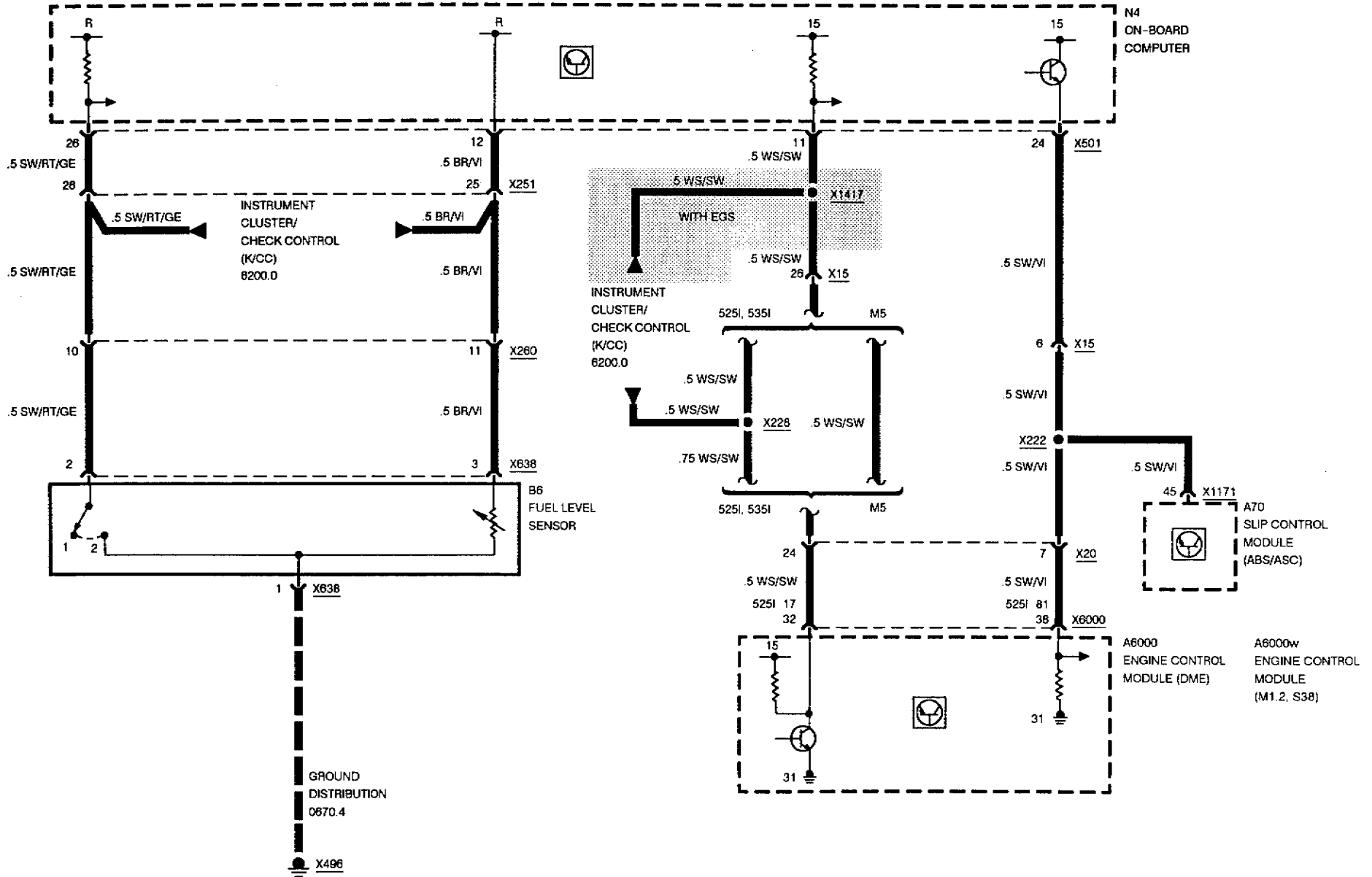
# ON-BOARD COMPUTER (BCIV) ANTI-THEFT HORN, PARK VENTILATION





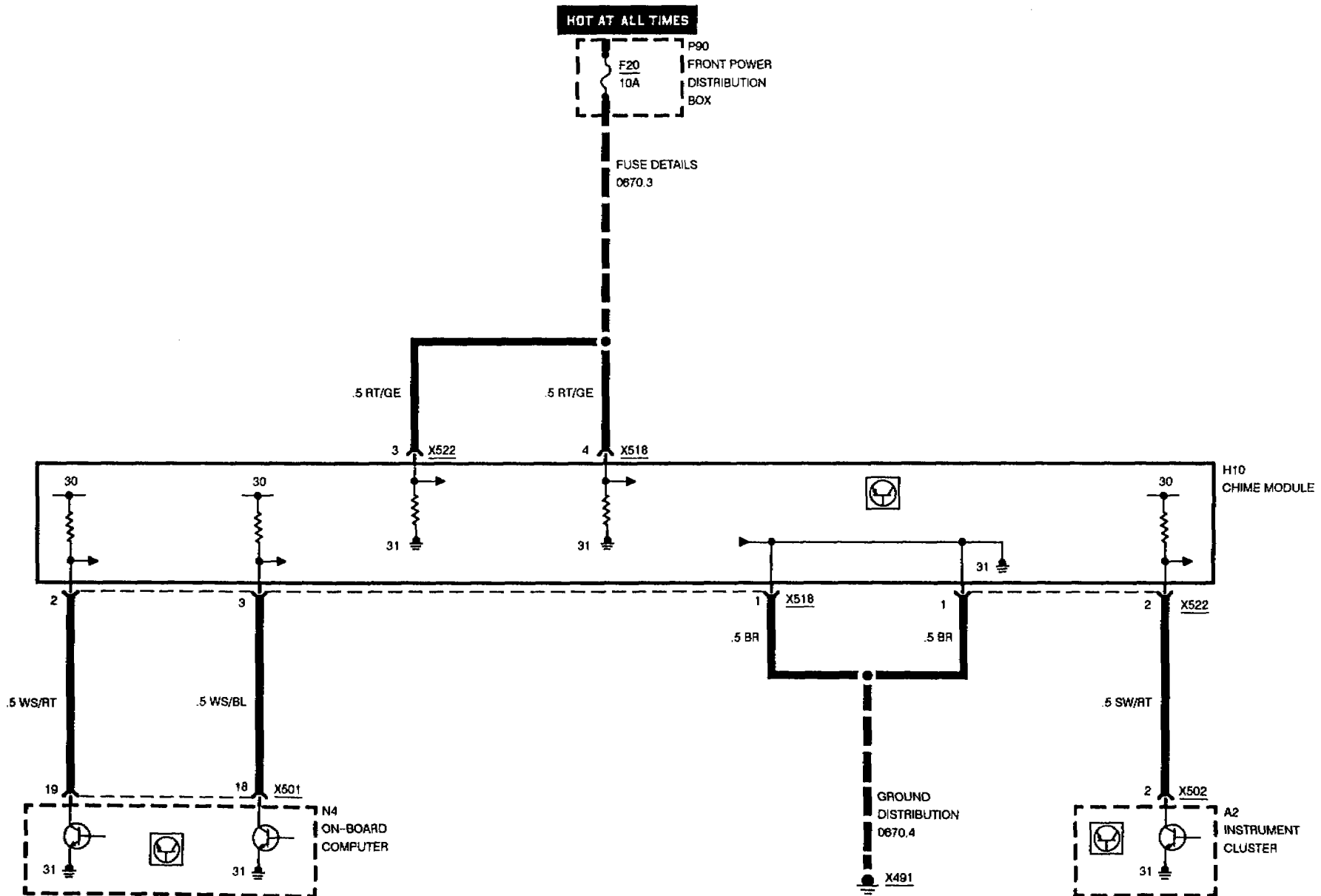
# ON-BOARD COMPUTER (BCIV)

## FUEL GAUGE, CODE



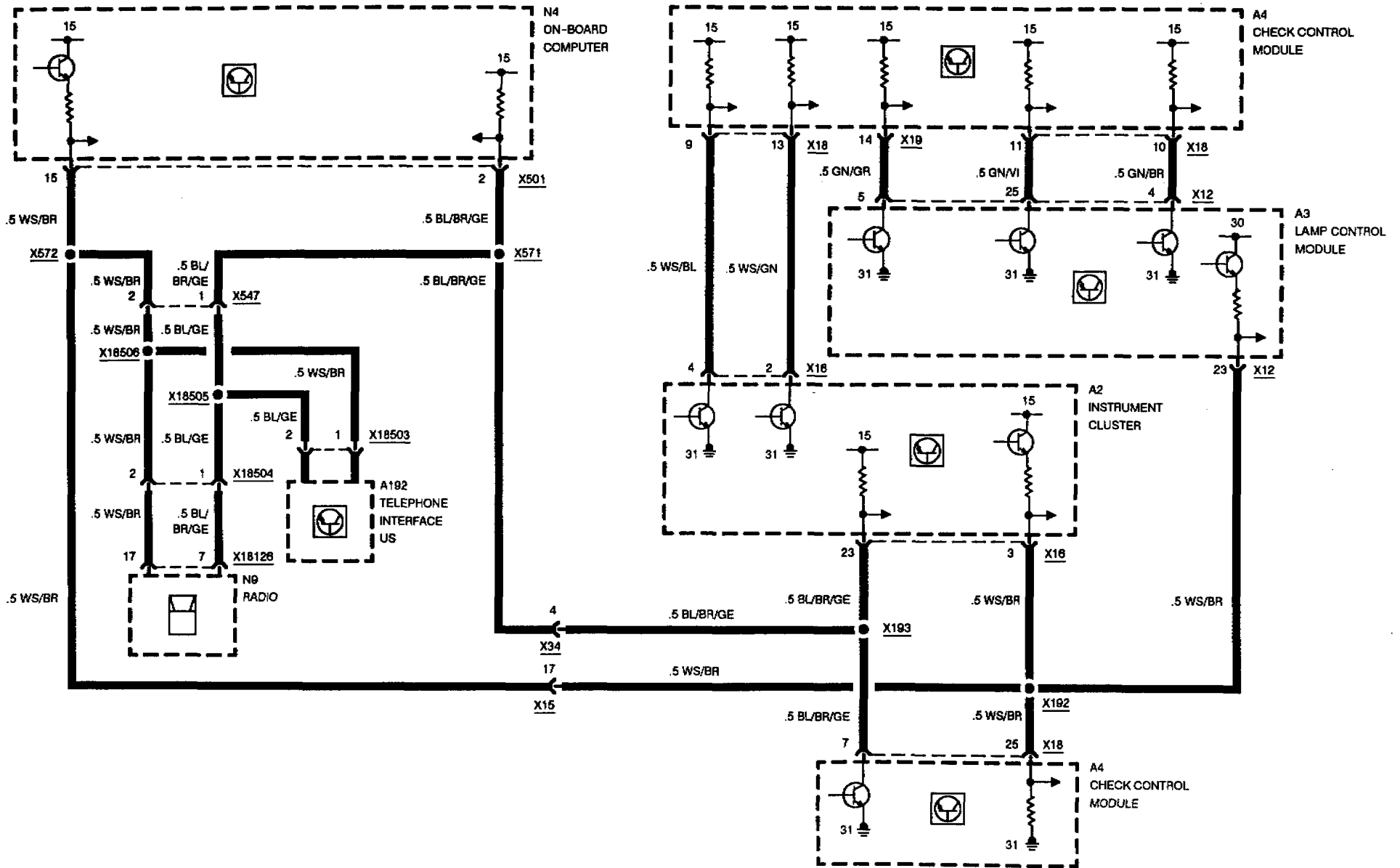


# ON-BOARD COMPUTER (BCIV) CHIME MODULE

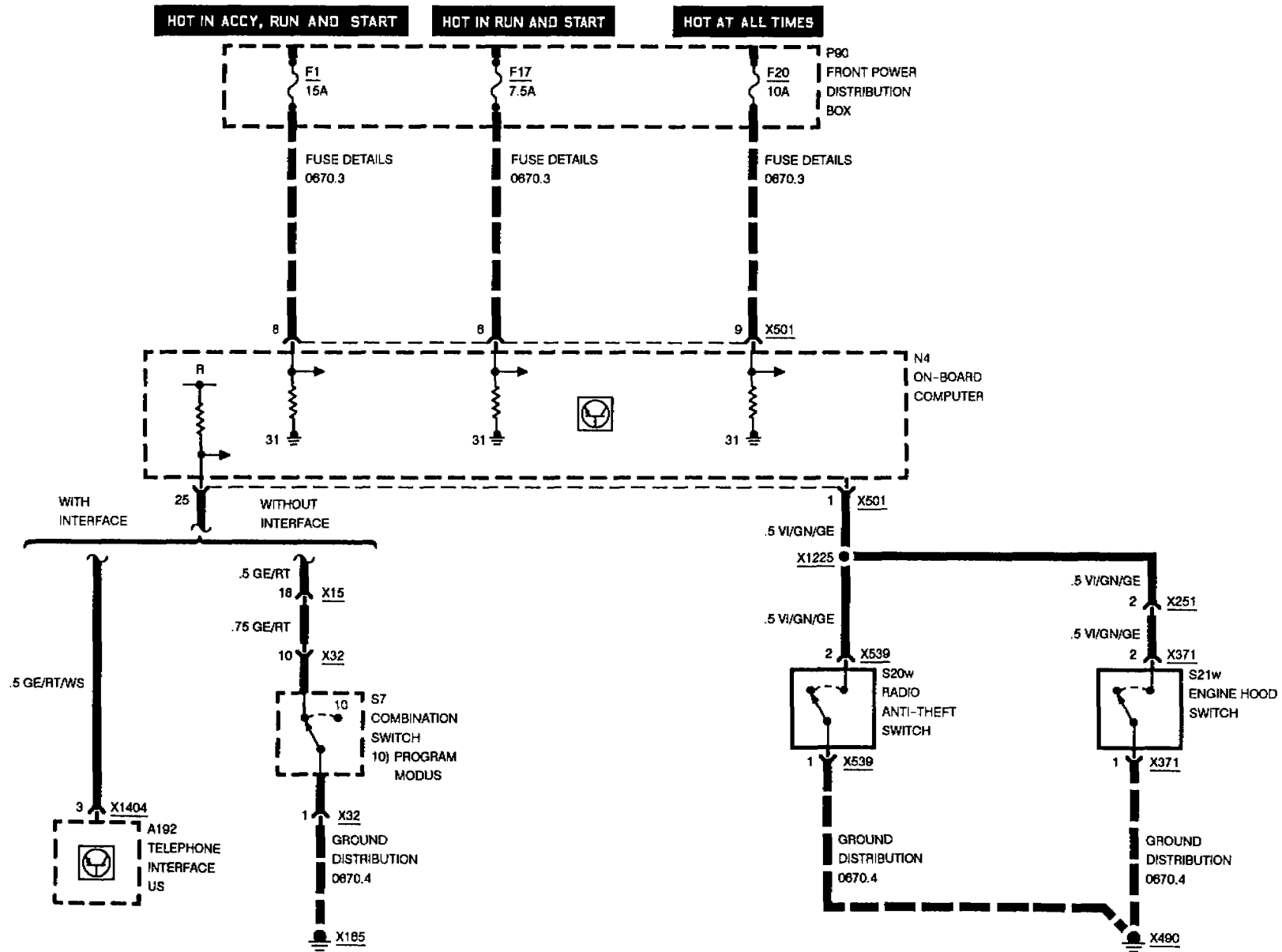




# ON-BOARD COMPUTER (BCIV) DATA LINK



# ON-BOARD COMPUTER (BCIV)





## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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A1	GENERAL MODULE	In Rear Power Distribution Box	
A2	INSTRUMENT CLUSTER	LH side of dash	
A3	LAMP CONTROL MODULE	In Front Power Distribution Box	
A4	CHECK CONTROL MODULE	In Front Power Distribution Box	
A5	RELAY MODULE	In Rear Power Distribution Box	
A8	CRUISE CONTROL MODULE (TEMPOMAT)	Below LH side of dash	
A12	SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE	LH footwell	19-3
A17	SERVOTRONIC CONTROL MODULE	Behind LH footwell trim	18-2
A18	HIFI AMPLIFIER	In LH rear side of luggage compartment	32-1
A18	HIFI AMPLIFIER	In LH rear side of luggage compartment	32-2
A21	SEAT/MIRROR MEMORY CONTROL MODULE	Underside of LH front seat	24-1
A36	REAR WIPER/WASHER INTERVAL CONTROL MODULE	RH side of luggage compartment	33-2
A99	DOUBLE PANEL POWER SUNROOF CONTROL MODULE	In roof panel	31-1
A22z	ELECTROCHROMIC REAR VIEW MIRROR	Center of windshield header	
A552	A/C COMPRESSOR CONTROL MODULE	RH side of LH footwell behind LH footwell trim	18-1
A87w	INTEGRATED CLIMATE REGULATION CONTROL MODULE (IHKR/F3)	LH side of RH footwell	21-3



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
7100.0 8500.0

A6000	ENGINE CONTROL MODULE (DME)	In E-Box	
B1	RIGHT FRONT SPEED SENSOR - ABS	Behind RH front wheel	
B2	LEFT FRONT SPEED SENSOR - ABS	Behind LH front wheel	06-1
B3	RIGHT REAR SPEED SENSOR - ABS	Behind RH rear wheel	06-2
B4	LEFT REAR SPEED SENSOR - ABS	Behind LH rear wheel	
B6	FUEL LEVEL SENSOR	In RH side of luggage compartment	32-3
B10	VEHICLE SPEED SENSOR	Under rear of car	07-2
B11	LH HEAT EXCHANGER TEMPERATURE SENSOR	LH side of IHKR/F3 Plenum	21-2
B12	RH HEAT EXCHANGER TEMPERATURE SENSOR	LH side of RH footwell	21-3
B13	OUTSIDE TEMPERATURE SENSOR	Rear LH side of engine compartment	17-2
B14	EVAPORATOR TEMPERATURE SENSOR	LH side of IHKR/F3 Plenum	21-2
B15	ELECTRO- HYDRAULIC CONVERTER (SERVOTRONIC)	Behind LH front wheel	
B16	LEFT FRONT BRAKE PAD SENSOR	Behind LH front wheel	06-1
B17	RIGHT REAR BRAKE PAD SENSOR	Behind RH rear wheel	06-2
B18	BRAKE FLUID LEVEL SWITCH	LH side of engine compartment	10-3
B21	ON-BOARD COMPUTER TEMPERATURE SENSOR	Under LH front bumper	06-3
B55	DOUBLE PANEL POWER SUN ROOF SENSOR II	In roof panel	31-1
B56	INTERIOR TEMPERATURE SENSOR	Middle of heater control panel	
B900	JUMPER PLUG	In Front Power Distribution Box	08-1



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
7100.0 8500.0

B6200 . HEATED OXYGEN SENSOR . . . . .	On catalytic converter	
B6201 . CYLINDER IDENTIFICATION SENSOR . . . . .	Top front of engine . . . . .	11-3
B6201 . CYLINDER IDENTIFICATION SENSOR . . . . .	RH side of engine (M5) . . . . .	13-1
B6202 . CRANKSHAFT POSITION/RPM SENSOR . . . . .	Top front of engine . . . . .	11-3
B6202 . CRANKSHAFT POSITION/RPM SENSOR . . . . .	RH side of engine (M5) . . . . .	13-1
B6203 . CRANKSHAFT POSITION/RPM SENSOR . . . . .	Front of engine	
B6204 . CAMSHAFT POSITION SENSOR (CYLINDER IDENTIFICATION) . . . . .	Front of engine . . . . .	12-1
B6205 . INTAKE AIR TEMPERATURE SENSOR . . . . .	Front of engine on coolant inlet . . . . .	14-3
B6206 . MASS AIR FLOW SENSOR . . . . .	RH front of engine	
B6209 . HALL EFFECT CAMSHAFT SENSOR . . . . .	Top front of engine	
B6217 . HOT WIRE AIR MASS METER . . . . .	Top front of engine	
B6230 . OIL LEVEL SENSOR . . . . .	Underside of oil pan . . . . .	07-1
B6231 . OIL PRESSURE SWITCH . . . . .	Rear of engine . . . . .	11-1
B6231 . OIL PRESSURE SWITCH . . . . .	Rear of engine below intake manifold . . . . .	11-2
B6231 . OIL PRESSURE SWITCH . . . . .	Front of engine . . . . .	12-1
B6232 . ENGINE COOLANT TEMPERATURE SENSOR	Front of engine . . . . .	12-1
B6232 . ENGINE COOLANT TEMPERATURE SENSOR	Front of engine . . . . .	12-3
B6233 . VOLUME AIR FLOW SENSOR . . . . .	Top center of engine . . . . .	14-1
B6234 . ENGINE COOLANT TEMP. SENSOR (EML) . . . . .	Front of engine . . . . .	12-3





## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
7100.0 8500.0

B6235	TEMPERATURE SWITCH	In E-Box	15-1
B6235	TEMPERATURE SWITCH	In E-Box	15-2
B6236	ENGINE COOLANT TEMPERATURE SENSOR	Front of engine	12-1
B6236	ENGINE COOLANT TEMPERATURE SENSOR	Front of engine	12-2
B6236	ENGINE COOLANT TEMPERATURE SENSOR	Front of engine	12-3
B6238	OIL TEMPERATURE SENSOR	Rear LH side of engine compartment	
B9508	PRESSURE SWITCH	Front RH side of engine compartment	16-2
C100	CONTACT RING	Top of steering column	22-1
C900	SUPPRESSION FILTER	In upper RH C-pillar	30-2
D100	DATA LINK CONNECTOR	Rear LH side of engine compartment	14-1
E9	REAR DEFOGGER I	In rear window	
E10	REAR DEFOGGER/ANTENNA	In rear window	
E13	LEFT LOW BEAM LIGHT	Front of car left	
E14	RIGHT LOW BEAM LIGHT	Front of car right	
E15	LEFT PARK LIGHT	Front of car left	
E16	LEFT REAR LIGHT ASSEMBLY	Rear of car left	
E17	RIGHT REAR LIGHT ASSEMBLY	Rear of car right	
E19	RIGHT PARK LIGHT	Front of car right	
E26	LEFT FOG LIGHT	Front of car left	
E27	RIGHT FOG LIGHT	Front of car right	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
7100.0 8500.0

E28	FRONT CIGAR LIGHTER	Center console	
E29	FRONT CIGAR LIGHTER LIGHT	Center of dash below front of console	
E30	REAR CIGAR LIGHTER	Center console	
E31	REAR CIGAR LIGHTER LIGHT	Center console	
E33	TRUNK LID LIGHT	Underside of trunk lid	
E34	FRONT DOME LIGHT/MAP READING ASSEMBLY	Center of windshield header	
E35	DRIVER'S MAKEUP MIRROR LIGHT	Center of windshield header	
E36	PASSENGER'S MAKEUP MIRROR LIGHT	Center of windshield header	
E39	LEFT REAR INTERIOR LIGHT	In upper LH C-pillar	30-3
E40	RIGHT REAR INTERIOR LIGHT	In upper RH C-pillar	
E41	DASH LIGHT	Center of dash	
E42	GLOVE BOX LIGHT	RH side of glove box above	
E43	LEFT LICENSE PLATE LIGHT	Underside of trunk lid	
E44	RIGHT LICENSE PLATE LIGHT	Underside of trunk lid	
E46	LEFT TRUNK LIGHT ASSEMBLY	Underside of trunk lid	
E47	RIGHT TRUNK LIGHT ASSEMBLY	Underside of trunk lid	
E48	DOOR LOCK HEATER	LH front door in door at key lock assembly	
E51	LEFT WASHER JET HEATER	On underside of engine hood	17-3
E52	RIGHT WASHER JET HEATER	On underside of engine hood	17-3
E56	DRIVER'S SEATBACK HEATER	In lower LH front seatback	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
7100.0 8500.0

E57	... DRIVER'S SEAT HEATER	Underside of LH front seat	
E58	... PASSENGER'S SEAT HEATER	Underside of RH front seat	
E59	... PASSENGER'S SEATBACK HEATER	In lower RH front seatback	
E45y	.. CASSETTE BOX LIGHT	Center console	
E9000	. RIGHT FRONT LIGHT ASSEMBLY	Right	
E9001	. LEFT FRONT LIGHT ASSEMBLY	Left	
E9500	. TRANSMISSION RANGE SELECTOR LIGHT	Center console near gearshift lever	
F0	.... FUSIBLE LINK	Below RH side of rear seat near battery	29-3
F52	... FUSE (10A)	In LH auxiliary relay box, engine compartment	09-3
F56	... AUTOMATIC CUT-OUT	in LH auxiliary relay box, engine compartment	09-3
G1	.... BATTERY	Below RH side of rear seat	29-3
G5	.... DRIVER'S AIR BAG GENERATOR	Top of steering column	22-1
G6509	. GENERATOR	in the engine compartment	
H2	.... LEFT HORN	Front LH side of engine compartment	16-1
H3	.... RIGHT HORN	Front RH side of engine compartment	16-1
H4	.... RIGHT FRONT TURN LIGHT	Front of car	
H5	.... RIGHT REAR TURN LIGHT	RH side of body rear end	
H6	.... LEFT REAR TURN LIGHT	LH side of body rear end	
H7	.... LEFT FRONT TURN LIGHT	Front of car	
H8	.... RIGHT FRONT AUXILIARY TURN LIGHT	Front of car	



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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H9	LEFT FRONT AUXILIARY TURN LIGHT	Front of car	
H10	CHIME MODULE	LH footwell	20-2
H1w	ANTI-THEFT HORN (ALPINE)	Rear LH side of engine compartment	17-2
H24	LEFT BRAKE LIGHT	LH side of body rear end	
H25	LEFT TAIL LIGHT	LH side of body rear end	
H26	LEFT REAR FOG LIGHT	LH side of body rear end	
H27	LEFT BACK UP LIGHT	LH side of body rear end	
H28	RIGHT BACK UP LIGHT	RH side of body rear end	
H29	RIGHT REAR FOG LIGHT	RH side of body rear end	
H30	RIGHT TAIL LIGHT	RH side of body rear end	
H31	RIGHT BRAKE LIGHT	RH side of body rear end	
H34	HIGH LEVEL STOP LIGHT	At back of rear window shelf	
H45	RIGHT REAR SPEAKER	At back of rear window shelf	
H46	LEFT REAR SPEAKER	At back of rear window shelf	
H50	RIGHT FRONT HIGH RANGE SPEAKER	In upper RH front door	
H51	RIGHT FRONT LOW RANGE SPEAKER	Behind RH footwell speaker grille	
H52	RIGHT REAR LOW RANGE SPEAKER	Under rear window shelf	
H53	RIGHT REAR HIGH RANGE SPEAKER	Under rear window shelf	
H54	RIGHT FRONT MIDRANGE SPEAKER	In upper RH front door	
H55	LEFT FRONT MIDRANGE SPEAKER	In upper LH front door	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
7100.0 8500.0

H56 ...	LEFT REAR HIGH RANGE SPEAKER	Under rear window shelf	
H57 ...	LEFT REAR LOW RANGE SPEAKER	Under rear window shelf	
H58 ...	LEFT FRONT LOW RANGE SPEAKER	Behind LH footwell speaker grille	
H59 ...	LEFT FRONT HIGH RANGE SPEAKER	In upper LH front door	
H90 ...	LEFT TRUNK LIGHT	In LH forward side of luggage compartment	
K1 ...	STARTER RELAY	In Front Power Distribution Box	08-1
K2 ...	HORN RELAY	In Front Power Distribution Box	08-1
K3 ...	UNLOADER RELAY, TERMINAL R	In Front Power Distribution Box	08-1
K4 ...	BLOWER RELAY	In Front Power Distribution Box	08-1
K5 ...	WASHER PUMP RELAY	In Front Power Distribution Box	07-3
K8 ...	AUXILIARY WATER PUMP RELAY	In Front Power Distribution Box	08-1
K9 ...	UNLOADER RELAY, TERMINAL 15	In Front Power Distribution Box	07-3
K10 ...	ABS RELAY	In Front Power Distribution Box	08-2
K11 ...	WIPER RELAY	In Rear Power Distribution Box	28-3
K13 ...	REAR DEFOGGER RELAY	In Rear Power Distribution Box	28-3
K15 ...	ELECTRIC POWER PROTECTION RELAY	In Rear Power Distribution Box	28-3
K16 ...	HAZARD FLASHER RELAY	In Front Power Distribution Box	08-2
K19 ...	COMPRESSOR CONTROL RELAY	In Front Power Distribution Box	07-3
K21 ...	NORMAL SPEED RELAY	In LH auxiliary relay box, engine compartment	09-3
K22 ...	HIGH SPEED RELAY	In Front Power Distribution Box	09-3



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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K25 ...	RIGHT PARK LIGHT/LICENSE PLATE LIGHT RELAY .....	Below LH side of dash near hood release lever	
K26 ...	LEFT PARK LIGHT RELAY .....	Below LH side of dash near hood release lever	
K31 ...	CIGAR LIGHTER RELAY .....	Rear LH side of engine compartment in Front Power Distribution Box	
K46 ...	HIGH BEAM LIGHT RELAY .....	Rear LH side of engine compartment in Front Power Distribution Box	
K47 ...	FRONT FOG LIGHT RELAY .....	Rear LH side of engine compartment in Front Power Distribution Box	
K48 ...	LOW BEAM LIGHT RELAY .....	Rear LH side of engine compartment in Front Power Distribution Box	
K52 ...	WIPER/WASHER RELAY .....	In LH forward side of luggage compartment	
K53 ...	WIPER MOTOR RELAY .....	In LH forward side of luggage compartment	
K61 ...	UNLOADER RELAY, TERMINAL 61 .....	In Front Power Distribution Box	08-2
K62 ...	PARK HEATING RELAY .....	Below LH side of dash	
K70 ...	CENTRAL LOCKING TRUNK LID MOTOR RELAY (ZV) .....	RH side of luggage compartment	33-2
K86 ...	WIDE OPEN THROTTLE CUT-OFF RELAY ...	Behind LH footwell trim	18-1
K87 ...	ELECTRIC STEERING COLUMN ADJUSTMENT RELAY .....	Below LH side of dash	
K89 ...	REAR WINDOW WASHER RELAY .....	RH side of luggage compartment	33-2
K90 ...	WINDOW MOTOR RELAY .....	RH side of luggage compartment	33-2
K91 ...	ON-BOARD COMPUTER HORN RELAY .....	Below LH side of rear seat	29-1



## COMPONENT LOCATION CHART

### COMPONENT

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K92	REAR WINDOW WIPER RELAY II	RH side of luggage compartment	33-2
K91w	REAR WINDOW WIPER RELAY I	RH side of luggage compartment	33-2
K6300	ENGINE CONTROL MODULE RELAY	In E-Box	15-1
K6300	ENGINE CONTROL MODULE RELAY	In E-Box	15-2
K6301	CYL. 1-6 FUEL PUMP RELAY	In E-Box	15-1
K6301	CYL. 1-6 FUEL PUMP RELAY	In E-Box	15-2
K6302	FUEL PUMP RELAY	Rear RH side of engine compartment in E-Box	
K6303	OXYGEN SENSOR RELAY	In E-Box	15-1
M2	FUEL PUMP	In RH side of luggage compartment	32-3
M3	WIPER MOTOR	Behind LH fresh air cowl	09-1
M4	WASHER PUMP	Front RH side of engine compartment on washer fluid reservoir	16-3
M5	INTENSIVE WASH PUMP	Front RH side of engine compartment on washer fluid reservoir	
M7	HEADLIGHT/FOG LIGHT WASHER PUMP	Front RH side of engine compartment near windshield washer reservoir	
M9	AUXILIARY FAN MOTOR	Behind front grille	16-1
M12	DRIVER'S DOOR LOCK MOTOR	In lower LH front door	27-1
M13	PASSENGER'S DOOR LOCK MOTOR	In lower RH front door	27-3
M14	RIGHT REAR DOOR LOCK MOTOR	In lower RH rear door	
M15	LEFT REAR DOOR LOCK MOTOR	In lower LH rear door	
M16	GAS FILLER LOCK MOTOR	In RH side of luggage compartment	33-1
M17	TRUNK LOCK MOTOR	Underside of trunk lid	31-2



# COMPONENT LOCATION CHART

## COMPONENT

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M20 ...	LEFT REAR WINDOW MOTOR	In lower LH rear door	
M21 ...	DRIVER'S WINDOW MOTOR	In lower LH front door	27-2
M22 ...	RIGHT REAR WINDOW MOTOR	In lower RH rear door	
M23 ...	PASSENGER'S WINDOW MOTOR	In lower RH front door	28-1
M24 ...	SUNROOF MOTOR	Center of windshield header near rear view mirror	23-3
M25 ...	CRUISE CONTROL ACTUATOR (TEMPOMAT)	LH side of engine compartment	09-2
M27 ...	REAR LEFT HEADREST MOTOR	In upper LH front seatback	
M28 ...	REAR RIGHT HEADREST MOTOR	In upper RH front seatback	
M30 ...	BLOWER MOTOR	Rear LH side of engine compartment	17-2
M34 ...	DASH VENT MIXING FLAP MOTOR	LH side of RH footwell	21-3
M36 ...	FRESH AIR FLAP MOTOR	LH side of IHKR/F3 Plenum	21-2
M40 ...	RECIRCULATION FLAP MOTOR	LH side of IHKR/F3 Plenum	21-2
M50 ...	DRIVER'S SEAT CUSHION TILT MOTOR	Underside of LH front seat	25-2
M51 ...	DRIVER'S SEAT MOVEMENT MOTOR	Underside of LH front seat	25-2
M52 ...	DRIVER'S SEAT HEIGHT MOTOR	Underside of LH front seat	25-2
M53 ...	DRIVER'S SEATBACK RECLINER MOTOR	Underside of LH front seat	25-2
M54 ...	DRIVER'S HEADREST MOTOR	In upper LH front seatback	28-2
M55 ...	DRIVER'S SEAT LUMBAR SUPPORT MOTOR	Under LH front seat	
M56 ...	PASSENGER'S SEAT LUMBAR SUPPORT MOTOR	Under RH front seat	
M57 ...	PASSENGER'S SEAT HEADREST MOTOR	In upper RH front seatback	





# COMPONENT LOCATION CHART

## COMPONENT

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M58 ...	PASSENGER'S SEATBACK RECLINER MOTOR	Under RH front seat	
M59 ...	PASSENGER'S SEAT HEIGHT MOTOR	..... Under RH front seat	
M60 ...	PASSENGER'S SEAT MOVEMENT MOTOR	.. Under RH front seat	
M61 ...	PASSENGER'S SEAT CUSHION TILT MOTOR	Under RH front seat	
M65 ...	DRIVER'S THIGH SUPPORT MOTOR	..... Underside of LH front seat	25-2
M66 ...	PASSENGER'S THIGH SUPPORT MOTOR	... Under RH front seat	
M74 ...	SUN BLIND MOTOR	..... At back of rear window shelf	
M80 ...	LEFT HEADLIGHT WIDENING MOTOR	..... Near LH headlight assembly	
M81 ...	RIGHT HEADLIGHT WIDENING MOTOR	..... Near RH headlight assembly	
M82 ...	STEERING COLUMN LENGTH ADJUST MOTOR	..... Bottom of steering column	20-3
M87 ...	MOTOR DRIVE I DOUBLE PANEL POWER SUNROOF	..... In roof panel	
M88 ...	MOTOR DRIVE II DOUBLE PANEL POWER SUNROOF	..... In roof panel	31-1
M94 ...	REAR WINDOW WIPER MOTOR	..... Rear of luggage compartment on lift gate behind trim panel	
M95 ...	REAR WINDOW WASHER PUMP	..... RH side of luggage compartment	33-3
M96 ...	REAR WINDOW MOTOR	..... Rear of luggage compartment on lift gate behind trim panel	31-3
M97 ...	LIFT GATE MOTOR	..... Rear of luggage compartment on lift gate behind trim panel	31-3
M37a ..	AUXILIARY WATER PUMP	..... Rear LH side of engine compartment	08-3
M6133 .	AIR PUMP	..... Top front of engine	11-3
M6350 .	ELECTRONIC THROTTLE ACTUATOR (EML)	.. Top LH side of engine	14-1



## COMPONENT LOCATION CHART

### COMPONENT

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M6506	E-BOX FAN	Rear RH side of engine compartment in E-Box	
M6510	STARTER	LH side of engine compartment below Intake manifold	
N1	ANTI-THEFT CONTROL MODULE (DWA)	Below LH side of rear seat inside box on interior side of RH door sill	
N3	DIMMER	LH side of dash	
N4	ON-BOARD COMPUTER	Center of dash	
N6	HEADLIGHT/FOGLIGHT CLEANING MODULE (SRA)	In LH auxiliary relay box, engine compartment	09-3
N8	ANTENNA AMPLIFIER AM/FM	In upper LH C-pillar	30-3
N9	RADIO	Center of dash	22-3
N17	CRASH CONTROL MODULE	In Front Power Distribution Box	08-2
N22	CD CHANGER	In luggage compartment	32-2
N50	CLOCK	Center of dash	
N12w	ANTI-THEFT CONTROL MODULE (ALPINE)	Below RH side of rear seat	
N404	DIVERSITY	In upper LH C-pillar	
N444	FM AMPLIFIER HLO	In upper LH C-pillar	
P90	FRONT POWER DISTRIBUTION BOX	Rear LH side of engine compartment	14-1
P91	REAR POWER DISTRIBUTION BOX	Below LH side of rear seat	
P92	AUXILIARY RELAY BOX	LH side of engine compartment	09-2
P93	E-BOX	Rear RH side of engine compartment	
P95	AUXILIARY FUSE BOX	LH side of engine compartment	



# COMPONENT LOCATION CHART

## COMPONENT

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P96 ...	AUXILIARY FUSE BOX IN LUGGAGE COMPARTMENT	Below LH side of rear seat in Rear Power Distribution Box	
R1 ....	MIXING ACTUATOR	RH side of LH footwell	
R5 ....	HEADREST POTENTIOMETER	In lower LH front seatback	28-2
R6 ....	SEAT HEIGHT POTENTIOMETER	Underside of LH front seat	24-3
R7 ....	SEATBACK POTENTIOMETER	Underside of LH front seat	24-3
R8 ....	SEAT CUSHION REAR HEIGHT POTENTIOMETER	Underside of LH front seat	24-2
R9 ....	SEAT CUSHION MOVEMENT POTENTIOMETER	Underside of LH front seat	24-2
R10 ...	PEDAL POSITION SENSOR	On rear of throttle body	21-1
R11 ...	BLOWER RESISTORS	LH side of IHKR/F3 Plenum	21-2
R15 ...	THIGH SUPPORT POTENTIOMETER	In lower LH front seatback	
R6240 .	RESISTOR	In the engine compartment	
R6252 .	ACCELERATOR PEDAL POSITION SENSOR	Top front of engine compartment	
R6253 .	ACCELERATOR PEDAL POSITION SENSOR	Top front of engine compartment	
S3 ....	AUTOMATIC TRANSMISSION RANGE SWITCH	Front of gearshift selector	23-2
S4 ....	HORN SWITCH	Top of steering column	
S5 ....	WIPER/WASHER SWITCH	Top of steering column	
S6 ....	ASC SWITCH	Center of console	
S7 ....	COMBINATION SWITCH	Top of steering column	
S8 ....	LIGHT SWITCH	LH side of dash	



## COMPONENT LOCATION CHART

### COMPONENT

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S9	LIGHT SWITCH	LH side of dash	
S10	FOG LIGHT SWITCH	LH side of dash	
S12	MEMORY MIRRORS CONTROL SWITCH	In upper LH front door	
S13	PASSENGER'S DOOR JAMB SWITCH	Ahead of RH rear door	30-1
S14	DRIVER'S DOOR JAMB SWITCH	Ahead of LH rear door	30-1
S15	REAR RIGHT DOOR JAMB SWITCH	Rear RH door pillar	30-1
S16	LEFT REAR DOOR JAMB SWITCH	LH rear door jamb	30-1
S17	MIRROR CONTROL SWITCH	In upper LH front door	
S18	HAZARD SWITCH	Center console below	
S23	TRUNK LOCK SWITCH (DWA)	Underside of trunk lid	31-2
S27	INERTIA SWITCH	Below LH side of rear seat	29-1
S28	CRUISE CONTROL SWITCH	Top of steering column behind steering wheel	
S30	BRAKE LIGHT SWITCH	LH side of dash on brake pedal support bracket	19-1
S31	PARK BRAKE SWITCH	Below center of console	
S32	CLUTCH SWITCH	LH side of dash on clutch pedal support bracket	19-1
S36	TEMPERATURE SWITCH	RH top of radiator	15-3
S37	GLOVE BOX LIGHT SWITCH	LH side of glove box	23-1
S38	SUNROOF SWITCH	Center of windshield header near rear view mirror	23-3
S39	SUNROOF POSITION SWITCH	Center of windshield header near rear view mirror	23-3
S40	FRONT CONSOLE WINDOW SWITCH ASSEMBLY	Center console	



## COMPONENT LOCATION CHART

### COMPONENT

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S41	LEFT REAR WINDOW SWITCH	In upper LH rear door	
S42	RIGHT REAR WINDOW SWITCH	In upper RH rear door	
S43	DRIVER'S WINDOW LIMIT SWITCH	In upper LH front door	
S44	PASSENGER'S WINDOW LIMIT SWITCH	In upper RH front door	
S45	LEFT REAR WINDOW LIMIT SWITCH	In upper LH rear door	
S46	RIGHT REAR WINDOW LIMIT SWITCH	In upper RH rear door	
S47	DRIVER'S DOOR LOCK SWITCH	LH front door behind door panel	
S48	DRIVER'S DOOR HANDLE SWITCH	LH front door behind door panel	
S49	PASSENGER'S DOOR LOCK SWITCH	RH front door	
S51	DRIVER'S SEAT SEAT CONTROL SWITCH	In rear of console	
S52	DRIVER'S SEAT LUMBAR SWITCH	In rear of console	
S53	DRIVER'S SEAT, SEAT HEATER SWITCH	In rear of console	
S54	PASSENGER'S SEAT, SEAT HEATER SWITCH	In rear of console	
S55	PASSENGER'S SEAT LUMBAR SUPPORT SWITCH	In rear of console	
S56	PASSENGER'S SEAT, SEAT CONTROL SWITCH	In rear of console	
S57	MEMORY SEAT MIRRORS SWITCH	In rear of console	
S58	DRIVER'S SEAT BELT SWITCH	In LH front seat belt buckle	
S61	TRUNK LID SWITCH	Underside of trunk lid left	
S63	ENGINE COOLANT LEVEL SWITCH	Top rear of engine	14-1
S63	ENGINE COOLANT LEVEL SWITCH	Top center of engine ahead of oil fill cap	14-2



## COMPONENT LOCATION CHART

### COMPONENT

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S63 ...	ENGINE COOLANT LEVEL SWITCH	Front RH side of engine compartment	16-2
S64 ...	WASHER FLUID LEVEL SWITCH	Front RH side of engine compartment on washer fluid reservoir	16-3
S68 ...	LEFT REAR SEAT HEATER SWITCH	In rear console	
S69 ...	RIGHT REAR SEAT HEATER SWITCH	In rear console	
S71 ...	LEFT FRONT IMPACT SENSOR	Ahead of LH side shock tower	09-2
S72 ...	RIGHT FRONT IMPACT SENSOR	RH side of engine compartment ahead of RH side shock tower	
S75 ...	BLOWER SWITCH	Center of dash middle of heater control panel	
S76 ...	REAR WINDOW DEFOGGER SWITCH	Center of dash middle of heater control panel	
S77 ...	DRIVER'S MAKEUP MIRROR SWITCH	Above LH sun visor	
S78 ...	PASSENGER'S MAKEUP MIRROR SWITCH	Under roof center panel	
S85 ...	LEFT REAR SEAT CONTACT	Below LH side of rear seat	
S86 ...	RIGHT REAR SEAT CONTACT	Below RH side of rear seat	
S92 ...	BACK UP LIGHT SWITCH (MANUAL TRANSMISSION)	Below center console	
S93 ...	DRIVER'S THIGH SUPPORT SWITCH	LH front seat left	
S94 ...	PASSENGER'S THIGH SUPPORT SWITCH	RH front seat	
S147 ..	REAR WINDOW OPENING SWITCH	Rear of luggage compartment on lift gate behind trim panel	
S167 ..	LIFT GATE LOCK SWITCH	Rear of luggage compartment on lift gate In upper LH A-pillar	
S170 ..	REAR WINDOW LIMIT SWITCH	Rear of luggage compartment on lift gate behind trim panel	
S171 ..	LIFT GATE LIMIT SWITCH	Rear of luggage compartment on lift gate behind trim panel	



## COMPONENT LOCATION CHART

### COMPONENT

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S176	..	REAR WIPER/WASHER FLUID LEVEL SWITCH	RH side of luggage compartment	33-3
S198	..	JET HEATER THERMOSWITCH	Front LH side of engine compartment	
S21w	..	ENGINE HOOD SWITCH	Back of LH side shock tower	08-2
S119z	..	STEERING COLUMN POSITION SWITCH	Below LH side of dash	
S134w	..	IHKR/F3 CONTROL PANEL	RH side of LH footwell	
S135w	..	IHKR/F3 SWITCHING UNIT	RH side of LH footwell	
S8503	..	PROGRAM SWITCH	Below center console	
S8507	..	KICK-DOWN SWITCH	RH side of LH footwell	
S8514	..	TRANSMISSION CONTROL PROGRAM SELECTION SWITCH (EGS)	Below center console	
T6151	..	CYL. 1 IGNITION COIL	RH side of engine	13-2
T6152	..	CYL. 2 IGNITION COIL	RH side of engine	13-2
T6153	..	CYL. 3 IGNITION COIL	RH side of engine	13-2
T6154	..	CYL. 4 IGNITION COIL	LH side of engine	13-2
T6155	..	CYL. 5 IGNITION COIL	LH side of engine	13-2
T6156	..	CYL. 6 IGNITION COIL	LH side of engine	13-2
U4	....	TELEPHONE HANDSET	Below center console	
V6	....	UNCOUPLING DIODE	RH side of dash behind glove box	
V4y	...	DAYTIME RUNNING LIGHTS CODING DIODES CANADA	Behind LH side of dash center of windshield header	



# COMPONENT LOCATION CHART

## COMPONENT

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X1	...	B+ JUNCTION POINT	.....	Below LH side of dash		
X11	...	CONNECTOR (35-PINS, NATURAL)	.....	Rear RH side of engine compartment in E-Box		00-3
X12	...	CONNECTOR (35-PINS, BLACK)	.....	Rear LH side of engine compartment in Front Power Distribution Box		00-2
X13	...	CONNECTOR (21-PINS, WHITE)	.....	Behind LH footwell trim	18-3	01-3
X14	...	CONNECTOR (30-PINS, YELLOW)	.....	Behind LH footwell trim	18-3	00-4
X15	...	CONNECTOR (30-PINS, WHITE)	.....	LH footwell	20-1	00-4
X16	...	CONNECTOR (26-PINS, NATURAL)	.....	Rear of A2 Instrument cluster	22-2	01-1
X17	...	CONNECTOR (6-PINS, BROWN)	.....	Rear of A2 Instrument cluster	22-2	01-4
X18	...	CONNECTOR (26-PINS, BLUE)	.....	Rear LH side of engine compartment in Front Power Distribution Box		01-1
X19	...	CONNECTOR (26-PINS, GREEN)	.....	Rear LH side of engine compartment in Front Power Distribution Box		01-1
X20	...	CONNECTOR (25-PINS, BLACK)	.....	Rear LH side of engine compartment	08-3	03-4
X22	...	CONNECTOR (26-PINS, BLUE)	.....	Rear RH side of engine compartment in E-Box		01-1
X31	...	CONNECTOR (12-PINS, BLACK)	.....	LH side of engine compartment	10-3	
X32	...	CONNECTOR (12-PINS, WHITE)	.....	LH footwell	20-1	07-3
X33	...	CONNECTOR (12-PINS, BLACK)	.....	LH footwell	20-1	06-4
X34	...	CONNECTOR (12-PINS, WHITE)	.....	LH footwell	19-3	06-4
X35	...	CONNECTOR (21-PINS, BLACK)	.....	LH footwell	19-3	01-3
X51	...	CONNECTOR (10-PINS, BLACK)	.....	Rear LH side of engine compartment in Front Power Distribution Box		15-2
X52	...	CONNECTOR (9-PINS, BLACK)	.....	In LH auxillary relay box, engine compartment		02-3
X54	...	CONNECTOR (9-PINS, BLACK)	.....	Rear LH side of engine compartment in Front Power Distribution Box		02-3





# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X55 ...	CONNECTOR (9-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		02-3
X56 ...	CONNECTOR (10-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		15-2
X57 ...	CONNECTOR (9-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		02-3
X58 ...	CONNECTOR (9-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		02-3
X61 ...	CONNECTOR (9-PINS, BLACK) .....	In LH auxiliary relay box, engine compartment .....	09-3	02-3
X63 ...	CONNECTOR (9-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		02-3
X64 ...	CONNECTOR (9-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		02-3
X65 ...	CONNECTOR (9-PINS, BLACK) .....	Rear LH side of engine compartment in Front Power Distribution Box .....		02-3
X67 ...	CONNECTOR (12-PINS, BLACK) .....	Front LH side of engine compartment near front left turn signal assembly .....		01-2
X69 ...	CONNECTOR (25-PINS, BLACK) .....	Rear LH side of engine compartment .....	08-3	03-4
X70 ...	CONNECTOR (8-PINS, BLACK) .....	LH side of engine compartment ahead of LH side shock tower RH side of differential .....		01-5
X72 ...	CONNECTOR (8-PINS, WHITE) .....	LH footwell .....	19-3	13-2
X73 ...	CONNECTOR (8-PINS, BLACK) .....	LH footwell .....	21-1	03-1
X74 ...	CONNECTOR (12-PINS, ORANGE) .....	LH footwell .....	19-2	08-2
X76 ...	CONNECTOR (6-PINS, BLACK) .....	Rear RH side of engine compartment in E-Box .....		04-1
X79 ...	CONNECTOR (3-PINS, BLACK) .....	Rear RH side of engine compartment in E-Box .....		04-4
X81 ...	CONNECTOR (3-PINS, ORANGE) .....	Ahead of LH side shock tower .....	09-2	02-5
X82 ...	CONNECTOR (3-PINS, BLACK) .....	Front of engine compartment behind front grille .....		04-5
X83 ...	CONNECTOR (3-PINS, YELLOW) .....	Below LH side of dash .....	18-2	04-5



## COMPONENT LOCATION CHART

### COMPONENT

		PAGE - FIGURE	
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X84	CONNECTOR (3-PINS, YELLOW) . . . . .	Behind LH footwell trim . . . . .	18-2
X85	CONNECTOR (3-PINS, BLACK) . . . . .	LH side of engine compartment	
X86	CONNECTOR (3-PINS, ORANGE) . . . . .	RH side of engine compartment ahead of RH side shock tower . . . . .	04-4
X87	CONNECTOR (3-PINS, BLACK) . . . . .	Front RH side of engine compartment near windshield washer reservoir RH top of radiator . . . . .	02-5
X88	CONNECTOR (2-PINS, BLACK) . . . . .	Below LH side of dash LH side of steering column	
X105	CONNECTOR (2-PINS, GRAY) . . . . .	On underside of engine hood . . . . .	17-3
X106	CONNECTOR (2-PINS, GRAY) . . . . .	On underside of engine hood . . . . .	17-3
X107	CONNECTOR (2-PINS, GRAY) . . . . .	Front RH side of engine compartment on washer fluid reservoir	
X109	CONNECTOR (2-PINS, BLACK) . . . . .	Front RH side of engine compartment on washer fluid reservoir	
X110	CONNECTOR (2-PINS, GRAY) . . . . .	Front RH side of engine compartment on washer fluid reservoir	
X111	CONNECTOR (2-PINS, BLACK) . . . . .	LH side of engine compartment . . . . .	10-3
X112	CONNECTOR (2-PINS, BLACK) . . . . .	Top center of engine ahead of oil fill cap (with EML)	
X114	CONNECTOR (2-PINS, BLACK) . . . . .	LH side of engine compartment . . . . .	10-3
X116	CONNECTOR (4-PINS, BLACK) . . . . .	LH side of dash on brake pedal support bracket	
X118	CONNECTOR (2-PINS, BLACK) . . . . .	Behind LH front wheel . . . . .	06-1
X120	CONNECTOR (2-PINS, BLACK) . . . . .	LH side of engine compartment . . . . .	10-3
X121	CONNECTOR (2-PINS, WHITE) . . . . .	LH side of dash on clutch pedal support bracket	
X122	CONNECTOR (2-PINS, BLACK) . . . . .	Rear LH side of engine compartment . . . . .	08-3
X123	CONNECTOR (2-PINS, GRAY) . . . . .	Front RH side of engine compartment near windshield washer reservoir	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X126 ..	CONNECTOR (2-PINS, WHITE) .....	Front RH side of engine compartment ahead of wheel well .....	17-1
X127 ..	CONNECTOR (2-PINS, BLACK) .....	Front RH side of engine compartment ahead of wheel well .....	17-1
X128 ..	CONNECTOR (2-PINS, BLACK) .....	LEFT FRONT TURN LIGHT, H7	
X129 ..	CONNECTOR (2-PINS, GRAY) .....	LEFT PARK LIGHT, E15	
X130 ..	CONNECTOR (2-PINS, YELLOW) .....	LEFT LOW BEAM LIGHT, E13	
X131 ..	CONNECTOR (2-PINS, WHITE) .....	LEFT HIGH BEAM LIGHT, E11	
X132 ..	CONNECTOR (2-PINS, BLACK) .....	LEFT HORN, H2	
X133 ..	CONNECTOR (2-PINS, BLACK) .....	RIGHT HORN, H3	
X134 ..	CONNECTOR (2-PINS, WHITE) .....	RIGHT HIGH BEAM LIGHT, E12	
X135 ..	CONNECTOR (2-PINS, YELLOW) .....	RIGHT LOW BEAM LIGHT, E14	
X136 ..	CONNECTOR (2-PINS, GRAY) .....	RIGHT PARK LIGHT, E19	
X137 ..	CONNECTOR (2-PINS, BLACK) .....	RIGHT FRONT TURN LIGHT, H4	
X159 ..	CONNECTOR (10-PINS, BLACK) .....	In lower LH front door .....	27-2
X160 ..	CONNECTOR (10-PINS, BLACK) .....	PASSENGER'S SIDE MEMORY MIRROR, Y10 .....	27-3
X163 ..	CONNECTOR (3-PINS, BLACK) .....	Front RH side of engine compartment on A/C compressor .....	02-5
X165 ..	GROUND .....	LH side of dash	
X166 ..	GROUND .....	Front RH side of engine compartment ahead of wheel well	
X167 ..	GROUND .....	Front LH side of engine compartment	
X168 ..	CONNECTOR (1-PINS, BLACK) .....	Underside of trunk lid	
X175 ..	GROUND .....	Front LH side of engine compartment	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X179	.. GROUND	..... Front RH side of engine compartment ahead of wheel well		
X251	.. CONNECTOR (30-PINS, BLACK)	..... LH footwell	20-1	14-4
X252	.. CONNECTOR (26-PINS, GREEN)	..... Below LH side of rear seat		01-1
X253	.. CONNECTOR (26-PINS, GREEN)	..... Below LH side of rear seat in Rear Power Distribution Box		01-1
X254	.. CONNECTOR (26-PINS, WHITE)	..... Below LH side of rear seat in Rear Power Distribution Box		01-1
X255	.. CONNECTOR (26-PINS, YELLOW)	..... Below LH side of rear seat in Rear Power Distribution Box		01-1
X256	.. CONNECTOR (26-PINS, BLACK)	..... Ahead of RH front door	26-2	08-1
X257	.. CONNECTOR (26-PINS, BLACK)	..... In lower LH front door ahead of LH front door	26-2	08-1
X259	.. CONNECTOR (20-PINS, WHITE)	..... Below LH side of rear seat front of battery		08-4
X260	.. CONNECTOR (21-PINS, BLACK)	..... Below RH side of rear seat	29-2	
X261	.. CONNECTOR (1-PINS, (---))	..... RH side of luggage compartment		
X262	.. CONNECTOR (26-PINS, BLUE)	..... Below LH side of rear seat in Rear Power Distribution Box		01-1
X263	.. CONNECTOR (26-PINS, BLACK)	..... Below RH side of rear seat near battery		01-1
X269	.. CONNECTOR (6-PINS, BLACK)	..... Below LH side of rear seat		15-3
X271	.. CONNECTOR (12-PINS, GRAY)	..... Rear of A2 instrument cluster	22-2	08-2
X272	.. CONNECTOR (12-PINS, BLACK)	..... Below LH side of rear seat in Rear Power Distribution Box		06-4
X273	.. CONNECTOR (12-PINS, BLACK)	..... Ahead of LH rear door in wire grommet	26-3	14-3
X274	.. CONNECTOR (12-PINS, BLACK)	..... Ahead of RH rear door in wire grommet	26-3	14-3
X275	.. CONNECTOR (12-PINS, WHITE)	..... Underside of LH front seat	26-1	07-2
X277	.. CONNECTOR (10-PINS, BLACK)	..... Ahead of LH rear door in wire grommet	26-3	09-1



# COMPONENT LOCATION CHART

## COMPONENT

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X278	.. CONNECTOR (10-PINS, BLACK)	..... Ahead of RH rear door in wire grommet	..... 26-3	09-1
X279	.. CONNECTOR (12-PINS, WHITE)	..... Under RH front seat		07-2
X285	.. CONNECTOR (26-PINS, GRAY)	..... In LH auxiliary relay box, engine compartment		10-4
X286	.. CONNECTOR (9-PINS, WHITE)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X288	.. CONNECTOR (9-PINS, WHITE)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X289	.. CONNECTOR (9-PINS, BLACK)	..... In LH forward side of luggage compartment		02-3
X290	.. CONNECTOR (9-PINS, BLACK)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X291	.. CONNECTOR (9-PINS, BLACK)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X292	.. CONNECTOR (9-PINS, WHITE)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X293	.. CONNECTOR (9-PINS, WHITE)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X294	.. CONNECTOR (9-PINS, WHITE)	..... Below LH side of rear seat in Rear Power Distribution Box		02-3
X295	.. CONNECTOR (8-PINS, BLACK)	..... LH footwell	19-2	13-2
X296	.. CONNECTOR (9-PINS, BLACK)	..... In LH forward side of luggage compartment		02-3
X297	.. CONNECTOR (9-PINS, WHITE)	..... Below LH side of dash		02-3
X299	.. CONNECTOR (6-PINS, WHITE)	..... Below LH side of rear seat		
X311	.. CONNECTOR (3-PINS, BLACK)	..... Underside of trunk lid	31-2	17-2
X312	.. CONNECTOR (6-PINS, BLACK)	..... In RH side of luggage compartment		17-2
X315	.. CONNECTOR (2-PINS, WHITE)	..... Underside of trunk lid	31-2	
X318	.. CONNECTOR (4-PINS, BLACK)	..... In LH rear side of luggage compartment RIGHT REAR LIGHT ASSEMBLY, E17		06-3
X319	.. CONNECTOR (4-PINS, BLACK)	..... In LH rear side of luggage compartment LEFT REAR LIGHT ASSEMBLY, E16		06-3



## COMPONENT LOCATION CHART

### COMPONENT

		PAGE - FIGURE	
		7100.0	8500.0
X322	CONNECTOR (8-PINS, BLACK)	Below LH side of rear seat in Rear Power Distribution Box	13-2
X323	CONNECTOR (6-PINS, BLACK)	Center of windshield header near rear view mirror	06-1
X328	CONNECTOR (4-PINS, BLACK)	Underside of trunk lid	31-2 06-3
X328	CONNECTOR (4-PINS, BLACK)	Underside of trunk lid	31-3 06-3
X329	CONNECTOR (4-PINS, BLACK)	Underside of trunk lid LEFT TRUNK LIGHT ASSEMBLY, E46	06-3
X331	CONNECTOR (5-PINS, BLACK)	Below LH side of rear seat in Rear Power Distribution Box	02-4
X332	CONNECTOR (5-PINS, NATURAL)	Below LH side of rear seat in Rear Power Distribution Box	03-2
X333	CONNECTOR (4-PINS, BLACK)	Behind LH fresh air cowl	09-1 08-6
X334	CONNECTOR (4-PINS, WHITE)	Behind LH fresh air cowl	08-6
X335	CONNECTOR (4-PINS, BLACK)	Below LH side of rear seat in Rear Power Distribution Box	02-6
X336	CONNECTOR (4-PINS, WHITE)	Near rear view mirror	23-3 06-5
X337	CONNECTOR (4-PINS, BLACK)	Below LH side of rear seat	28-3 06-3
X338	CONNECTOR (4-PINS, BLACK)	In LH rear side of luggage compartment	06-3
X339	CONNECTOR (4-PINS, BLACK)	In LH rear side of luggage compartment	06-3
X342	CONNECTOR (4-PINS, WHITE)	RH side of dash above RH kick panel	06-3
X351	CONNECTOR (2-PINS, BLACK)	Ahead of RH rear door	
X352	CONNECTOR (2-PINS, BLACK)	Ahead of LH rear door	
X353	CONNECTOR (2-PINS, BLACK)	Front LH door pillar	
X354	CONNECTOR (2-PINS, BLACK)	LH rear door jamb	30-2
X355	CONNECTOR (3-PINS, WHITE)	In upper RH C-pillar	30-2 05-2



# COMPONENT LOCATION CHART

## COMPONENT

		PAGE - FIGURE	
		7100.0	8500.0
X356	CONNECTOR (4-PINS, BLACK) . . . . . In lower RH C-pillar . . . . .	30-3	13-6
X358	CONNECTOR (3-PINS, BLACK) . . . . . Underside of trunk lid . . . . .		03-3
X360	CONNECTOR (3-PINS, BLACK) . . . . . Underside of trunk lid . . . . .		09-5
X371	CONNECTOR (2-PINS, BLACK) . . . . . LH side of windshield header above LH visor		
X372	CONNECTOR (2-PINS, GRAY) . . . . . Rear RH side of engine compartment		
X374	CONNECTOR (2-PINS, BLACK) . . . . . Below RH side of rear seat in lower LH front door		
X375	CONNECTOR (2-PINS, BLACK) . . . . . Below RH side of rear seat . . . . .	29-2	
X376	CONNECTOR (2-PINS, WHITE) . . . . . In Rear Power Distribution Box . . . . .	29-1	
X376	CONNECTOR (2-PINS, WHITE) . . . . . Below LH side of rear seat		
X377	CONNECTOR (2-PINS, WHITE) . . . . . Below RH side of rear seat . . . . .	29-2	
X379	CONNECTOR (1-PINS, BLACK) . . . . . In upper LH C-pillar		
X380	CONNECTOR (1-PINS, BLACK) . . . . . In upper RH C-pillar		
X381	CONNECTOR (2-PINS, BLACK) . . . . . DRIVER'S MAKEUP MIRROR LIGHT, E35		
X382	CONNECTOR (2-PINS, BLACK) . . . . . PASSENGER'S MAKEUP MIRROR LIGHT, E36		
X383	CONNECTOR (2-PINS, YELLOW) . . . . . Under rear of car near differential . . . . .	07-2	
X386	CONNECTOR (1-PINS, (---)) . . . . . REAR CIGAR LIGHTER LIGHT, E31		
X387	CONNECTOR (1-PINS, (---)) . . . . . REAR CIGAR LIGHTER, E30		
X388	CONNECTOR (2-PINS, BLACK) . . . . . Below LH side of rear seat		
X389	CONNECTOR (2-PINS, BLACK) . . . . . LEFT FRONT AUXILIARY TURN LIGHT, H9		
X390	CONNECTOR (1-PINS, WHITE) . . . . . In upper RH C-pillar . . . . .	30-2	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X391 .. CONNECTOR (2-PINS, BLACK) .....	Below center of console	
X393 .. CONNECTOR (6-PINS, BLACK) .....	In LH rear side of luggage compartment .....	04-1
X400 .. CONNECTOR (8-PINS, BLACK) .....	In LH forward side of luggage compartment .....	13-2
X401 .. CONNECTOR (1-PINS, BLACK) .....	DRIVER'S MAKEUP MIRROR SWITCH, S77	
X402 .. CONNECTOR (1-PINS, BLACK) .....	PASSENGER'S MAKEUP MIRROR SWITCH, S78	
X405 .. CONNECTOR (2-PINS, (---)) .....	LH side of engine compartment	
X406 .. CONNECTOR (2-PINS, (---)) .....	RH side of engine compartment	
X407 .. CONNECTOR (2-PINS, (---)) .....	Under LH rear of car	
X408 .. CONNECTOR (2-PINS, (---)) .....	Under RH rear of car	
X409 .. CONNECTOR (2-PINS, (---)) .....	Under center of car	
X413 .. CONNECTOR (2-PINS, BLACK) .....	At back of rear window shelf	
X416 .. CONNECTOR (1-PINS, BLACK) .....	Above LH sun visor	
X417 .. CONNECTOR (1-PINS, BLACK) .....	Under roof center panel	
X423 .. CONNECTOR (1-PINS, (---)) .....	Below center of console	
X424 .. CONNECTOR (1-PINS, BROWN) .....	In upper LH C-pillar .....	30-3
X490 .. GROUND .....	LH side of dash LH side of steering column inside box on interior side of LH door sill	
X491 .. GROUND .....	LH side of dash LH side of steering column	
X492 .. GROUND .....	LH side of LH footwell	
X493 .. GROUND .....	Below LH side of rear seat	





# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X495 ..	GROUND .....	Underside of RH rear seat		
X496 ..	GROUND .....	Underside of RH rear seat		
X501 ..	CONNECTOR (26-PINS, GREEN) .....	Center of dash ON-BOARD COMPUTER, N4 .....		01-1
X502 ..	CONNECTOR (26-PINS, BLACK) .....	Rear of A2 instrument cluster INSTRUMENT CLUSTER, A2 .....	22-2	01-1
X503 ..	CONNECTOR (12-PINS, BLACK) .....	LH side of dash .....		05-6
X504 ..	CONNECTOR (12-PINS, BLACK) .....	FOG LIGHT SWITCH, S10 .....		05-6
X506 ..	CONNECTOR (12-PINS, BLACK) .....	Front of gearshift selector .....	23-2	06-4
X507 ..	CONNECTOR (14-PINS, BLACK) .....	LH side of dash behind steering wheel INSTRUMENT CLUSTER, A2 .....		11-1
X509 ..	CONNECTOR (9-PINS, WHITE) .....	Below LH side of dash near hood release lever .....		02-3
X510 ..	CONNECTOR (9-PINS, WHITE) .....	Below LH side of dash near hood release lever .....		02-3
X511 ..	CONNECTOR (8-PINS, BLACK) .....	Front of gearshift selector .....	23-2	03-1
X512 ..	CONNECTOR (8-PINS, BLACK) .....	Behind center of dashboard near gearshift lever below RH side of dash		
X516 ..	CONNECTOR (5-PINS, BLACK) .....	Center of console HAZARD SWITCH, S18 .....		06-2
X517 ..	CONNECTOR (4-PINS, BLACK) .....	DIMMER, N3 .....		06-3
X518 ..	CONNECTOR (4-PINS, BLACK) .....	LH footwell .....	20-2	06-3
X521 ..	CONNECTOR (6-PINS, BLACK) .....	ASC SWITCH, S6 .....		15-6
X522 ..	CONNECTOR (3-PINS, WHITE) .....	LH footwell .....	20-2	05-2
X523 ..	CONNECTOR (6-PINS, BLACK) .....	Behind LH side of dash center of windshield header .....		09-2
X526 ..	CONNECTOR (8-PINS, BLACK) .....	LH footwell .....	20-1	13-2
X531 ..	CONNECTOR (2-PINS, WHITE) .....	FRONT CIGAR LIGHTER, E28		



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X532 .. CONNECTOR (2-PINS, NATURAL) .....	FRONT CIGAR LIGHTER LIGHT, E29		
X537 .. CONNECTOR (1-PINS, NATURAL) .....	In upper LH front door		
X538 .. CONNECTOR (1-PINS, NATURAL) .....	In upper RH front door		
X539 .. CONNECTOR (2-PINS, BLACK) .....	Center of dash		
X540 .. CONNECTOR (2-PINS, BLACK) .....	GLOVE BOX LIGHT SWITCH, S37		
X541 .. CONNECTOR (1-PINS, NATURAL) .....	RH side of dash		
X542 .. CONNECTOR (2-PINS, BLACK) .....	Under RH front seat		
X543 .. CONNECTOR (1-PINS, NATURAL) .....	LH side of dash		
X544 .. CONNECTOR (2-PINS, BLACK) .....	Behind dashboard		
X546 .. CONNECTOR (2-PINS, WHITE) .....	Below center of console LH side of gearshift selector		
X547 .. CONNECTOR (2-PINS, BLACK) .....	Behind center of dashboard RADIO, N9		
X550 .. CONNECTOR (12-PINS, WHITE) .....	Below LH side of dash		
X601 .. CONNECTOR (26-PINS, WHITE) .....	Underside of LH front seat .....	24-2	14-5
X602 .. CONNECTOR (26-PINS, YELLOW) .....	Underside of LH front seat .....	24-1	14-5
X603 .. CONNECTOR (12-PINS, BLACK) .....	DRIVER'S SEAT SEAT CONTROL SWITCH, S51 .....		06-6
X604 .. CONNECTOR (12-PINS, BLACK) .....	PASSENGER'S SEAT, SEAT CONTROL SWITCH, S56 .....		06-6
X605 .. CONNECTOR (12-PINS, BLACK) .....	In LH rear side of luggage compartment .....	32-1	02-1
X605 .. CONNECTOR (12-PINS, BLACK) .....	In LH rear side of luggage compartment .....	32-2	02-1
X606 .. CONNECTOR (12-PINS, WHITE) .....	In LH rear side of luggage compartment .....	32-1	02-1
X606 .. CONNECTOR (12-PINS, WHITE) .....	In LH rear side of luggage compartment .....	32-2	02-1



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X607 .. CONNECTOR (20-PINS, WHITE) .....	RH side of RH footwell behind RH footwell kickpanel .....		08-4
X608 .. CONNECTOR (12-PINS, BLACK) .....	Rear RH side of engine compartment .....		15-1
X609 .. CONNECTOR (15-PINS, BLACK) .....	In LH rear side of luggage compartment .....		12-3
X616 .. CONNECTOR (12-PINS, WHITE) .....	Below LH side of rear seat in Rear Power Distribution Box .....		08-5
X619 .. CONNECTOR (12-PINS, WHITE) .....	Below rear seat .....		07-2
X620 .. CONNECTOR (9-PINS, WHITE) .....	Below LH side of rear seat in Rear Power Distribution Box (M5) .....		16-1
X621 .. CONNECTOR (10-PINS, BLACK) .....	Ahead of RH front door .....	26-2	09-1
X622 .. CONNECTOR (10-PINS, BLACK) .....	Ahead of RH front door .....	26-2	09-1
X623 .. CONNECTOR (4-PINS, BLACK) .....	In lower LH front door .....	27-2	13-6
X624 .. CONNECTOR (4-PINS, BLACK) .....	PASSENGER'S SIDE MIRROR, Y6 .....	27-3	13-6
X625 .. CONNECTOR (6-PINS, BLACK) .....	MEMORY MIRRORS CONTROL SWITCH, S12 .....	27-2	18-2
X626 .. CONNECTOR (8-PINS, BLACK) .....	Underside of LH front seat .....	24-2	13-2
X627 .. CONNECTOR (8-PINS, BLACK) .....	Center of windshield header near rear view mirror .....	23-3	03-1
X628 .. CONNECTOR (5-PINS, BLACK) .....	In RH side of luggage compartment		
X629 .. CONNECTOR (8-PINS, NATURAL) .....	In RH side of luggage compartment		
X630 .. CONNECTOR (13-PINS, BLACK) .....	Under rear of car		
X632 .. CONNECTOR (9-PINS, BLACK) .....	Below LH side of rear seat in Rear Power Distribution Box .....		02-3
X638 .. CONNECTOR (6-PINS, BLACK) .....	In RH side of luggage compartment .....	32-3	09-4
X641 .. CONNECTOR (6-PINS, BLACK) .....	In upper RH front door .....	28-1	09-4
X642 .. CONNECTOR (8-PINS, BLACK) .....	Below RH side of rear seat .....		18-3



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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X643	CONNECTOR (6-PINS, BLUE)	SUNROOF SWITCH, S38		08-3
X644	CONNECTOR (6-PINS, BLACK)	In RH side of luggage compartment		09-4
X645	CONNECTOR (6-PINS, BLACK)	LEFT REAR WINDOW SWITCH, S41		17-2
X646	CONNECTOR (6-PINS, BLACK)	In lower RH rear door		09-4
X647	CONNECTOR (6-PINS, BLACK)	RIGHT REAR WINDOW SWITCH, S42		17-2
X648	CONNECTOR (6-PINS, BLACK)	Underside of LH front seat	24-2	17-2
X649	CONNECTOR (6-PINS, WHITE)	Underside of LH front seat	24-2	16-6
X650	CONNECTOR (6-PINS, BLACK)	MEMORY SEAT MIRRORS SWITCH, S57		17-2
X651	CONNECTOR (6-PINS, BLACK)	DRIVER'S SEAT, SEAT HEATER SWITCH, S53		17-2
X652	CONNECTOR (6-PINS, BLUE)	DRIVER'S SEAT LUMBAR SWITCH, S52		08-3
X653	CONNECTOR (6-PINS, BLACK)	Underside of LH front seat	24-1	17-2
X654	CONNECTOR (6-PINS, WHITE)	Underside of LH front seat	24-1	16-6
X655	CONNECTOR (6-PINS, BLUE)	Underside of LH front seat	24-1	08-3
X656	CONNECTOR (6-PINS, GREEN)	Underside of LH front seat	24-1	16-5
X657	CONNECTOR (6-PINS, BROWN)	Underside of LH front seat	24-3	17-1
X659	CONNECTOR (6-PINS, BLACK)	Under RH front seat		17-2
X660	CONNECTOR (6-PINS, BLACK)	In upper LH front door	27-1	09-4
X672	CONNECTOR (4-PINS, BLACK)	In LH forward side of luggage compartment		10-2
X673	CONNECTOR (2-PINS, BLACK)	Below LH side of rear seat		
X674	CONNECTOR (2-PINS, BLACK)	Below RH side of rear seat		



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X675 .. CONNECTOR (4-PINS, WHITE) .....	In LH forward side of luggage compartment .....	16-2
X676 .. CONNECTOR (4-PINS, BLACK) .....	In LH forward side of luggage compartment .....	16-2
X680 .. CONNECTOR (3-PINS, BLACK) .....	Underside of LH front seat .....	24-3 05-2
X681 .. CONNECTOR (4-PINS, WHITE) .....	Below RH side of dash .....	06-3
X684 .. CONNECTOR (3-PINS, BLACK) .....	In upper RH front door near door handle .....	02-5
X685 .. CONNECTOR (3-PINS, BLACK) .....	In upper LH front door near door handle .....	02-5
X686 .. CONNECTOR (3-PINS, BLUE) .....	In lower LH front seatback .....	07-1
X687 .. CONNECTOR (3-PINS, BLUE) .....	In lower LH front seatback .....	07-1
X688 .. CONNECTOR (3-PINS, BLUE) .....	In lower LH front seatback .....	07-1
X689 .. CONNECTOR (3-PINS, BLUE) .....	In lower LH front seatback .....	07-1
X690 .. CONNECTOR (3-PINS, BLUE) .....	In lower LH front seatback .....	07-1
X692 .. CONNECTOR (3-PINS, BLACK) .....	Center of dash (radio removed)	
X692 .. CONNECTOR (3-PINS, BLACK) .....	Behind center of dashboard .....	03-3
X695 .. CONNECTOR (3-PINS, BLACK) .....	Lower LH side of engine .....	03-3
X696 .. CONNECTOR (3-PINS, BLACK) .....	Under RH rear of car RH side of differential .....	07-5
X700 .. CONNECTOR (1-PINS, (---)) .....	Behind RH footwell speaker grille	
X701 .. CONNECTOR (1-PINS, (---)) .....	Behind LH footwell speaker grille	
X705 .. CONNECTOR (2-PINS, BLACK) .....	Near RH rear wheel well .....	06-2
X706 .. CONNECTOR (2-PINS, (---)) .....	CASSETTE BOX LIGHT, E45y	
X709 .. CONNECTOR (2-PINS, BLACK) .....	LEFT LICENSE PLATE LIGHT, E43	



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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X710 .. CONNECTOR (2-PINS, BLACK) .....	RIGHT LICENSE PLATE LIGHT, E44	
X711 .. CONNECTOR (2-PINS, BLACK) .....	Underside of trunk lid left	
X712 .. CONNECTOR (1-PINS, NATURAL) .....	TRUNK LID LIGHT, E33	
X713 .. CONNECTOR (2-PINS, BLACK) .....	Behind RH rear wheel	
X714 .. CONNECTOR (2-PINS, GRAY) .....	In lower LH rear door	
X715 .. CONNECTOR (1-PINS, (---)) .....	In upper LH rear door	
X720 .. CONNECTOR (2-PINS, GRAY) .....	In lower LH rear door	
X721 .. CONNECTOR (1-PINS, (---)) .....	In upper RH rear door	
X726 .. CONNECTOR (2-PINS, BLACK) .....	Underside of LH front seat .....	26-1
X727 .. CONNECTOR (2-PINS, WHITE) .....	Underside of LH front seat .....	25-1
X728 .. CONNECTOR (2-PINS, WHITE) .....	Underside of LH front seat .....	26-1
X729 .. CONNECTOR (2-PINS, BLACK) .....	Underside of LH front seat .....	26-1
X730 .. CONNECTOR (2-PINS, (---)) .....	In upper LH front seatback	
X731 .. CONNECTOR (2-PINS, WHITE) .....	In upper LH front seatback	
X732 .. CONNECTOR (2-PINS, WHITE) .....	In upper LH front seatback	
X733 .. CONNECTOR (2-PINS, BLACK) .....	In lower LH front seatback	
X734 .. CONNECTOR (2-PINS, BLACK) .....	Under RH front seat	
X735 .. CONNECTOR (2-PINS, WHITE) .....	Underside of LH front seat .....	25-1
X736 .. CONNECTOR (2-PINS, BLACK) .....	Under RH front seat	
X737 .. CONNECTOR (2-PINS, WHITE) .....	Under RH front seat	



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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X738 .. CONNECTOR (2-PINS, (---)) .....	In upper RH front seatback	
X739 .. CONNECTOR (2-PINS, YELLOW) .....	Under RH front seat	
X740 .. CONNECTOR (2-PINS, WHITE) .....	Underside of LH front seat .....	25-3
X741 .. CONNECTOR (2-PINS, WHITE) .....	In upper RH front seatback	
X742 .. CONNECTOR (2-PINS, YELLOW) .....	In lower RH front door .....	27-3
X743 .. CONNECTOR (2-PINS, BLACK) .....	In upper RH front door .....	28-1
X744 .. CONNECTOR (2-PINS, GRAY) .....	In lower RH front door .....	27-3
X746 .. CONNECTOR (1-PINS, (---)) .....	In upper RH front door	
X747 .. CONNECTOR (2-PINS, YELLOW) .....	In lower LH front door .....	27-1
X749 .. CONNECTOR (2-PINS, GRAY) .....	In lower LH front door .....	27-2
X750 .. CONNECTOR (1-PINS, (---)) .....	In upper LH front door .....	27-2
X751 .. CONNECTOR (2-PINS, WHITE) .....	In lower LH front door .....	27-1
X752 .. CONNECTOR (2-PINS, GRAY) .....	In lower LH front door In upper LH front door left .....	27-1
X753 .. CONNECTOR (1-PINS, (---)) .....	In upper LH front door	
X755 .. CONNECTOR (2-PINS, BLACK) .....	LH side of engine compartment	
X756 .. CONNECTOR (2-PINS, BLACK) .....	Near RH rear wheel well behind RH rear wheel	
X757 .. CONNECTOR (2-PINS, BLACK) .....	Rear RH side of engine compartment	
X760 .. CONNECTOR (1-PINS, (---)) .....	Under rear window shelf	
X761 .. CONNECTOR (1-PINS, (---)) .....	Under rear window shelf	
X762 .. CONNECTOR (1-PINS, (---)) .....	Under rear window shelf	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X763 ..	CONNECTOR (1-PINS, (---))	Under rear window shelf		
X764 ..	CONNECTOR (2-PINS, WHITE)	In RH side of luggage compartment		
X765 ..	CONNECTOR (2-PINS, WHITE)	In RH side of luggage compartment		
X768 ..	CONNECTOR (2-PINS, WHITE)	LEFT FOG LIGHT, E26		
X769 ..	CONNECTOR (2-PINS, GRAY)	Below LH side of dash		
X770 ..	CONNECTOR (2-PINS, WHITE)	Under LH front bumper	06-3	
X771 ..	CONNECTOR (2-PINS, BLACK)	Below LH side of dash		
X772 ..	CONNECTOR (2-PINS, WHITE)	RH side of LH footwell		
X773 ..	CONNECTOR (2-PINS, WHITE)	RH side of dash		
X774 ..	CONNECTOR (1-PINS, GRAY)	Near LH headlight assembly		
X778 ..	CONNECTOR (2-PINS, BLACK)	Underside of LH front seat	25-1	
X779 ..	CHARGING SOCKET	LH side of glove box	23-1	
X783 ..	CONNECTOR (2-PINS, ORANGE)	Bottom of steering column	20-3	
X784 ..	CONNECTOR (12-PINS, ORANGE)	LH footwell	19-3	06-4
X785 ..	CONNECTOR (2-PINS, BLACK)	LH side of engine compartment		
X790 ..	CONNECTOR (2-PINS, WHITE)	LEFT REAR SEAT HEATER, E66		
X791 ..	CONNECTOR (2-PINS, WHITE)	RIGHT REAR SEAT HEATER, E67		
X792 ..	CONNECTOR (2-PINS, BLACK)	LEFT REAR SEATBACK HEATER, E65		
X793 ..	CONNECTOR (2-PINS, BLACK)	RIGHT REAR SEATBACK HEATER, E68		





# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X794 ..	CONNECTOR (2-PINS, BLACK) .....	Below LH side of rear seat	
X796 ..	CONNECTOR (2-PINS, BLACK) .....	Below RH side of rear seat	
X798 ..	CONNECTOR (2-PINS, BLACK) .....	In upper LH front seatback	
X799 ..	CONNECTOR (2-PINS, BLACK) .....	In upper RH front seatback	
X800 ..	CONNECTOR (2-PINS, WHITE) .....	Behind LH footwell trim .....	18-2
X811 ..	CONNECTOR (1-PINS, BLACK) .....	Below RH side of rear seat near battery	
X817 ..	CONNECTOR (1-PINS, BLACK) .....	Between front footwells	
X818 ..	GROUND .....	LH side of dash LH side of steering column	
X880 ..	CONNECTOR (6-PINS, WHITE) .....	DRIVER'S THIGH SUPPORT SWITCH, S93 .....	16-6
X881 ..	CONNECTOR (6-PINS, WHITE) .....	PASSENGER'S THIGH SUPPORT SWITCH, S94 .....	16-6
X882 ..	CONNECTOR (2-PINS, BLACK) .....	Underside of LH front seat .....	26-1
X883 ..	CONNECTOR (2-PINS, BLACK) .....	Under RH front seat	
X884 ..	CONNECTOR (3-PINS, BLUE) .....	In upper RH front seatback .....	07-1
X887 ..	CONNECTOR (6-PINS, WHITE) .....	DRIVER'S THIGH SUPPORT SWITCH, S93 .....	16-6
X890 ..	CONNECTOR (2-PINS, BLACK) .....	Behind LH front fog light	
X898 ..	CONNECTOR (8-PINS, BLACK) .....	Center of dash LH side of heater control panel .....	03-1
X899 ..	CONNECTOR (18-PINS, BLACK) .....	Center of dash RH side of heater control panel .....	13-3
X900 ..	CONNECTOR (2-PINS, WHITE) .....	Above LH footwell dash panel	
X901 ..	CONNECTOR (2-PINS, WHITE) .....	Above RH footwell dash panel	
X904 ..	CONNECTOR (4-PINS, BLACK) .....	LH side of RH footwell .....	06-3



## COMPONENT LOCATION CHART

### COMPONENT

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X905	CONNECTOR (5-PINS, BLACK)	Center of dash middle of heater control panel	09-3
X945	CONNECTOR (10-PINS, BLACK)	In RH side of luggage compartment	17-5
X946	CONNECTOR (4-PINS, BLACK)	Under rear window shelf	06-3
X948	CONNECTOR (2-PINS, BLACK)	At back of rear window shelf	
X949	CONNECTOR (5-PINS, BLACK)	Under rear window shelf	02-4
X960	BATTERY B+ START POINT	LH side of dash	
X963	CONNECTOR (1-PINS, (---))	Below RH side of rear seat	
X997	CONNECTOR (2-PINS, WHITE)	Under rear of car behind RH rear wheel	
X998	CONNECTOR (4-PINS, BLACK)	Below LH side of dash	06-5
X999	CONNECTOR (4-PINS, BLACK)	Below LH side of dash	06-3
X1021	CONNECTOR (9-PINS, BLACK)	Rear LH side of engine compartment in Front Power Distribution Box	02-3
X1024	CONNECTOR (9-PINS, BLACK)	Below LH side of dash	02-3
X1034	CONNECTOR (3-PINS, BLACK)	Below LH side of dash	07-5
X1035	CONNECTOR (3-PINS, BLACK)	Near RH headlight assembly	07-5
X1048	CONNECTOR (1-PINS, (---))	RH side of engine compartment	
X1049	CONNECTOR (1-PINS, (---))	RH side of engine compartment	
X1056	CONNECTOR (9-PINS, BLACK)	Below LH side of dash	02-3
X1086	CONNECTOR (9-PINS, BLACK)	Below LH side of dash	02-3
X1098	CONNECTOR (12-PINS, BLACK)	Front of engine compartment	05-6



## COMPONENT LOCATION CHART

### COMPONENT

		PAGE - FIGURE
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X1099 . CONNECTOR (12-PINS, BLACK) . . . . .	Front of engine compartment . . . . .	05-6
X1160 . GROUND . . . . .	LH side of dash LH side of steering column	
X1171 . CONNECTOR (55-PINS, NATURAL) . . . . .	Rear RH side of engine compartment in E-Box SLIP CONTROL MODULE (ABS/ ASC), A70 . . . . .	00-1
X1191 . CONNECTOR (4-PINS, BLACK) . . . . .	Rear of luggage compartment below brake fluid reservoir behind trim panel . . . . .	06-3
X1195 . CONNECTOR (9-PINS, BLACK) . . . . .	Rear LH side of engine compartment in Front Power Distribution Box . . . . .	02-3
X1197 . CONNECTOR (8-PINS, WHITE) . . . . .	In E-Box . . . . .	15-2 03-1
X1221 . CONNECTOR (26-PINS, GREEN) . . . . .	Below LH side of rear seat in Rear Power Distribution Box . . . . .	10-4
X1222 . CONNECTOR (6-PINS, WHITE) . . . . .	In LH forward side of luggage compartment . . . . .	04-1
X1250 . CONNECTOR (10-PINS, BLACK) . . . . .	RH side of luggage compartment behind side panel	
X1250 . CONNECTOR (10-PINS, BLACK) . . . . .	RH side of luggage compartment behind side panel . . . . .	15-2
X1251 . CONNECTOR (2-PINS, BLACK) . . . . .	Rear of luggage compartment on lift gate behind trim panel . . . . .	31-3
X1252 . CONNECTOR (2-PINS, BLACK) . . . . .	Rear of luggage compartment on lift gate behind trim panel . . . . .	31-3
X1253 . CONNECTOR (2-PINS, BLACK) . . . . .	Rear of luggage compartment on lift gate behind trim panel	
X1254 . CONNECTOR (2-PINS, BLACK) . . . . .	Rear of luggage compartment on lift gate behind trim panel	
X1374 . CONNECTOR (1-PINS, NATURAL) . . . . .	GLOVE BOX LIGHT, E42	
X1386 . CONNECTOR (88-PINS, BLACK) . . . . .	Rear RH side of engine compartment in E-Box . . . . .	18-4
X1388 . CONNECTOR (2-PINS, BLACK) . . . . .	Rear RH side of engine compartment	
X1389 . CONNECTOR (12-PINS, BLACK) . . . . .	RH side of engine compartment . . . . .	02-1
X1405 . CONNECTOR (1-PINS, NATURAL) . . . . .	RH side of dash	



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X1406 . CONNECTOR (1-PINS, NATURAL) . . . . .	RH side of dash		
X1427 . CONNECTOR (1-PINS, NATURAL) . . . . .	DASH LIGHT, E41		
X1439 . CONNECTOR (2-PINS, BLACK) . . . . .	TRANSMISSION RANGE SELECTOR LIGHT, E9500		
X1440 . CONNECTOR (1-PINS, BROWN) . . . . .	Below LH side of dash		
X1851 . CONNECTOR (1-PINS, BLACK) . . . . .	At back of rear window shelf		
X1852 . CONNECTOR (1-PINS, WHITE) . . . . .	At back of rear window shelf		
X3210 . CONNECTOR (26-PINS, BLUE) . . . . .	LH side of dash LH side of steering column . . . . .		01-1
X3211 . CONNECTOR (4-PINS, BLACK) . . . . .	Center of dash . . . . .		05-1
X3212 . CONNECTOR (4-PINS, BLACK) . . . . .	LH footwell . . . . .	20-1	03-3
X5000 . CONNECTOR (4-PINS, BLACK) . . . . .	Rear RH side of engine compartment in E-Box . . . . .		02-6
X6000 . CONNECTOR (55-PINS, BLACK) . . . . .	Rear RH side of engine compartment in E-Box ENGINE CONTROL MODULE (DME), A6000 . . . . .		00-1
X6002 . CONNECTOR (20-PINS, BLACK) . . . . .	Rear LH side of engine compartment right of LH side shock tower . . . . .		04-6
X6003 . CONNECTOR (8-PINS, BLACK) . . . . .	In E-Box . . . . .	15-1	
X6003 . CONNECTOR (8-PINS, BLACK) . . . . .	In E-Box . . . . .	15-2	03-1
X6004 . CONNECTOR (35-PINS, BLACK) . . . . .	Rear RH side of engine compartment in E-Box . . . . .		00-3
X6006 . CONNECTOR (5-PINS, GREEN) . . . . .	Rear RH side of engine compartment in E-Box . . . . .		02-4
X6007 . CONNECTOR (35-PINS, NATURAL) . . . . .	Above RH kick panel . . . . .		00-3
X6030 . CONNECTOR (18-PINS, BLACK) . . . . .	In E-Box . . . . .		19-1
X6053 . CONNECTOR (12-PINS, BLACK) . . . . .	RH side of dash behind glove box . . . . .		02-1



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X6101 . CONNECTOR (2-PINS, BLACK) .....	On engine bulkhead	
X6102 . CONNECTOR (2-PINS, BLACK) .....	On engine bulkhead	
X6103 . CONNECTOR (2-PINS, BLACK) .....	On engine bulkhead	
X6104 . CONNECTOR (2-PINS, BLACK) .....	On engine bulkhead	
X6105 . CONNECTOR (2-PINS, BLACK) .....	On engine bulkhead	
X6106 . CONNECTOR (2-PINS, BLACK) .....	On engine bulkhead	
X6120 . CONNECTOR (2-PINS, BLACK) .....	LH side of engine	
X6130 . CONNECTOR (3-PINS, BLACK) .....	Top front of engine	
X6132 . CONNECTOR (2-PINS, BLACK) .....	Front of engine LH side of engine (M5)	
X6133 . CONNECTOR (2-PINS, BLACK) .....	Top front of engine .....	11-3
X6151 . CONNECTOR (3-PINS, GRAY) .....	RH side of engine .....	15-4
X6152 . CONNECTOR (3-PINS, GRAY) .....	RH side of engine .....	15-4
X6154 . CONNECTOR (3-PINS, GRAY) .....	LH side of engine .....	15-4
X6155 . CONNECTOR (3-PINS, GRAY) .....	LH side of engine .....	15-4
X6156 . CONNECTOR (3-PINS, GRAY) .....	LH side of engine .....	15-4
X6200 . CONNECTOR (4-PINS, BLACK) .....	LH side of engine .....	10-1 13-5
X6201 . CONNECTOR (3-PINS, BLACK) .....	Top front of engine .....	11-3 03-5
X6201 . CONNECTOR (3-PINS, BLACK) .....	Below intake manifold .....	03-5
X6202 . CONNECTOR (3-PINS, BLACK) .....	Top front of engine .....	11-3 03-5
X6202 . CONNECTOR (3-PINS, BLACK) .....	Below intake manifold .....	03-5



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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X6205	CONNECTOR (2-PINS, BLACK)	Front of engine on coolant inlet		
X6206	CONNECTOR (7-PINS, BLACK)	Front LH side of engine compartment ahead of LH side shock tower		13-4
X6217	CONNECTOR (4-PINS, GRAY)	Top front of engine		09-6
X6230	CONNECTOR (3-PINS, BLACK)	LH side of engine	10-2	03-5
X6231	CONNECTOR (2-PINS, BLACK)	Front of engine compartment below intake manifold		
X6232	CONNECTOR (2-PINS, BLACK)	Front of engine on coolant inlet		
X6233	CONNECTOR (5-PINS, BLACK)	Top center of engine ahead of oil fill cap		12-2
X6234	CONNECTOR (2-PINS, WHITE)	Front of engine LH side of engine		
X6235	CONNECTOR (2-PINS, BLACK)	Rear RH side of engine compartment in E-Box		
X6236	CONNECTOR (2-PINS, BLACK)	Top rear of engine on coolant inlet		
X6238	CONNECTOR (2-PINS, BLACK)	Front of engine LH side of engine		
X6250	CONNECTOR (3-PINS, BLACK)	LH side of engine compartment		03-5
X6251	CONNECTOR (6-PINS, BLACK)	Top front of engine on throttle body		02-2
X6300	CONNECTOR (9-PINS, BLACK)	Rear RH side of engine compartment in E-Box		02-3
X6301	CONNECTOR (9-PINS, BLACK)	Rear RH side of engine compartment in E-Box		02-3
X6302	CONNECTOR (9-PINS, BLACK)	Rear RH side of engine compartment in E-Box		02-3
X6304	CONNECTOR (9-PINS, BLACK)	Rear RH side of engine compartment in E-Box		02-3
X6350	CONNECTOR (8-PINS, BLACK)	Top front of engine near distributor		03-6
X6400	B+ JUNCTION POINT	In E-Box		
X6450	GROUND	Rear RH side of engine compartment		



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X6451 . GROUND	..... RH side of engine compartment near battery		
X6452 . GROUND	..... Near E-Box left		
X6453 . GROUND	..... Near E-Box left		
X6454 . GROUND	..... Near battery		
X6506 . CONNECTOR (4-PINS, BLACK)	..... In E-Box	15-2	06-3
X6508 . CONNECTOR (3-PINS, BLACK)	..... LH side of engine	10-1	03-5
X6510 . CABLE SOCKET STARTER TERMINAL 50	.... LH side of engine compartment below intake manifold		
X6511 . CABLE SOCKET ALTERNATOR TERMINAL 30h	..... Below intake manifold		
X6512 . CABLE SOCKET STARTER TERMINAL 30h	.... LH side of engine		
X8500 . CONNECTOR (55-PINS, BLACK)	..... Behind RH footwell kickpanel		00-1
X8500 . CONNECTOR (35-PINS, BLACK)	..... Behind RH footwell kickpanel		00-3
X8503 . CONNECTOR (6-PINS, BLUE)	..... Below center console		08-3
X8505 . CONNECTOR (8-PINS, BLACK)	..... On LH side of transmission		11-2
X8505 . CONNECTOR (16-PINS, BLACK)	..... On LH side of transmission		19-2
X8507 . CONNECTOR (1-PINS, BLACK)	..... Rear RH side of engine compartment		
X8508 . GROUND	..... Underside of RH rear seat		
X8513 . CONNECTOR (2-PINS, WHITE)	..... Front of gearshift selector	23-2	
X8514 . CONNECTOR (6-PINS, BLUE)	..... Below center console front of gearshift selector		08-3
X8516 . CONNECTOR (2-PINS, BLACK)	..... Under center of car		
X8550 . CONNECTOR (48-PINS, BLUE)	..... Behind RH footwell kickpanel		16-4



## COMPONENT LOCATION CHART

### COMPONENT

		PAGE - FIGURE	
		7100.0	8500.0
X8551	CONNECTOR (10-PINS, BLACK) . . . . .	On LH side of transmission . . . . .	09-1
X8575	CONNECTOR (1-PINS, WHITE) . . . . .	LH side of dash	
X10051	CONNECTOR (4-PINS, WHITE) . . . . .	Behind LH side of dash . . . . .	06-3
X10063	CONNECTOR (9-PINS, BLACK) . . . . .	Rear LH side of engine compartment in Front Power Distribution Box . . . . .	02-3
X10082	CONNECTOR (5-PINS, GREEN) . . . . .	Behind LH footwell trim . . . . .	18-1 02-4
X10083	CONNECTOR (4-PINS, BLACK) . . . . .	Behind LH footwell trim . . . . .	18-1 02-6
X10084	CONNECTOR (9-PINS, BLACK) . . . . .	Below RH side of dash . . . . .	02-3
X10104	CONNECTOR (18-PINS, WHITE) . . . . .	In E-Box . . . . .	19-1
X10105	CONNECTOR (8-PINS, WHITE) . . . . .	In E-Box . . . . .	03-1
X10194	CONNECTOR (16-PINS, BLACK) . . . . .	Rear LH side of engine compartment . . . . .	19-2
X13018	CONNECTOR (1-PINS, BLACK) . . . . .	In rear window	
X13023	CONNECTOR (2-PINS, WHITE) . . . . .	Center console	
X13024	CONNECTOR (2-PINS, BLACK) . . . . .	Center console	
X13025	CONNECTOR (12-PINS, BLACK) . . . . .	Below RH side of rear seat . . . . .	29-2
X13056	CONNECTOR (9-PINS, BLACK) . . . . .	RH side of luggage compartment behind side panel . . . . .	02-3
X13057	CONNECTOR (3-PINS, BLACK) . . . . .	Rear of luggage compartment on lift gate behind trim panel . . . . .	05-2
X13058	CONNECTOR (2-PINS, GREEN) . . . . .	RH side of luggage compartment behind side panel	
X13059	CONNECTOR (3-PINS, BLACK) . . . . .	Rear of luggage compartment on lift gate behind trim panel . . . . .	05-2
X13085	CONNECTOR (10-PINS, BLACK) . . . . .	In roof panel . . . . .	31-1 09-1
X13086	CONNECTOR (15-PINS, BLACK) . . . . .	In roof panel . . . . .	31-1 13-3





# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X13105	CONNECTOR (3-PINS, BLACK)	Below LH side of dash	03-3
X13106	CONNECTOR (6-PINS, BLACK)	RH side of luggage compartment behind side panel	15-5
X13107	CONNECTOR (4-PINS, WHITE)		31-3
X13119	CONNECTOR (12-PINS, WHITE)	Below LH side of dash	06-4
X13123	CONNECTOR (9-PINS, BLACK)	RH side of luggage compartment	02-3
X13124	CONNECTOR (9-PINS, BLACK)	RH side of luggage compartment	02-3
X13139	CONNECTOR (10-PINS, BLACK)	Center of windshield header	09-1
X18025	CONNECTOR (4-PINS, BLACK)	LH side of engine compartment	05-1
X18029	CONNECTOR (4-PINS, BLACK)	Below LH side of dash	06-5
X18049	CONNECTOR (2-PINS, YELLOW)	In lower LH rear door	
X18050	CONNECTOR (2-PINS, BLACK)	RH front door	
X18051	CONNECTOR (2-PINS, WHITE)	In lower RH rear door	
X18052	CONNECTOR (2-PINS, YELLOW)	In lower RH rear door	
X18067	CONNECTOR (1-PINS, (---))	Below RH side of rear seat near battery	
X18068	CONNECTOR (1-PINS, (---))	Below RH side of rear seat near battery	
X18080	CONNECTOR (1-PINS, NATURAL)	TRUNK LID LIGHT, E33	
X18084	CONNECTOR (2-PINS, WHITE)	LH front door	27-1
X18093	CONNECTOR (3-PINS, WHITE)	STEERING COLUMN POSITION SWITCH, S119z	03-3
X18097	CONNECTOR (2-PINS, BLACK)	Bottom of steering column	20-3
X18126	CONNECTOR (17-PINS, BLACK)	Behind radio	04-2



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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X18151	CONNECTOR (10-PINS, BLACK)	IHKR/F3 SWITCHING UNIT, S135w	09-1
X18153	CONNECTOR (3-PINS, BLACK)	Behind center of dashboard near gearshift lever	05-2
X18154	CONNECTOR (18-PINS, BLACK)	IHKR/F3 CONTROL PANEL, S134w	13-3
X18155	CONNECTOR (26-PINS, WHITE)	LH side of RH footwell	21-3 10-4
X18156	CONNECTOR (26-PINS, BLUE)	LH side of RH footwell	21-3 10-4
X18157	CONNECTOR (26-PINS, BLUE)	LH side of RH footwell	21-3 10-4
X18181	CONNECTOR (6-PINS, BLACK)	Underside of LH front seat	17-2
X18184	CONNECTOR (1-PINS, (---))	Under rear window shelf	
X18185	CONNECTOR (1-PINS, (---))	Under rear window shelf	
X18186	CONNECTOR (1-PINS, NATURAL)	In upper LH front door	
X18187	CONNECTOR (1-PINS, (---))	Under rear window shelf	
X18189	CONNECTOR (1-PINS, (---))	Under rear window shelf	
X18190	CONNECTOR (1-PINS, NATURAL)	In upper LH front door	
X18191	CONNECTOR (1-PINS, (---))	Behind RH footwell speaker grille	
X18192	CONNECTOR (1-PINS, WHITE)	In upper RH front door	
X18193	CONNECTOR (1-PINS, (---))	In upper RH front door	
X18203	CONNECTOR (4-PINS, (---))	Below RH side of rear seat	06-5
X18205	CONNECTOR (2-PINS, WHITE)	Front of gearshift selector	23-2
X18208	CONNECTOR (4-PINS, BLACK)	Behind center of dashboard near gearshift lever	06-3
X18209	CONNECTOR (4-PINS, BLACK)	Behind center of dashboard near gearshift lever	06-5



# COMPONENT LOCATION CHART

## COMPONENT

PAGE - FIGURE  
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X18244	CONNECTOR (8-PINS, BLACK)	Center of dash		03-1
X18245	CONNECTOR (8-PINS, BLACK)	In roof panel	31-1	03-1
X18259	CONNECTOR (10-PINS, BLACK)	Below LH side of dash		15-2
X18263	CONNECTOR (2-PINS, WHITE)	Middle of heater control panel		
X18500	CONNECTOR (25-PINS, BLACK)	TELEPHONE TRANSCEIVER, H38		19-4
X18501	CONNECTOR (3-PINS, YELLOW)	TELEPHONE INTERFACE US, A192		
X18507	CONNECTOR (4-PINS, BLACK)			
X18508	CONNECTOR (4-PINS, BLACK)			
X18509	CONNECTOR (4-PINS, BLACK)			
X18520	CONNECTOR (10-PINS, BLACK)	Behind radio	22-3	
X18521	CONNECTOR (10-PINS, BLACK)	In LH rear side of luggage compartment	32-2	19-3
X18715	CONNECTOR (1-PINS, BLACK)	Behind center of dashboard behind radio		
X18729	CONNECTOR (3-PINS, WHITE)	In LH forward side of luggage compartment	32-1	05-2
X18729	CONNECTOR (3-PINS, WHITE)	In LH forward side of luggage compartment	32-2	05-2
X18736	CONNECTOR (1-PINS, BLUE)	Inside box on interior side of LH door sill		
X18741	CONNECTOR (4-PINS, BLACK)			
Y1	ABS HYDRAULIC UNIT	LH side of engine compartment		10-3
Y4	WATER VALVE ASSEMBLY	Rear LH side of engine compartment		08-3
Y5	DRIVER'S SIDE MIRROR	In upper LH front door		
Y6	PASSENGER'S SIDE MIRROR	In upper RH front door		



## COMPONENT LOCATION CHART

### COMPONENT

PAGE - FIGURE  
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Y9	DRIVER'S SIDE MEMORY MIRROR	In upper LH front door	
Y10	PASSENGER'S SIDE MEMORY MIRROR	In upper RH front door	
Y6101	CYL. 1 FUEL INJECTION VALVE	On engine bulkhead	13-3
Y6102	CYL. 2 FUEL INJECTION VALVE	On engine bulkhead	13-3
Y6103	CYL. 3 FUEL INJECTION VALVE	On engine bulkhead	13-3
Y6104	CYL. 4 FUEL INJECTION VALVE	On engine bulkhead	13-3
Y6105	CYL. 5 FUEL INJECTION VALVE	On engine bulkhead	13-3
Y6106	CYL. 6 FUEL INJECTION VALVE	On engine bulkhead	13-3
Y6120	EVAPORATIVE EMISSION VALVE	LH side of engine compartment LH side of engine	09-2
Y6120	EVAPORATIVE EMISSION VALVE	LH side of engine (near oil level stick) (M5)	
Y6130	IDLE SPEED CONTROL VALVE	Front of engine	12-1
Y6130	IDLE SPEED CONTROL VALVE	Top front of engine on throttle body (M5)	
Y6131	INTAKE AIR RESONANCE CHANGE OVER VALVE	LH side of engine (near oil level stick) (M5)	
Y8514	PROGRAM SWITCH	Below center of console front of gearshift selector	
Y8516	ELECTRONIC TRANSMISSION ENGINE SPEED SENSOR (EGS)	Under center of car	
Y8505y	TRANSMISSION VALVE UNIT	In transmission	

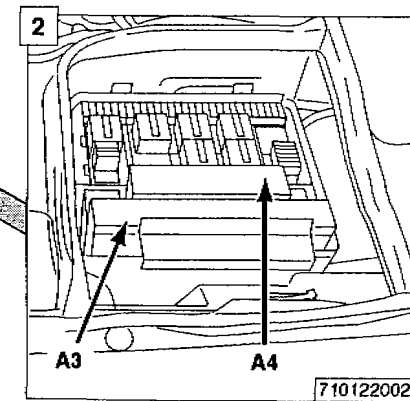
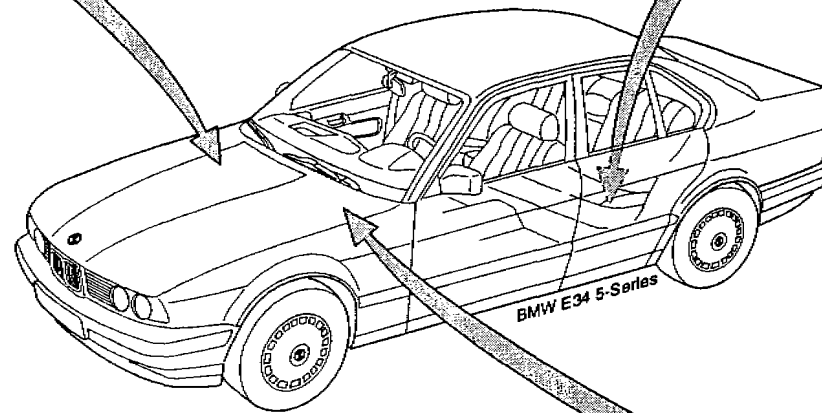
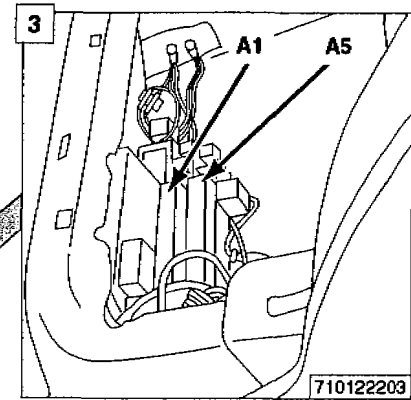
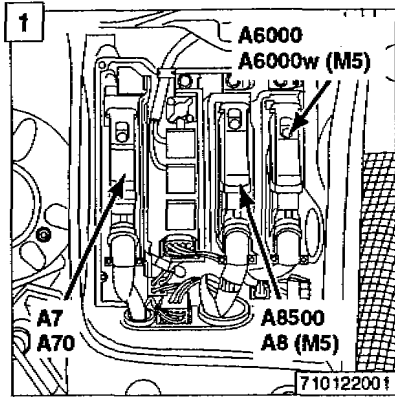
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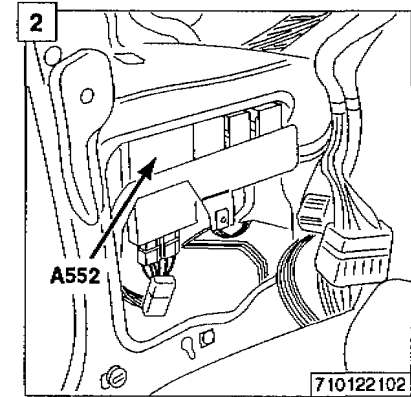
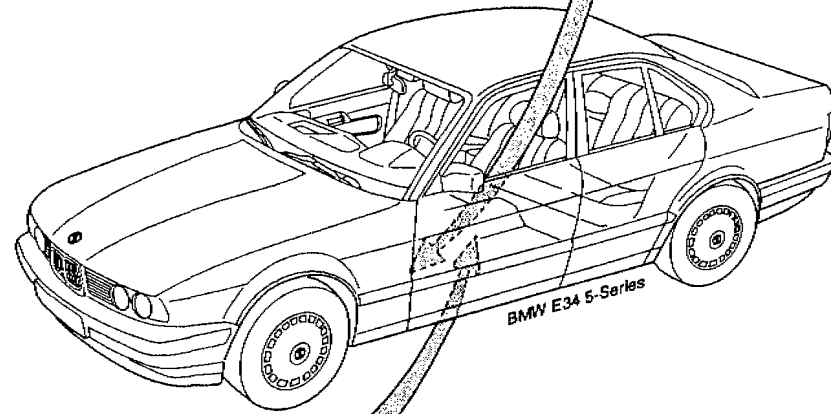
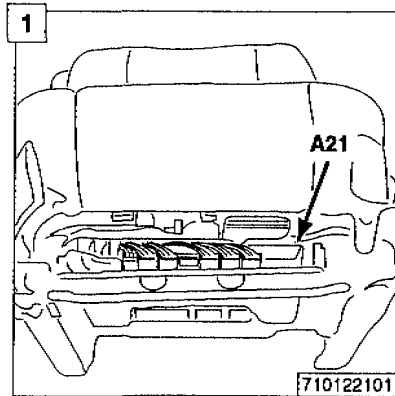
# COMPONENT LOCATION VIEWS

## ELECTRICAL CONTROL MODULE LOCATIONS





# COMPONENT LOCATION VIEWS

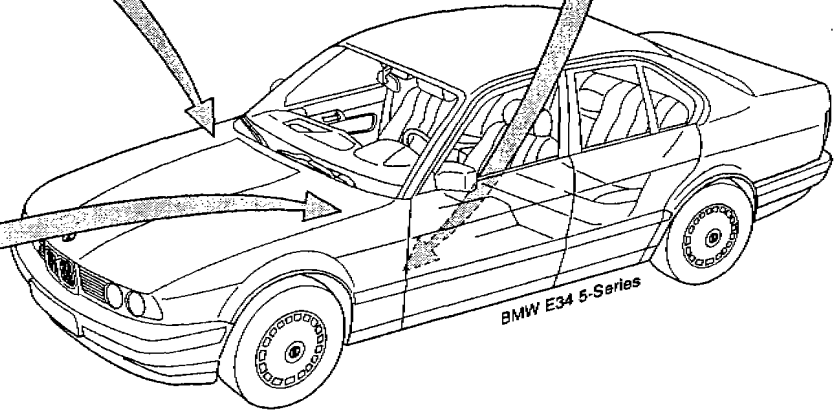
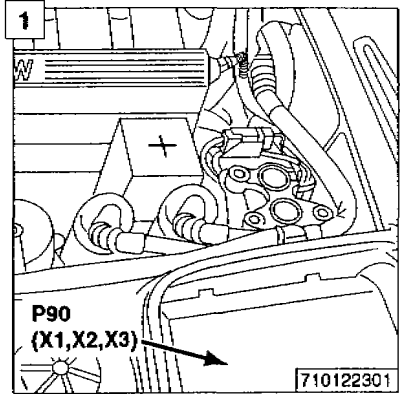
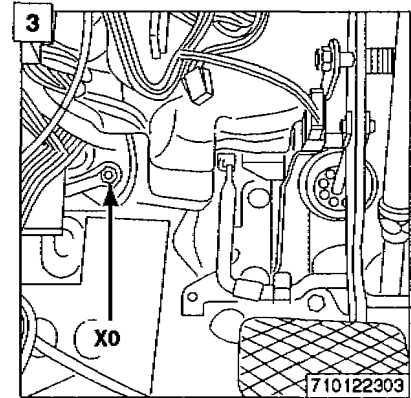
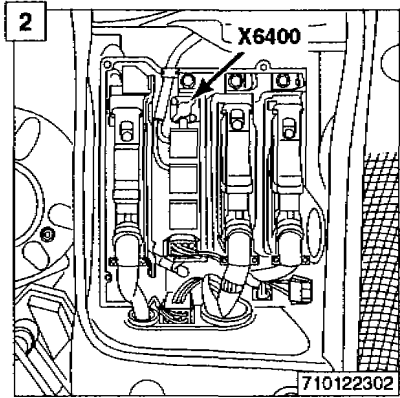




# COMPONENT LOCATION VIEWS

**B(+)**

P90
X0
X1
X2
X3
X6400



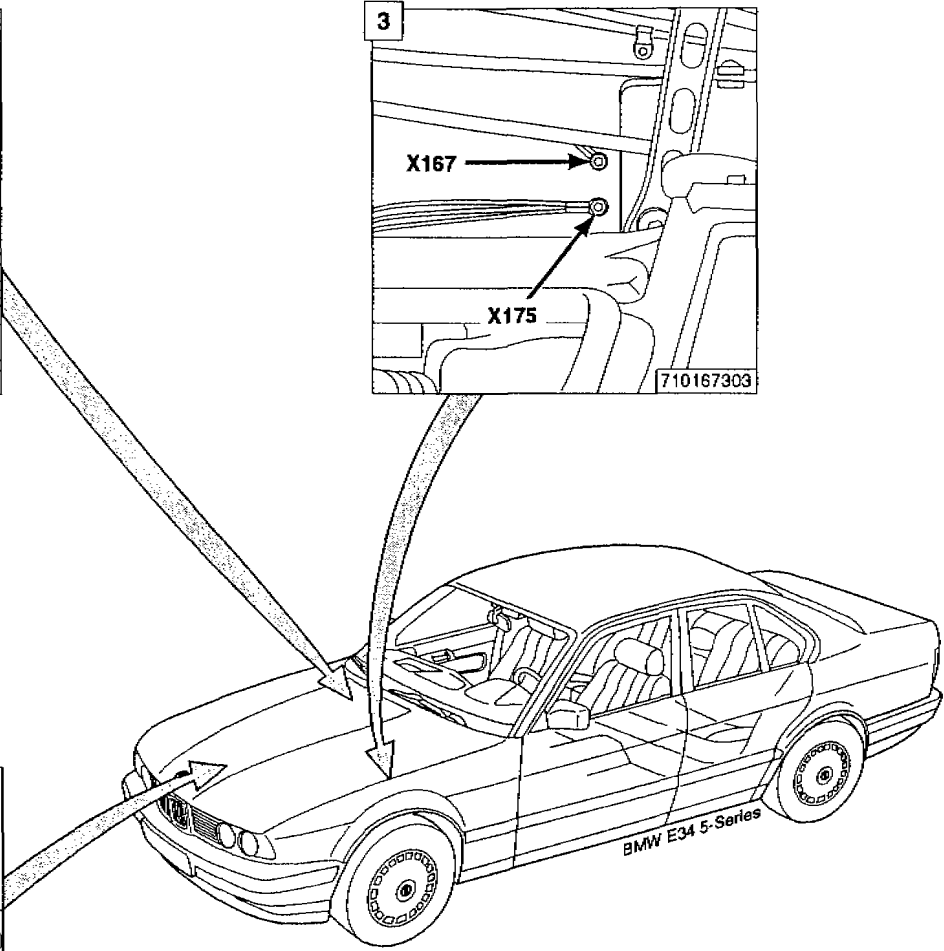
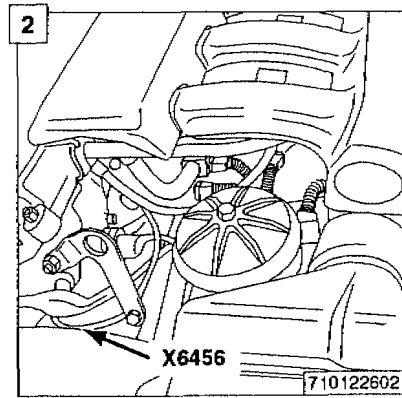
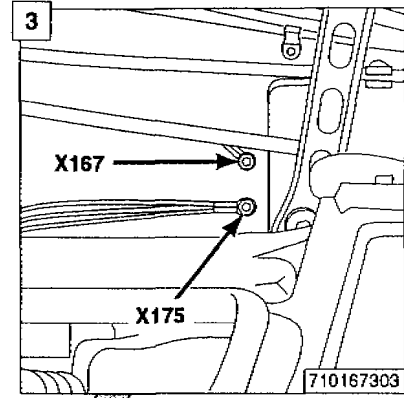
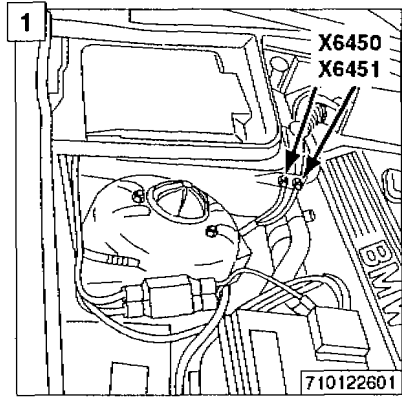




# COMPONENT LOCATION VIEWS

**B(-)**

X167
X175
X6450
X6451
X6456

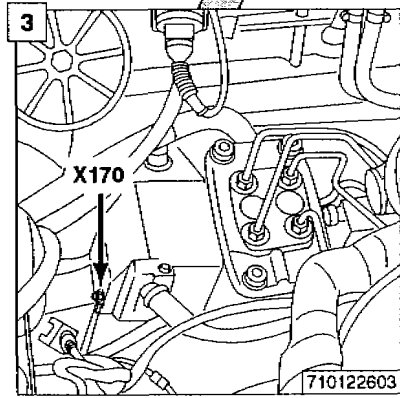
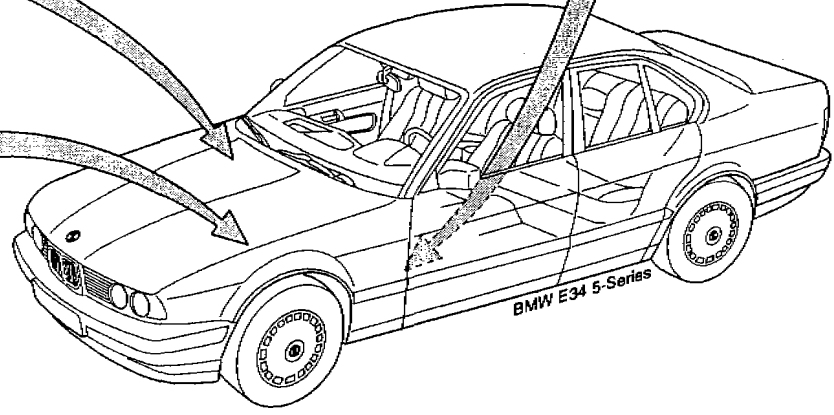
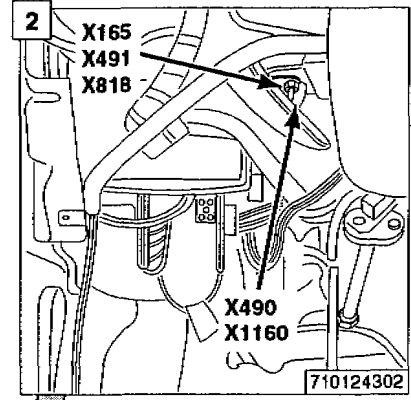
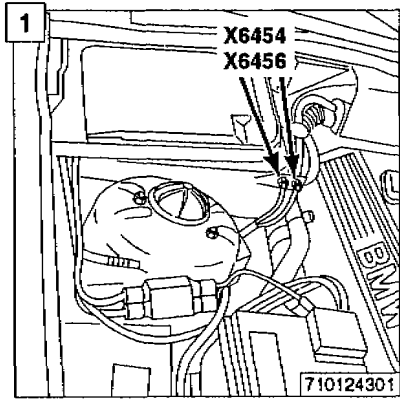




# COMPONENT LOCATION VIEWS

**B(-)**

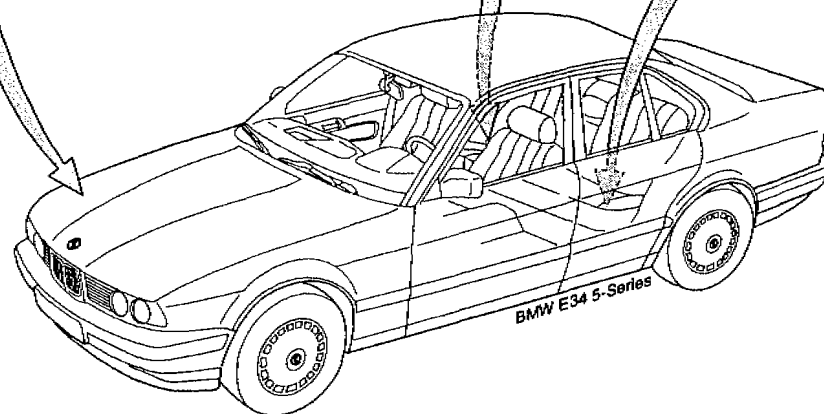
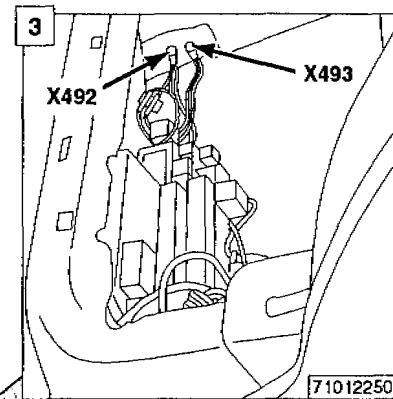
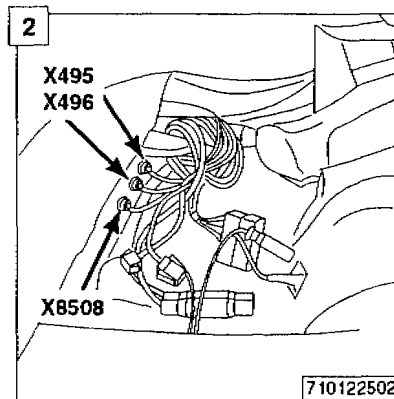
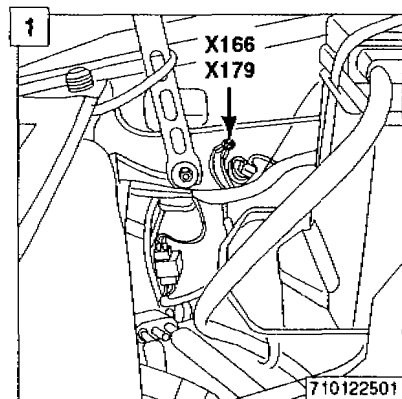
X165
X170
X490
X491
X818
X1160
X6454
X6456



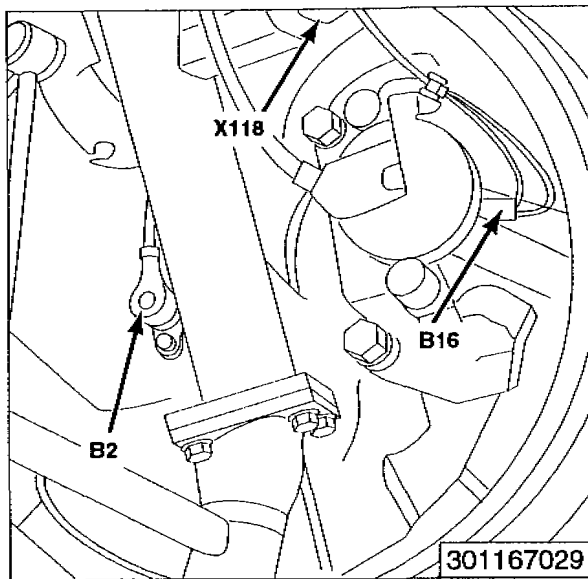
# COMPONENT LOCATION VIEWS

**B(-)**

X166
X179
X492
X493
X495
X496
X8508

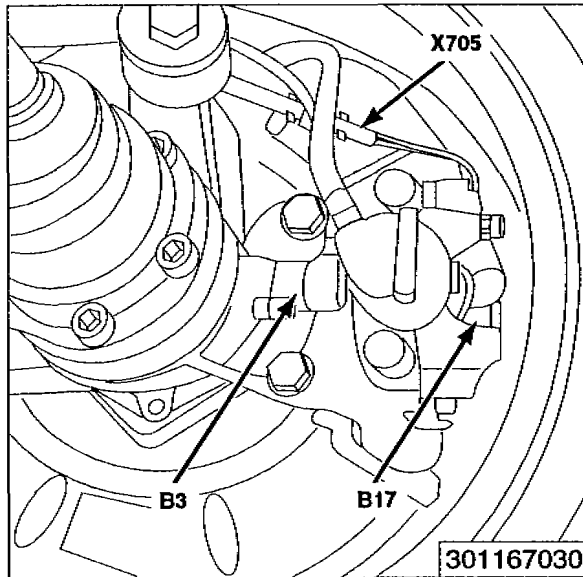


**COMPONENT LOCATION VIEWS**



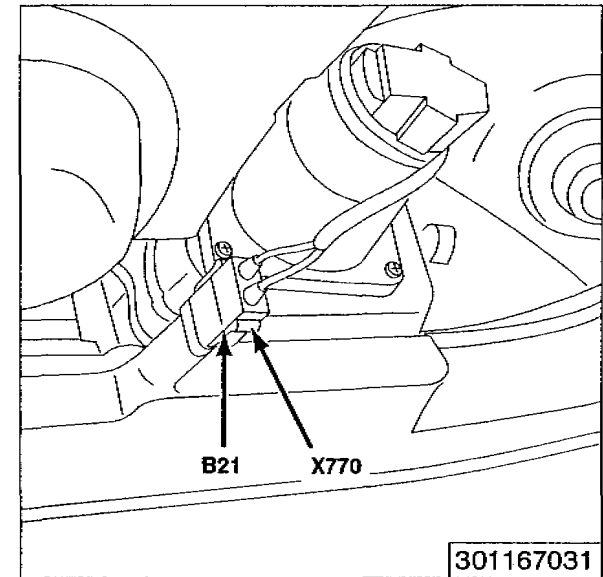
**FIG. 1 - Behind LH front wheel**

- B2 LEFT FRONT SPEED SENSOR - ABS**
- B16 LEFT FRONT BRAKE PAD SENSOR**
- X118 CONNECTOR (2-PINS, BLACK)**



**FIG. 2 - Behind RH rear wheel**

- B3 RIGHT REAR SPEED SENSOR - ABS**
- B17 RIGHT REAR BRAKE PAD SENSOR**
- X705 CONNECTOR (2-PINS, BLACK)**



**FIG. 3 - Under LH front bumper**

- B21 ON-BOARD COMPUTER TEMPERATURE SENSOR**
- X770 CONNECTOR (2-PINS, WHITE)**



## COMPONENT LOCATION VIEWS

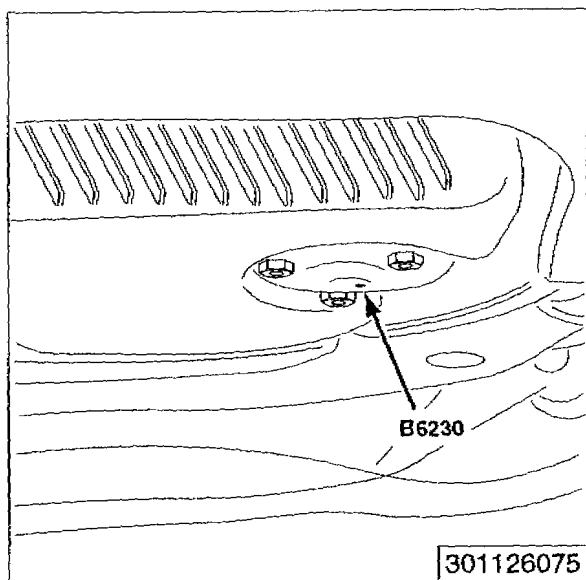


FIG 1 - Underside of oil pan

B6230 OIL LEVEL SENSOR

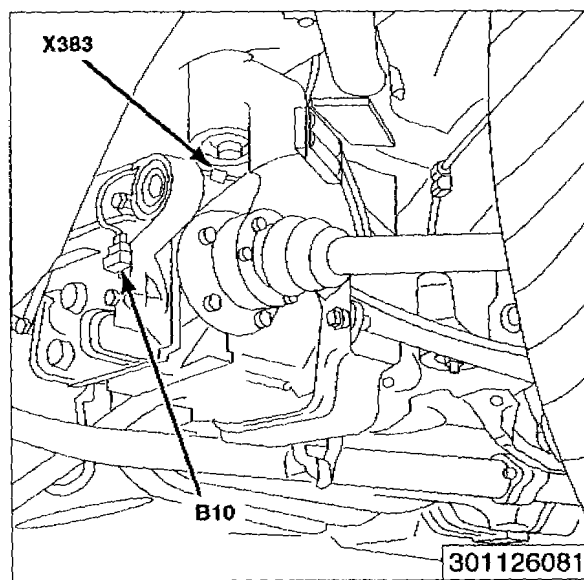


FIG 2 - Under rear of car

B10 VEHICLE SPEED SENSOR  
X383 CONNECTOR (2-PINS, YELLOW)

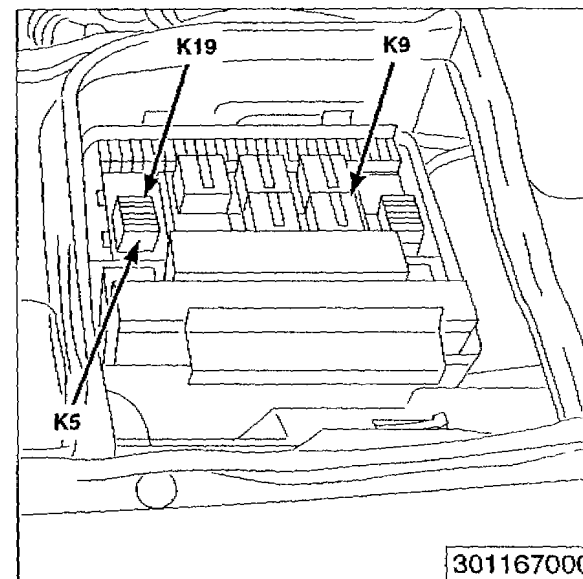
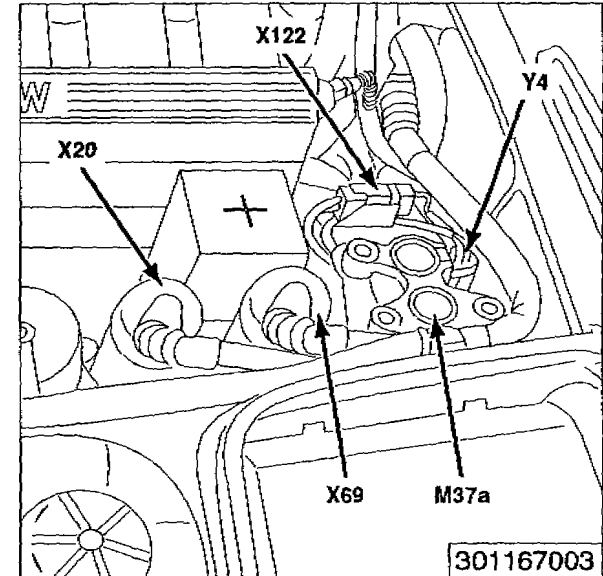
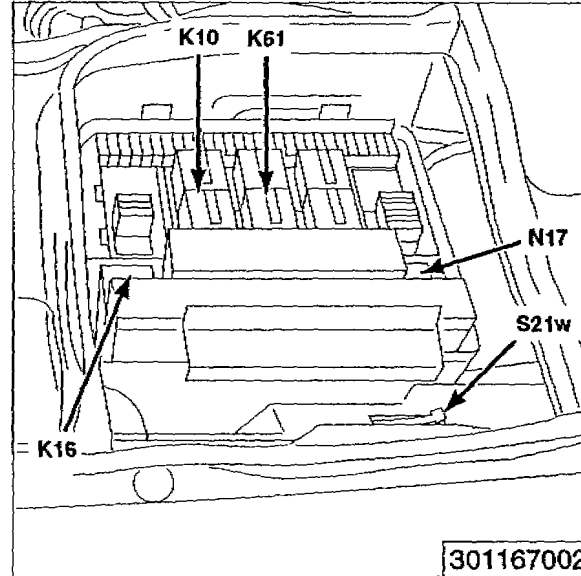
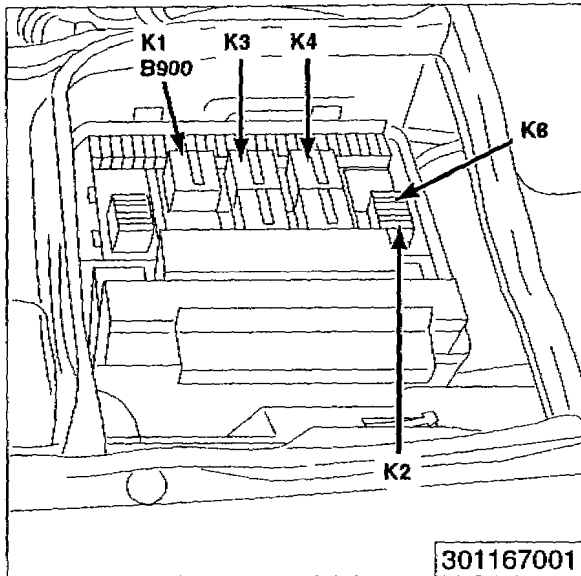


FIG 3 - In Front Power Distribution Box

K5 WASHER PUMP RELAY  
K9 UNLOADER RELAY, TERMINAL 15  
K19 COMPRESSOR CONTROL RELAY

**COMPONENT LOCATION VIEWS**



**FIG 1 - In Front Power Distribution Box**

- B900 JUMPER PLUG**
- K1 STARTER RELAY**
- K2 HORN RELAY**
- K3 UNLOADER RELAY, TERMINAL R**
- K4 BLOWER RELAY**
- K8 AUXILIARY WATER PUMP RELAY**

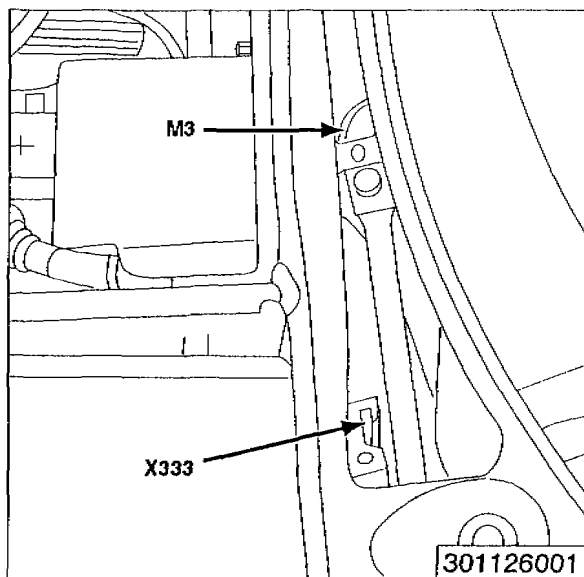
**FIG 2 - In Front Power Distribution Box**

- K10 ABS RELAY**
- K16 HAZARD FLASHER RELAY**
- K61 UNLOADER RELAY, TERMINAL 61**
- N17 CRASH CONTROL MODULE**
- S21w ENGINE HOOD SWITCH**

**FIG 3 - Rear LH side of engine compartment**

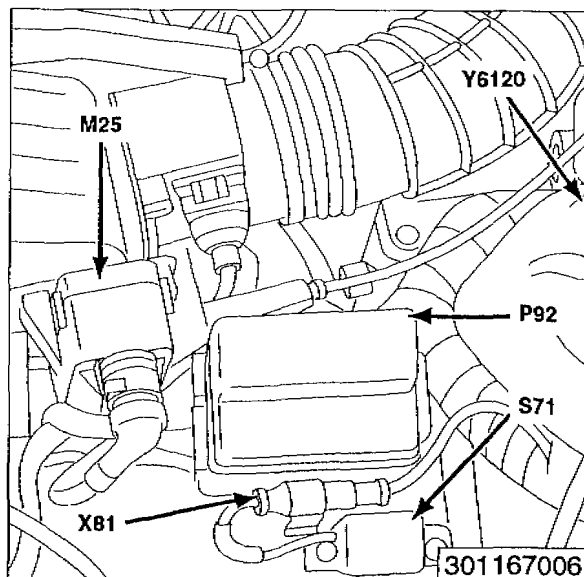
- M37a AUXILIARY WATER PUMP**
- X20 CONNECTOR (25-PINS, BLACK)**
- X69 CONNECTOR (25-PINS, BLACK)**
- X122 CONNECTOR (2-PINS, BLACK)**
- Y4 WATER VALVE ASSEMBLY**

**COMPONENT LOCATION VIEWS**



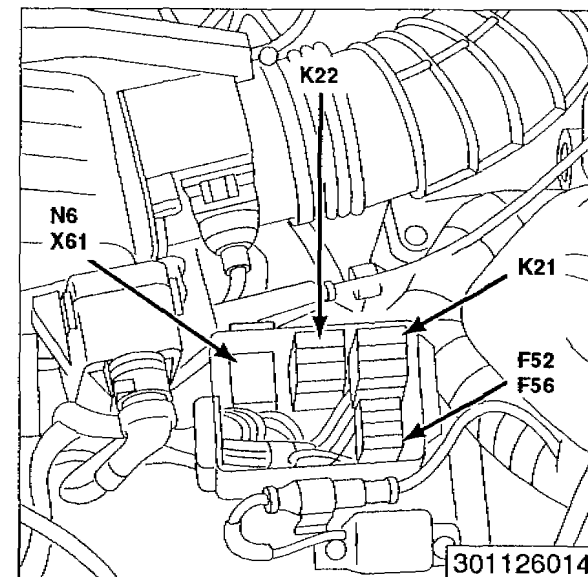
**FIG 1 - Behind LH fresh air cowl**

- M3 WIPER MOTOR**
- X333 CONNECTOR (4-PINS, BLACK)**



**FIG 2 - LH side of engine compartment**

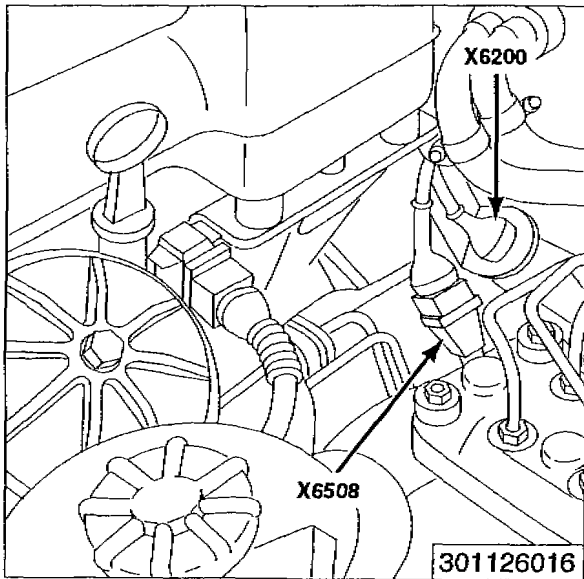
- M25 CRUISE CONTROL ACTUATOR (TEMPOMAT)**
- P92 AUXILIARY RELAY BOX**
- S71 LEFT FRONT IMPACT SENSOR**
- X81 CONNECTOR (3-PINS, ORANGE)**
- Y6120 EVAPORATIVE EMISSION VALVE**



**FIG 3 - In LH auxillary relay box, engine compartment**

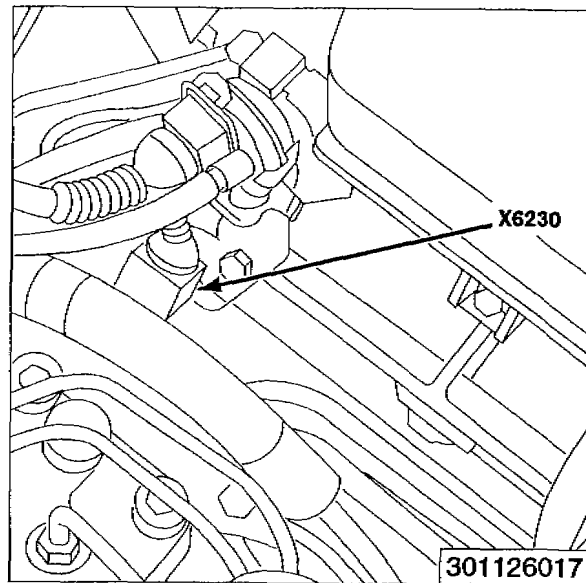
- F52 FUSE (10A)**
- F56 AUTOMATIC CUT-OUT**
- K21 NORMAL SPEED RELAY**
- K22 HIGH SPEED RELAY**
- N6 HEADLIGHT/FOGLIGHT CLEANING MODULE (SRA)**
- X61 CONNECTOR (9-PINS, BLACK)**

**COMPONENT LOCATION VIEWS**



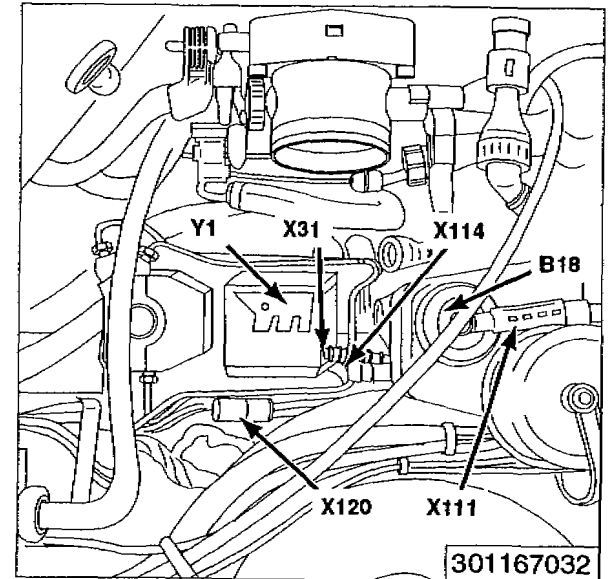
**FIG 1 - LH side of engine (near oil level stick)**

- X6200** CONNECTOR (4-PINS, BLACK)
- X6508** CONNECTOR (3-PINS, BLACK)



**FIG 2 - LH side of engine**

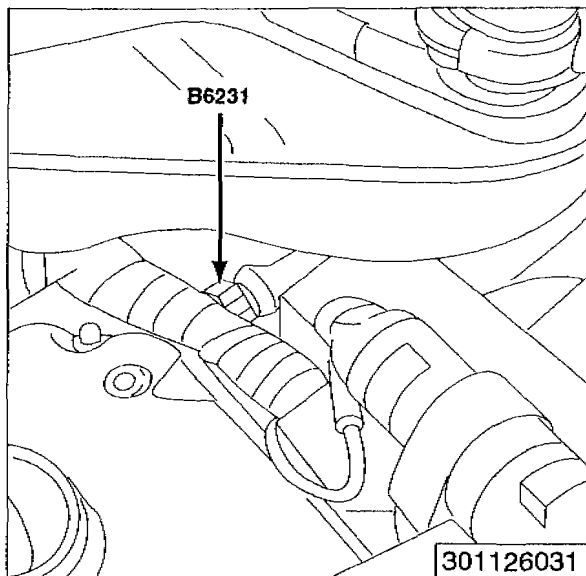
- X6230** CONNECTOR (3-PINS, BLACK)



**FIG 3 - LH side of engine compartment**

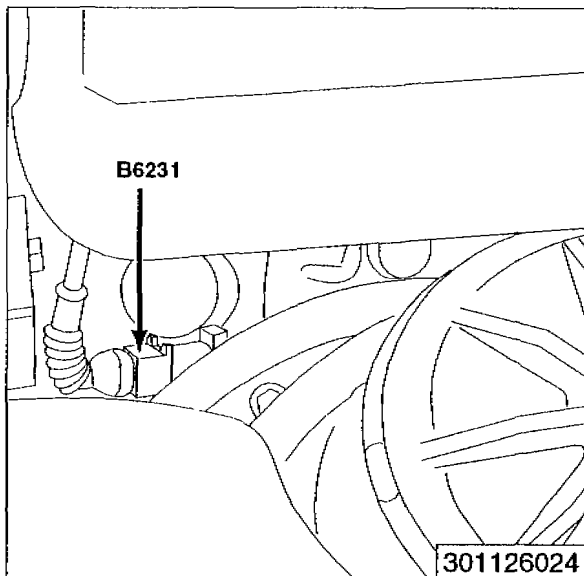
- B18** BRAKE FLUID LEVEL SWITCH
- X31** CONNECTOR (12-PINS, BLACK)
- X111** CONNECTOR (2-PINS, BLACK)
- X114** CONNECTOR (2-PINS, BLACK)
- X120** CONNECTOR (2-PINS, BLACK)
- Y1** ABS HYDRAULIC UNIT





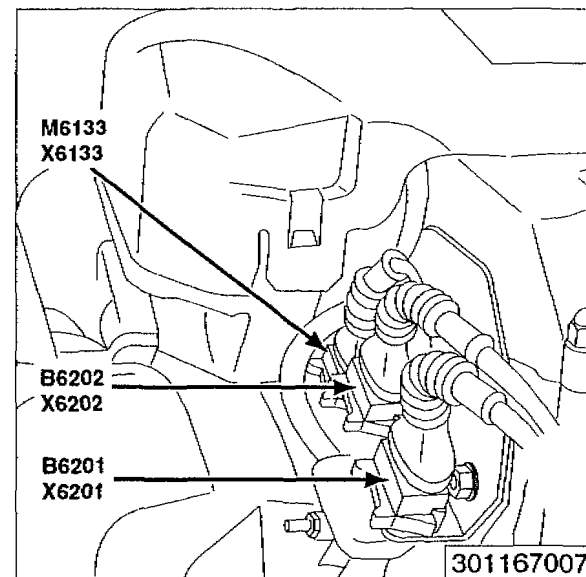
**FIG 1 - Rear of engine (535i)**

**B6231 OIL PRESSURE SWITCH**



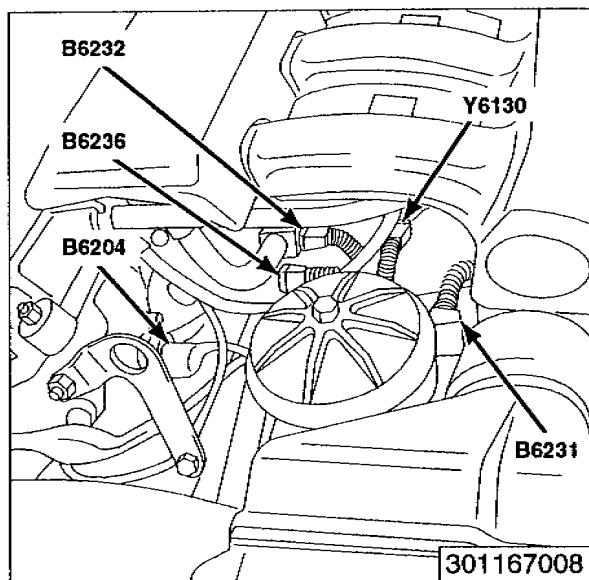
**FIG 2 - Rear of engine (M5)**

**B6231 OIL PRESSURE SWITCH**



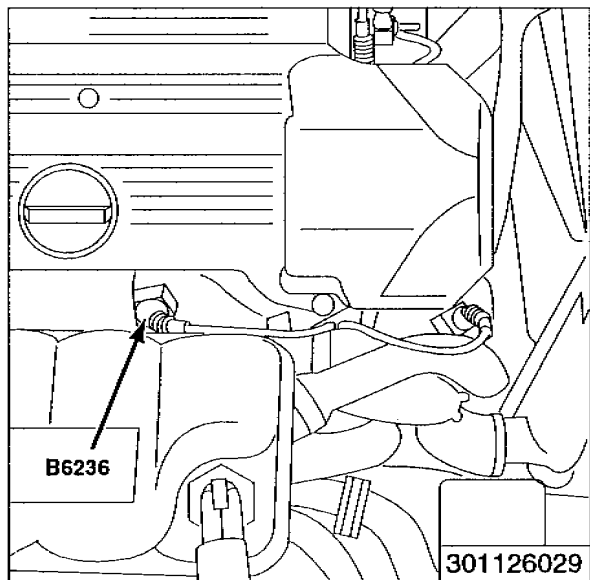
**FIG 3 - Top front of engine (M5)**

- B6201 CYLINDER IDENTIFICATION SENSOR**
- B6202 CRANKSHAFT POSITION/RPM SENSOR**
- M6133 AIR PUMP**
- X6133 CONNECTOR (2-PINS, BLACK)**
- X6201 CONNECTOR (3-PINS, BLACK)**
- X6202 CONNECTOR (3-PINS, BLACK)**



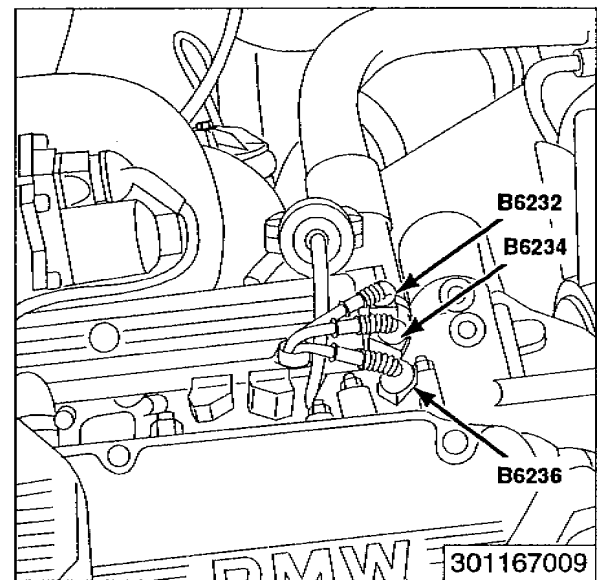
**FIG. 1 - Front of engine (525i)**

- B6204 CAMSHAFT POSITION SENSOR (CYLINDER IDENTIFICATION)**
- B6231 OIL PRESSURE SWITCH**
- B6232 ENGINE COOLANT TEMPERATURE SENSOR**
- B6236 ENGINE COOLANT TEMPERATURE SENSOR**
- Y6130 IDLE SPEED CONTROL VALVE**



**FIG. 2 - Front of engine (M5)**

- B6236 ENGINE COOLANT TEMPERATURE SENSOR**

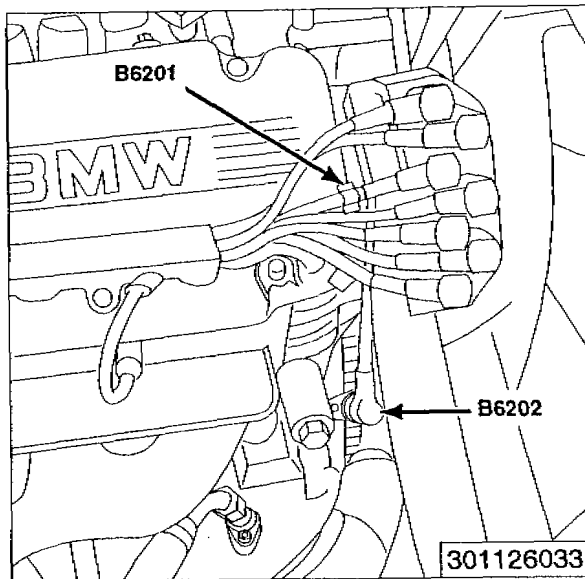


**FIG. 3 - Front of engine (535i)**

- B6232 ENGINE COOLANT TEMPERATURE SENSOR**
- B6234 ENGINE COOLANT TEMP. SENSOR (EML)**
- B6236 ENGINE COOLANT TEMPERATURE SENSOR**

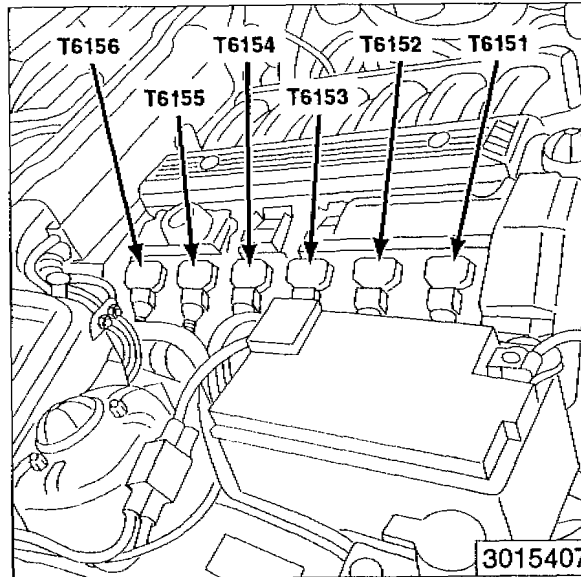


## COMPONENT LOCATION VIEWS



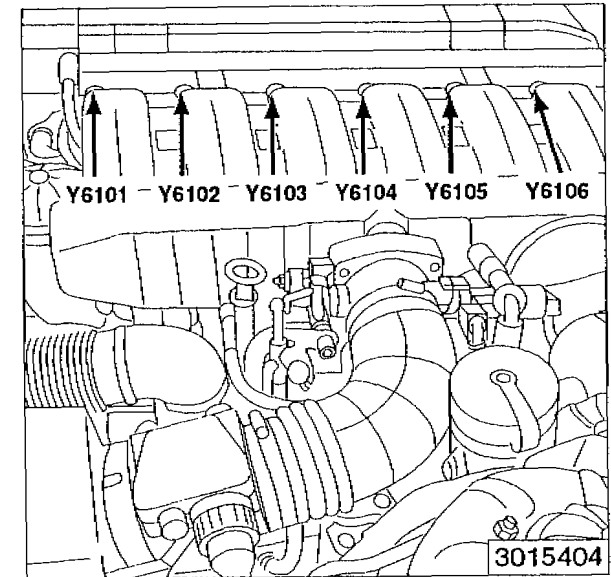
**FIG. 1 - RH side of engine RH side of oil filter**

- B6201 CYLINDER IDENTIFICATION SENSOR**
- B6202 CRANKSHAFT POSITION/RPM SENSOR**



**FIG. 2 - RH side of engine (525i)**

- T6151 CYL. 1 IGNITION COIL**
- T6152 CYL. 2 IGNITION COIL**
- T6153 CYL. 3 IGNITION COIL**
- T6154 CYL. 4 IGNITION COIL**
- T6155 CYL. 5 IGNITION COIL**
- T6156 CYL. 6 IGNITION COIL**



**FIG. 3 - Front of engine (525i)**

- Y6101 CYL. 1 FUEL INJECTION VALVE**
- Y6102 CYL. 2 FUEL INJECTION VALVE**
- Y6103 CYL. 3 FUEL INJECTION VALVE**
- Y6104 CYL. 4 FUEL INJECTION VALVE**
- Y6105 CYL. 5 FUEL INJECTION VALVE**
- Y6106 CYL. 6 FUEL INJECTION VALVE**



## COMPONENT LOCATION VIEWS

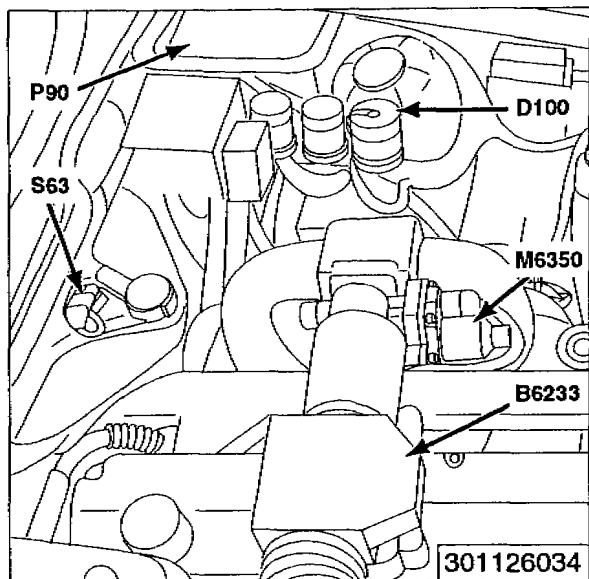


FIG. 1 - LH side of engine compartment (535i)

- B6233 VOLUME AIR FLOW SENSOR
- D100 DATA LINK CONNECTOR
- M6350 ELECTRONIC THROTTLE ACTUATOR (EML)
- P90 FRONT POWER DISTRIBUTION BOX
- S63 ENGINE COOLANT LEVEL SWITCH

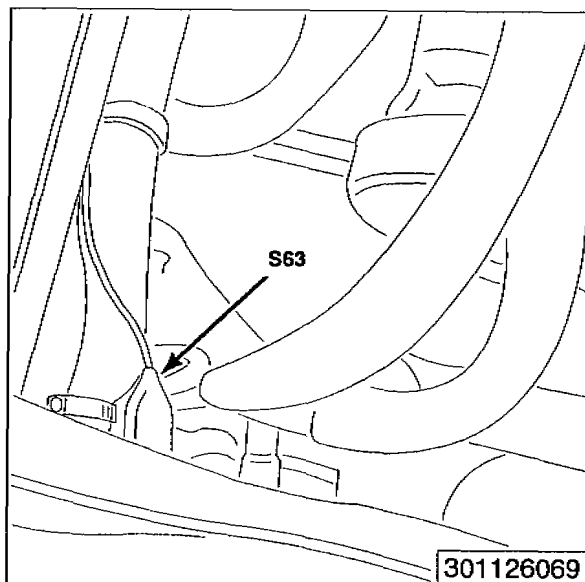


FIG. 2 - Top center of engine (525i)

- S63 ENGINE COOLANT LEVEL SWITCH

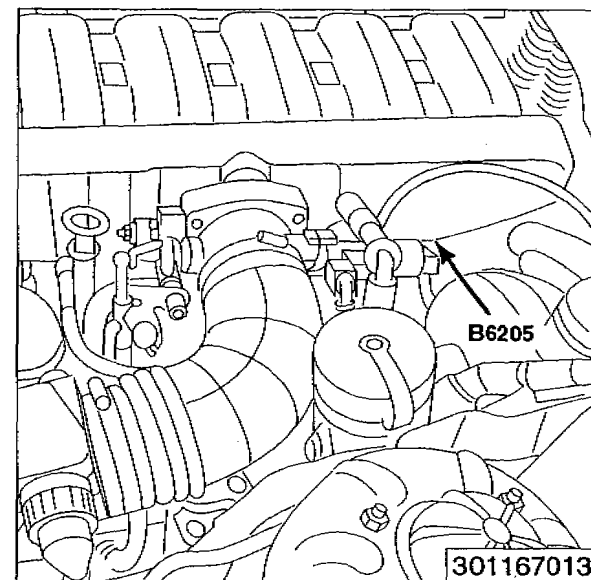
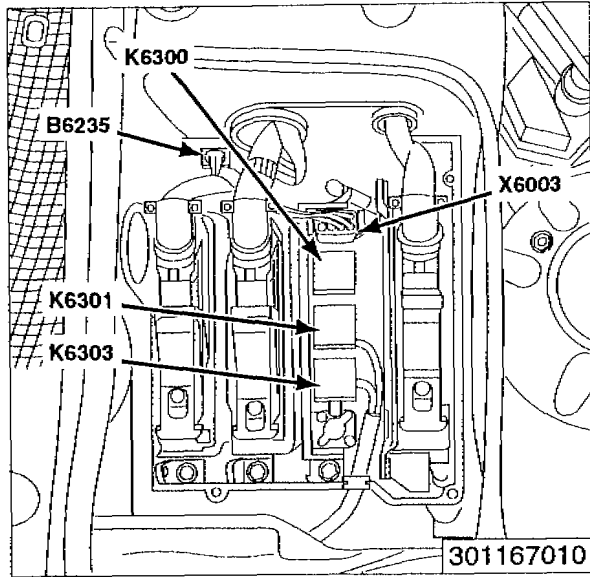


FIG. 3 - Front of engine

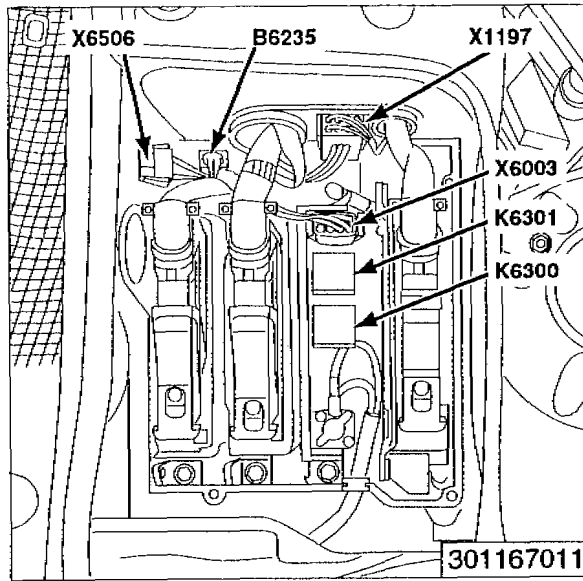
- B6205 INTAKE AIR TEMPERATURE SENSOR

**COMPONENT LOCATION VIEWS**



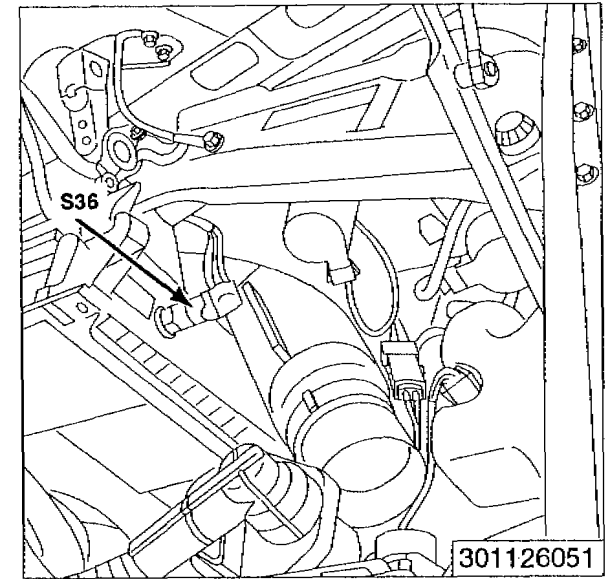
**FIG. 1 - Rear RH side of engine compartment (525i)**

- B6235** TEMPERATURE SWITCH
- K6300** ENGINE CONTROL MODULE RELAY
- K6301** CYL. 1-6 FUEL PUMP RELAY
- K6303** OXYGEN SENSOR RELAY
- X6003** CONNECTOR (8-PINS, BLACK)



**FIG. 2 - Rear RH side of engine compartment (535i)**

- B6235** TEMPERATURE SWITCH
- K6300** ENGINE CONTROL MODULE RELAY
- K6301** CYL. 1-6 FUEL PUMP RELAY
- X1197** CONNECTOR (8-PINS, WHITE)
- X6003** CONNECTOR (8-PINS, BLACK)
- X6506** CONNECTOR (4-PINS, BLACK)

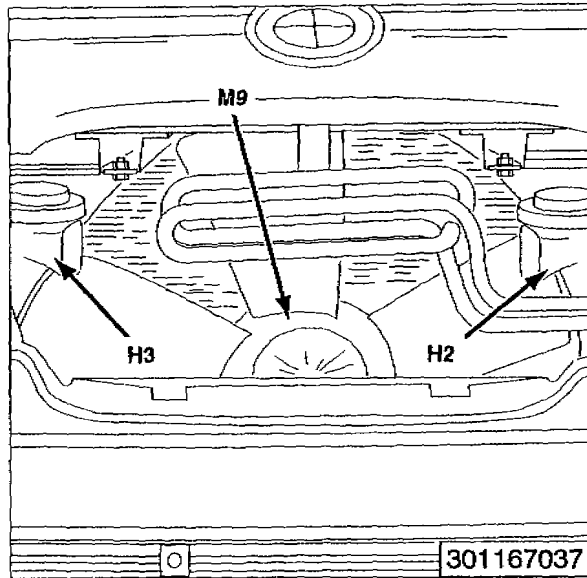


**FIG. 3 - Front RH side of engine compartment**

- S36** TEMPERATURE SWITCH

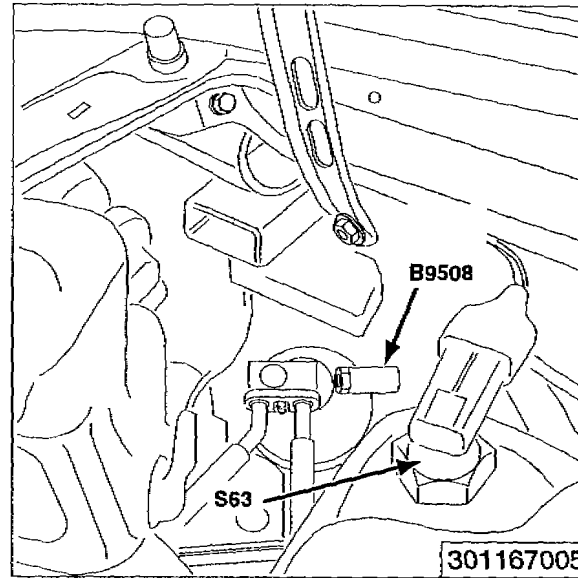


## COMPONENT LOCATION VIEWS



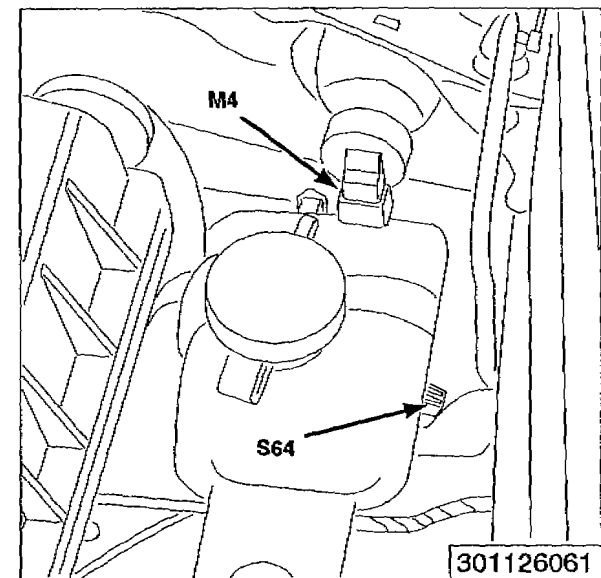
**FIG 1 - Behind front grille**

- H2 LEFT HORN**
- H3 RIGHT HORN**
- M9 AUXILIARY FAN MOTOR**



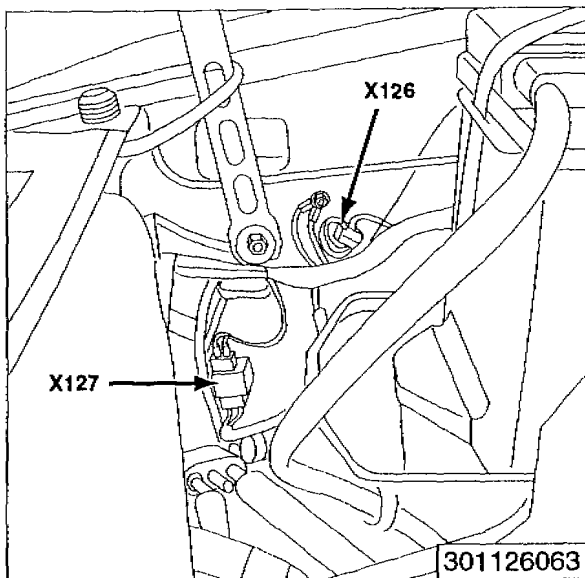
**FIG 2 - Front RH side of engine compartment (M5)**

- B9508 PRESSURE SWITCH**
- S63 ENGINE COOLANT LEVEL SWITCH**



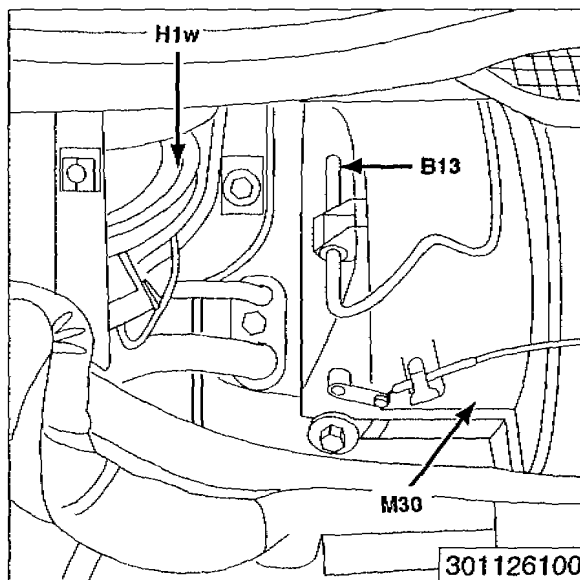
**FIG 3 - Front RH side of engine compartment on washer fluid reservoir**

- M4 WASHER PUMP**
- S64 WASHER FLUID LEVEL SWITCH**



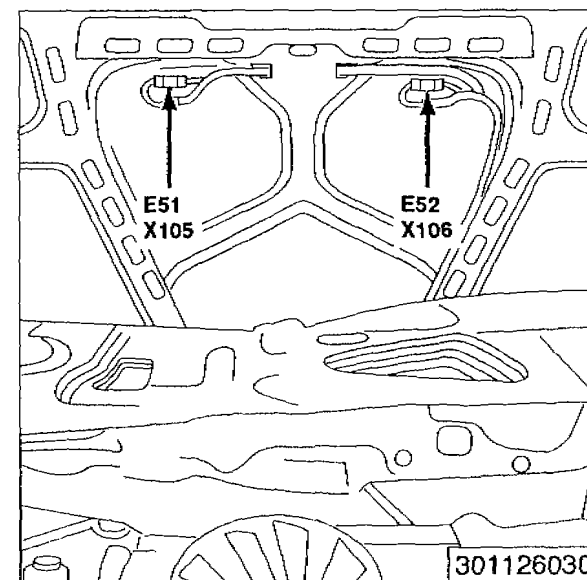
**FIG 1 - Front RH side of engine compartment ahead of wheel well**

- X126 CONNECTOR (2-PINS, WHITE)**
- X127 CONNECTOR (2-PINS, BLACK)**



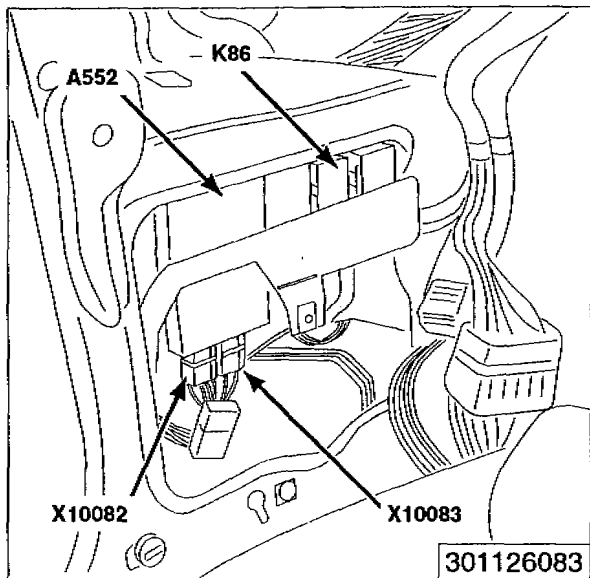
**FIG 2 - Rear LH side of engine compartment**

- B13 OUTSIDE TEMPERATURE SENSOR**
- H1w ANTI-THEFT HORN (ALPINE)**
- M30 BLOWER MOTOR**



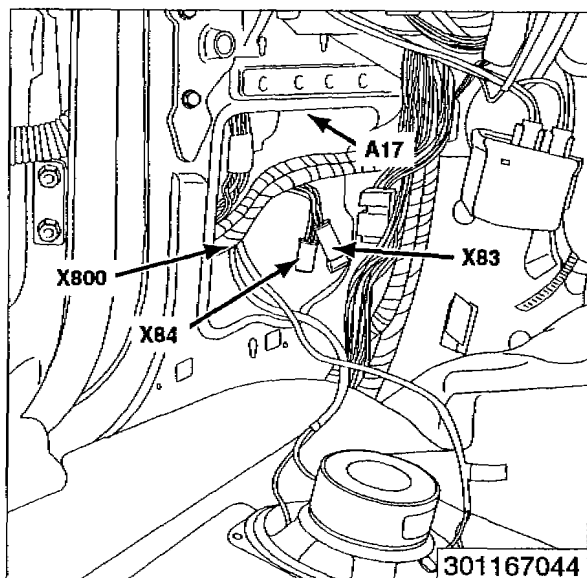
**FIG 3 - On underside of engine hood**

- E51 LEFT WASHER JET HEATER**
- E52 RIGHT WASHER JET HEATER**
- X105 CONNECTOR (2-PINS, GRAY)**
- X106 CONNECTOR (2-PINS, GRAY)**



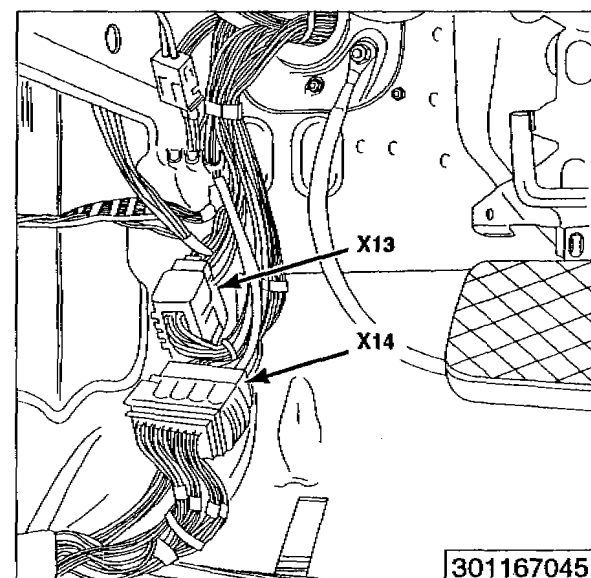
**FIG. 1 - Behind LH footwell trim**

- A552** A/C COMPRESSOR CONTROL MODULE
- K86** WIDE OPEN THROTTLE CUT-OFF RELAY
- X10082** CONNECTOR (5-PINS, GREEN)
- X10083** CONNECTOR (4-PINS, BLACK)



**FIG. 2 - Behind LH footwell trim**

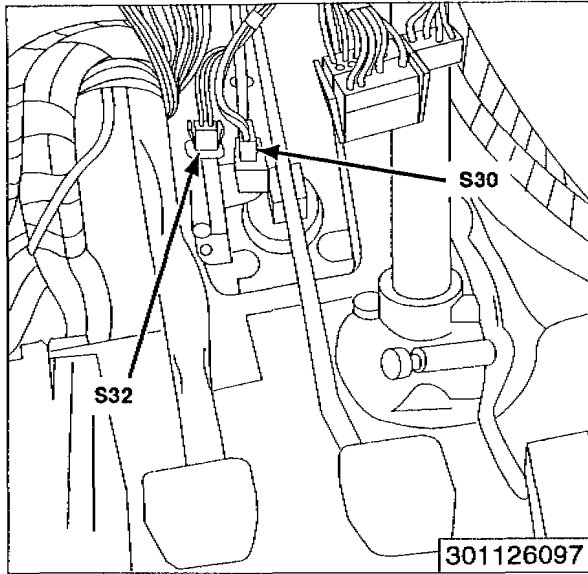
- A17** SERVOTRONIC CONTROL MODULE
- X83** CONNECTOR (3-PINS, YELLOW)
- X84** CONNECTOR (3-PINS, YELLOW)
- X800** CONNECTOR (2-PINS, WHITE)



**FIG. 3 - Behind LH footwell trim**

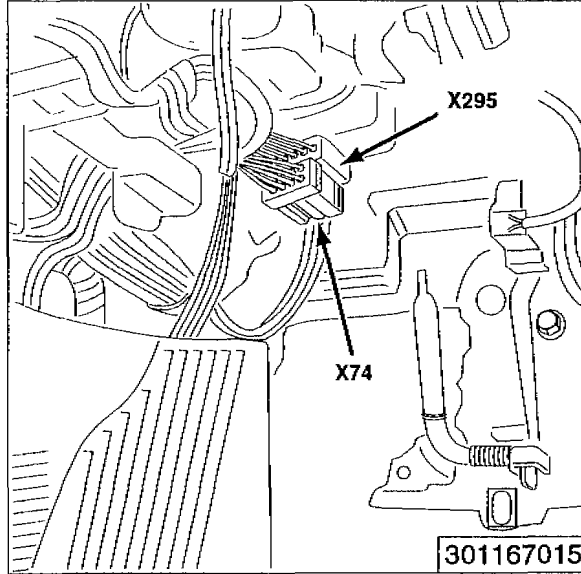
- X13** CONNECTOR (21-PINS, WHITE)
- X14** CONNECTOR (30-PINS, YELLOW)





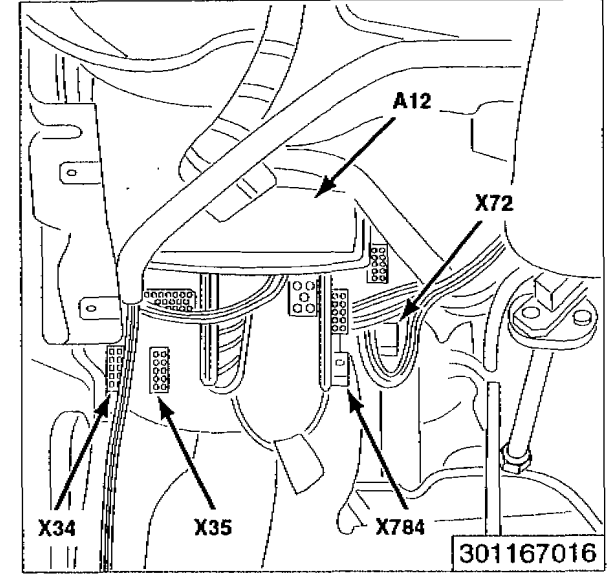
**FIG. 1 - LH footwell**

- S30 BRAKE LIGHT SWITCH**
- S32 CLUTCH SWITCH**



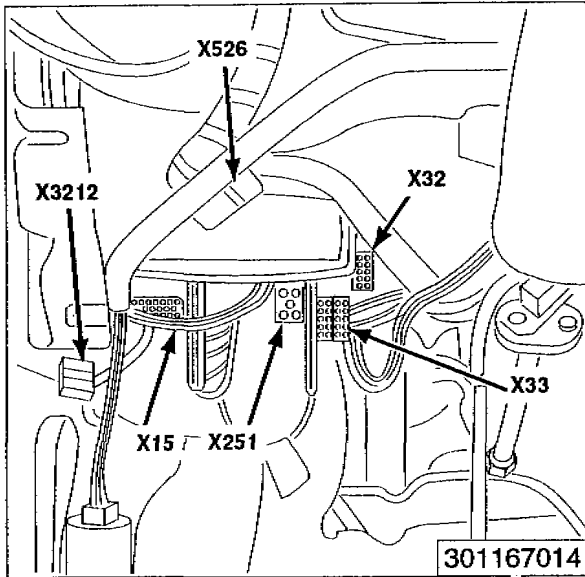
**FIG. 2 - LH footwell**

- X74 CONNECTOR (12-PINS, ORANGE)**
- X295 CONNECTOR (8-PINS, BLACK)**



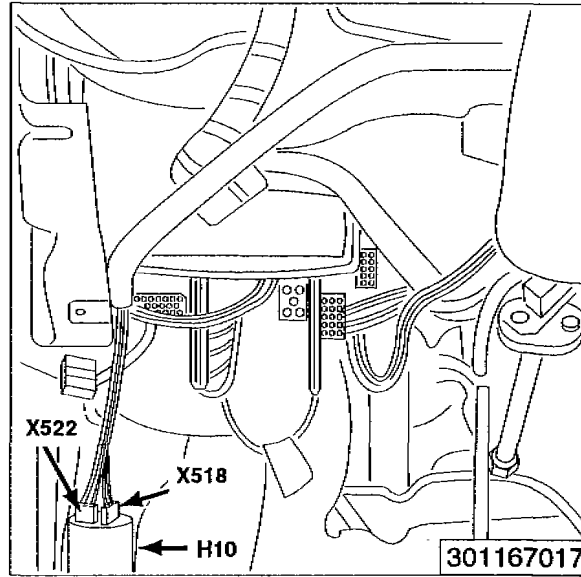
**FIG. 3 - LH footwell**

- A12 SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE**
- X34 CONNECTOR (12-PINS, WHITE)**
- X35 CONNECTOR (21-PINS, BLACK)**
- X72 CONNECTOR (8-PINS, WHITE)**
- X784 CONNECTOR (12-PINS, ORANGE)**



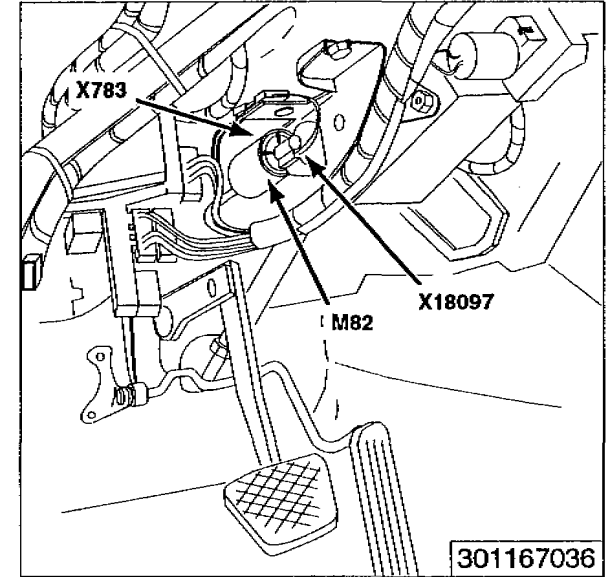
**FIG. 1 - LH footwell**

- X15** CONNECTOR (30-PINS, WHITE)
- X32** CONNECTOR (12-PINS, WHITE)
- X33** CONNECTOR (12-PINS, BLACK)
- X251** CONNECTOR (30-PINS, BLACK)
- X526** CONNECTOR (8-PINS, BLACK)
- X3212** CONNECTOR (4-PINS, BLACK)



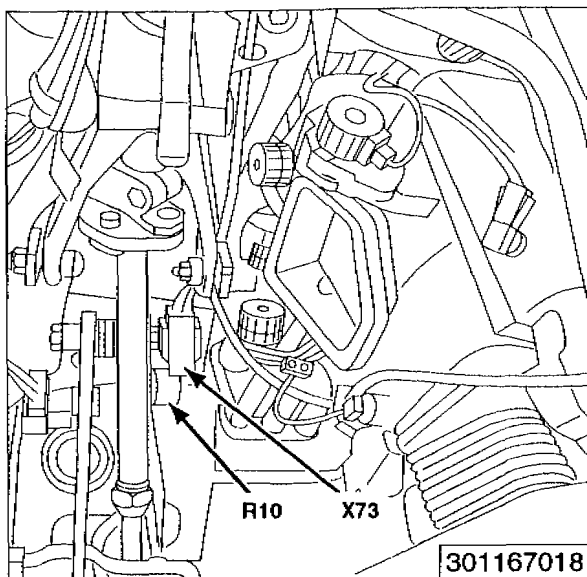
**FIG. 2 - LH footwell**

- H10** CHIME MODULE
- X518** CONNECTOR (4-PINS, BLACK)
- X522** CONNECTOR (3-PINS, WHITE)



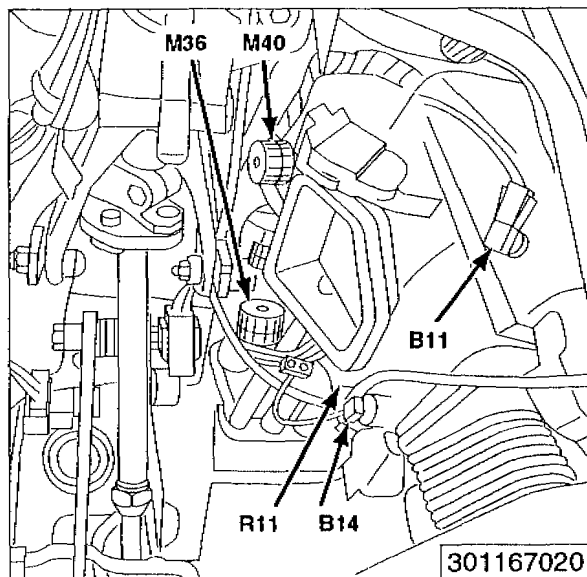
**FIG. 3 - Below LH side of dash**

- M82** STEERING COLUMN LENGTH ADJUST MOTOR
- X783** CONNECTOR (2-PINS, ORANGE)
- X18097** CONNECTOR (2-PINS, BLACK)



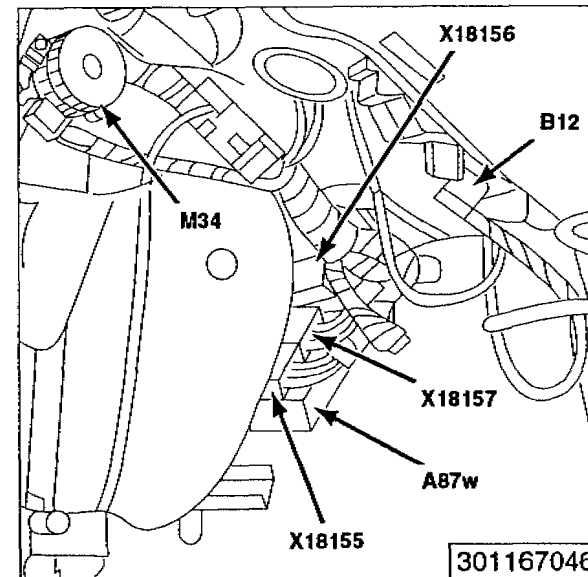
**FIG. 1 - LH footwell**

- R10** PEDAL POSITION SENSOR
- X73** CONNECTOR (8-PINS, BLACK)



**FIG. 2 - LH footwell LH side of IHKR/F3 Plenum**

- B11** LH HEAT EXCHANGER TEMPERATURE SENSOR
- B14** EVAPORATOR TEMPERATURE SENSOR
- M36** FRESH AIR FLAP MOTOR
- M40** RECIRCULATION FLAP MOTOR
- R11** BLOWER RESISTORS



**FIG. 3 - LH side of RH footwell**

- A87w** INTEGRATED CLIMATE REGULATION CONTROL MODULE (IHKR/F3)
- B12** RH HEAT EXCHANGER TEMPERATURE SENSOR
- M34** DASH VENT MIXING FLAP MOTOR
- X18155** CONNECTOR (26-PINS, WHITE)
- X18156** CONNECTOR (26-PINS, BLUE)
- X18157** CONNECTOR (26-PINS, BLUE)



## COMPONENT LOCATION VIEWS

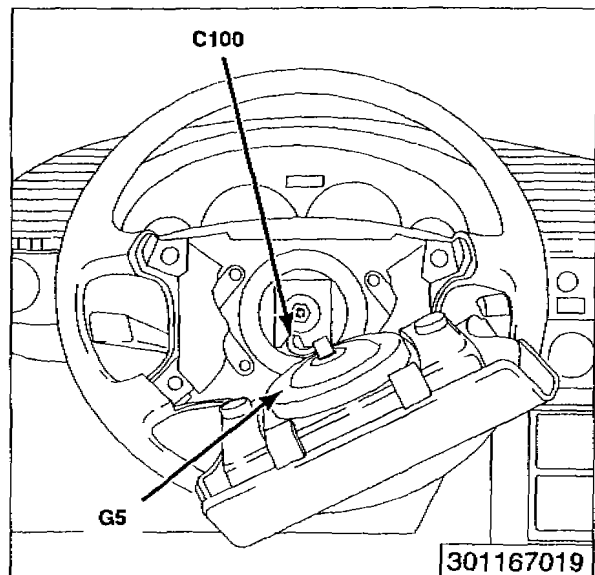


FIG 1 - Top of steering column

- C100 CONTACT RING
- G5 DRIVER'S AIR BAG GENERATOR

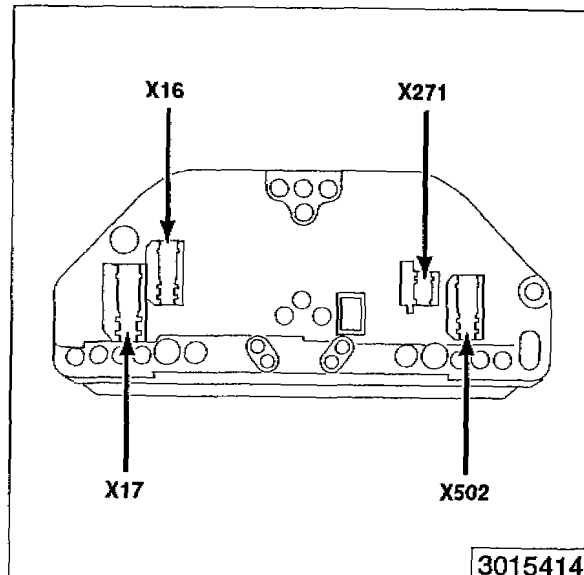


FIG 2 - Rear of A2 Instrument cluster

- X16 CONNECTOR (26-PINS, NATURAL)
- X17 CONNECTOR (6-PINS, BROWN)
- X271 CONNECTOR (12-PINS, GRAY)
- X502 CONNECTOR (26-PINS, BLACK)

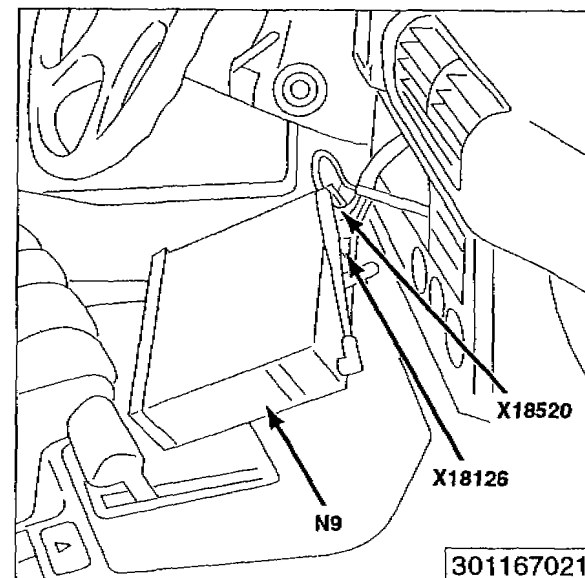


FIG 3 - Center of dash

- N9 RADIO
- X18126 CONNECTOR (17-PINS, BLACK)
- X18520 CONNECTOR (10-PINS, BLACK)



## COMPONENT LOCATION VIEWS

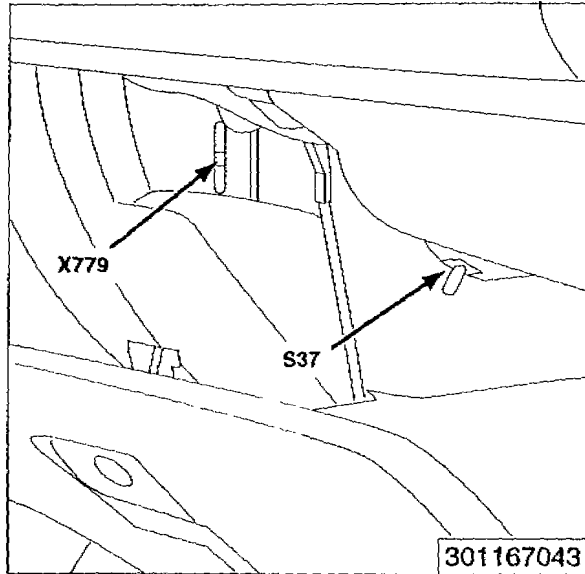


FIG 1 - LH side of glove box

- S37 GLOVE BOX LIGHT SWITCH
- X779 CHARGING SOCKET

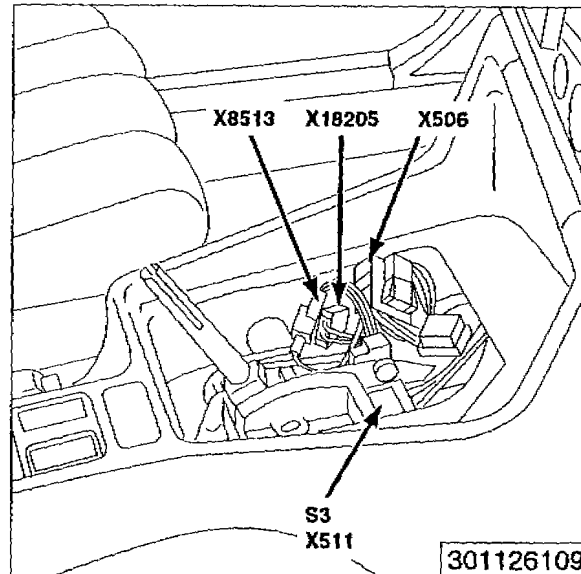


FIG 2 - Below center console front of gearshift selector

- S3 AUTOMATIC TRANSMISSION RANGE SWITCH
- X506 CONNECTOR (12-PINS, BLACK)
- X511 CONNECTOR (8-PINS, BLACK)
- X8513 CONNECTOR (2-PINS, WHITE)
- X18205 CONNECTOR (2-PINS, WHITE)

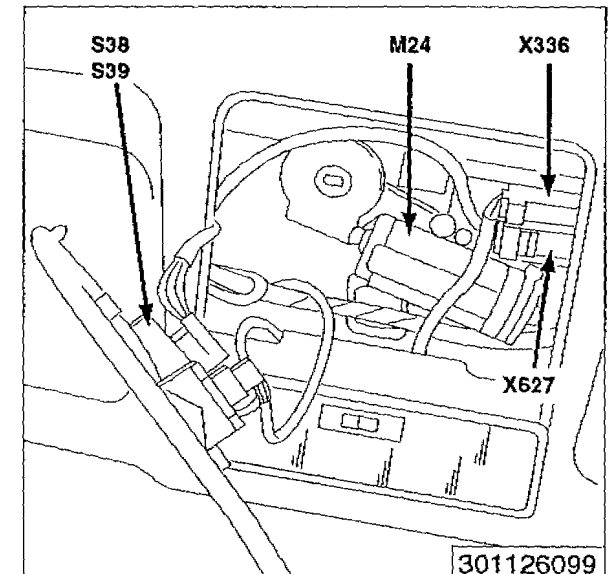
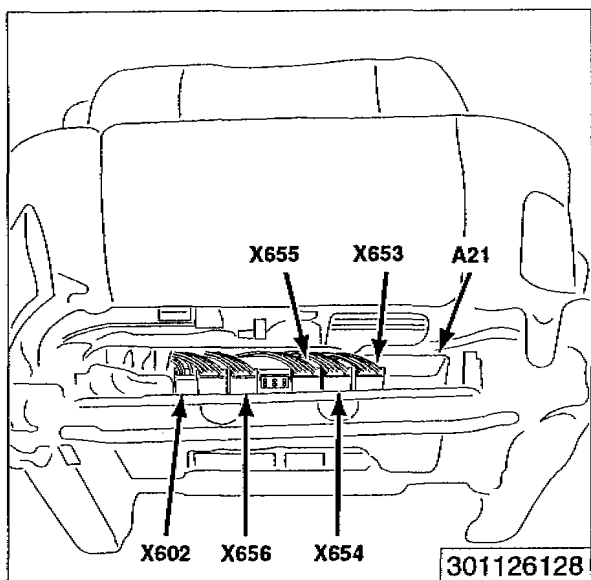


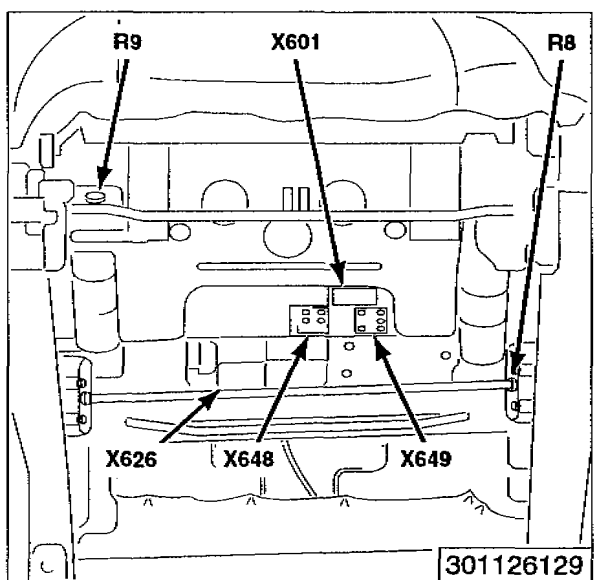
FIG 3 - Center of windshield header near rear view mirror

- M24 SUNROOF MOTOR
- S38 SUNROOF SWITCH
- S39 SUNROOF POSITION SWITCH
- X336 CONNECTOR (4-PINS, WHITE)
- X627 CONNECTOR (8-PINS, BLACK)



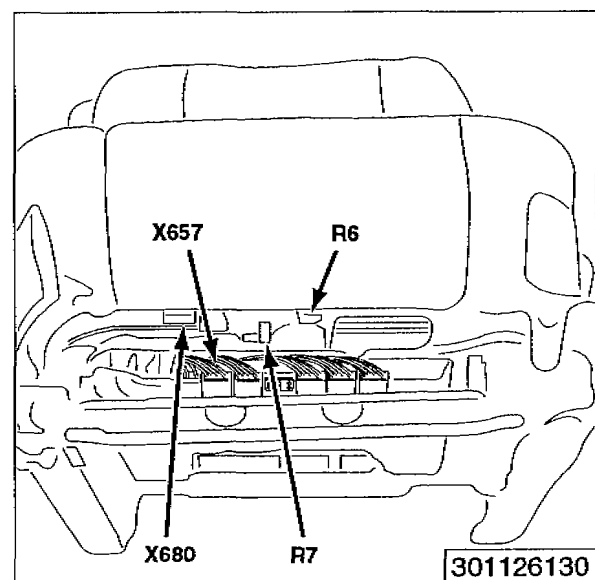
**FIG. 1 - Underside of LH front seat**

- A21 SEAT/MIRROR MEMORY CONTROL MODULE**
- X602 CONNECTOR (26-PINS, YELLOW)**
- X653 CONNECTOR (6-PINS, BLACK)**
- X654 CONNECTOR (6-PINS, WHITE)**
- X655 CONNECTOR (6-PINS, BLUE)**
- X656 CONNECTOR (6-PINS, GREEN)**



**FIG. 2 - Underside of LH front seat**

- R8 SEAT CUSHION REAR HEIGHT POTENTIOMETER**
- R9 SEAT CUSHION MOVEMENT POTENTIOMETER**
- X601 CONNECTOR (26-PINS, WHITE)**
- X626 CONNECTOR (8-PINS, BLACK)**
- X648 CONNECTOR (6-PINS, BLACK)**
- X649 CONNECTOR (6-PINS, WHITE)**

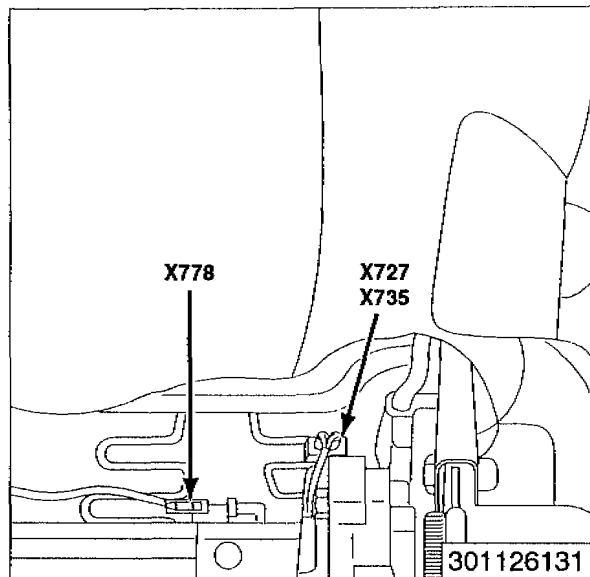


**FIG. 3 - Underside of LH front seat**

- R6 SEAT HEIGHT POTENTIOMETER**
- R7 SEATBACK POTENTIOMETER**
- X657 CONNECTOR (6-PINS, BROWN)**
- X680 CONNECTOR (3-PINS, BLACK)**

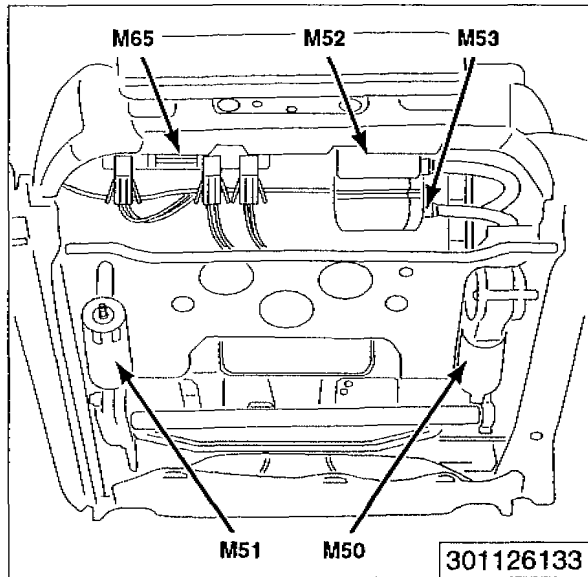


# COMPONENT LOCATION VIEWS



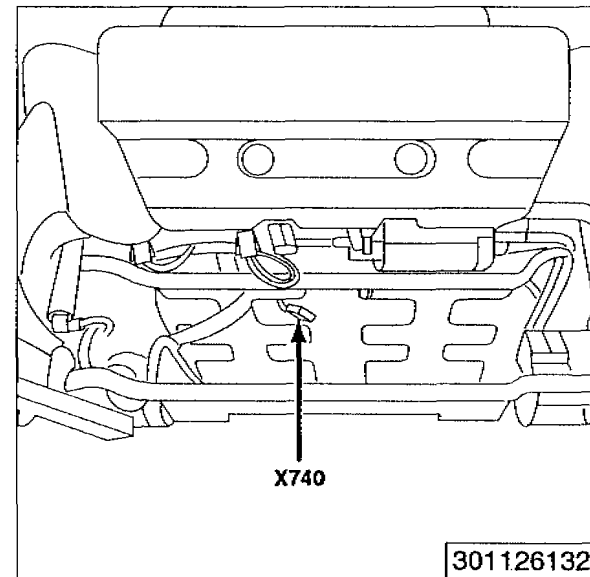
**FIG. 1 - Underside of LH front seat**

- X727** CONNECTOR (2-PINS, WHITE)
- X735** CONNECTOR (2-PINS, WHITE)
- X778** CONNECTOR (2-PINS, BLACK)



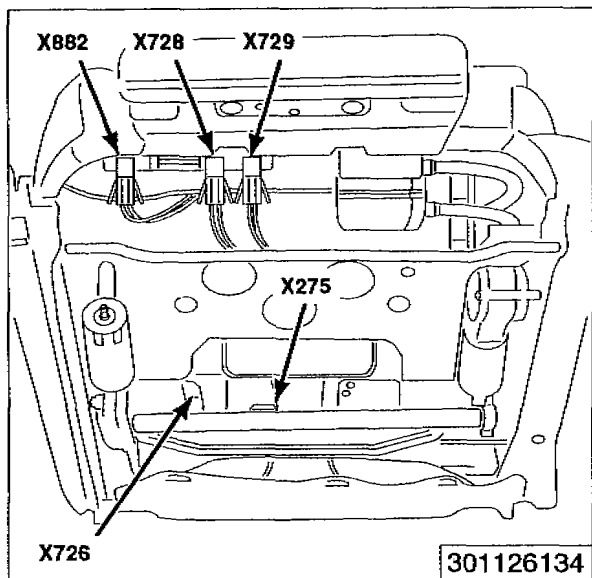
**FIG. 2 - Underside of LH front seat**

- M50** DRIVER'S SEAT CUSHION TILT MOTOR
- M51** DRIVER'S SEAT MOVEMENT MOTOR
- M52** DRIVER'S SEAT HEIGHT MOTOR
- M53** DRIVER'S SEATBACK RECLINER MOTOR
- M65** DRIVER'S THIGH SUPPORT MOTOR



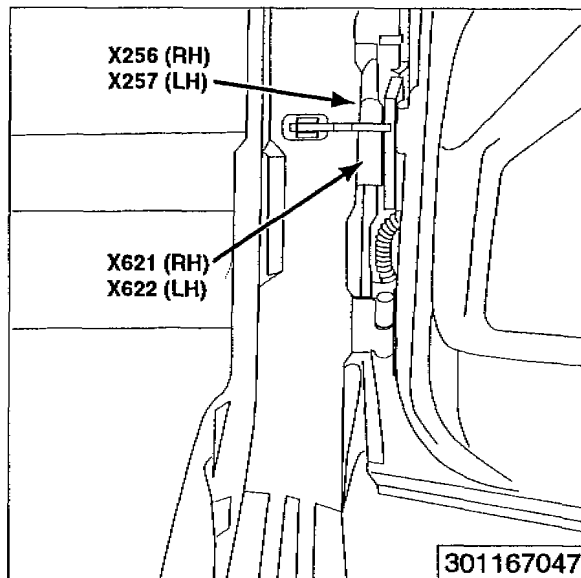
**FIG. 3 - Underside of LH front seat**

- X740** CONNECTOR (2-PINS, WHITE)



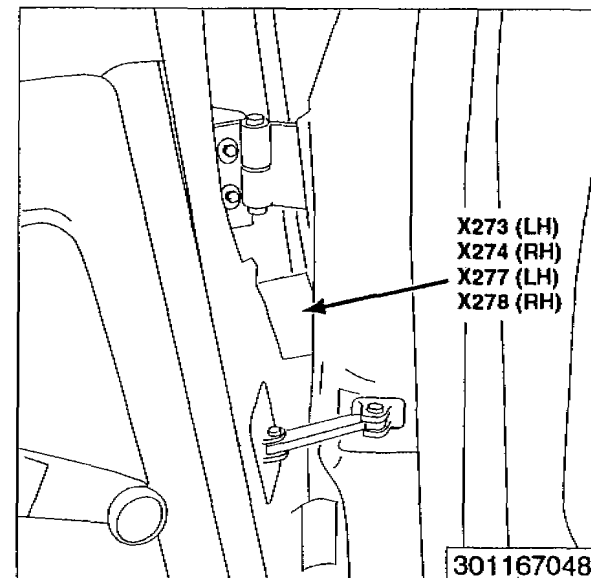
**FIG. 1 - Underside of LH front seat**

- X275 CONNECTOR (12-PINS, WHITE)**
- X726 CONNECTOR (2-PINS, BLACK)**
- X728 CONNECTOR (2-PINS, WHITE)**
- X729 CONNECTOR (2-PINS, BLACK)**
- X882 CONNECTOR (2-PINS, BLACK)**



**FIG. 2 - Passenger's door (LH similar)**

- X256 CONNECTOR (26-PINS, BLACK)**
- X257 CONNECTOR (26-PINS, BLACK)**
- X621 CONNECTOR (10-PINS, BLACK)**
- X622 CONNECTOR (10-PINS, BLACK)**



**FIG. 3 - Ahead of LH rear door**

- X273 CONNECTOR (12-PINS, BLACK)**
- X274 CONNECTOR (12-PINS, BLACK)**
- X277 CONNECTOR (10-PINS, BLACK)**
- X278 CONNECTOR (10-PINS, BLACK)**





## COMPONENT LOCATION VIEWS

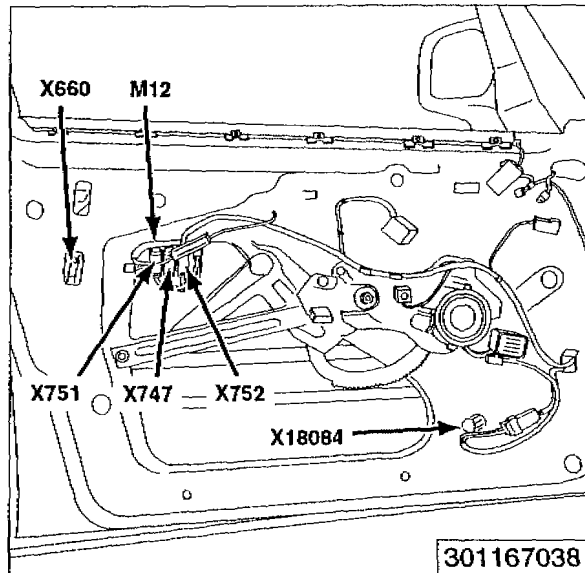


FIG 1 - In upper LH front door

- M12 DRIVER'S DOOR LOCK MOTOR
- X660 CONNECTOR (6-PINS, BLACK)
- X751 CONNECTOR (2-PINS, WHITE)
- X752 CONNECTOR (2-PINS, GRAY)
- X747 CONNECTOR (2-PINS, YELLOW)
- X18084 CONNECTOR (2-PINS, WHITE)

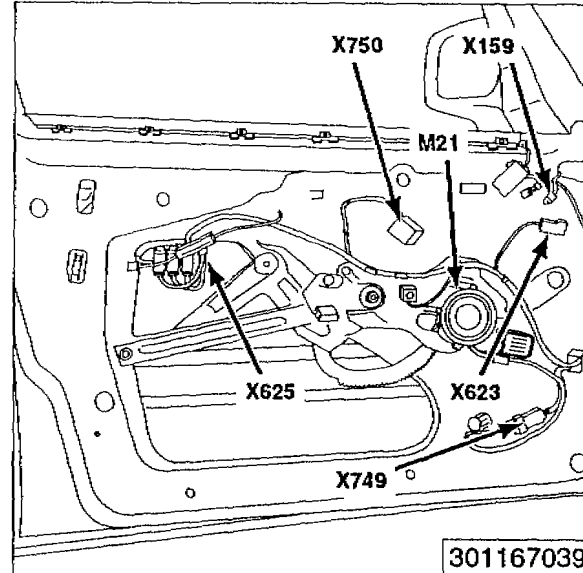


FIG 2 - In lower LH front door

- X159 CONNECTOR (10-PINS, BLACK)
- X623 CONNECTOR (4-PINS, BLACK)
- X625 CONNECTOR (6-PINS, BLACK)
- X749 CONNECTOR (2-PINS, GRAY)
- X750 CONNECTOR (1-PINS, (---))
- M21 DRIVER'S WINDOW MOTOR

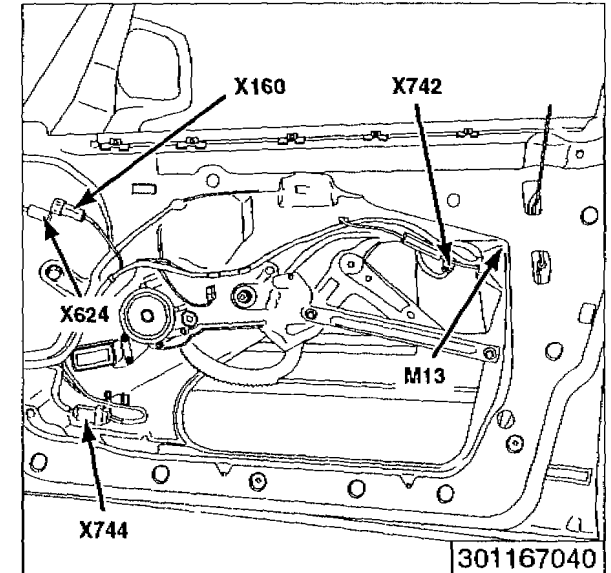
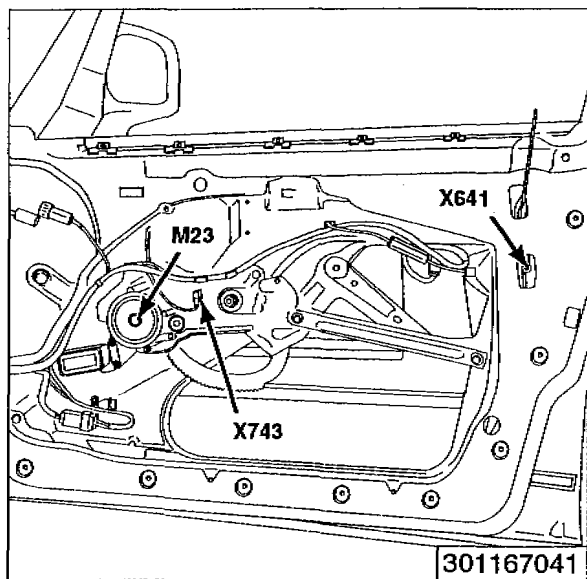


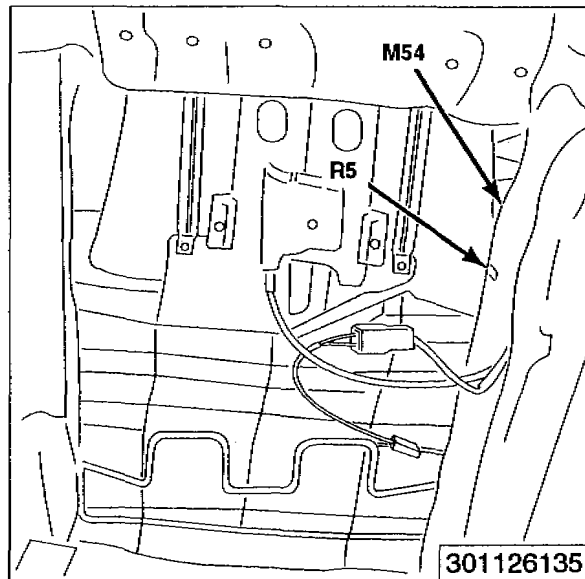
FIG 3 - In lower RH front door

- M13 PASSENGER'S DOOR LOCK MOTOR
- X160 CONNECTOR (10-PINS, BLACK)
- X624 CONNECTOR (4-PINS, BLACK)
- X742 CONNECTOR (2-PINS, YELLOW)
- X744 CONNECTOR (2-PINS, GRAY)



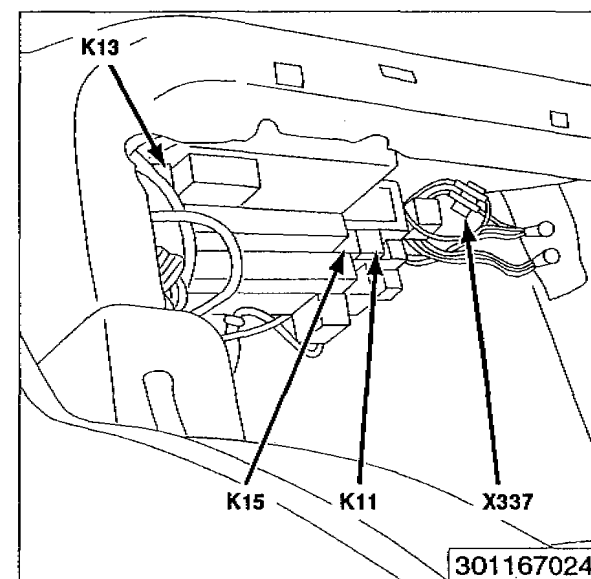
**FIG. 1 - In lower RH front door**

- M23 PASSENGER'S WINDOW MOTOR**
- X641 CONNECTOR (6-PINS, BLACK)**
- X743 CONNECTOR (2-PINS, BLACK)**



**FIG. 2 - In upper LH front seatback**

- M54 DRIVER'S HEADREST MOTOR**
- R5 HEADREST POTENTIOMETER**

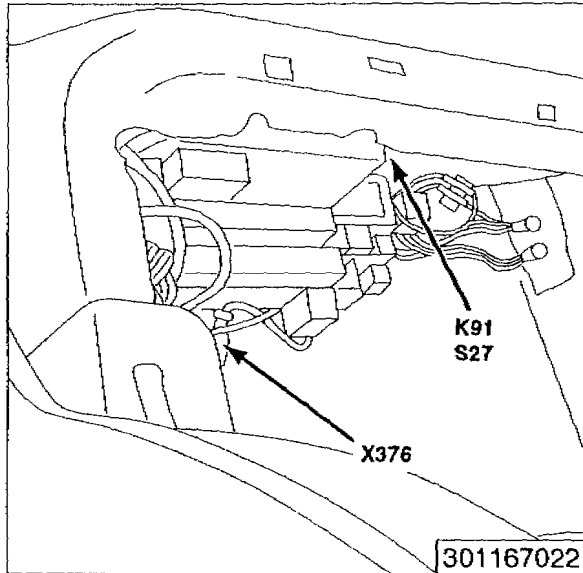


**FIG. 3 - Below LH side of rear seat**

- K11 WIPER RELAY**
- K13 REAR DEFOGGER RELAY**
- K15 ELECTRIC POWER PROTECTION RELAY**
- X337 CONNECTOR (4-PINS, BLACK)**

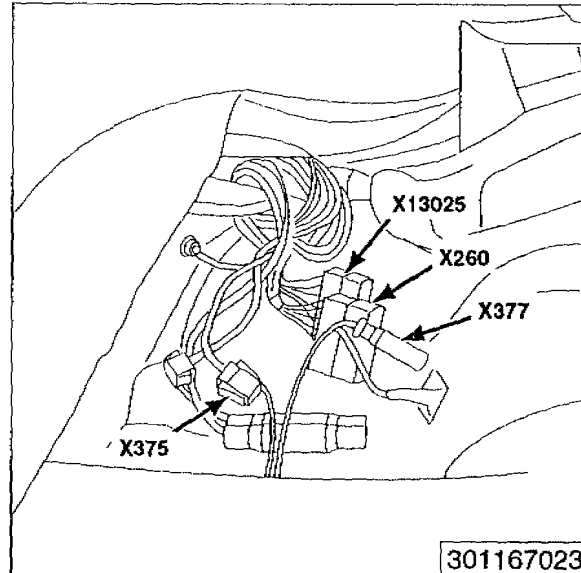


## COMPONENT LOCATION VIEWS



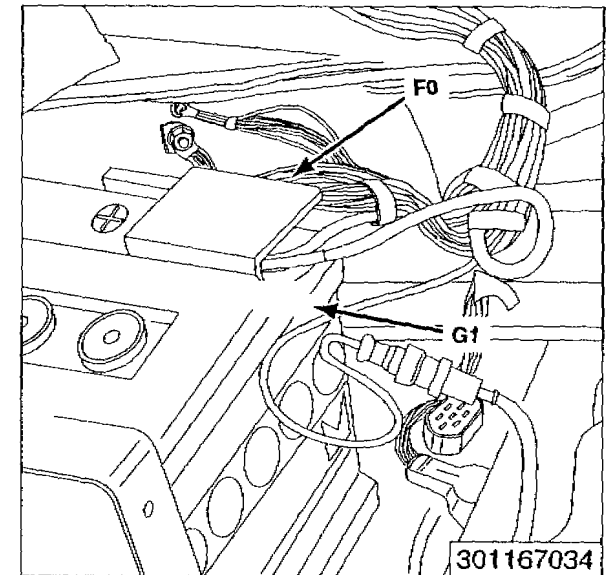
**FIG 1 - Below LH side of rear seat**

- K91 ON-BOARD COMPUTER HORN RELAY**
- S27 INERTIA SWITCH**
- X376 CONNECTOR (2-PINS, WHITE)**



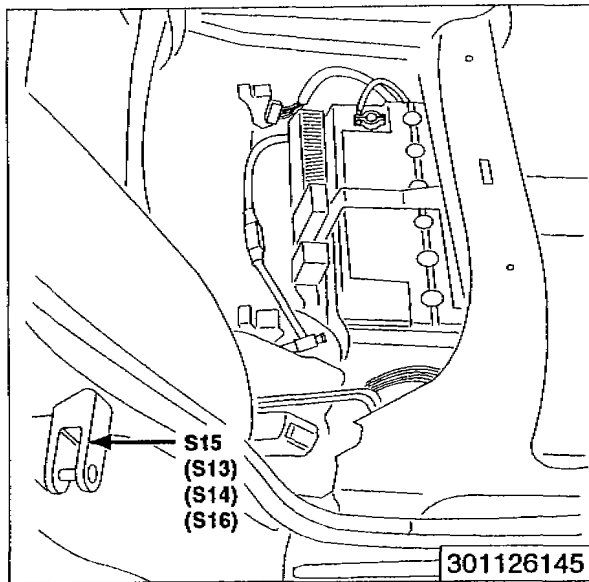
**FIG 2 - Below RH side of rear seat**

- X260 CONNECTOR (21-PINS, BLACK)**
- X375 CONNECTOR (2-PINS, BLACK)**
- X377 CONNECTOR (2-PINS, WHITE)**
- X13025 CONNECTOR (12-PINS, BLACK)**



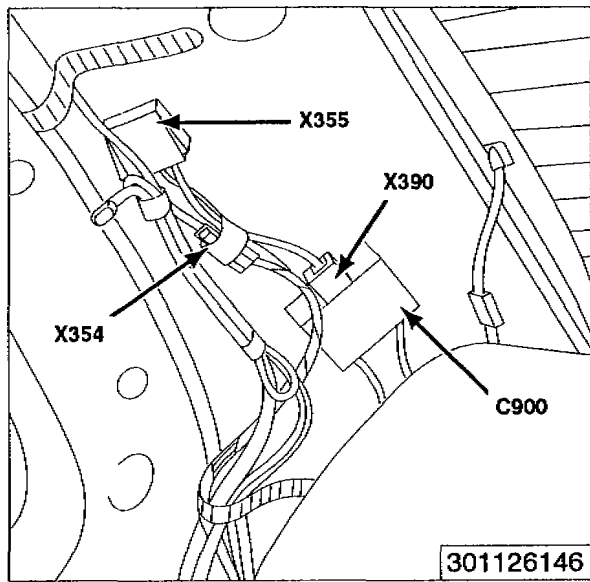
**FIG 3 - Below RH side of rear seat**

- F0 FUSIBLE LINK**
- G1 BATTERY**



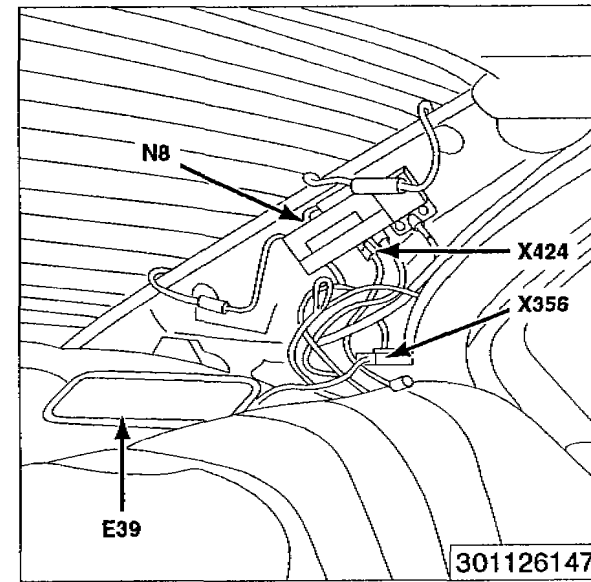
**FIG. 1 - Ahead of RH rear door**

- S13 PASSENGER'S DOOR JAMB SWITCH**
- S14 DRIVER'S DOOR JAMB SWITCH**
- S15 REAR RIGHT DOOR JAMB SWITCH**
- S16 LEFT REAR DOOR JAMB SWITCH**



**FIG. 2 - In upper RH C-pillar**

- C900 SUPPRESSION FILTER**
- X354 CONNECTOR (2-PINS, BLACK)**
- X355 CONNECTOR (3-PINS, WHITE)**
- X390 CONNECTOR (1-PINS, WHITE)**



**FIG. 3 - In upper LH C-pillar**

- E39 LEFT REAR INTERIOR LIGHT**
- N8 ANTENNA AMPLIFIER AM/FM**
- X356 CONNECTOR (4-PINS, BLACK)**
- X424 CONNECTOR (1-PINS, BROWN)**



# COMPONENT LOCATION VIEWS

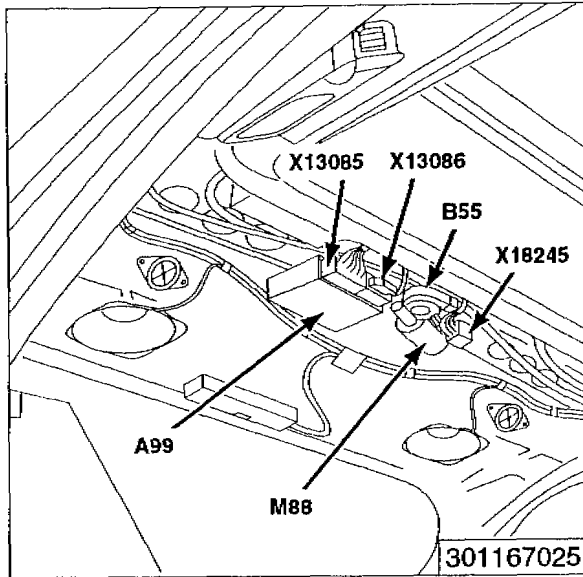


FIG. 1 - In roof panel Station Wagon only

- A99 DOUBLE PANEL POWER SUN-ROOF CONTROL MODULE
- B55 DOUBLE PANEL POWER SUN ROOF SENSOR II
- M88 MOTOR DRIVE II DOUBLE PANEL POWER SUNROOF
- X13085 CONNECTOR (10-PINS, BLACK)
- X13086 CONNECTOR (15-PINS, BLACK)
- X18245 CONNECTOR (8-PINS, BLACK)

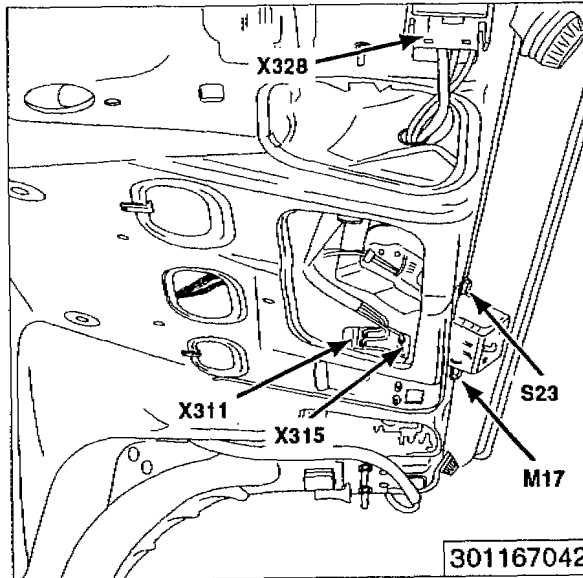


FIG. 2 - Underside of trunk lid

- M17 TRUNK LOCK MOTOR
- S23 TRUNK LOCK SWITCH (DWA)
- X311 CONNECTOR (3-PINS, BLACK)
- X315 CONNECTOR (2-PINS, WHITE)
- X328 CONNECTOR (4-PINS, BLACK)

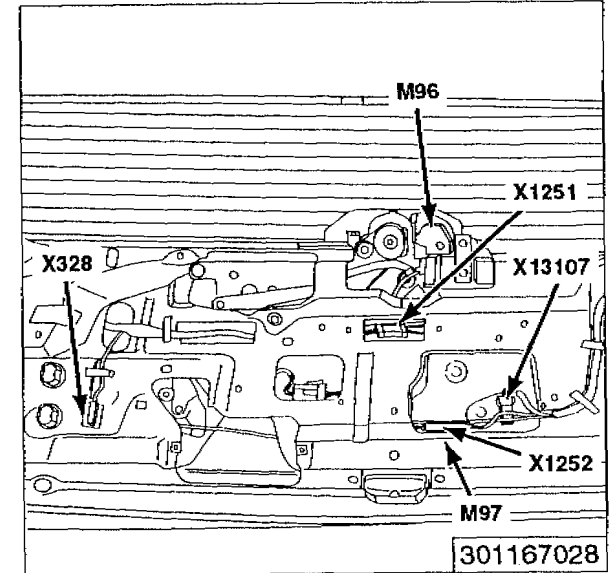
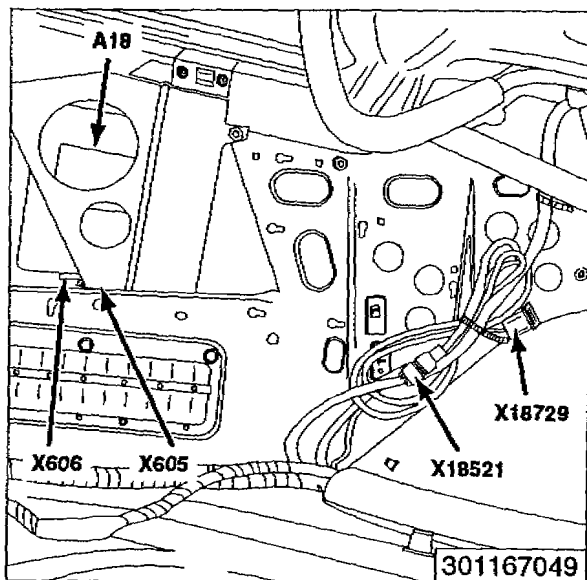


FIG. 3 - Underside of trunk lid Station Wagon only

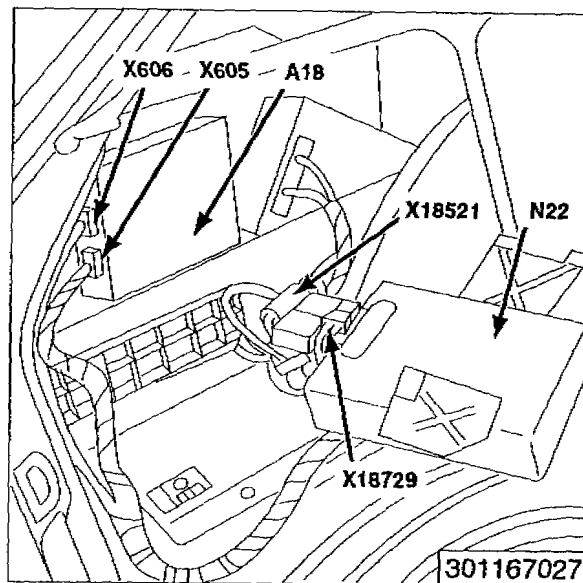
- M96 REAR WINDOW MOTOR
- M97 LIFT GATE MOTOR
- X328 CONNECTOR (4-PINS, BLACK)
- X1251 CONNECTOR (2-PINS, BLACK)
- X1252 CONNECTOR (2-PINS, BLACK)
- X13107 CONNECTOR (4-PINS, WHITE)

**COMPONENT LOCATION VIEWS**



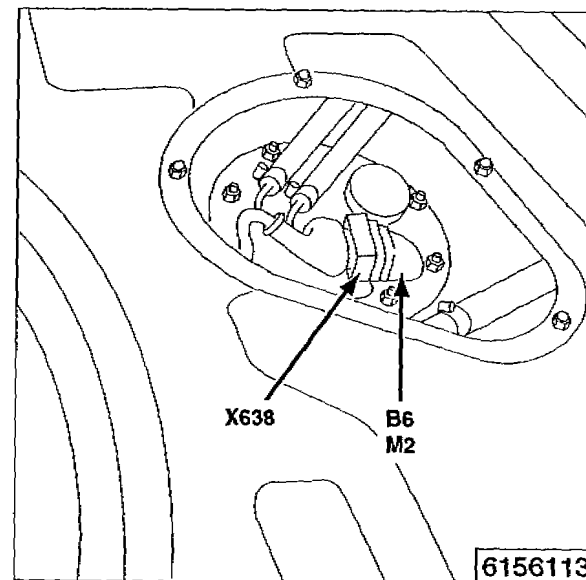
**FIG 1 - In LH rear side of luggage compartment**

- A18** HIFI AMPLIFIER
- X605** CONNECTOR (12-PINS, BLACK)
- X606** CONNECTOR (12-PINS, WHITE)
- X18521** CONNECTOR (10-PINS, BLACK)
- X18729** CONNECTOR (3-PINS, WHITE)



**FIG 2 - In LH rear side of luggage compartment Station Wagon only**

- A18** HIFI AMPLIFIER
- N22** CD CHANGER
- X605** CONNECTOR (12-PINS, BLACK)
- X606** CONNECTOR (12-PINS, WHITE)
- X18521** CONNECTOR (10-PINS, BLACK)
- X18729** CONNECTOR (3-PINS, WHITE)



**FIG 3 - RH side of luggage compartment**

- B6** FUEL LEVEL SENSOR
- M2** FUEL PUMP
- X638** CONNECTOR (6-PINS, BLACK)



# COMPONENT LOCATION VIEWS

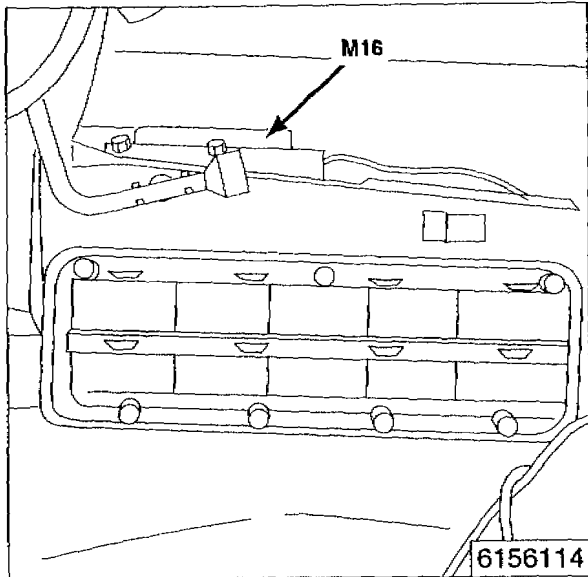


FIG 1 - RH side of luggage compartment

M16 GAS FILLER LOCK MOTOR

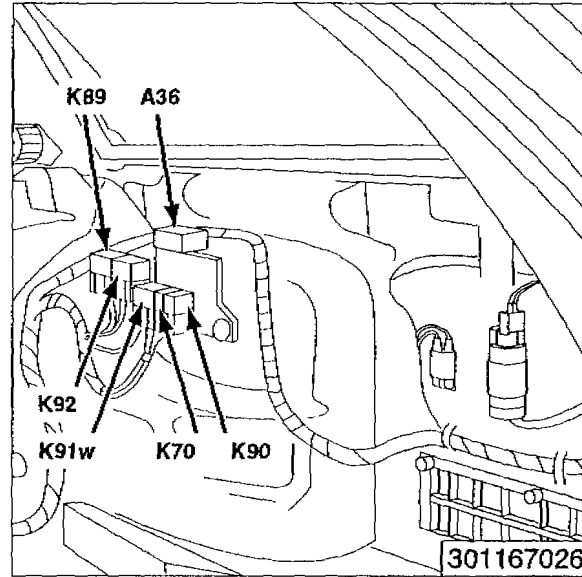


FIG 2 - RH side of luggage compartment

- A36 REAR WIPER/WASHER INTERVAL CONTROL MODULE
- K70 CENTRAL LOCKING TRUNK LID MOTOR RELAY (ZV)
- K89 REAR WINDOW WASHER RELAY
- K90 WINDOW MOTOR RELAY
- K91w REAR WINDOW WIPER RELAY I
- K92 REAR WINDOW WIPER RELAY II

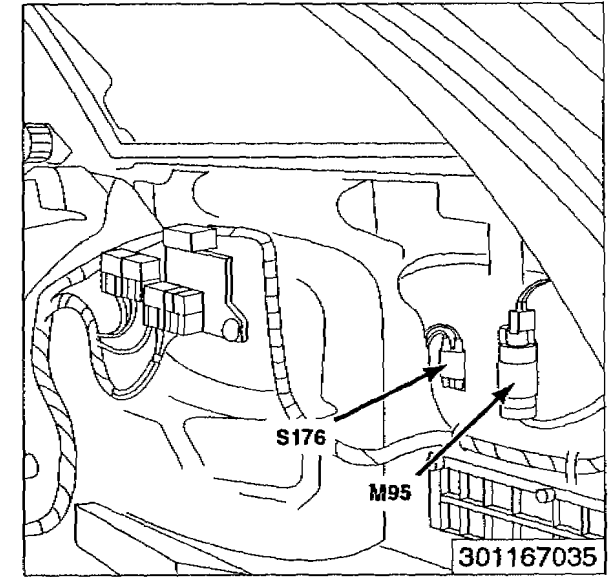


FIG 3 - RH side of luggage compartment

- M95 REAR WINDOW WASHER PUMP
- S176 REAR WIPER/WASHER FLUID LEVEL SWITCH



# SPLICE LOCATION VIEWS

## SPLICE LOCATION INDEX

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X195-X201	FRONT	8000.0-03	X480	INSTRUMENT	8000.0-04
X203-X207	FRONT	8000.0-03	X481	REAR	8000.0-05
X209	FRONT	8000.0-03	X488	REAR	8000.0-05
X210	FRONT	8000.0-03	X489	REAR	8000.0-05
X212	FRONT	8000.0-03	X557	INSTRUMENT	8000.0-04
X213	FRONT	8000.0-03	X559	INSTRUMENT	8000.0-04
X215	FRONT	8000.0-03	X561-X564	INSTRUMENT	8000.0-04
X217	FRONT	8000.0-03	X571-X573	INSTRUMENT	8000.0-04
X222	FRONT	8000.0-03	X575-X577	INSTRUMENT	8000.0-04
X223	FRONT	8000.0-03	X579-X584	INSTRUMENT	8000.0-04
X225	FRONT	8000.0-03	X833	REAR	8000.0-05
X228	FRONT	8000.0-03	X888	INSTRUMENT	8000.0-04
X241	FRONT	8000.0-03	X906	IHKR/F3	8000.0-06
X245	FRONT	8000.0-03	X911	REAR	8000.0-05
X246	FRONT	8000.0-03	X994	FRONT	8000.0-03
X276	FRONT	8000.0-03	X1017	FRONT	8000.0-03
X282	REAR	8000.0-05	X1022	FRONT	8000.0-03
X414	REAR	8000.0-05	X1023	FRONT	8000.0-03
X426	REAR	8000.0-05	X1029	FRONT	8000.0-03
X429	REAR	8000.0-05	X1033	FRONT	8000.0-03
X431	REAR	8000.0-05	X1036	FRONT	8000.0-03
X433	REAR	8000.0-05	X1043	FRONT	8000.0-03
X435-X437	REAR	8000.0-05	X1047	FRONT	8000.0-03
X441-X445	REAR	8000.0-05	X1152	FRONT	8000.0-03
X448-X451	REAR	8000.0-05	X1092-X1095	FRONT	8000.0-03
X455-X470	REAR	8000.0-05	X1149	FRONT	8000.0-03





# SPLICE LOCATION VIEWS

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X1159	FRONT	8000.0-03	X6473	M50 ENGINE	8000.0-08
X1159	INSTRUMENT	8000.0-04	X6474	M30 ENGINE	8000.0-07
X1194	FRONT	8000.0-03	X6475	M50 ENGINE	8000.0-08
X1218	INSTRUMENT	8000.0-04	X6490	M30 ENGINE	8000.0-07
X1224	REAR	8000.0-05	X6491	M30 ENGINE	8000.0-07
X1225	INSTRUMENT	8000.0-04	X6492	M50 ENGINE	8000.0-08
X1226	REAR	8000.0-05	X6800	M30 ENGINE	8000.0-07
X1228	REAR	8000.0-05	X6810	M30 ENGINE	8000.0-07
X1232	INSTRUMENT	8000.0-04	X6810	M50 ENGINE	8000.0-08
X1256-X1258	REAR	8000.0-05	X6819	M50 ENGINE	8000.0-08
X1294	REAR	8000.0-05	X6820	M30 ENGINE	8000.0-07
X1362	REAR	8000.0-05	X6820	M50 ENGINE	8000.0-08
X1366	REAR	8000.0-05	X6821	M30 ENGINE	8000.0-07
X1367	REAR	8000.0-05	X6824	M30 ENGINE	8000.0-07
X1373	REAR	8000.0-05	X6824	M50 ENGINE	8000.0-08
X1394	FRONT	8000.0-03	X6830	M50 ENGINE	8000.0-08
X1399	FRONT	8000.0-03	X6831	M50 ENGINE	8000.0-08
X1410	INSTRUMENT	8000.0-04	X6832	M30 ENGINE	8000.0-07
X1416-X1419	INSTRUMENT	8000.0-04	X6835	M50 ENGINE	8000.0-08
X1421-X1423	INSTRUMENT	8000.0-04	X6850	M30 ENGINE	8000.0-07
X1428	INSTRUMENT	8000.0-04	X6855	M30 ENGINE	8000.0-07
X1438	INSTRUMENT	8000.0-04	X6860	M50 ENGINE	8000.0-08
X1471-X1473	INSTRUMENT	8000.0-04	X6861	M30 ENGINE	8000.0-07
X1479	INSTRUMENT	8000.0-04	X6863	M50 ENGINE	8000.0-08
X6410	M30 ENGINE	8000.0-07	X6864	M30 ENGINE	8000.0-07
X6418-X6420	M50 ENGINE	8000.0-08	X6866	M50 ENGINE	8000.0-08
X6450	M50 ENGINE	8000.0-08	X6867	M30 ENGINE	8000.0-07
X6470-X6472	M30 ENGINE	8000.0-07	X6871	M30 ENGINE	8000.0-07



# SPLICE LOCATION VIEWS

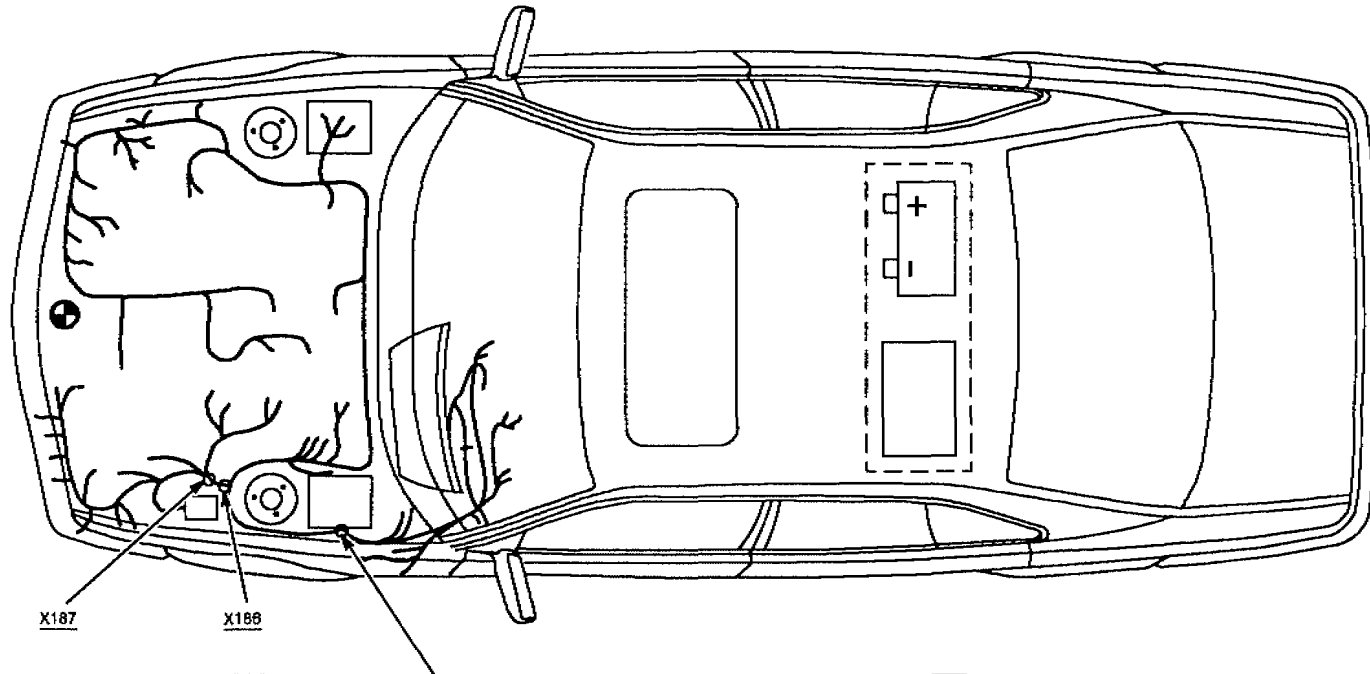
## SPLICE LOCATION INDEX

SPLICE	HARNESS	PAGE NUMBER	SPLICE	HARNESS	PAGE NUMBER
X6880	M30 ENGINE	8000.0-07	X13244-X13246	REAR	8000.0-05
X6880	M50 ENGINE	8000.0-08	X13248-X13250	REAR	8000.0-05
X6884	M30 ENGINE	8000.0-07	X13259	REAR	8000.0-05
X6900-X6906	M50 ENGINE	8000.0-08	X13264	REAR	8000.0-05
X8004	M30 ENGINE	8000.0-07	X18158-X18163	IHKR/F3	8000.0-06
X8004-X8557	M50 ENGINE	8000.0-08			
X10021	FRONT	8000.0-03			
X10027	FRONT	8000.0-03			
X10060	FRONT	8000.0-03			
X10080	FRONT	8000.0-03			
X10081	FRONT	8000.0-03			
X10090	FRONT	8000.0-03			
X10091	FRONT	8000.0-03			
X10093	FRONT	8000.0-03			
X10197	INSTRUMENT	8000.0-04			
X10198	INSTRUMENT	8000.0-04			
X11247	FRONT	8000.0-03			
X11248	FRONT	8000.0-03			
X11249	FRONT	8000.0-03			
X11251	FRONT	8000.0-03			
X11252	FRONT	8000.0-03			
X11262	FRONT	8000.0-03			
X13035	REAR	8000.0-05			
X13074	REAR	8000.0-05			
X13104	REAR	8000.0-05			
X13113-X13118	REAR	8000.0-05			
X13240	REAR	8000.0-05			
X13241	REAR	8000.0-05			



# SPLICE LOCATION VIEWS

## FRONT HARNESS



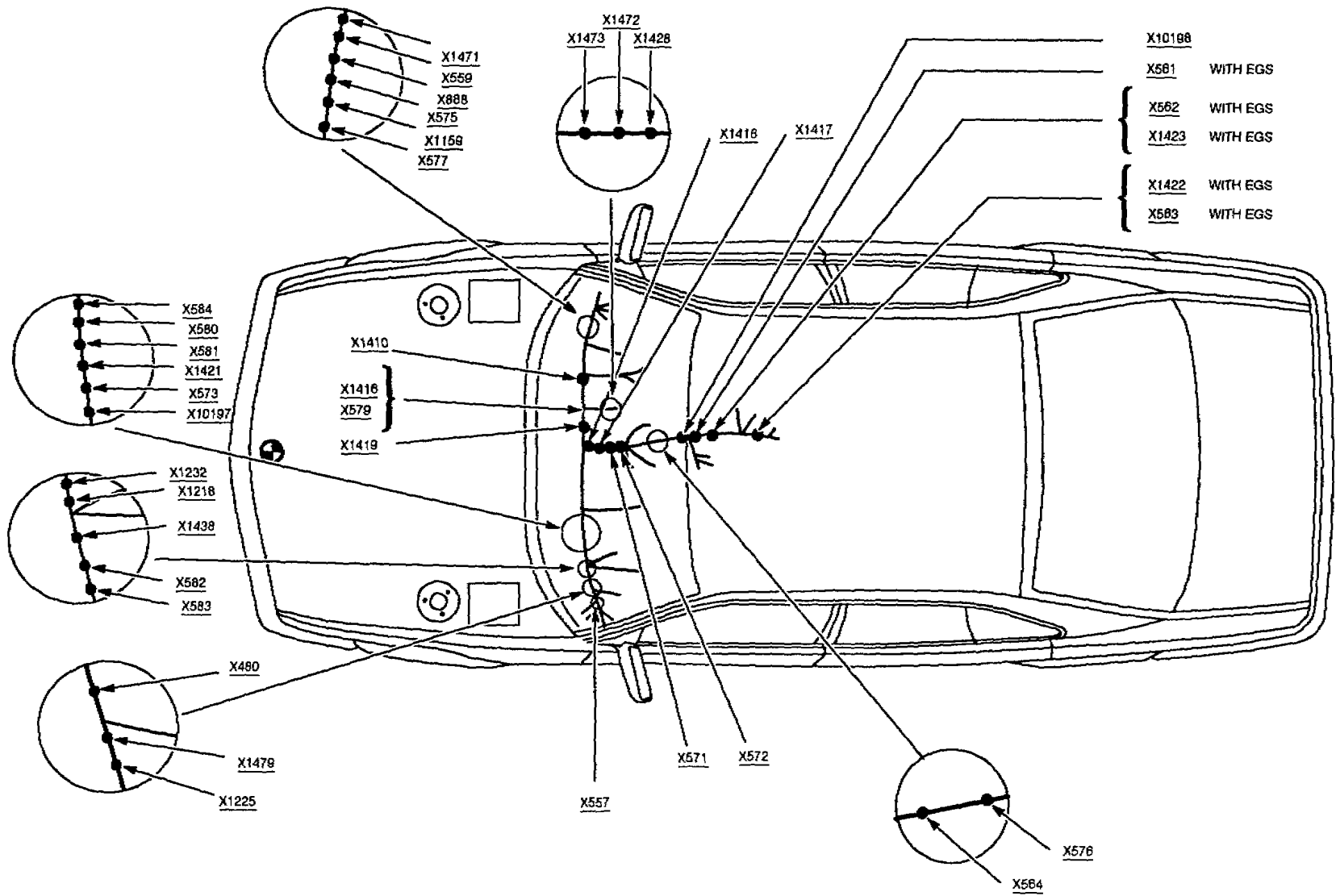
X187

X188

X181	•	X197	•	X212	•	X1017	•	X1149	•	X10091	•
X182	•	X198	•	X213	•	X1022	•	X1152	•	X10093	•
X183	•	X199	•	X215	•	X1023	•	X1159	•	X11247	•
X184	•	X200	•	X222	•	X1029	•	X1194	•	X11248	•
X185	•	X201	•	X223	•	X1033	•	X1394	•	X11249	•
X188	•	X203	•	X225	•	X1036	•	X1399	•	X11251	•
X189	•	X204	•	X228	•	X1043	•	X10021	•	X11252	•
X191	•	X205	•	X241	•	X1047	•	X10027	•	X11262	•
X192	•	X206	•	X245	•	X1092	•	X10060	•		
X193	•	X207	•	X248	•	X1093	•	X10060	•		
X195	•	X209	•	X276	•	X1094	•	X10081	•		
X196	•	X210	•	X994	•	X1095	•	X10090	•		



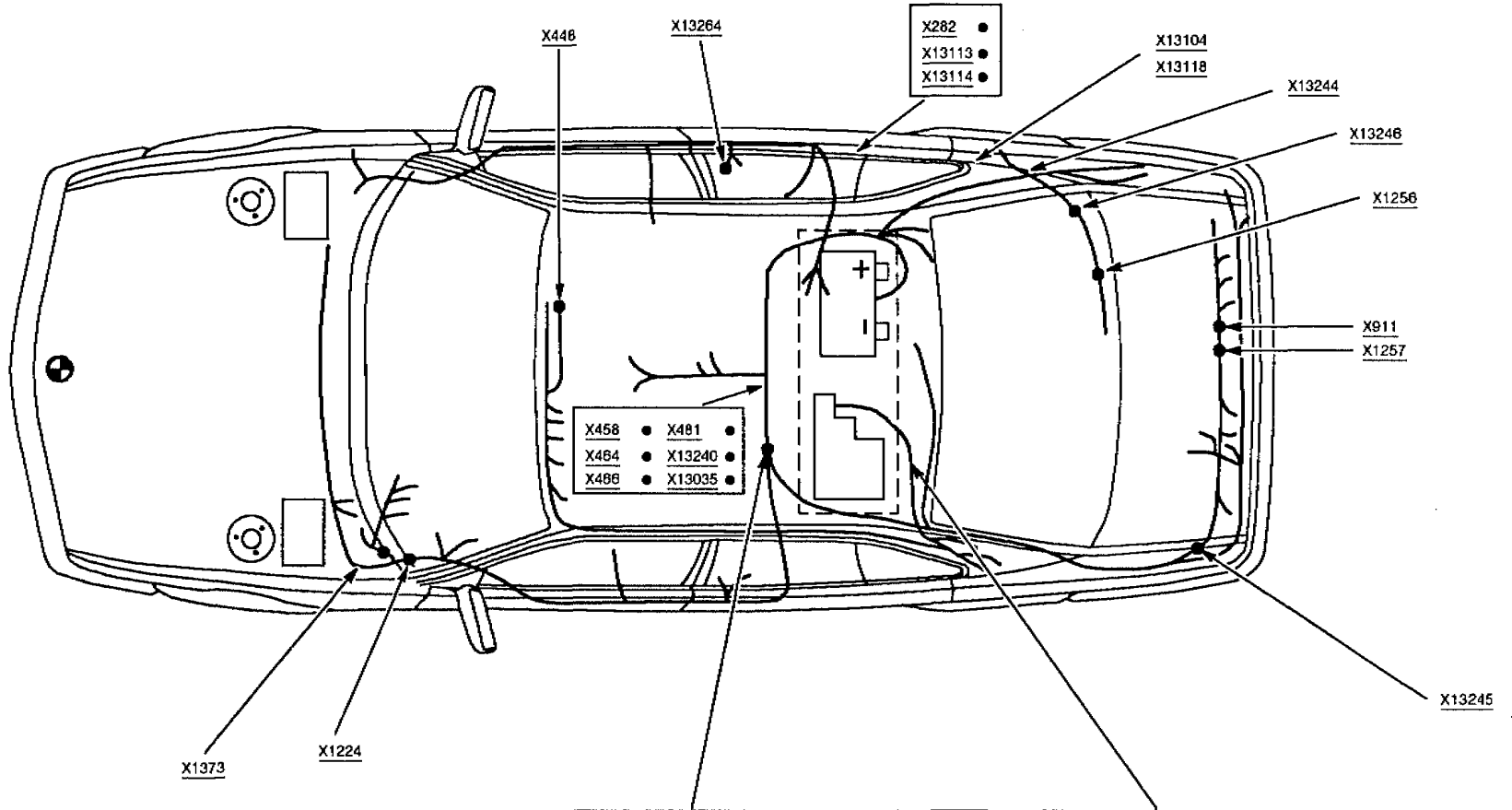
# SPLICE LOCATION VIEWS INSTRUMENT HARNESS





# SPLICE LOCATION VIEWS

## REAR HARNESS



X458	X481
X464	X13240
X466	X13035

X282	●
X13113	●
X13114	●

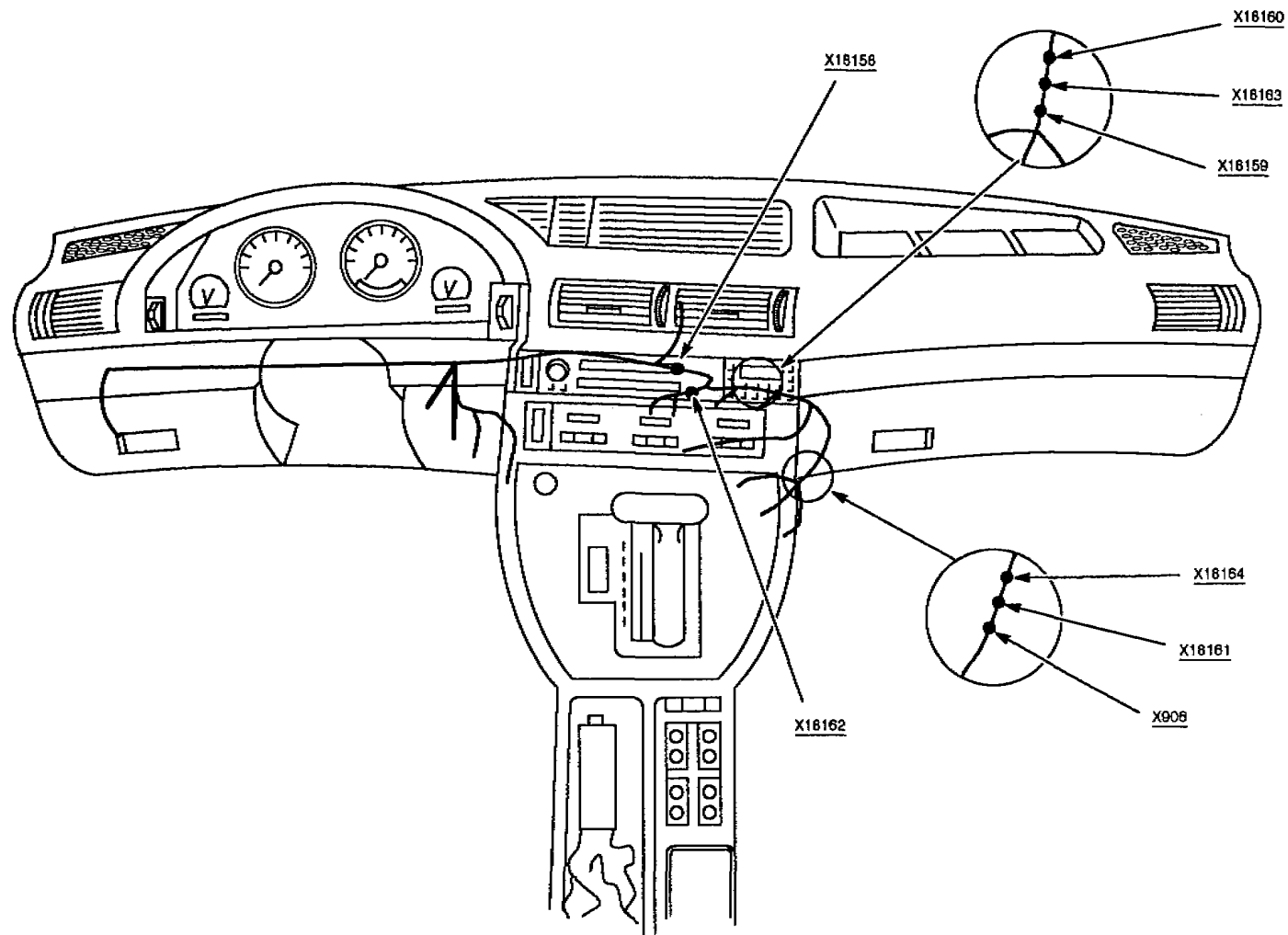
X414	●	X451	●	X467	●	X1228	●	X13250	●
X429	●	X455	●	X468	●	X1366	●		
X433	●	X456	●	X470	●	X1367	●		
X435	●	X459	●	X475	●	X13074	●		
X443	●	X460	●	X479	●	X13116	●		
X444	●	X481	●	X488	●	X13117	●		
X445	●	X482	●	X489	●	X13241	●		
X449	●	X483	●	X833	●	X13249	●		

X426	●	X465	●	X13259	●
X431	●	X469	●		
X436	●	X1226	●		
X437	●	X1258	●		
X441	●	X1294	●		
X442	●	X1362	●		
X450	●	X13115	●		
X457	●	X13248	●		



# SPLICE LOCATION VIEWS

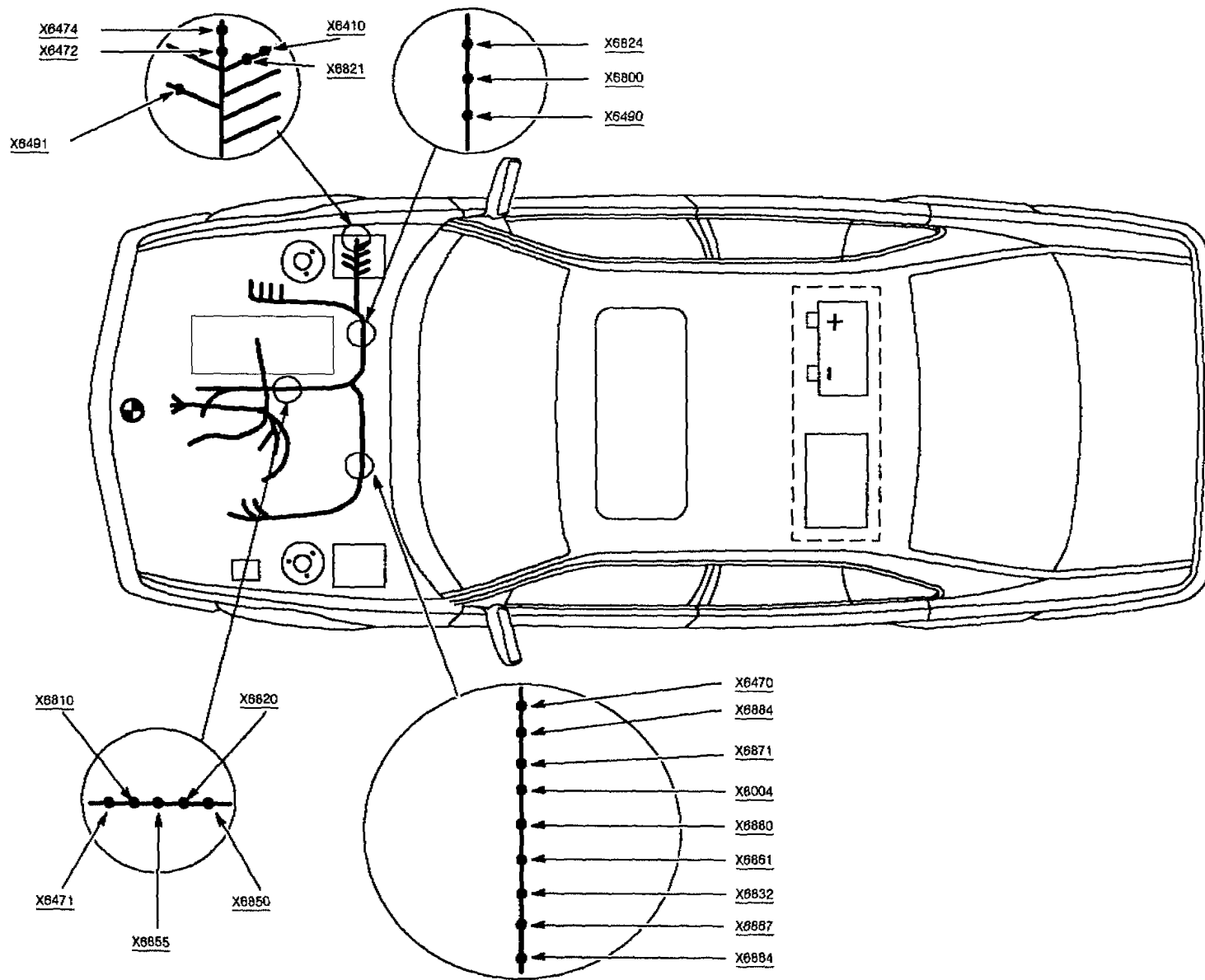
IHKR/F3





# SPLICE LOCATION VIEWS

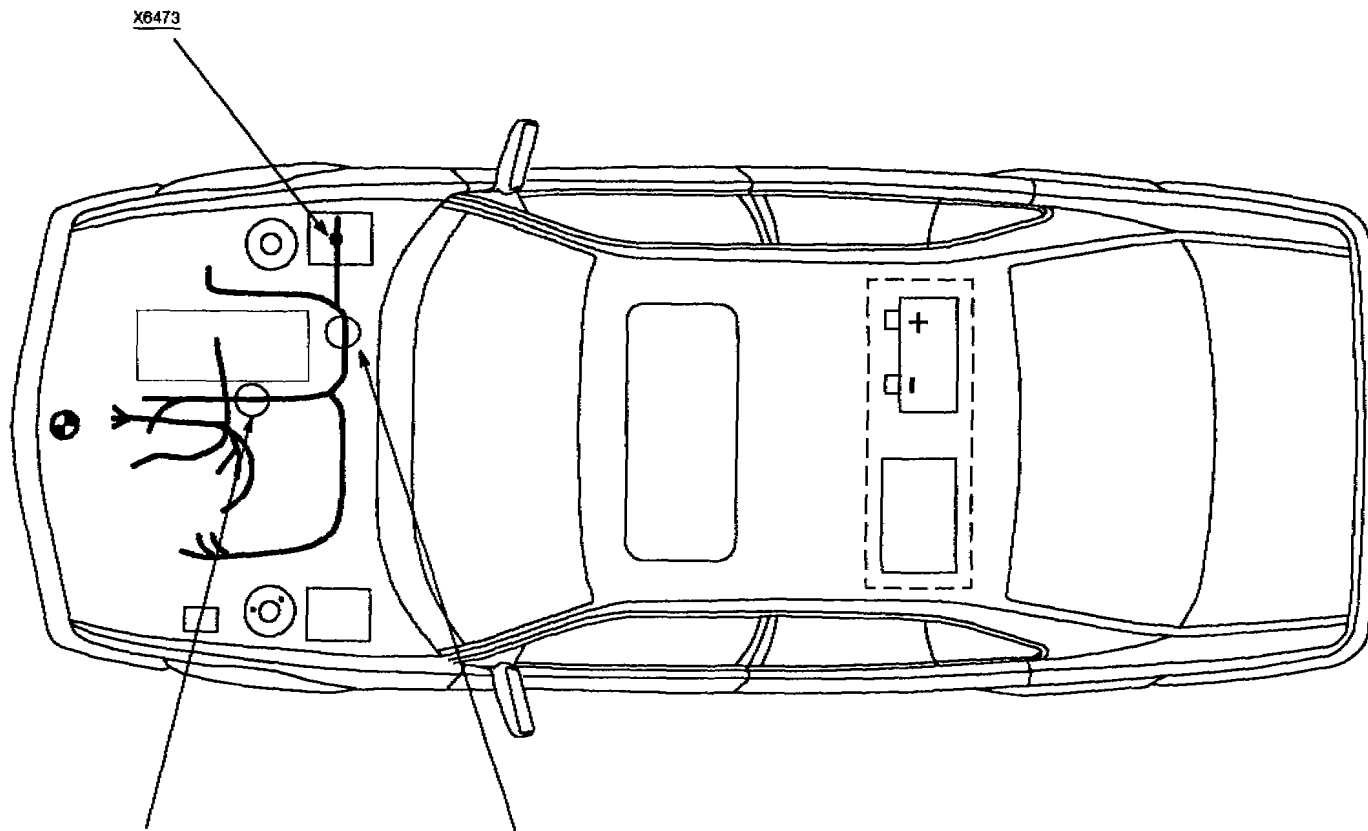
## M30 ENGINE HARNESS





# SPLICE LOCATION VIEWS

## M50 ENGINE HARNESS



X6492 ●	X6902 ●
X6820 ●	X6903 ●
X6831 ●	X6904 ●
X6900 ●	X6905 ●
X6901 ●	X6906 ●

X6418 ●	X6824 ●	X8008 ●
X6419 ●	X6830 ●	X8009 ●
X6420 ●	X6835 ●	X8012 ●
X6450 ●	X6860 ●	X8015 ●
X6451 ●	X6863 ●	X8042 ●
X6475 ●	X6866 ●	X8071 ●
X6810 ●	X6860 ●	X8072 ●
X6819 ●	X8004 ●	X8556 ●
X6823 ●	X8007 ●	X8557 ●



BMW  
**5**

8500.0



# CONNECTOR VIEWS

FIG 1

B550001 00

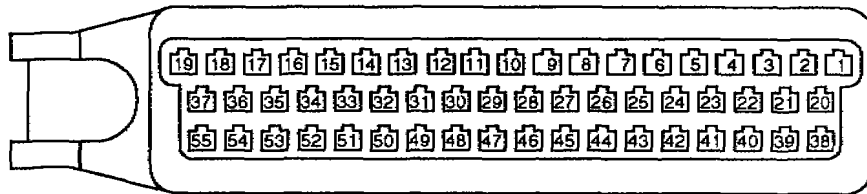


FIG 2

B350001 00

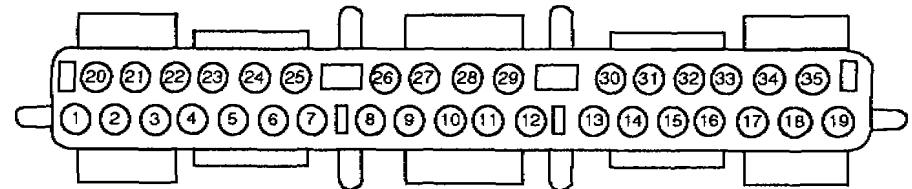


FIG 3

B350002 00

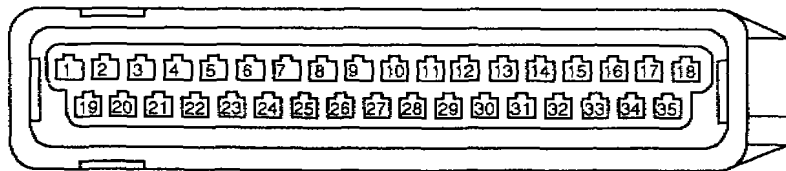
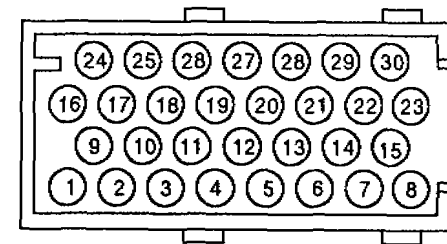


FIG 4

B300001 00





# CONNECTOR VIEWS

FIG. 1

B260002.00

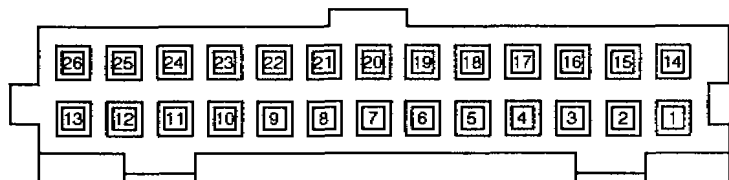


FIG. 2

B120015

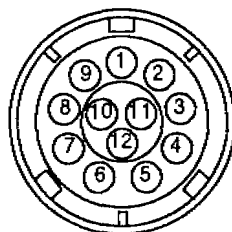


FIG. 3

B210001.00

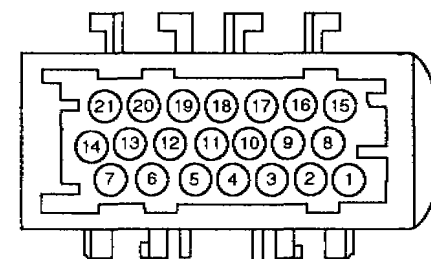


FIG. 4

B240001.00

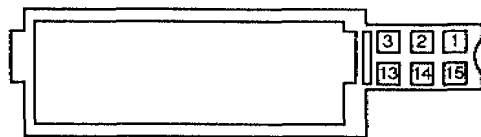


FIG. 5

B080003.00

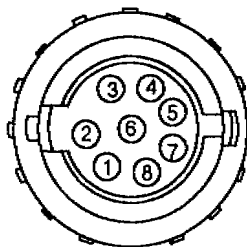
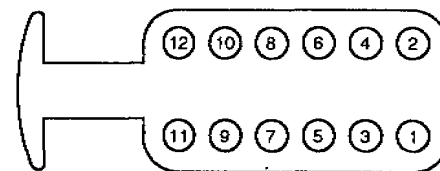


FIG. 6

B120013.00





# CONNECTOR VIEWS

FIG. 1

B120002.02

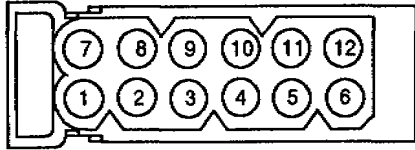


FIG. 2

B060040.00

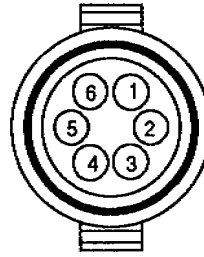


FIG. 3

B090001.00

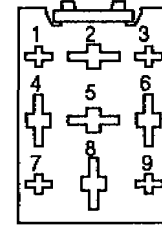


FIG. 4

B050005.00

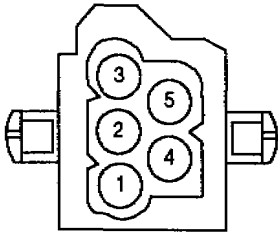


FIG. 5

B030006.00

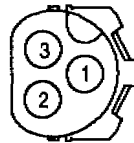
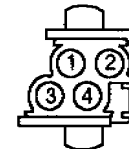


FIG. 6

B040003.00





# CONNECTOR VIEWS

FIG. 1

B080002.00

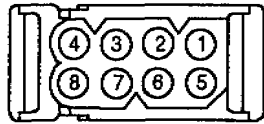


FIG. 2

B050006.00

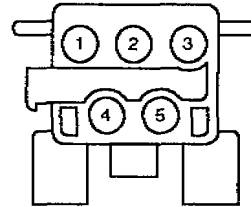


FIG. 3

B030001.00

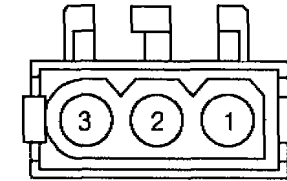


FIG. 4

B250001.00

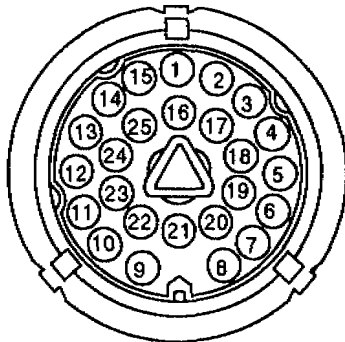


FIG. 5

B030015.10

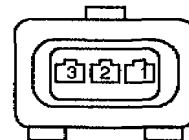
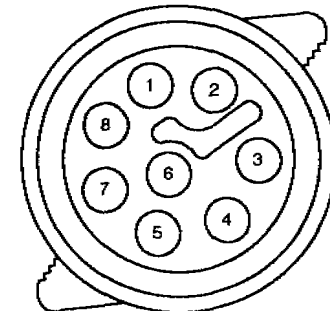


FIG. 6

B080009.00





# CONNECTOR VIEWS

FIG. 1

B060017.00

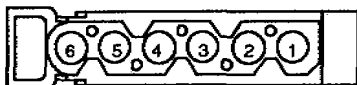


FIG. 2

B170001.00

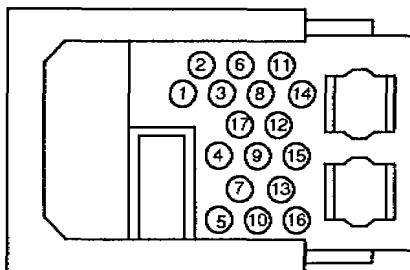


FIG. 3

B030013.00

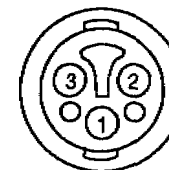


FIG. 4

B030005.00

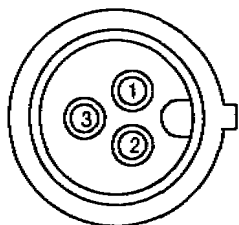


FIG. 5

B030012.00

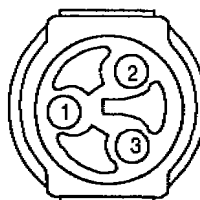
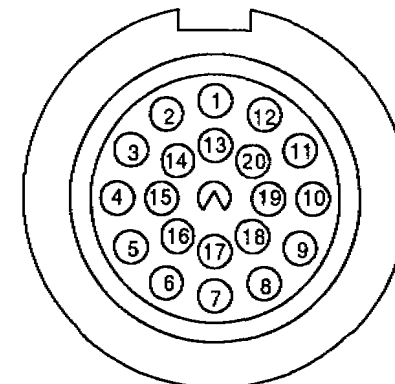


FIG. 6

B200003.01





# CONNECTOR VIEWS

FIG. 1

B040015.00

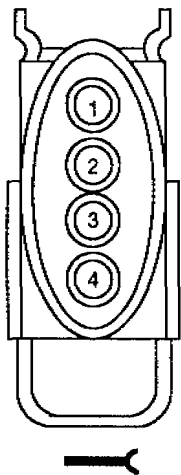


FIG. 2

B030003.04

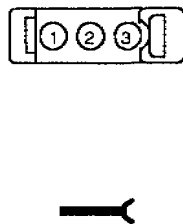


FIG. 3

B0300010.02

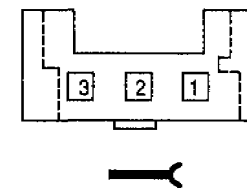


FIG. 4

B060002.00

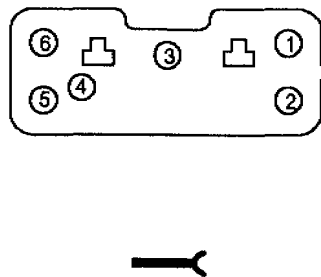


FIG. 5

B060002.00

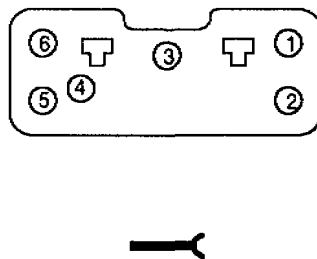
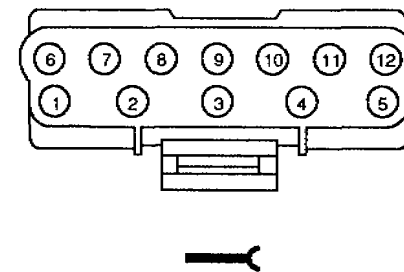


FIG. 6

B120006.00



# CONNECTOR VIEWS

FIG. 1

B060006.00

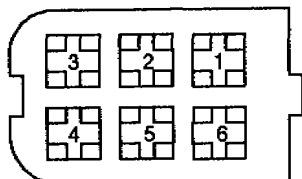


FIG. 2

B050003.00

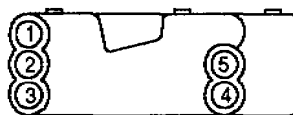


FIG. 3

B040004.00

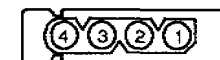


FIG. 4

B120004.01

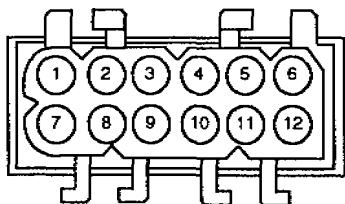


FIG. 5

B040002.00

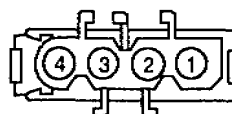
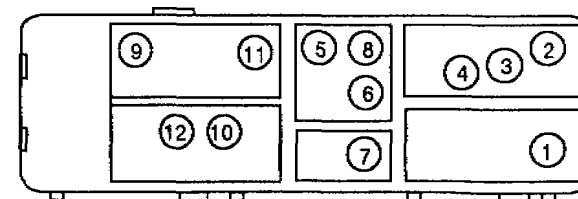


FIG. 6

B120008.00







# CONNECTOR VIEWS

FIG. 1

B030030.00

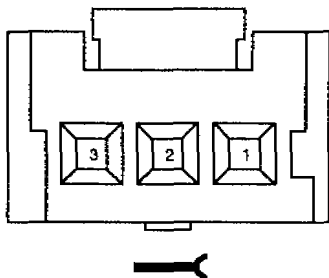


FIG. 2

B120002.03

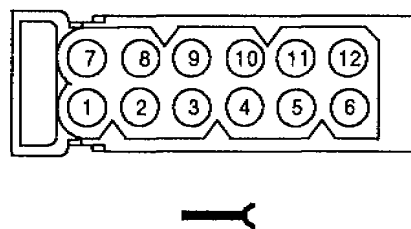


FIG. 3

B120004.05

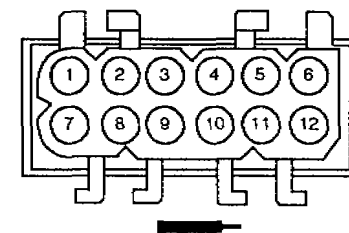


FIG. 4

B060013.00

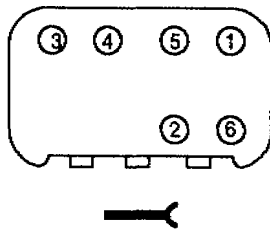


FIG. 5

B030009.00

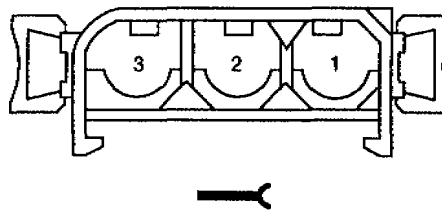


FIG. 6

B130002.01

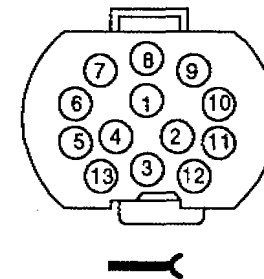


FIG. 1

B210002.00

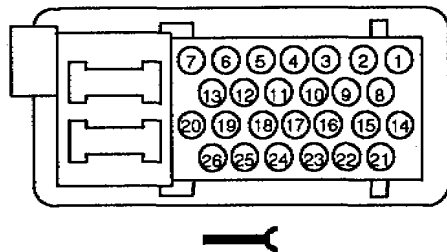


FIG. 2

B120011.00

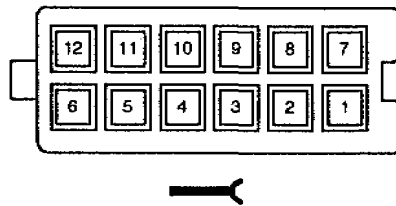


FIG. 3

B120011.00

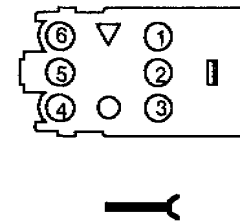


FIG. 4

B200001.00

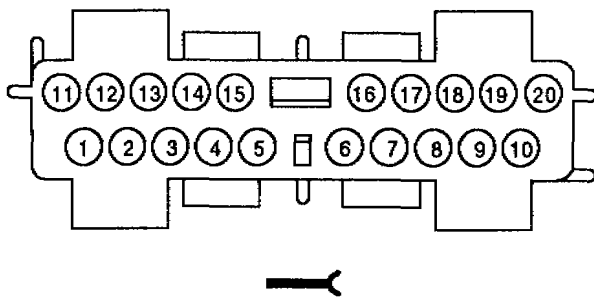


FIG. 5

B120005.00

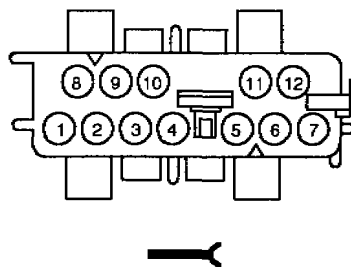
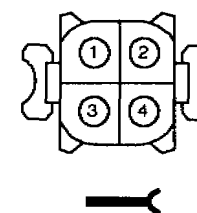


FIG. 6

B040010.00





# CONNECTOR VIEWS

FIG. 1

B100008.00

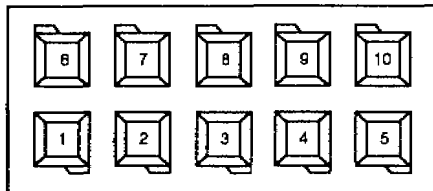


FIG. 2

B060023.00

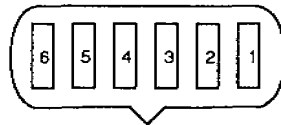


FIG. 3

B050002.00

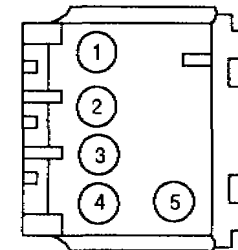


FIG. 4

B060009.00

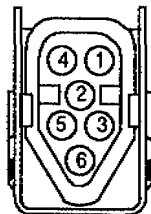


FIG. 5

B030022.00

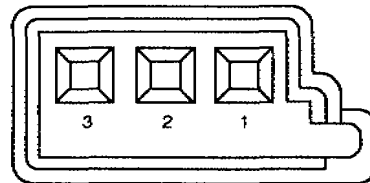
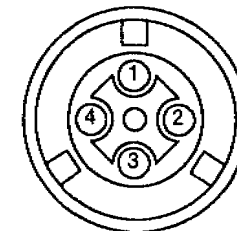


FIG. 6

B040016.00





# CONNECTOR VIEWS

FIG. 1

B060010.01

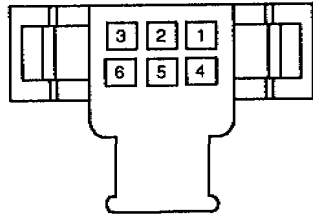


FIG. 2

B040013

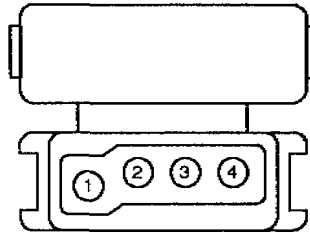


FIG. 3

B060035.00

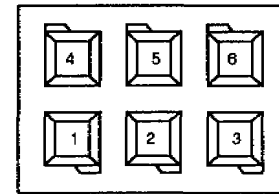


FIG. 4

B260005.00

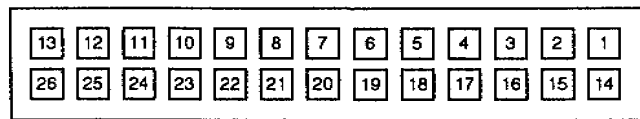
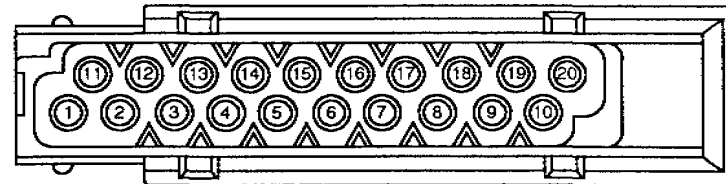


FIG. 5

B200007.00





# CONNECTOR VIEWS

FIG. 1

B140002.00

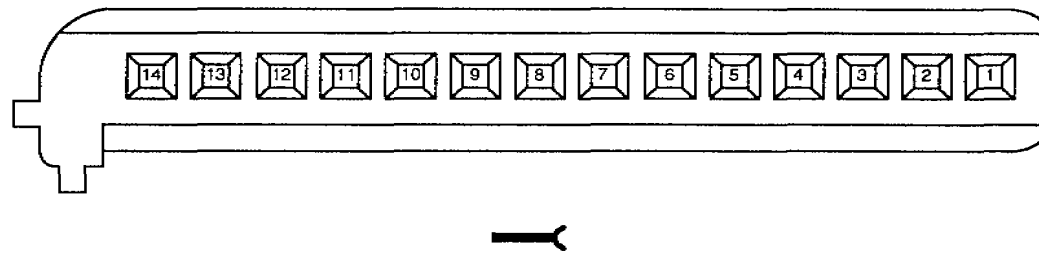


FIG. 2

B080005.00

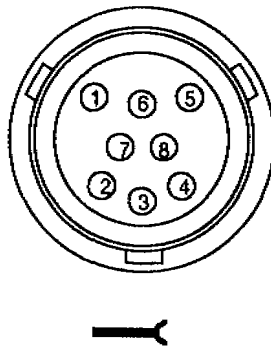
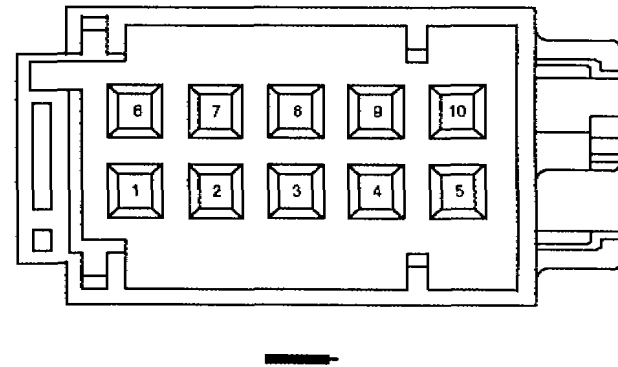


FIG. 3

B100009.00





# CONNECTOR VIEWS

FIG. 1

B880001.00

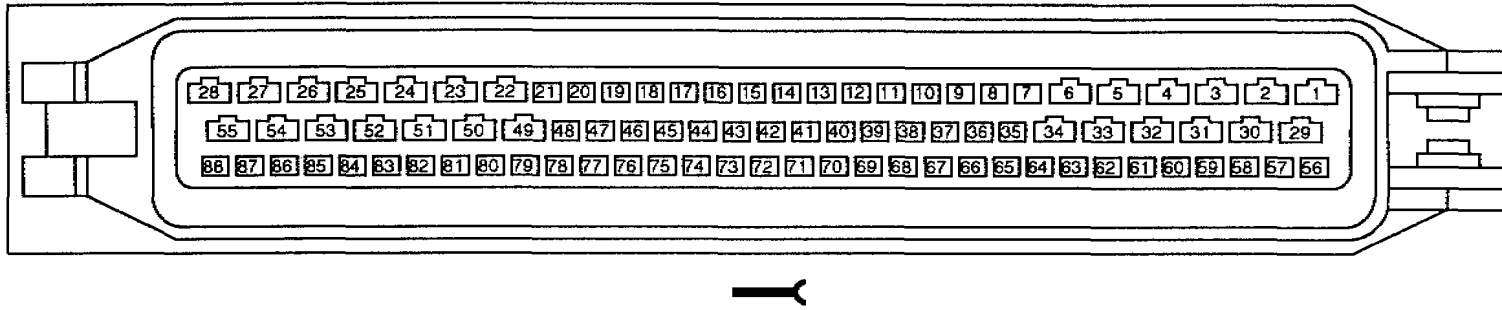


FIG. 2

B050006.00

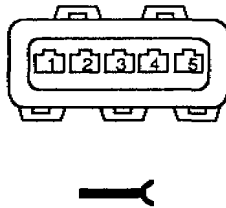
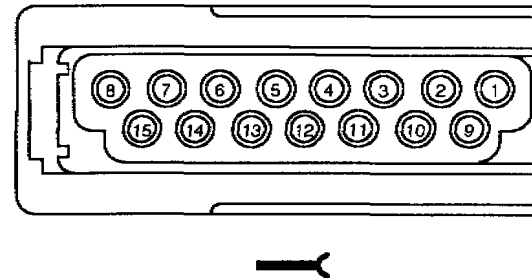


FIG. 3

B150003.00





# CONNECTOR VIEWS

FIG. 1

B080000.00

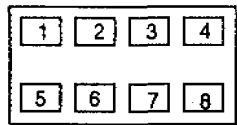


FIG. 2

B080001.00

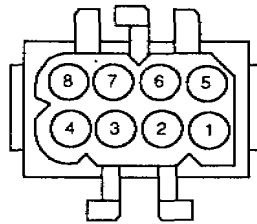


FIG. 3

B180000.00

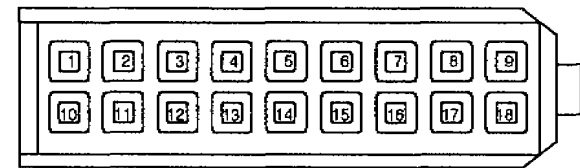


FIG. 4

B070005.00

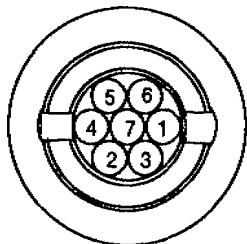


FIG. 5

B040018.01

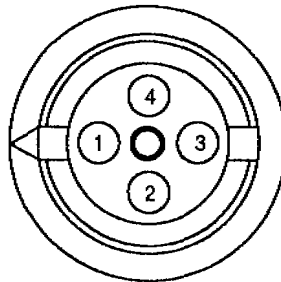
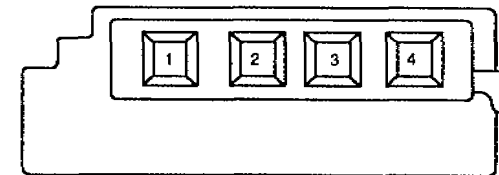


FIG. 6

B040020.00





# CONNECTOR VIEWS

FIG. 1

B060035.02

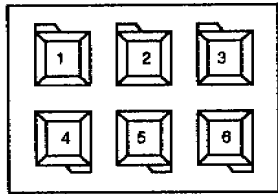


FIG. 2

B060035.01

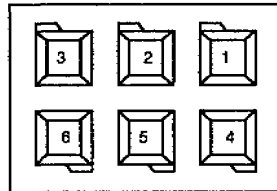


FIG. 3

B120003.01

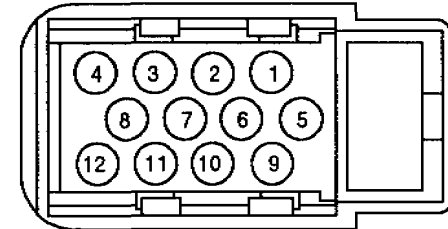


FIG. 4

B300002.00

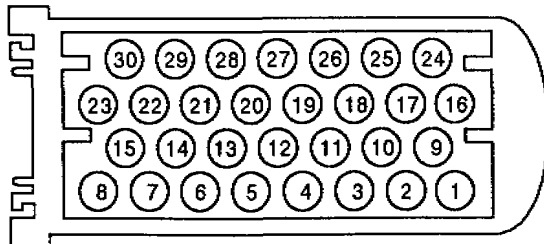
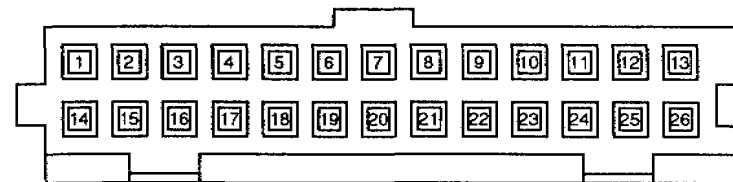


FIG. 5

B260002.00







# CONNECTOR VIEWS

FIG. 1  
B120014

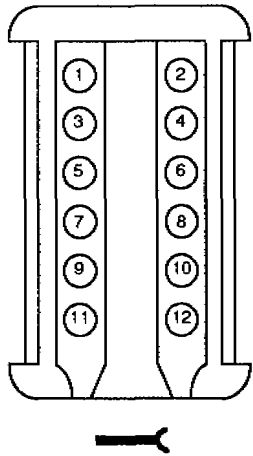


FIG. 2  
B100004.00

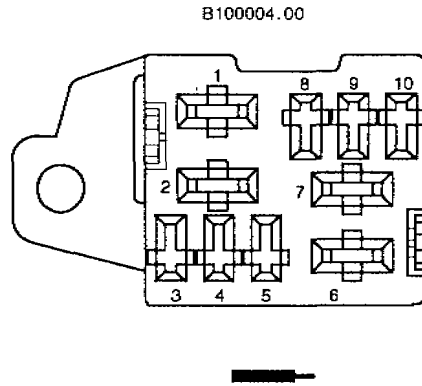


FIG. 3  
B060038.00

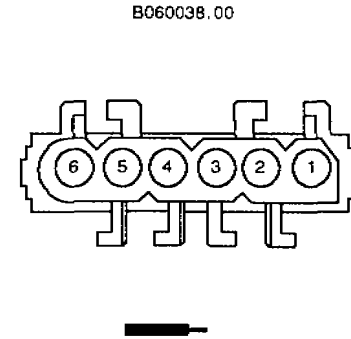


FIG. 4  
B030015.08

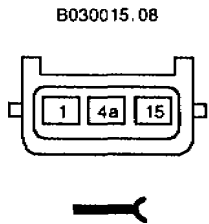


FIG. 5  
B060019.00

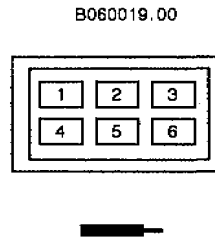


FIG. 6  
B060019.03

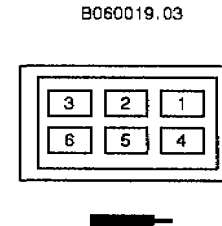


FIG. 1

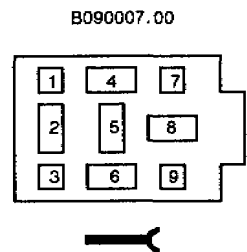


FIG. 2

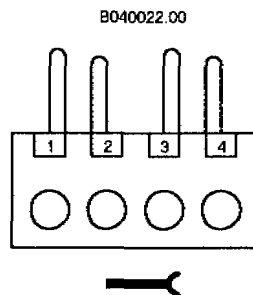


FIG. 3

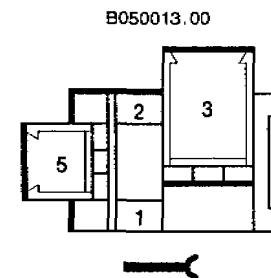


FIG. 4

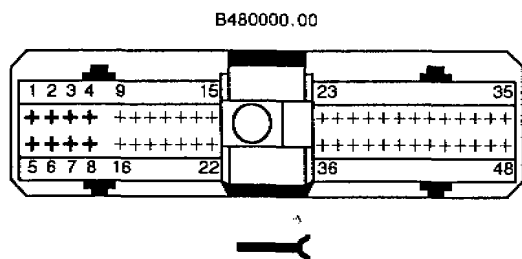


FIG. 5

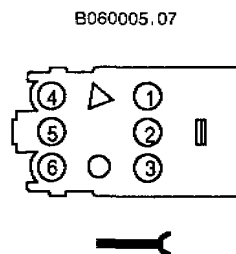
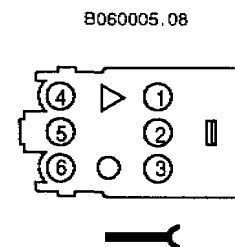


FIG. 6





# CONNECTOR VIEWS

FIG. 1

B060005.09

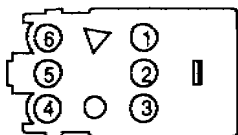


FIG. 2

B060005.10

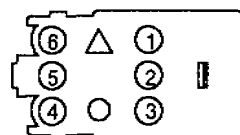


FIG. 3

B070007.00

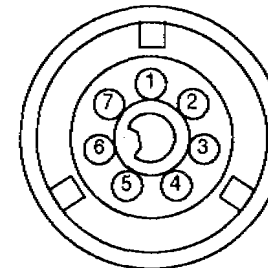


FIG. 4

B260001.00

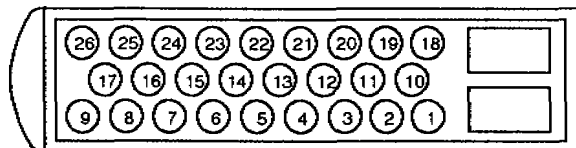
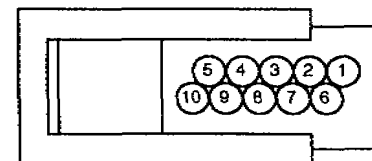


FIG. 5

B100007.00





# CONNECTOR VIEWS

FIG. 1

B030003.00

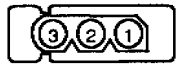


FIG. 2

B060013.00

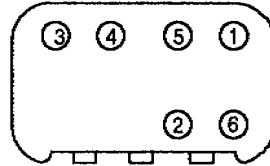


FIG. 3

B080006.00

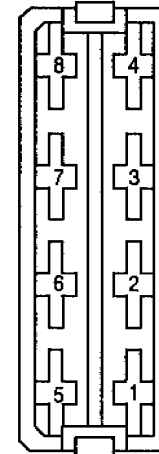
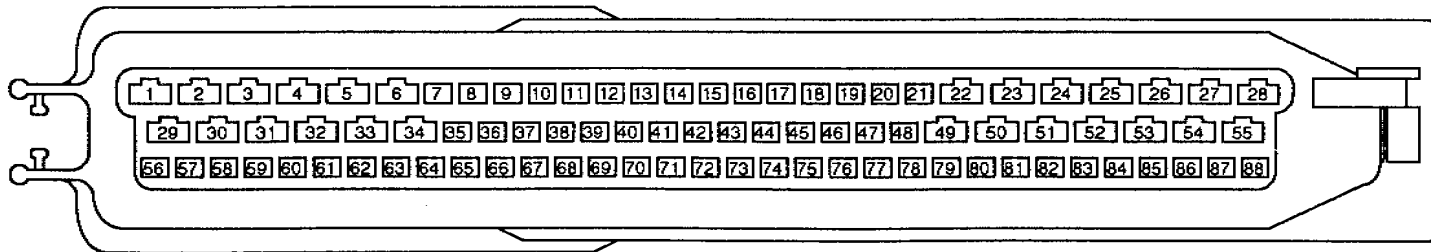


FIG. 4

B880002.01





# CONNECTOR VIEWS

FIG. 1

B030004.04

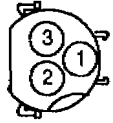


FIG. 2

B060030.00

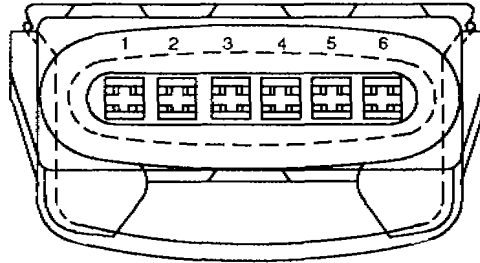


FIG. 3

B100013.00

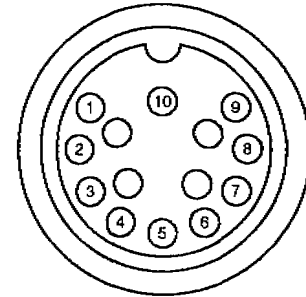
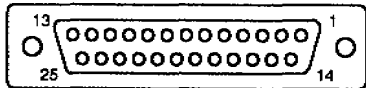


FIG. 4

B250003.00





8500.0-20