



1993

BMW 318i, 318is, 325i, 325is (E36)

**Electrical** 

Troubleshooting

Manual

Vehicles Produced 09/92 to 08/93

PN 01 00 1 468 774



# ELECTRICAL TROUBLESHOOTING MANUAL

3 SERIES - E36 (318i, 318is, 325i, 325is)

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## **MODEL YEAR 1993**

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## **Schematics**

BMW

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 that is only a few cm long. To ensure clear arrangement, all connectors, lines branches and connected components from the fuses to the component and from the component to ground connection are not shown within the individual cells. If required, reference can be made to cells 0670.3 Fuse Details and 0670.4 Ground Distribution where all lines are illustrated with all plug connections, line branches and connected components.

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

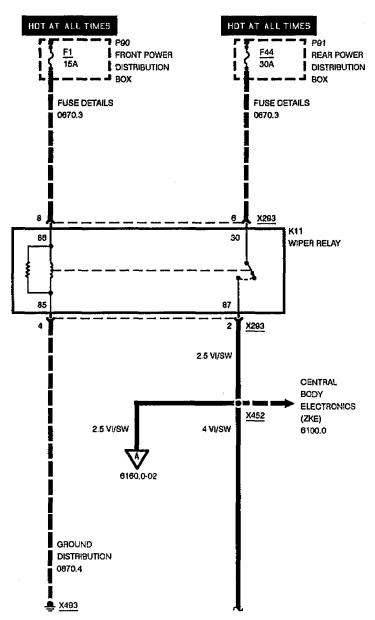
In cell **7000.0 Component Location Chart** all important connectors, ground points and components are listed in tabular form. It provides a precise description of the component locations in the vehicle.

In cell **7100.0 Component Location Views** the location of connectors and components which are difficult to locate are shown in line arts or illustrations. In cell **8000.0 Splice Location Views** all splices are listed in numerical order and illustrations are provided to assist in locating splices on larger harnesses. In cell **8500.0 Connector Views** diagrams of connectors with more than 2 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.





## INTRODUCTION

## **General Conventions**

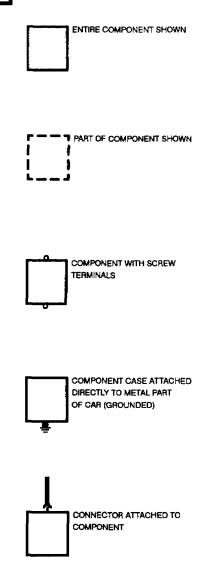
- 1. Switches and relays are always shown in rest position (e.g. K11).
- 2. A component shown in a dashed frame signifies that the component is illustrated only in part (e.g. P90 and P91).
- 3. A component shown in a completely drawn frame signifies that the component is illustrated in full (e.g. K11).
- 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 F1 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.

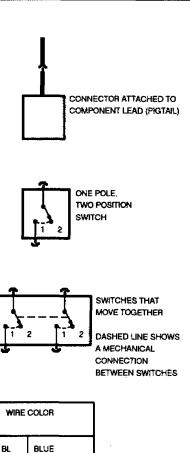
- 6. The dashed line with an arrow at splice X452 indicates that several wires lead to splice X452. All lines leading to the connection are illustrated in cell 6100.0 Central Body Electronics (ZKE). An interrupted line with an arrow indicates that only this one wire leads to another circuit.
- 7. The 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.
- 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.

8. The interrupted line from splice X452 with an A in the open arrow is

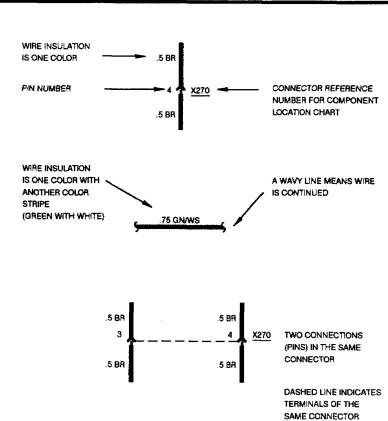
BATTERY	HEATING ELEMENT	VARIABLE RESISTANCE SENSOR VARIABLE CONTACT IS MOVED BY AN EXTERNAL FORCE	ANTENNA
FUSE DETAILS	LOUIDSPEAKER OR HORN	VARIABLE RESISTOR RESISTANCE IS CHANGED BY TEMPERATURE OR PRESSURE	CONTROL/POWER ELECTRONICS  HALL EFFECT SENSOR
FUSIBLE LINK	<b>©</b> IIGHT	DIODE CURRENT CAN FLOW ONLY IN DIRECTION OF ARROW	RADIO
CIRCUIT BREAKER  THERMO SWITCH	PERMANENT MAGNET MOTOR ONE SPEED	ZENER DIODE TO REGULATE VOLTAGE	TRANSISTORIZED SWITCH
SOLENOID	PERMANENT MAGNET MOTOR TWO SPEEDS	LIGHT EMITTING DIODE	N INDUCTIVE SENSOR
SOLENOID CONTROLLED VALVE OR CLUTCH SOLENOID	KNOCK SENSOR	OXYGEN SENSOR	VEHICLE SPEED SENSOR

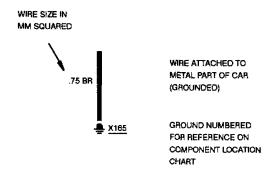
## **SYMBOLS**

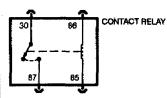


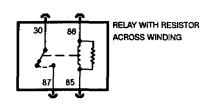


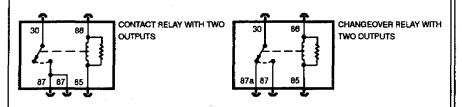
WIRE COLOR		
BL	BLUE	
BR	BROWN	
GE	YELLOW	
GN	GREEN	
GR GRAY		
OR	ORANGE	
RS	PINK	
RT	RED	
SW	BLACK	
VI	VIOLET	
ws	WHITE	
TR	TRANSPARENT	



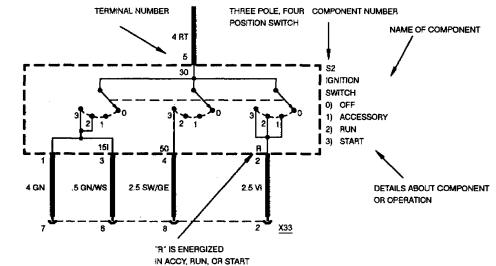




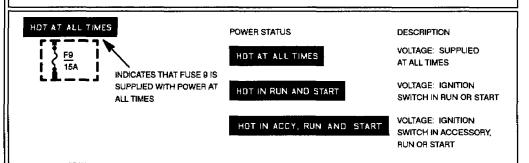




TERMINAL NUMBER	DESCRIPTION
30	RELAY INPUT
85	RELAY OUTPUT (WINDING)
86	RELAY INPUT (WINDING)
87	RELAY OUTPUT (ENERGIZED)
87a	RELAY OUTPUT (AT REST)



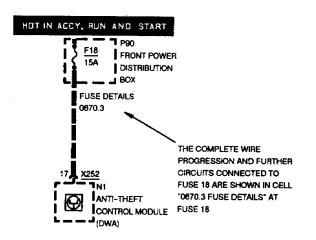
TERMINAL NUMBER	DESCRIPTION	TERMINAL NUMBER	DESCRIPTION
50	VOLTAGE: IGNITION SWITCH IN START	151	VOLTAGE: IGNITION SWITCH IN RUN
30	VOLTAGE: SUPPLIED AT ALL TIMES	R	VOLTAGE: IGNITION SWITCH IN ACCESSORY,
15	VOLTAGE; IGNITION SWITCH IN RUN OR START	31	RUN OR START GROUND

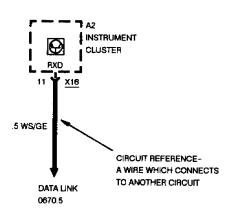


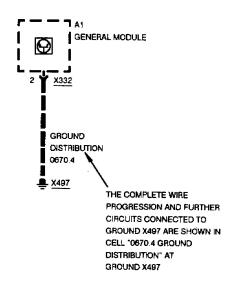
0140.0-02

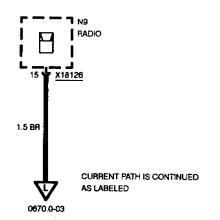


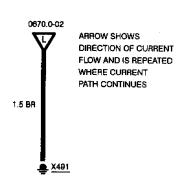
## **SYMBOLS**



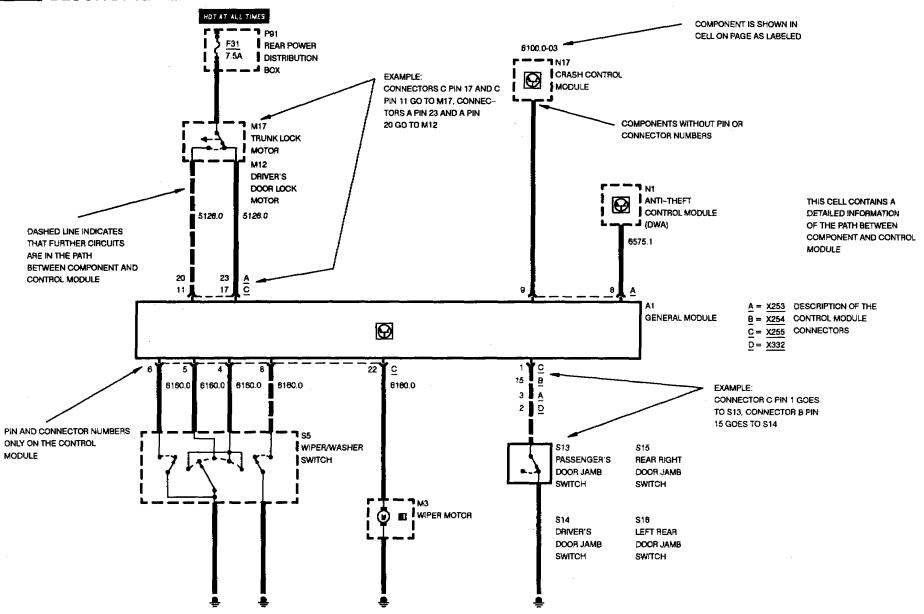






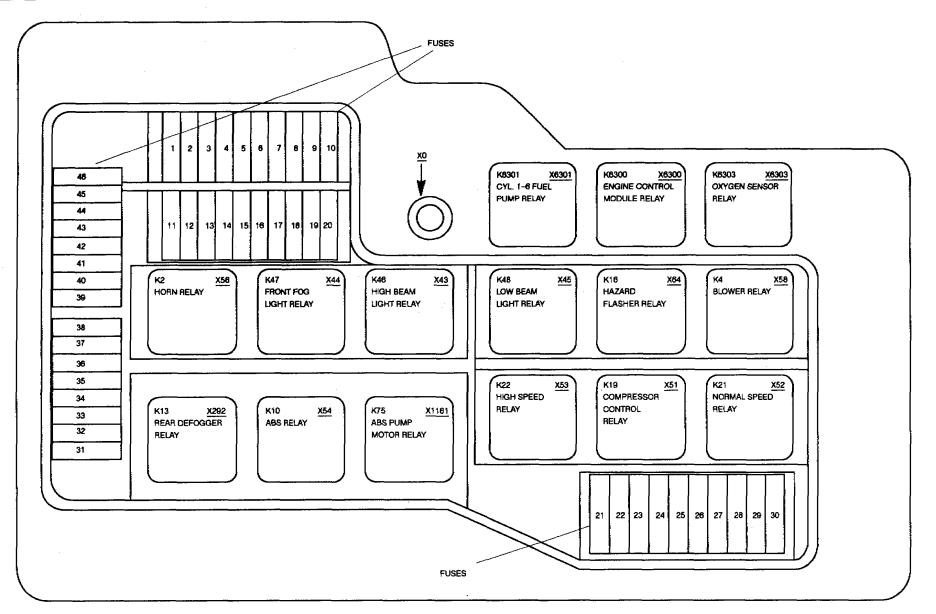






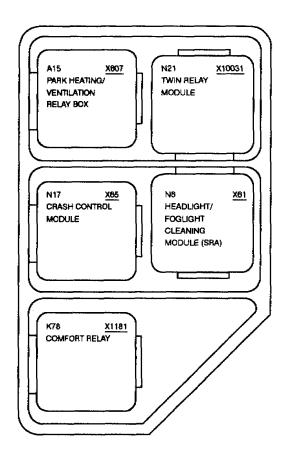


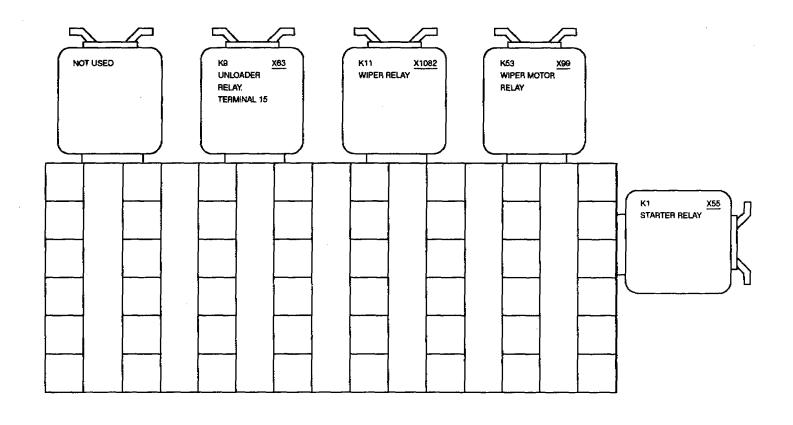
## POWER DISTRIBUTION CHART FRONT POWER DISTRIBUTION BOX



# BMW POWER DISTRIBUTION CHART RELAY DAME: 1

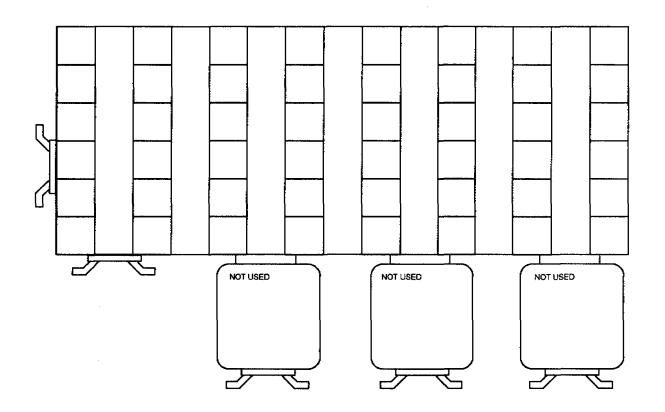
## **RELAY PANEL UNDER LH SIDE OF DASHBOARD**





## **POWER DISTRIBUTION CHART**

## SPLICE PANEL UNDER RH SIDE OF DASHBOARD



вмw	<b>FUSE CHART</b>
[3]	FUSES 1 TO 29

										<b></b>	_			F	US	ΕN	IUN	ИB	ER												
		1	2	3	4	5	6	7	8	9	11	<b>)</b> 1	1 1	2 1	3 1	4 1	5 1	6 1	7 1	8	19	20	21	22	23	24	25	26	27	28	29
		30A	<u> </u>	30A	15A	30A	20A	5A	15/	1 20/	30	A 7.5	A 7.5	A	30	0A 5	A 5	A 1	0A 18	SA		30A	5A	5A	5A	10A	5A	10A	5A	5A	7.5A
1210.9	ENGINE CONTROL SYSTEM (DME M1.7, 4-CYLINDER M42)																•	•	•											•	
	ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)																•		•											•	
1230.0	CHARGING SYSTEM	1																T													
1240.0	START													1		1	<u> </u>		$\top$	+	1									•	
2460.2	ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)									1		1	T	+	$\dagger$	†		+		$\dagger$	+		-				1	•		•	
3234.0	SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG)													_		-		+-	$\dagger$	$\dagger$	1										
3450.0	SLIP CONTROL (ABS)	$\top$							T	1	•		+		1			+	$\top$	1	7	$\top$	•						•		
5116.0	POWER MIRRORS		T	T				†	<u> </u>								+	†	+		1					•					
5126.2	CENTRAL LOCKING MODULE II (ZVM II)	1		-				•			<del></del>		-					+			$\uparrow$	1									
5133.1	POWER WINDOWS (FH)	T												-	•						1	-						$\neg$			
5200.0	POWER SEATS					•						<b>†</b>	†	-				$\dagger$	$\top$		+	7						_			
5203.0	HEATED SEATS	丁			•													$\dagger$		1	$\dagger$				•				1	—— 	
5410.1	POWER SUN ROOF (SHD)	•												-		+-			1			_									
6133.0	HORN	1							•	1	-							+			1						-				
6160.1	WIPER/WASHER MODULE (WWM)	1																$\dagger$		1	$\uparrow$	1									
6167.1	HEADLIGHT WASHER (SRA)	†		•						$\dagger$	+		+	$\dagger$	†	$\dagger$	$\dagger$	$\dagger$		-	$\dagger$	$\dagger$						$\dashv$			П
6169.0	WINDSHIELD WASHER JET HEATERS									1		+				$\dagger$	-	1		$\dagger$	$\dagger$	+	$\dashv$			•	-		-		
6211.0	INSTRUMENT CLUSTER	1						<del>                                     </del>	-			1	+			+	$\dagger$	†		$\dagger$	_ -			1	•			1	•		
6213.2	MULTI-FUNCTION CLOCK	T							-	†			1	+	$\dagger$	+-	+		+	+	+		$\dashv$	$\dashv$	•			+			Н

BMW	FUSE CHA	\RT
13	FUSES 1 TO	20

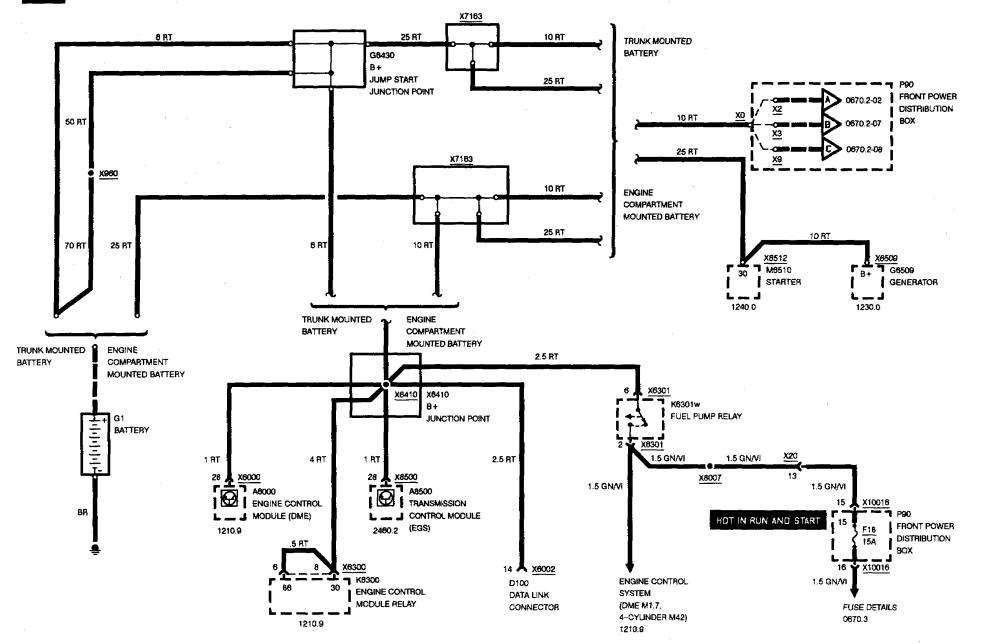
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		1	1	<del> </del>	4	1	6	<del> </del>				$\neg$			_	$\neg$	$\neg$							-		! -				28	29
		30A	-	30A	15A	30A	20A	5A	15A	20A	30/	A 7.5	A 7.8	iA .	30	0A 1	5A	5A	10A	15A		30A	5A	5A	5A	10A	5A	10A	5A	5A	7.5A
6300.0	LIGHT SWITCH DETAILS																							•			•				l
6312.0	HEADLIGHTS/ FOG LIGHTS											•	•	•		•	D								•		•				•
6313.0	TURN/HAZARD LIGHTS				_							T	T	†	T	T		1						<b></b>	•						
6314.0	PARK/TAIL LIGHTS											T	†		+		1		-					•							
6320.0	LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS														1		1							_							<u></u>
6322.0	BACK UP LIGHTS			-						<u> </u>		T					_	1								 		•			
6325.0	BRAKE LIGHTS							_				T	+				+	1						<u> </u>							
6330.3	INTERIOR LIGHTS	-	<u> </u>									+	-		+		$\dagger$	_	_												
6332.1	GLOVE BOX LIGHT/CASSETTE BOX/ASHTRAY LIGHT/ CHARGING SOCKET/CIGAR LIGHTER											1					1		,												
6350.0	CRASH CONTROL MODULE																														 
6412.5	PARK VENTILATION WITH IHKR								!									Ī				•									
6424.0	REAR WINDOW DEFOGGER						•										_								•			-			
6450.4	INTEGRATED CLIMATE REGULATION (IHKR E36)										<b></b>	1						•		-		•			•						
6510.0	RADIO/ CD PLAYER (PROVISIONS)		<u> </u>						<u>-</u>	•		<del> </del>						T													
6510.1	RADIO/HIFI		!-							•						_		1						-	-						
6561.0	CELLULAR TELEPHONE (PROVISIONS)				-							$\dagger$	$\dagger$									<u> </u>				_		-			
6571.0	CRUISE CONTROL (TEMPOMAT)	1										1	1		$\top$	$\dagger$	+	+			-								<del></del>	•	
6575.2	ANTI-THEFT SYSTEM (ALPINE)		<u> </u>		_				•	<u> </u>		1	+					$\dashv$													
6581.2	ON-BOARD COMPUTER (BC V)	<del> </del> -			<u></u>				-	†	<del>                                     </del>	•		+	+	_	$\dagger$	_							•				•		

BMW	FUSE CHART FUSE 30 TO 46
3	FUSE 30 TO 46

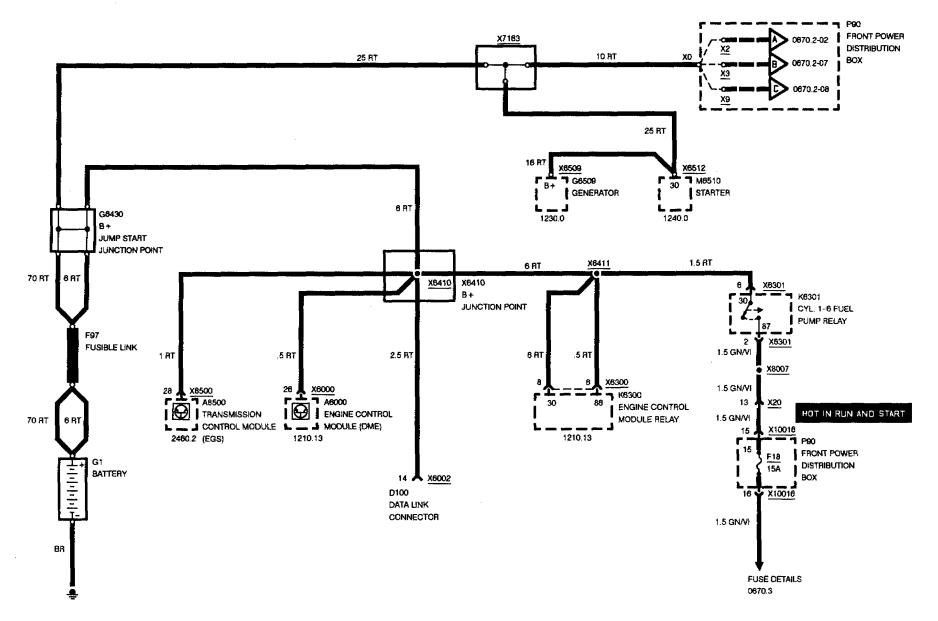
														F	US	Εì	٧U	ΜI	3E	R_										
		30	31	32	33	34	35	36	37	38	39	40	41	42	4	3 4	14	45	46											
_		7.5A	5A	30A	104	15A	25A	30A	10A	30,	7.5	A 30/	30/	A 7.5	A 5/	A 1:	5A 7	7.5A	15A			L								_
1210.9	ENGINE CONTROL SYSTEM (DME M1.7, 4-CYLINDER M42)																													
1210.13	ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)																													
1230.0	CHARGING SYSTEM																													 
1240.0	START								T				1	T	1	1														
2460.2	ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)			1								†		1		-	1		•			-		-						
3234.0	SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG)							-	-	1		1		•	•	+							-	-			1	<del>                                     </del>		
3450.0	SLIP CONTROL (ABS)			<del>                                     </del>	<u> </u>					•		-			1				•				-			1	-			 
5116.0	POWER MIRRORS	_		-			-			<u> </u>				+		+		1					$\vdash$	-	-	T				
5126.2	CENTRAL LOCKING MODULE II (ZVM II)	_			-		•			-		T	<del> </del>		•	,	+					-	-		-					
5133.1	POWER WINDOWS (FH)				•						1						1											T		
5200.0	POWER SEATS											•	1			†										<u> </u>				
5203.0	HEATED SEATS									-							1				-									
5410.1	POWER SUN ROOF (SHD)											1		<del> </del>		-	Ť										†-	-		
6133.0	HORN					1											$\uparrow$						-		1					_
6160.1	WIPER/WASHER MODULE (WWM)					<del>  -</del>		•	•		T	1	$\top$					•					-					-		
6167.1	HEADLIGHT WASHER (SRA)		-							-	$\vdash$	<u> </u>	-			$\dagger$	$\uparrow$				 				-			-		
6169.0	WINDSHIELD WASHER JET HEATERS	1		-	ļ —	†	-		-			-		-		+-	+							$\vdash$		-				
6211.0	INSTRUMENT CLUSTER		•					-			-		-		$\dagger$	$\dagger$	$\uparrow$		•			-	-		-	-				
6213.2	MULTI-FUNCTION CLOCK		•	-	-		-	-		$\vdash$	$\vdash$	+-	+-	╁	+-	$\dagger$	1	•	•			_	_	$\vdash$	+-		-			

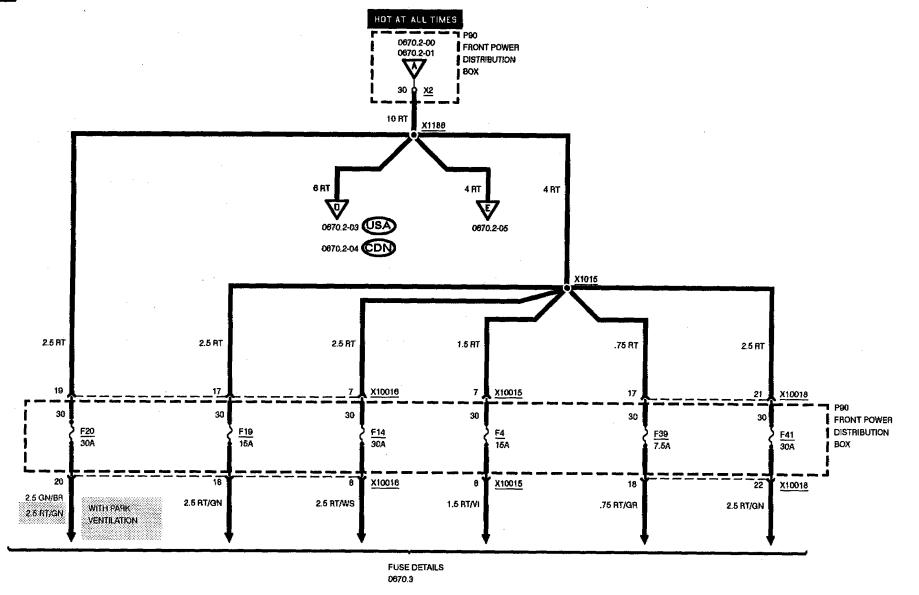
BMW	<b>FUSE CHART</b>
[3]	<b>FUSE 30 TO 46</b>

	FUSE 30 10 40	[_	_						_					FI	TST	E N	JT I	MI	BEI					_					 
				T								140			T	<u> </u>	T						T	Τ	Τ	T	$\top$	Τ_	
	•		1	32 30A	t —	+	+		<del>                                     </del>		<del> </del>	1	+	_	$\top$		一	45 7.5A			-	_	┝	$\vdash$	<del> </del>	+		-	 +
6300.0	LIGHT SWITCH DETAILS	7.5A	5A	30A	•	115A	204	30A	. 104	T-	4 17.57	304	1 30		3	- 11	SA.	r.oa	IDA		-	=		-	1	-	+-	-	=
6312.0	HEADLIGHTS/ FOG LIGHTS	•	-				-	-		-	1	-	+	-	-		_						$\vdash$	-		+-	+-	-	-
6313.0	TURN/HAZARD LIGHTS			-	_	•		-	-	+	+	+	-	+	+	+	1	_					-		-	-	-	-	-
6314.0	PARK/TAIL LIGHTS				•	$\vdash$	<del> </del>	-	•	-		$\vdash$	+		+	+	-	-			ļ				+		-		
6320.0	LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS		-		•				•			-	-		-								-	-	+	-			
6322.0	BACK UP LIGHTS		T			<u> </u>			T		<u> </u>		<del>                                     </del>	+	$\dagger$	1	7						1			1	$\dagger$	†	
6325.0	BRAKE LIGHTS									-	$\dagger$		$\dagger$	+-	1	$\dagger$			•					-	-	1	† · · ·		
6330.3	INTERIOR LIGHTS				•					1					•	•										<u> </u>			
6332.1	GLOVE BOX LIGHT/CASSETTE BOX/ASHTRAY LIGHT/ CHARGING SOCKET/CIGAR LIGHTER			•	•				•					-		1	•												
6350.0						•																							
6412.5	PARK VENTILATION WITH IHKR															-	1												
6424.0	REAR WINDOW DEFOGGER							1			1												1						
6450,4	INTEGRATED CLIMATE REGULATION (IHKR E36)		•	1					•	<del>                                     </del>	•		•																
6510.0	RADIO/ CD PLAYER (PROVISIONS)				-				Γ				T			-	•		,					1					
6510.1	RADIO/HIFI	1												1			•												
6561.0	CELLULAR TELEPHONE (PROVISIONS)				•										•														
6571.0	CRUISE CONTROL (TEMPOMAT)																		•										
6574.2	ANTI-THEFT SYSTEM (ALPINE)																•												
6581.2	ON-BOARD COMPUTER (BC V)		•		•	T	1	†	•		†		1	T		1		•	•	1		<del>                                     </del>	T		1	1	1		

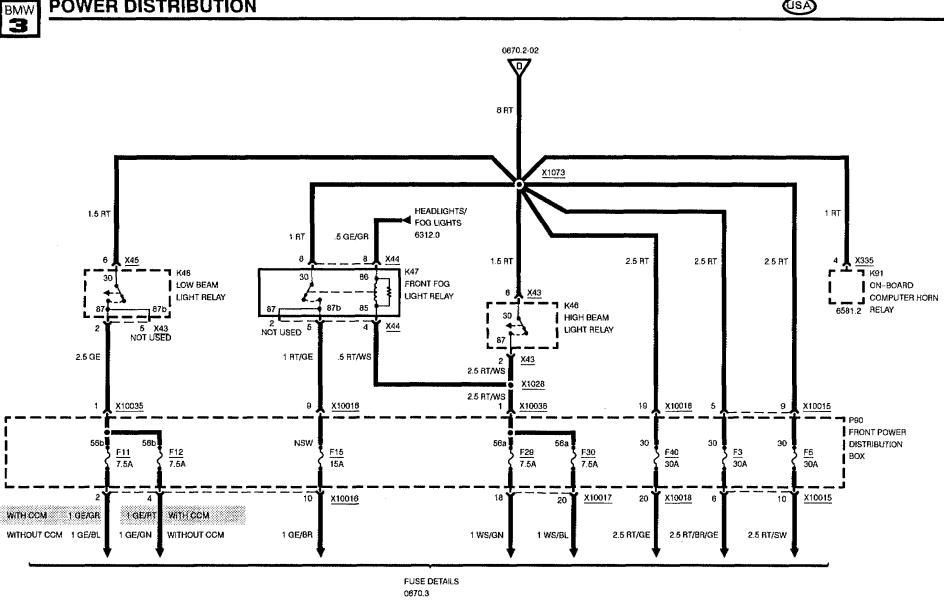


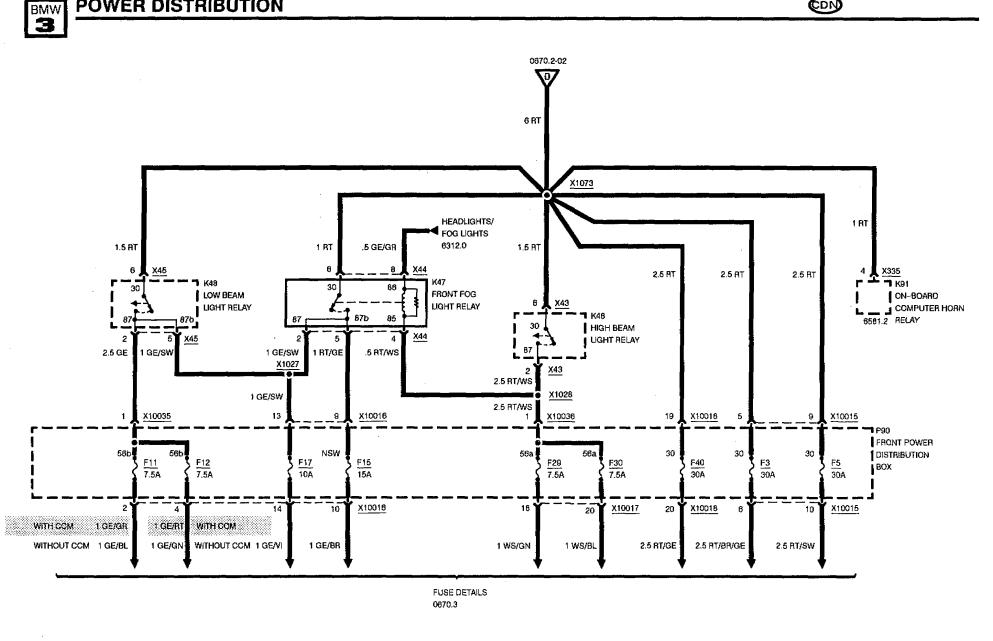
09/92

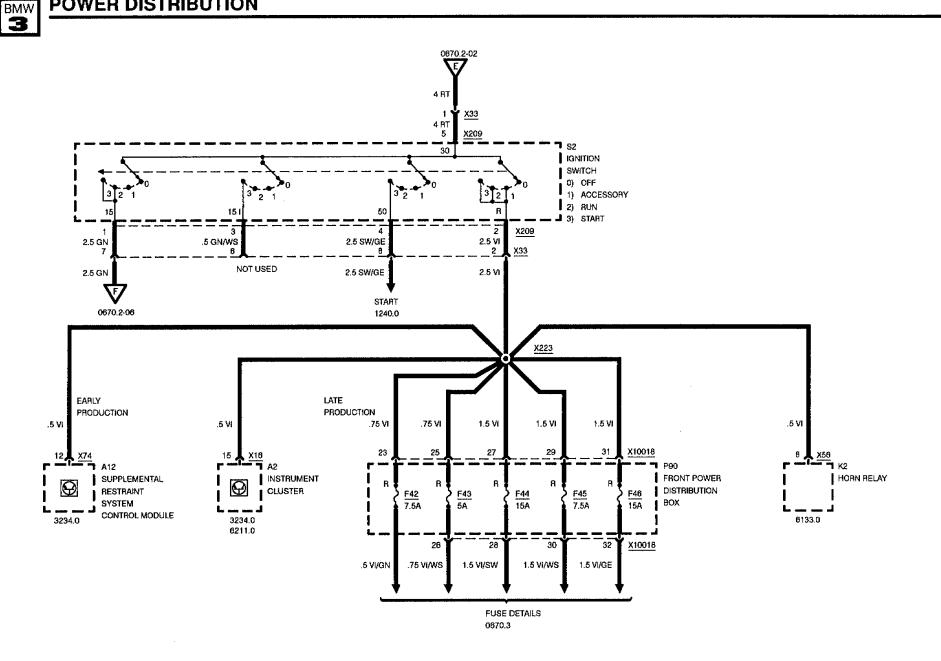




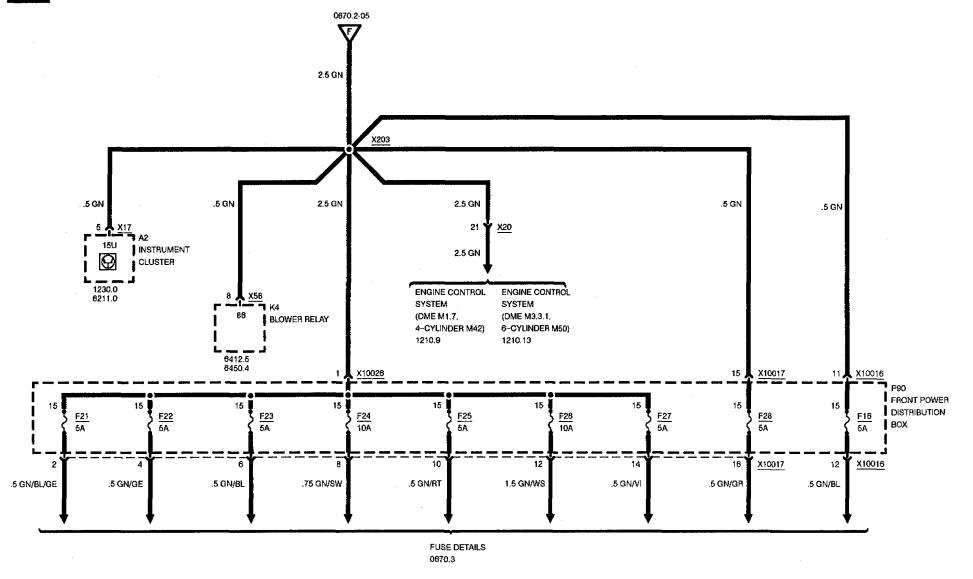








09/92



PUSE DETAILS 0870.3

F33 10A

1.5 RT/SW/GE

F34

15A

2.5 RT/GN/GE

F35

25A

2.5 RT/BL/GE

F32

30A

1 RT/WS

F36 30A

1 RT/GN

F37

10A

CDN

30

20

2.5 RT/BL

F10

30A

X10015 2

.5 RT/GE

F31

2.5 RT/SW/WS

5A

30

F9

20A

F8

15A

2.5 RT/WS

16

1 RT/GR/GE

<u>F7</u> 5A

F2

25A

2.5 RT

12

2.5 RT/BR

20A

.75 RT/GN

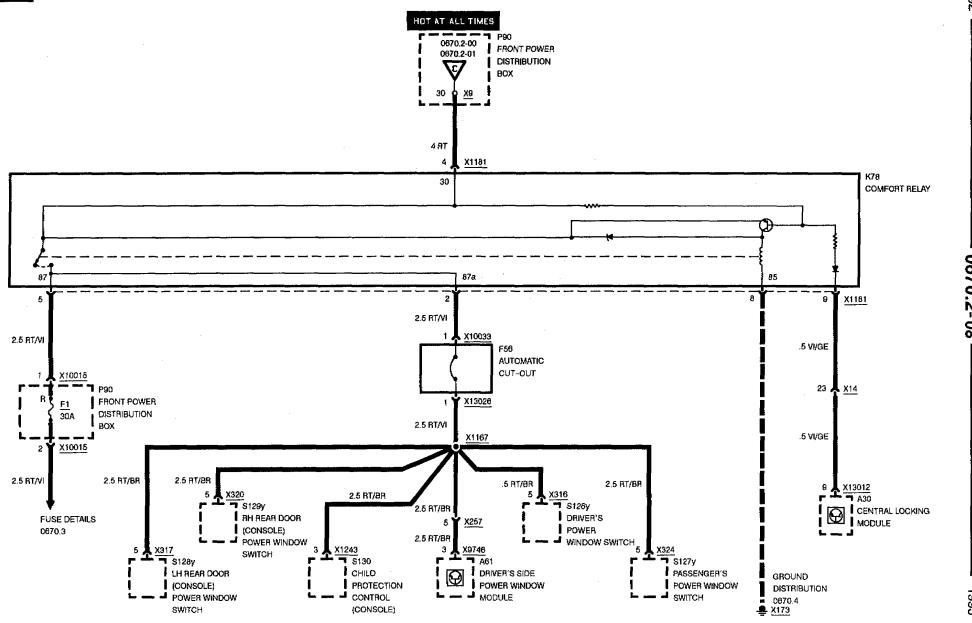
80X

F38

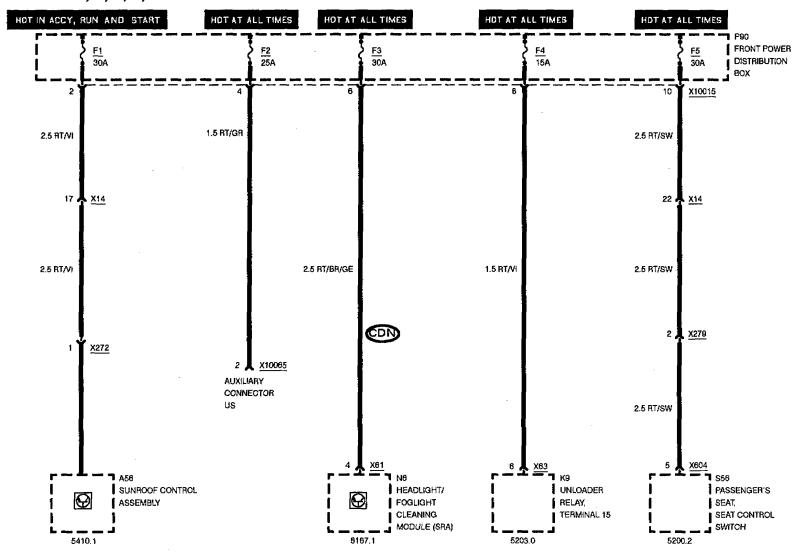
30A

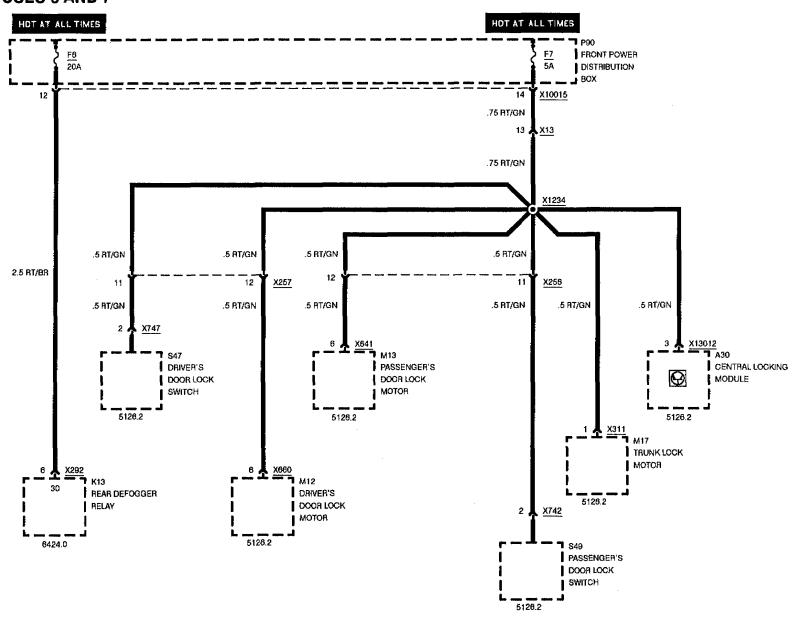
X10018

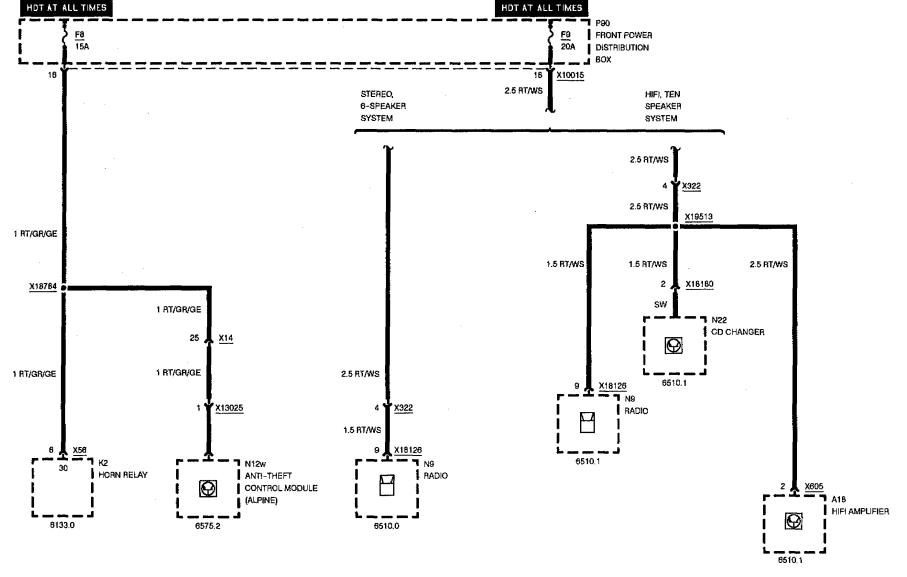
2.5 RT/GN



## **FUSES 1, 2, 3, 4, AND 5**

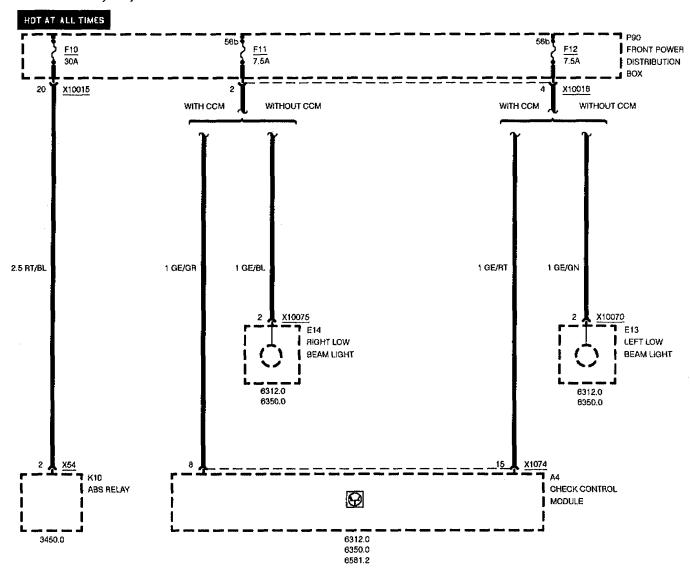




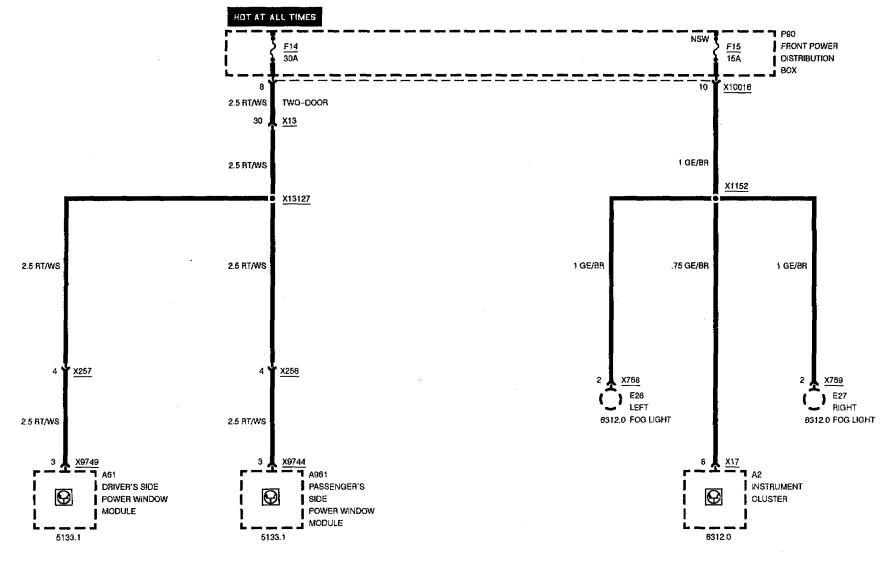




# **FUSES 10, 11, AND 12**

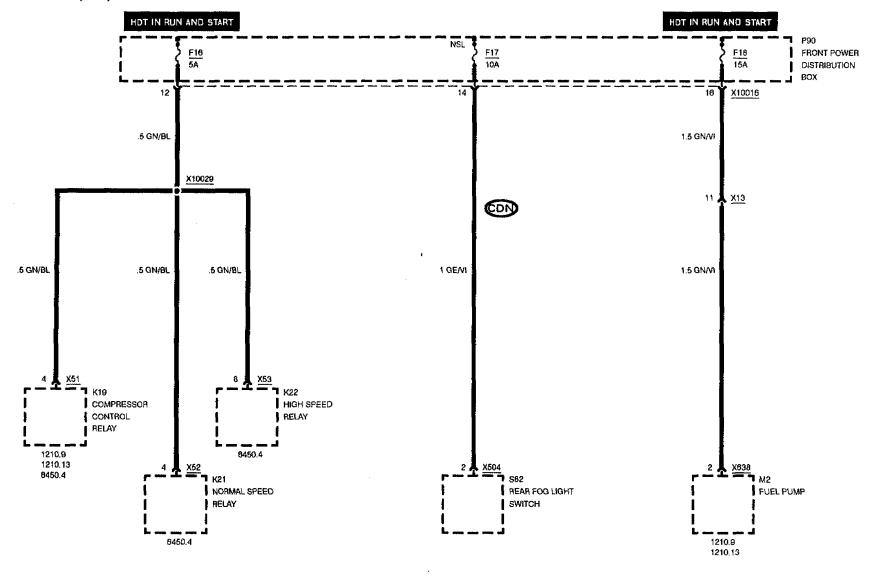


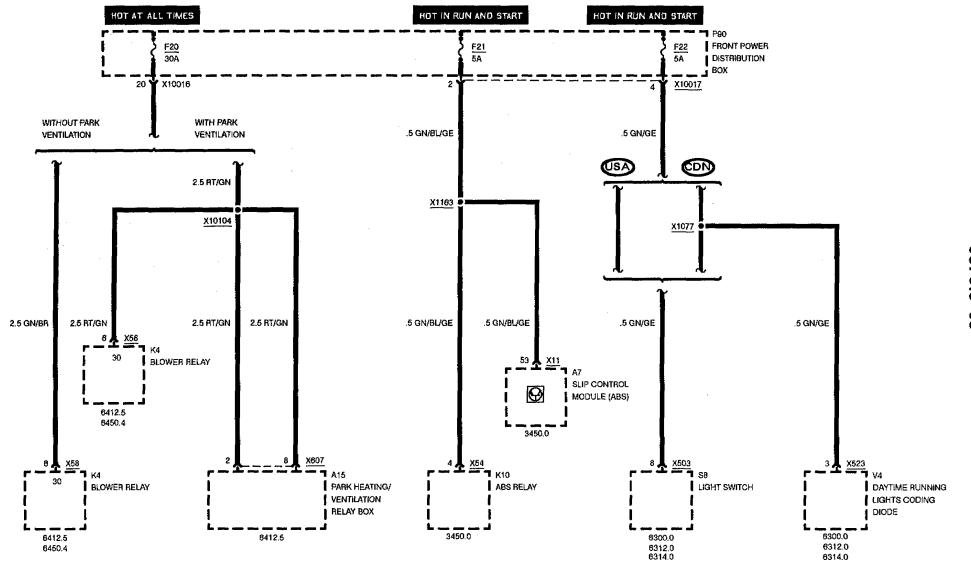




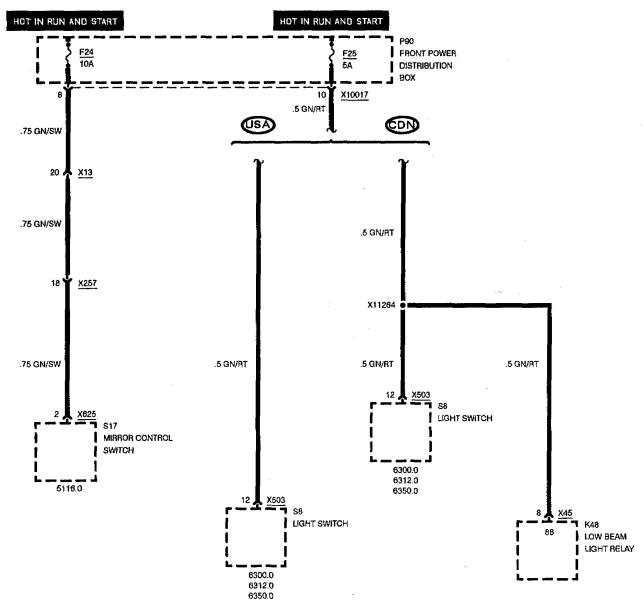
0670.3-05

FUSES 16, 17, AND 18





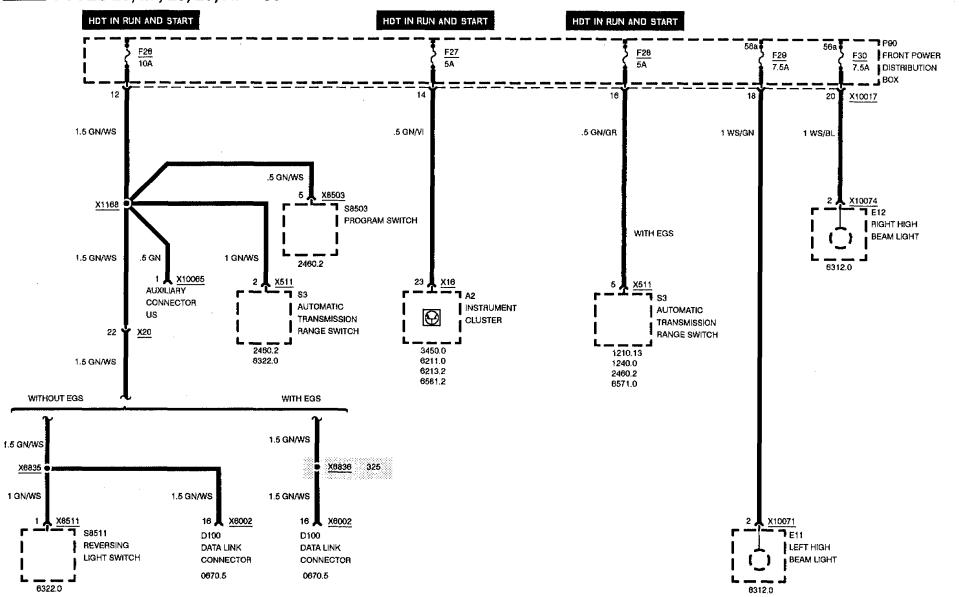
## FUSES 24 AND 25

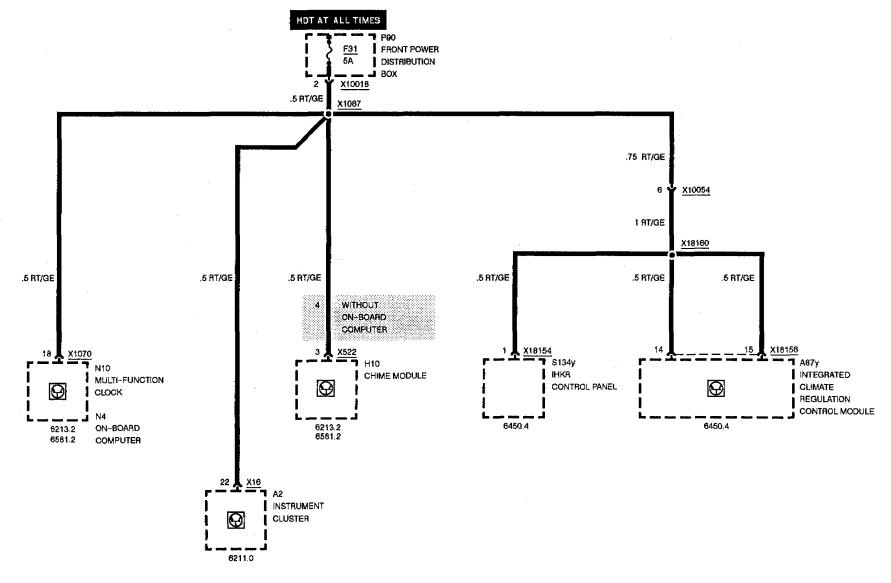


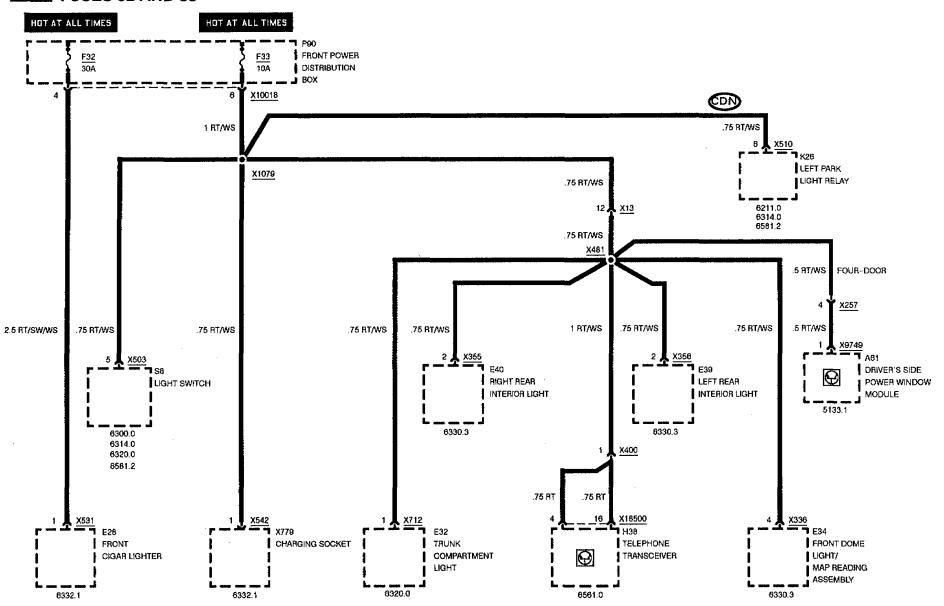
1993

### **FUSE DETAILS**

## FUSES 26, 27, 28, 29, AND 30

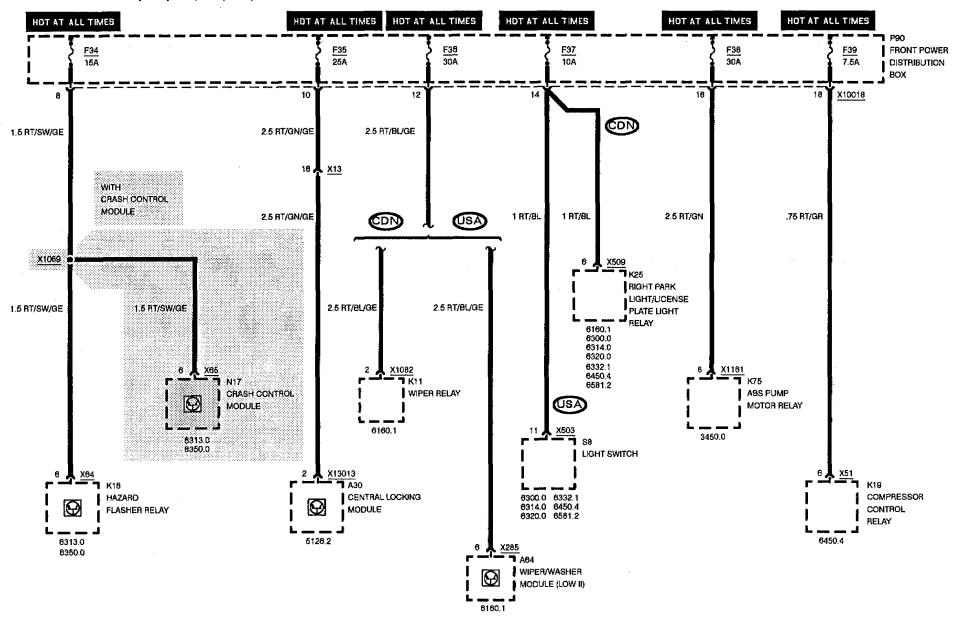


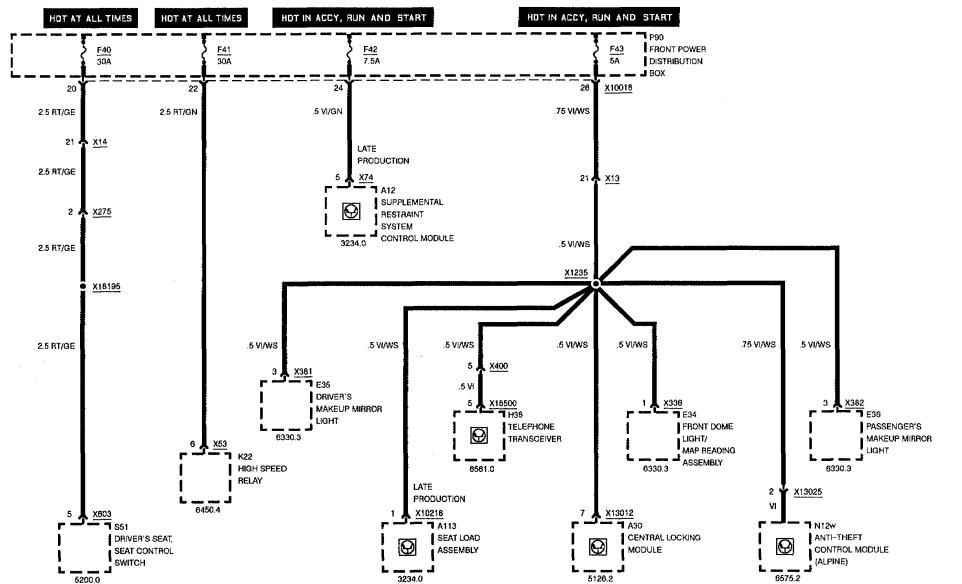




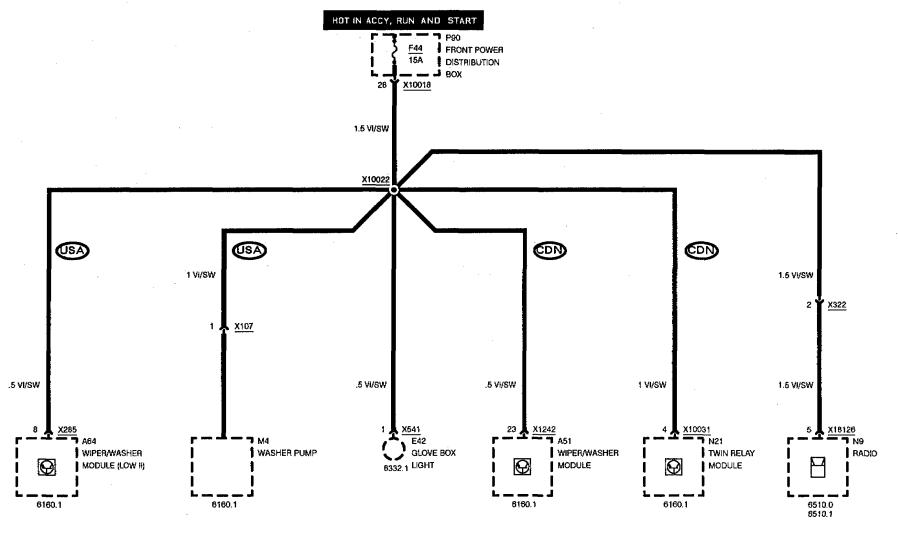
BMW BMW

FUSES 34, 35, 36, 37, 38, AND 39



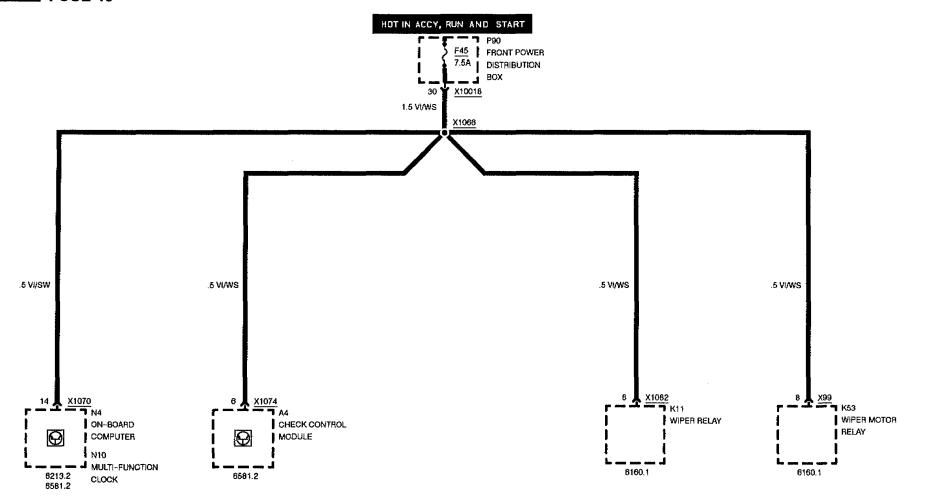


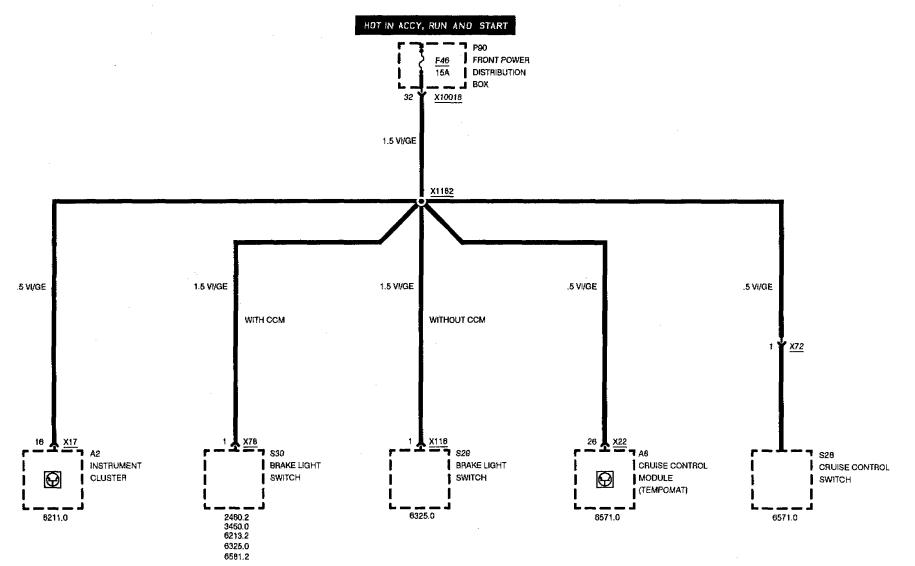




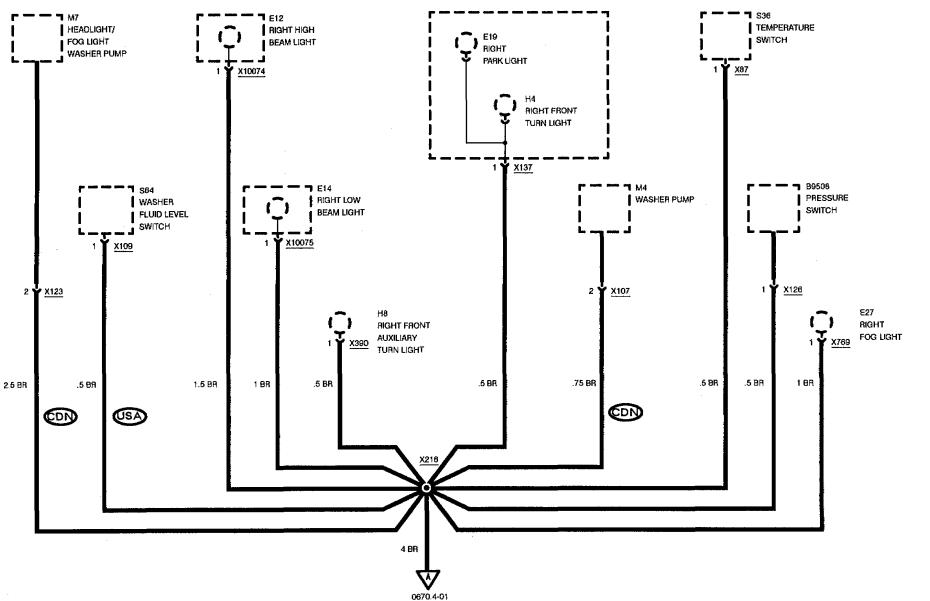






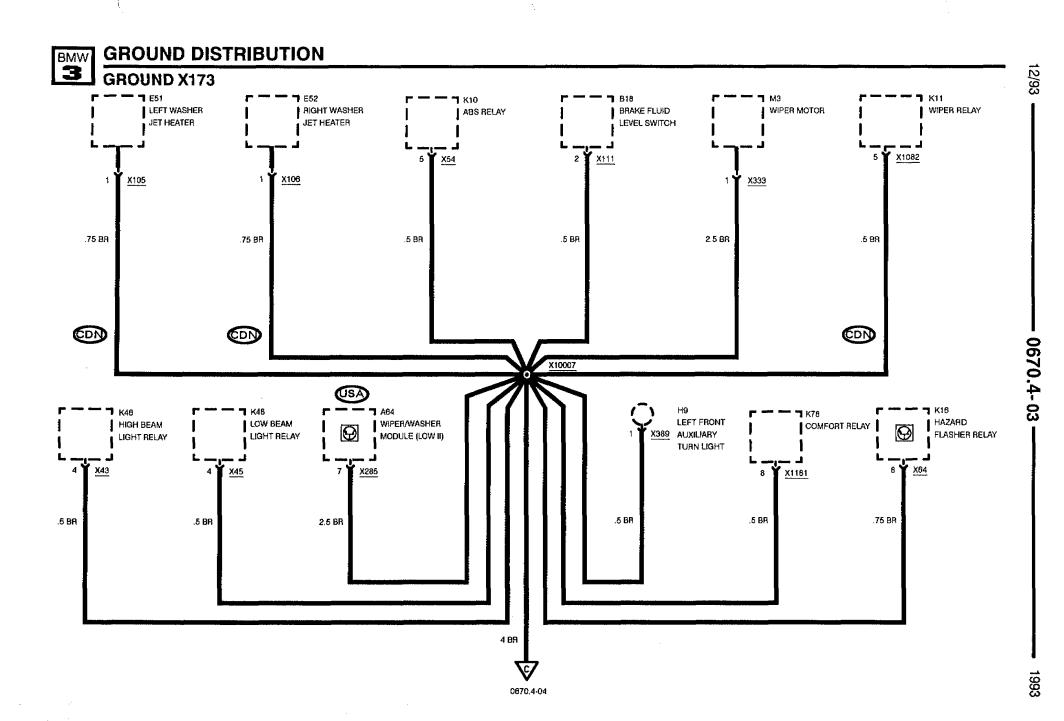


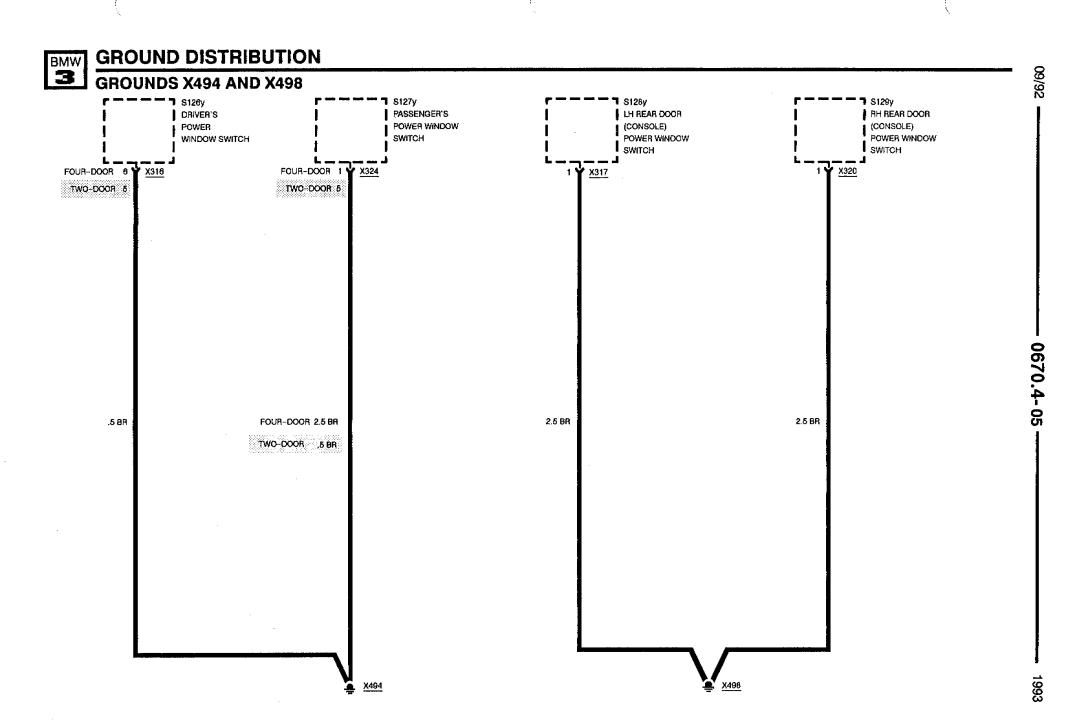


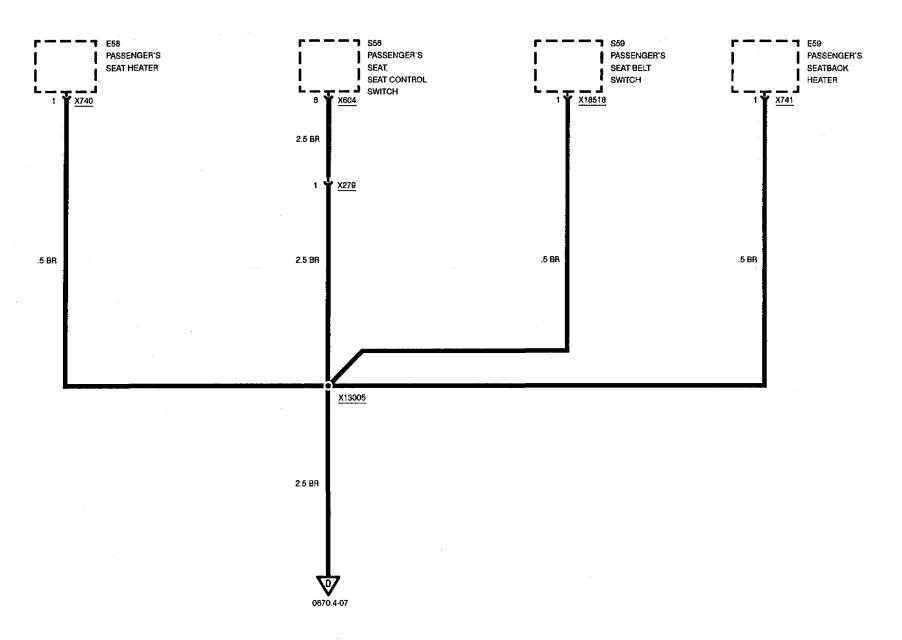


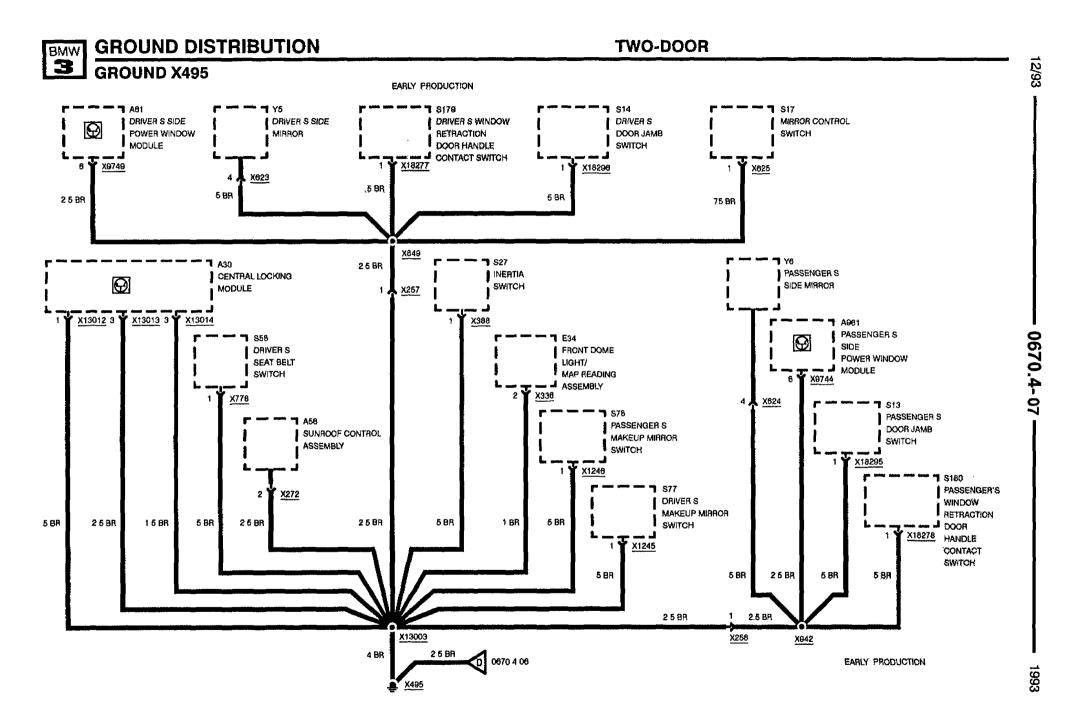
X165

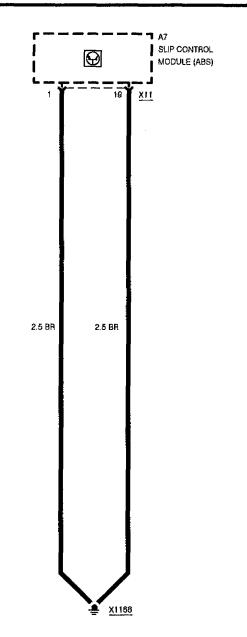
0670.4-04

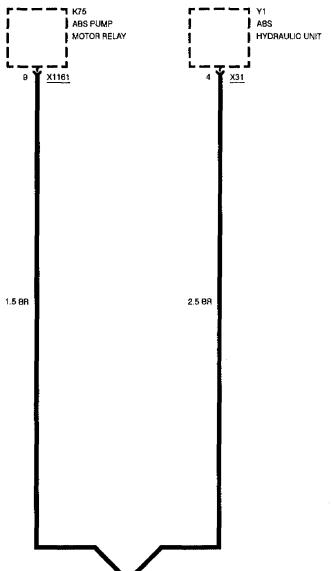












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W6203

X6203

W8203

CRANKSHAFT

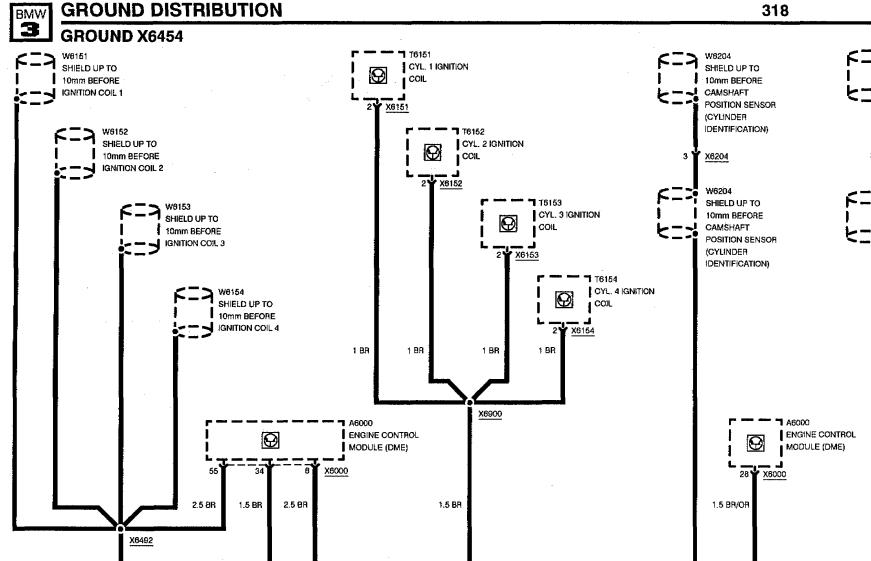
POSITION/RPM

SENSOR SHIELD

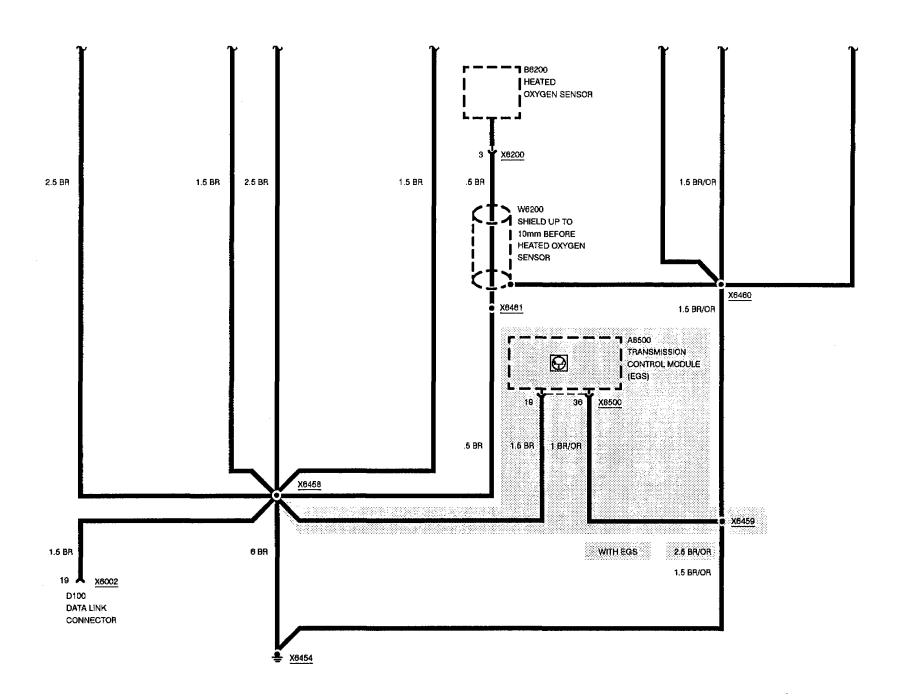
CRANKSHAFT

POSITION/RPM

SENSOR SHIELD



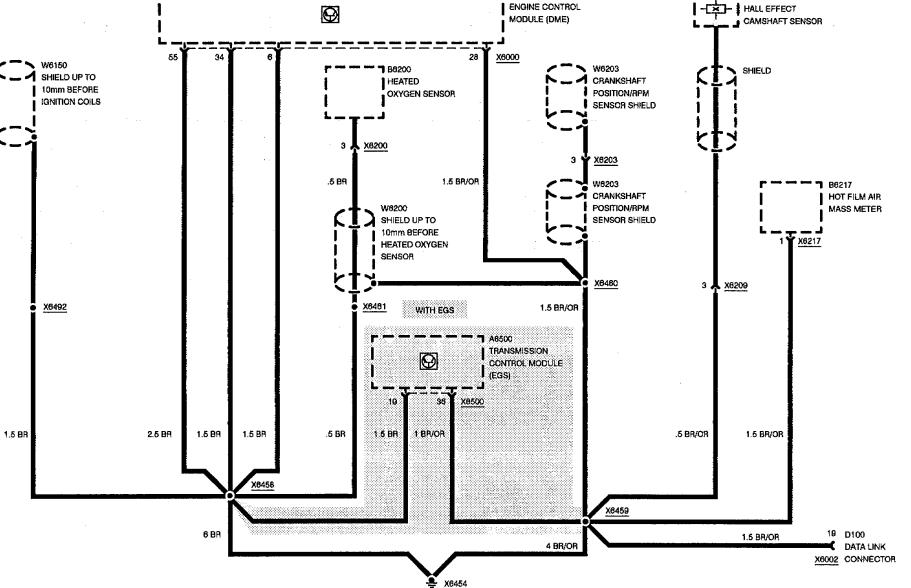
2.5 BR



■ B8209

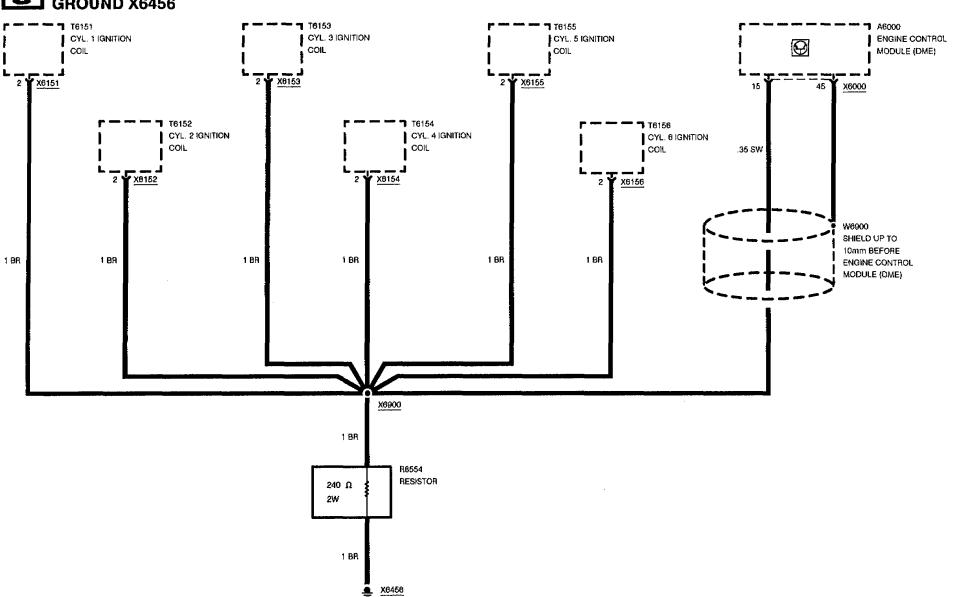
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0670.4-12



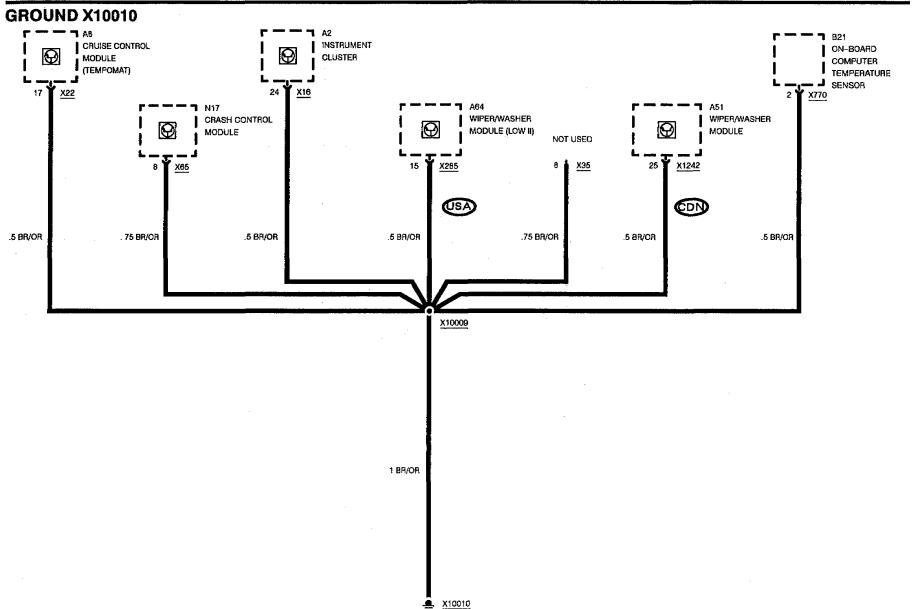
325



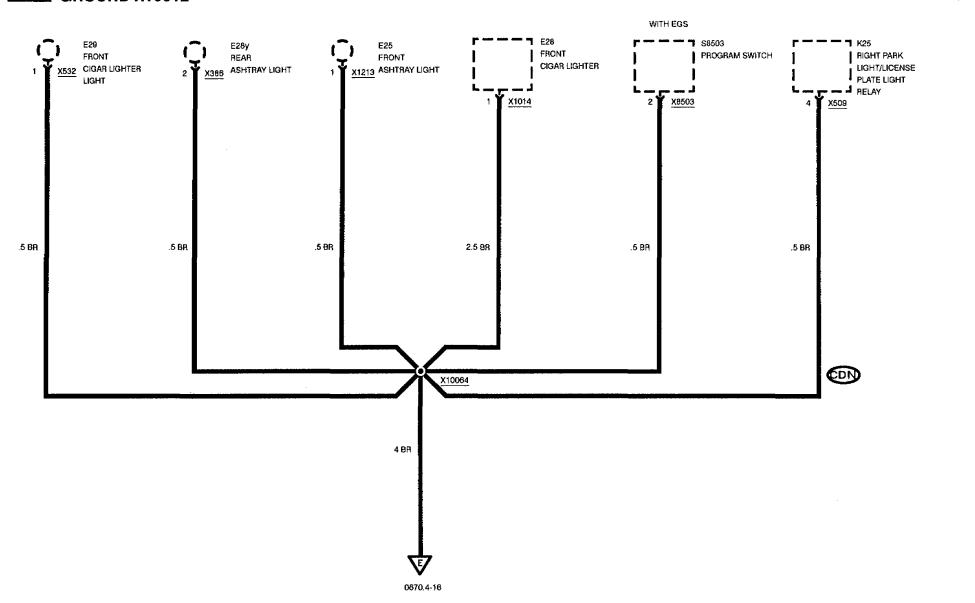




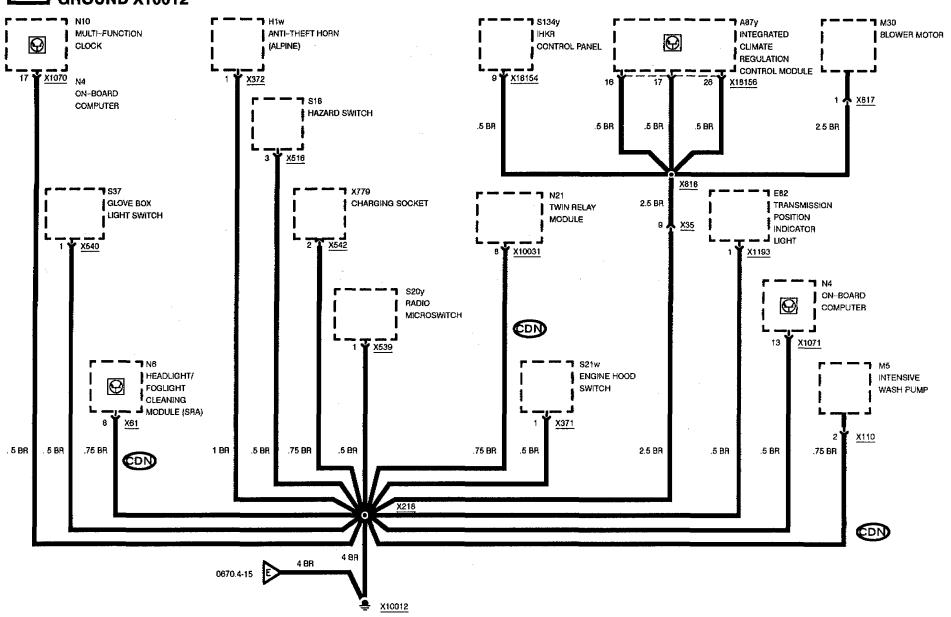
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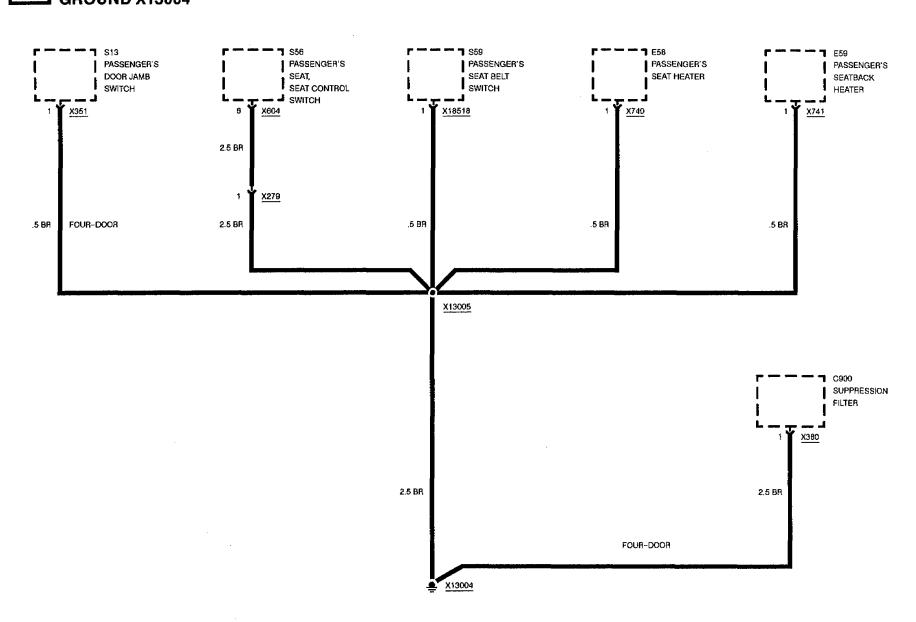


### **GROUND DISTRIBUTION**

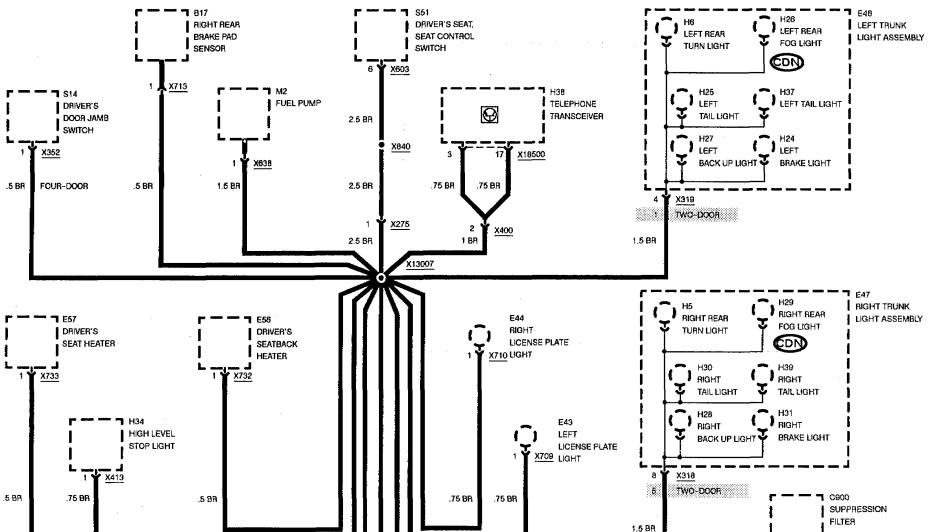


#### **GROUND DISTRIBUTION**



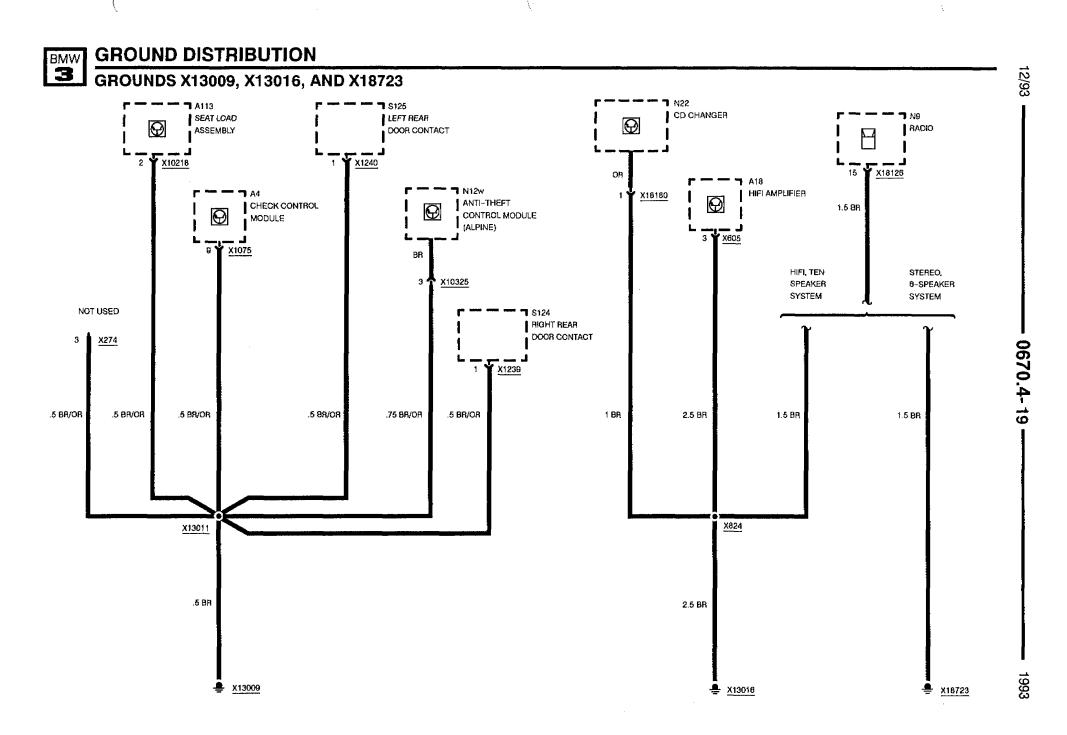


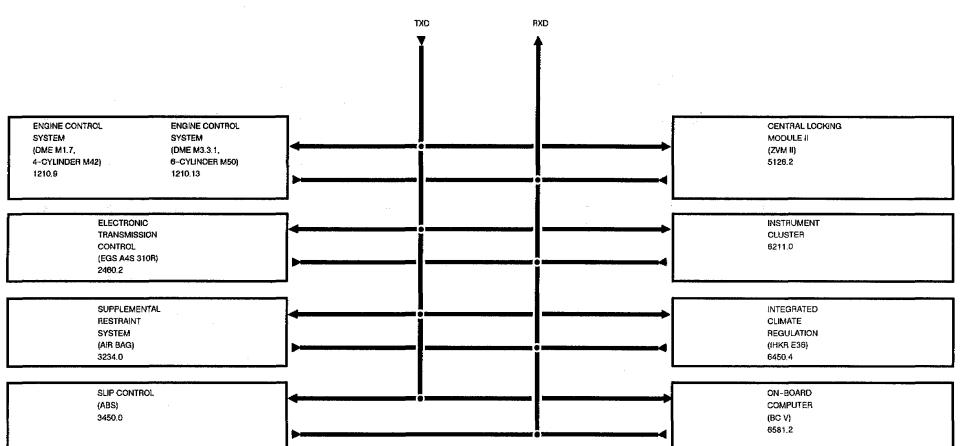
TWO-DOOR



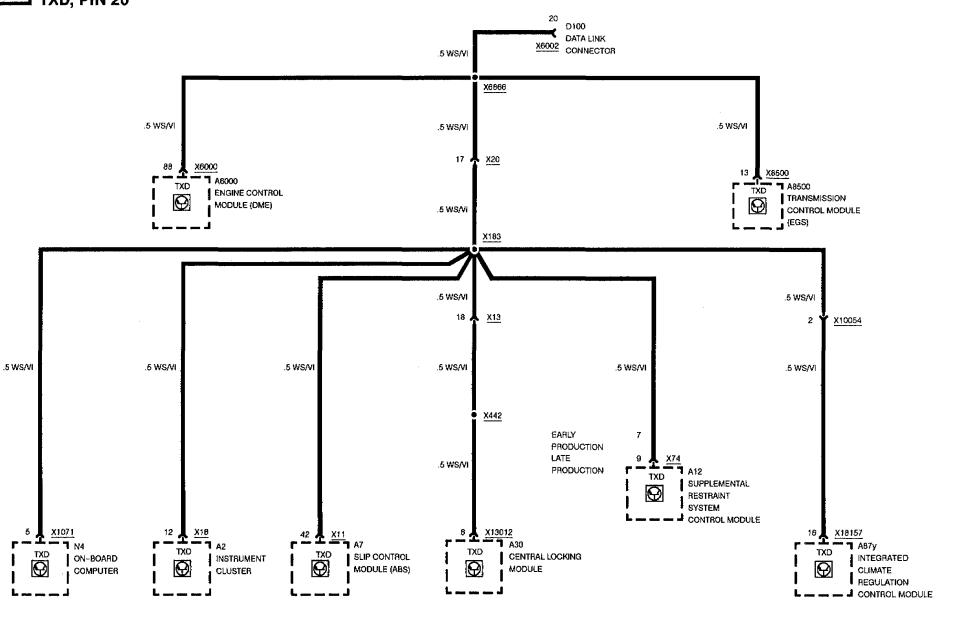
4 BR

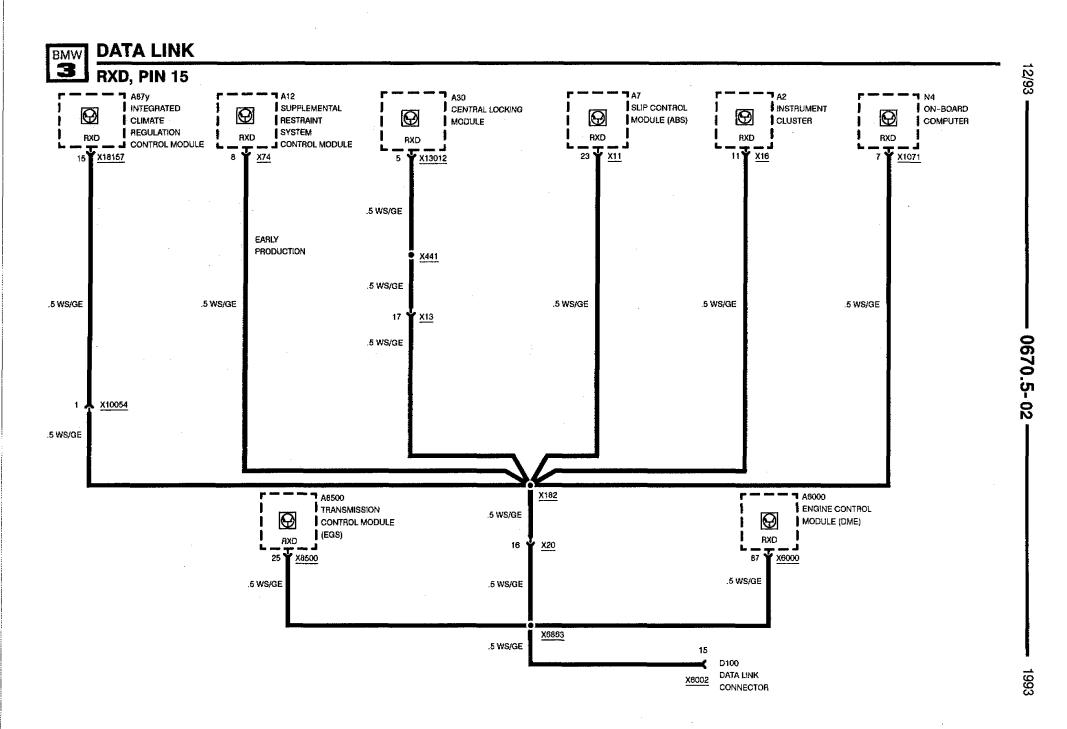
X13006



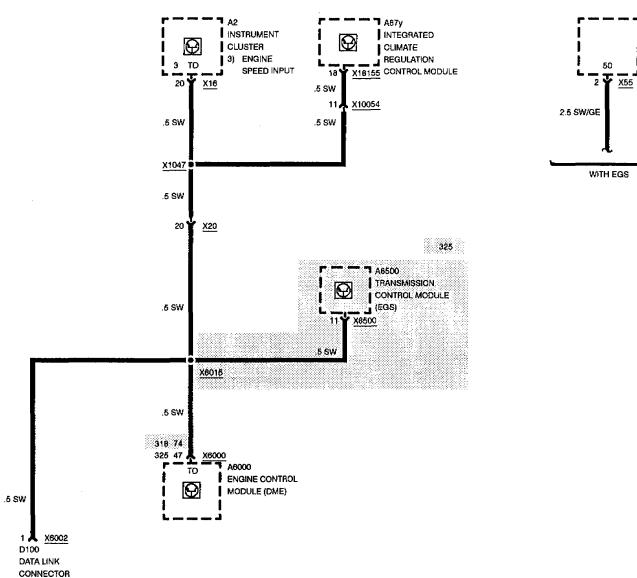


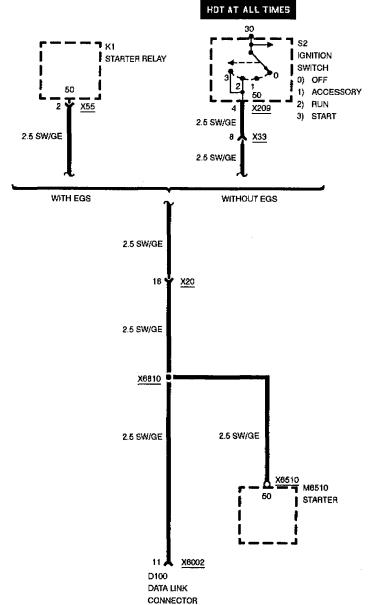
D100 DATA LINK CONNECTOR

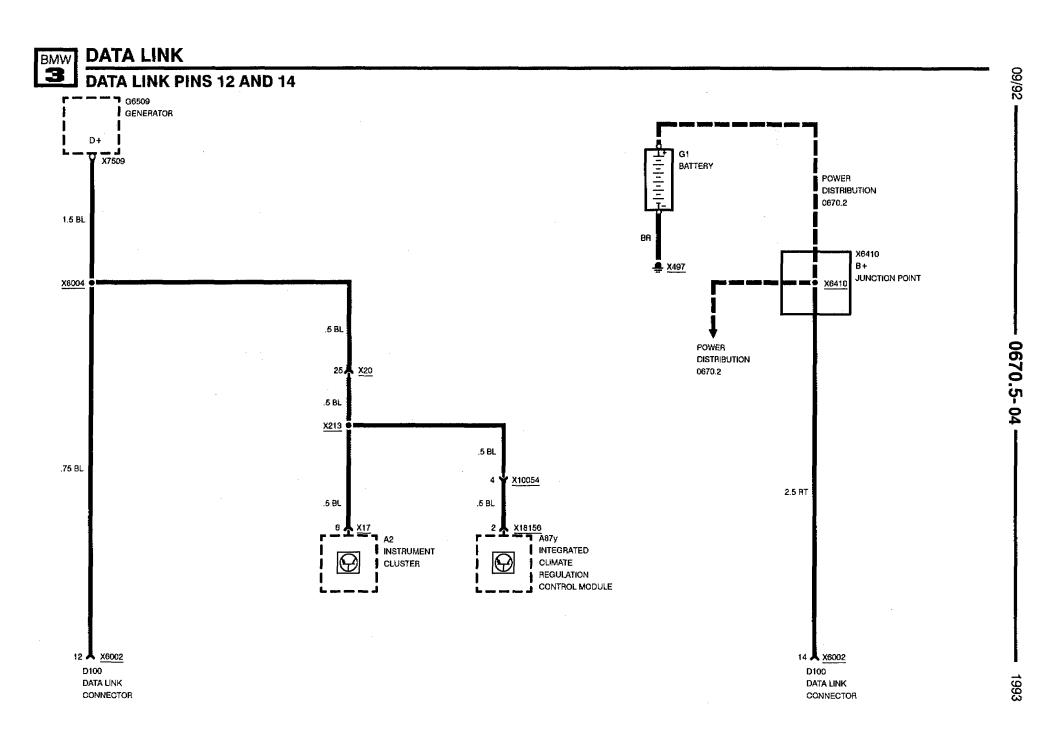




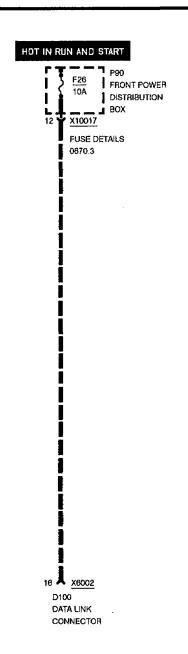
0670.5-03

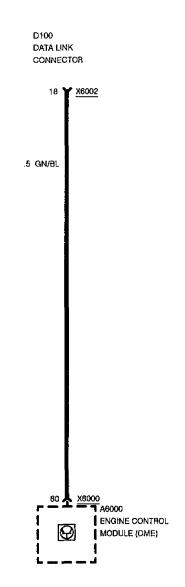




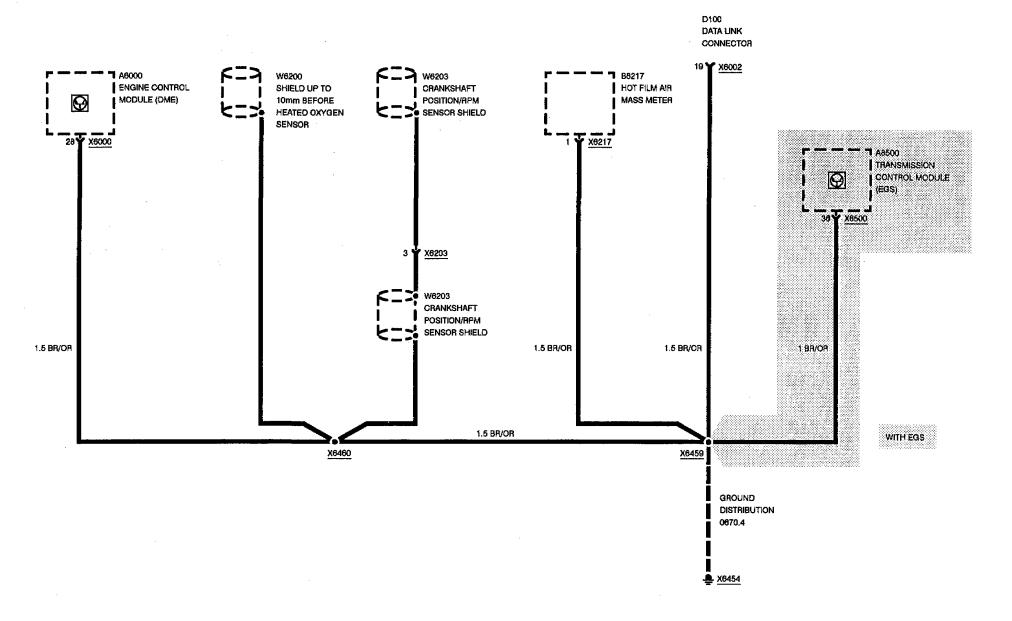


CONNECTOR

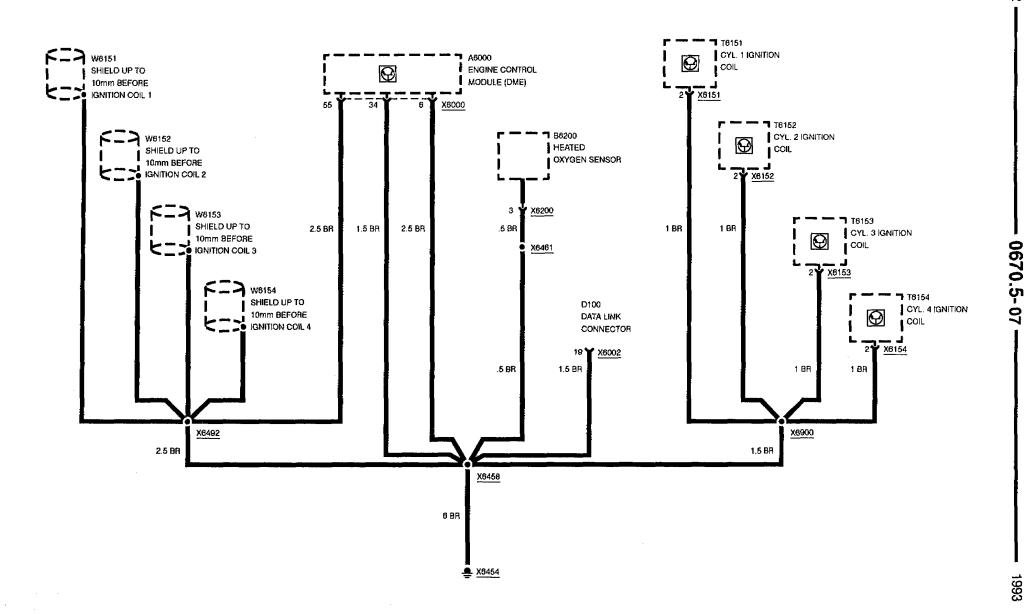




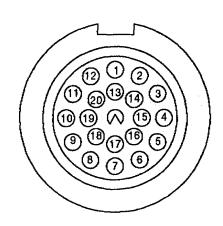
# DATA LINK DATA LINK CONNECTOR PIN 19



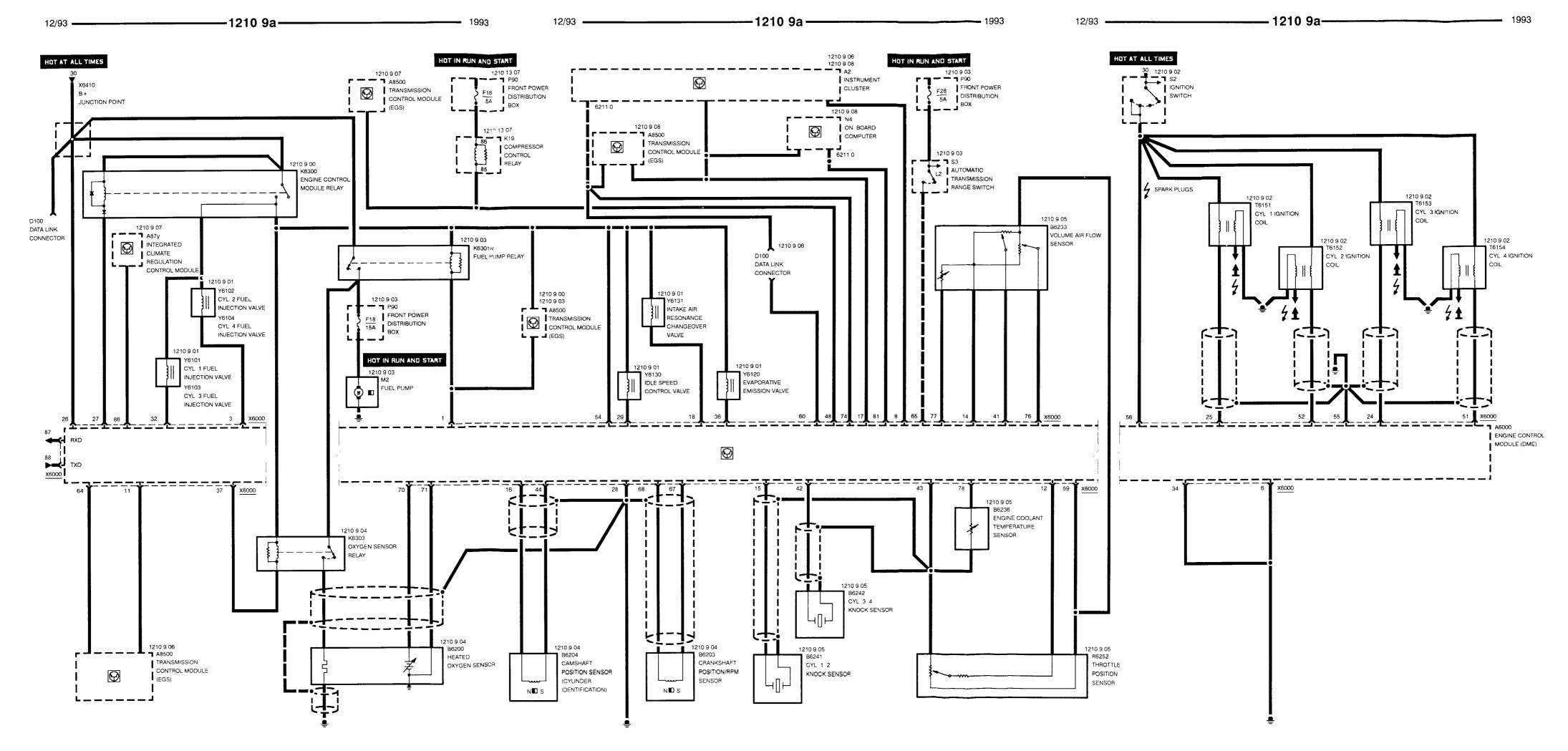
#### **DATA LINK CONNECTOR PIN 19**

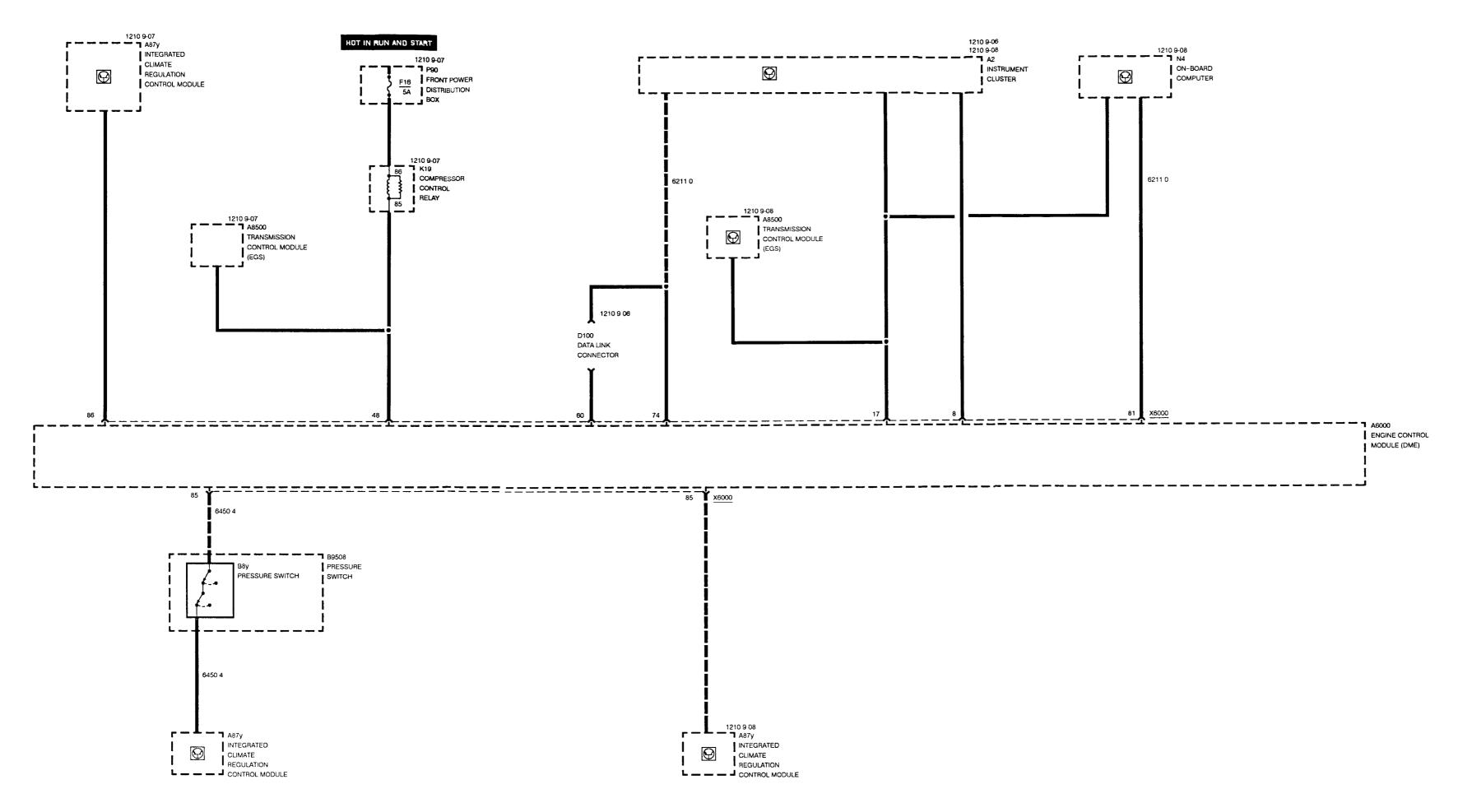


# DATA LINK CONNECTOR (X6002)



PIN	TERMINAL	TERMINAL DESCRIPTION	WIRE COLOR
NUMBER	NUMBER		
1	_	MOTOR	SW
2	-	NOT OCCUPIED	
3		NOT OCCUPIED	
4	<del>-</del>	NOT OCCUPIED	
5	-	NOT OCCUPIED	
6	-	NOT OCCUPIED	
7	SI	SERVICE INTERVAL RESET	WS/GN
8	~	NOT OCCUPIED	
9	~	NOT OCCUPIED	
10	<del>-</del> .	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	DIAGNOSTIC DATA LINK	WS/GE
16	15S	VOLTAGE: IGNITION SWITCH IN RUN AND START	GN/WS
17		NOT OCCUPIED	
18	_	PROGRAM SELECT FOR ENGINE CONTROL MODULE	(DME) GN/BL
19	31	GROUND	BR
20	TXD	DIAGNOSTIC DATA LINK	WS/VI





-1210.9b-

12/93 -

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—1210 9b-

-1210.9b-

12/93 ---





#### X6000

Pin	Type	Description/Function	Connection
1	Α	Fuel pump relay control	Fuel pump relay, terminal 85
2		Not used	
3	Α	Cyl. 2 and cyl. 4 fuel injection valve control	Cyl. 2 and cyl. 4 fuel injection valves
4		Not used	
5		Not used	
6	М	Ground, fuel injection valve output stages	Ground point
7		Not used	
8	Α	"Check engine" indicator control	Instrument cluster
9		Not used	
10		Not used	
11	Α	DKV potentiomenter signal	Transmission control module (EGS)
12	E	Throttle position	Throttle position sensor
13		Not used	
14	E	Volume air flow sensor	Volume air flow sensor
15	Е	Cyl. 1-2 knock sensor	Cyl. 1-2 knock sensor
16	Е	Camshaft position sensor (cylinder identification)	Carnshaft position sensor (cylinder identification)
17	Α	ti measurement signal (fuel consumption)	Instrument cluster
18	Α	Intake air resonance changeover valve control	Intake air resonance changeover valve
19		Not used	9-M-184
20		Not used	
21	<del> </del>	Not used	
22		Not used	
23		Not used	
24	Α	Cyl. 3 ignition coil control	Cyl. 3 ignition coil
25	Α	Cyl. 1 ignition coil control	Cyl, 1 ignition coil
26	E	Battery voltage	B+ junction point
27	Α	Engine control module relay control	Engine control module relay, terminal 85
28	М	Ground for electronics and shielding of sensors	Ground point
29	Α	Idle speed control valve control	Idle speed control valve
30	·	Not used	
31		Not used	



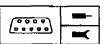
## •••••

## Pin Assignments

Pin	Туре	Description/Function	Connection
32	A	Cyl. 1 and cyl. 3 fuel injection valve control	Cyl. 1 and cyl. 3 fuel injection valves
33		Not used	
34	М	Ground, remaning output stages (except for ignition and fuel injection valves)	Ground point
35		Not used	
36	A	Evaporative emission valve control	Evaporative emission valve
37	Α	Oxygen sensor heater control	Oxygen sensor relay, terminal 85
38		Not used	
39		Not used	
40		Not used	
41	E	Volume air flow sensor	Volume air flow sensor
42	E	Cyl. 3-4 knock sensor	Cyl. 3-4 knock sensor
43	М	Ground for sensors	Engine coolant temperature sensor, cyl. 1-2 knock sensor, cyl. 3-4 knock sensor, and throttle position sensor
44	Ē	Camshaft position sensor (cylinder identification)	Camshaft position sensor (cylinder identification)
45		Not used	
46		Not used	
47		Not used	
48	A	A/C compressor cut-out	Compressor control relay, terminal 85
49		Not used	
50		Not used	
51	Α	Cyl. 4 ignition coil control	Cyl. 4 ignition coil
52	A	Cyl. 2 ignition coil control	Cyl. 2 ignition coil
53		Not used	
54	E	Battery voltage from engine control module relay	Engine control module relay, terminal 87a
55	М	Ground, ignition	Ground point
56	E	Ignition switch, terminal 15	Ignition switch, terminal 15
57		Not used	
58	•	Not used	
59	Α	5V component supply	Throttle position sensor and volume air flow sensor
60	E	Programming voltage	Data link connector
61		Not used	
62		Not used	

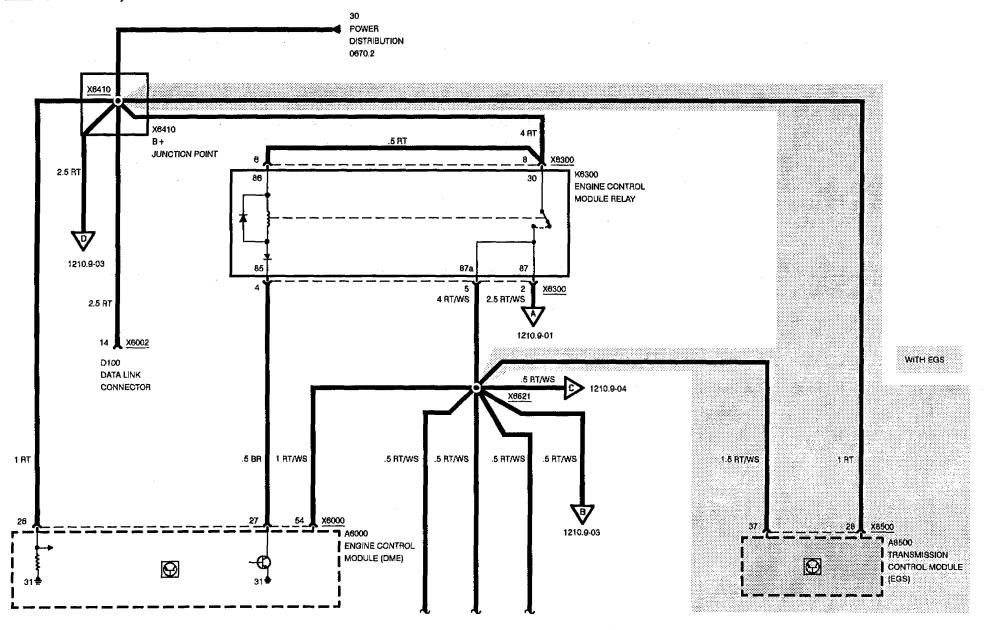
E = Input, A = Output, M = Ground





## Pin Assignments

Pin	Type	Description/Function	Connection
63	*******	Not used	
64	E	Ignition timing intervention	Transmission control module (EGS)
65	E	Drive range P/N	Automatic transmission range switch
66		Not used	
67	E	Crankshaft position RPM sensor	Crankshaft position RPM sensor
68	Α	Crankshaft position RPM sensor	Crankshaft position RPM sensor
69		Not used	
70	E	Oxygen sensor signal	Heated oxygen sensor
71	М	Oxygen sensor signal ground	Heated oxygen sensor
72	_	Not used	
73	E	Vehicle speed signal	Instrument cluster
74	Α	Crankshaft RPM speed signal TD	Instrument cluster
75	··	Not used	
76	E	Volume air flow sensor	Volume air flow sensor
77	Ε	Volume air flow sensor	Volume air flow sensor
78	E	Engine coolant temperature	Engine coolant temperature sensor
79	-	Not used	
80		Not used	
81	E	Drive-away protection signal (code)	On-board computer
82		Not used	
83		Not used	
84		Not used	700
85	E	A/C pressure	Pressure switch
86	E	A/C switch	Integrated climate regulation control module
87	Α	RxD diagnosis data line	Data link connector
88	E/A	TxD diagnosis data line	Data link connector



ENGINE CONTROL
MODULE (DME)

ENGINE CONTROL

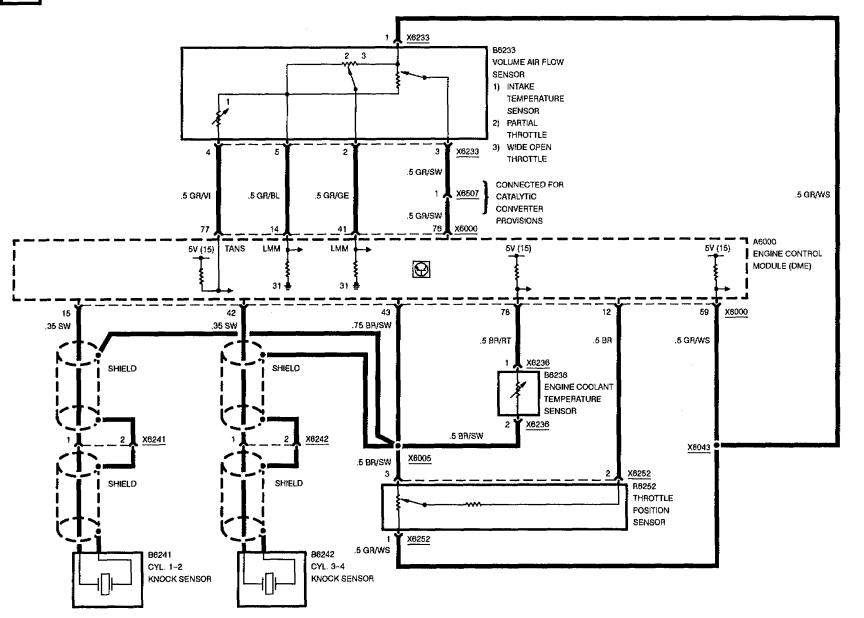
MODULE (DME)

GROUND DISTRIBUTION -

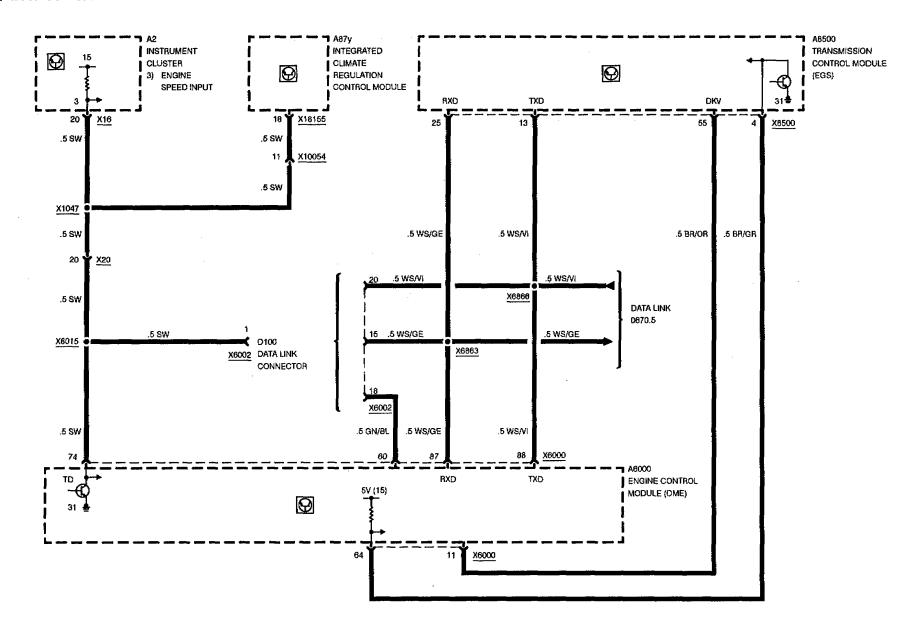
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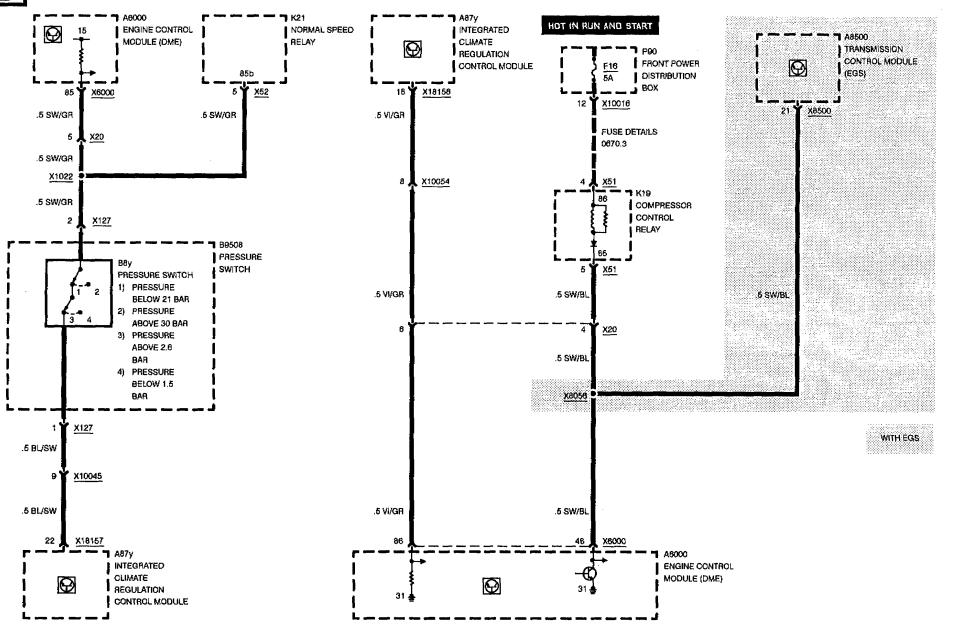


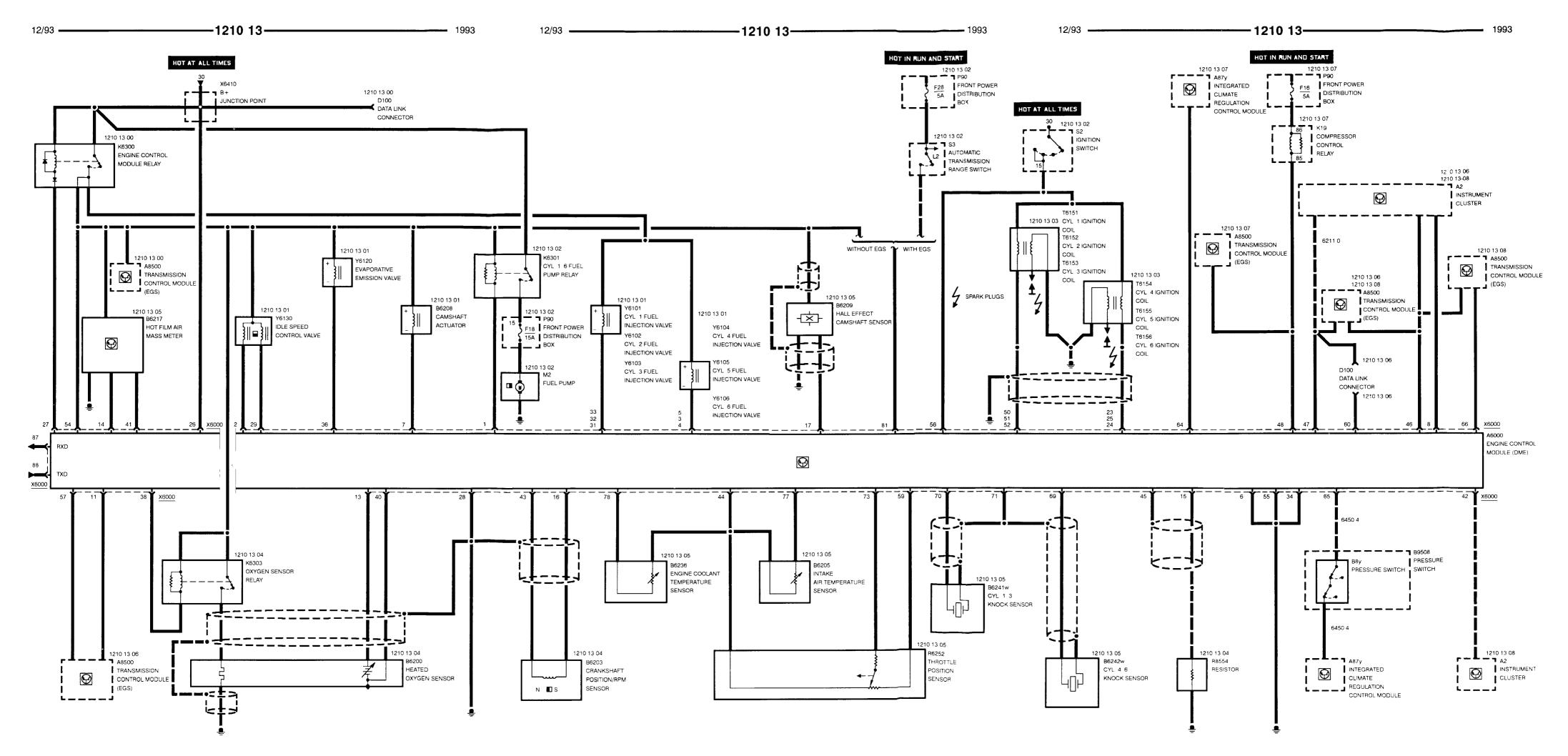
# ENGINE CONTROL SYSTEM (DME M1.7, 4-CYLINDER M42) DATA LINK





### **ENGINE CONTROL SYSTEM (DME M1.7, 4-CYLINDER M42)**





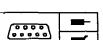




#### X6000

Pin	Type	Description/Function	Connection
1	Α	Fuel pump relay control	Fuel pump relay, terminal 85
2	Α	Idle speed control valve - close winding control	idle speed control valve
3	Α	Cyl 5 fuel injection valve control	Cyl 5 fuel injection valve
4	Α	Cyl 6 fuel injection valve control	Cyl 6 fuel injection valve
5	Α	Cyl 4 fuel injection valve control	Cyl 4 fuel injection valve
6	М	Ground, fuel injection valve output stages	Ground point
7	Α	Camshaft actuator control	Camshaft actuator
8	Α	"Check engine" indicator control	Instrument cluster
9		Not used	
10		Not used	
11	Α	Throttle valve position	Transmission control module (EGS)
12		Not used	
13	E	Oxygen sensor signal	Heated oxygen sensor
14	Α	Hot film air mass meter	Hot film air mass meter
15	М	Ground	Ground point
16	Е	Crankshaft position/RPM sensor signal (+)	Crankshaft position/RPM sensor
17	Е	Camshaft position sensor	Hall effect camshaft sensor
18		Not used	
19		Not used	
20		Not used	
21		Not used	
22		Not used	
23	Α	Cyl 4 ignition coil control	Cyl 4 ignition coil
24	Α	Cyl 6 ignition coil control	Cyl 6 ignition coil
25	Α	Cyl 5 ignition coil control	Cyl 5 ignition coil
26	Е	Battery voltage	B+ junction point
27	Α	Engine control module relay control	Engine control module relay, terminal 85
28	M	Ground for electronics and shielding of sensors	Ground point
29	Α	Idle speed control valve - opening winding control	Idle speed control valve
30		Not used	
31	Α	Cyl 3 fuel injection valve control	Cyl 3 fuel injection valve



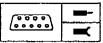


## Pin Assignments

Pin	Type	Description/Function	Connection
32	Α	Cyl. 2 fuel injection valve control	Cyl. 2 fuel injection valve
33	Α	Cyl. 1 fuel injection valve control	Cyl. 1 fuel injection valve
34	М	Ground remaining output stages (except for ignition and fuel injection valves)	Ground point
35		Not used	
36	Α	Evaporative emission valve control	Evaporative emission valve
37		Not used	
38	Α	Oxygen sensor heater control	Oxygen sensor relay, terminal 85
39		Not used	
40	М	Oxygen sensor signal ground	Heated oxygen sensor
41	E	Hot wire air mass meter	Hot wire air mass meter
42	Е	Vehicle speed signal	Instrument cluster
43	Ε	Crankshaft position/RPM sensor signal ()	Crankshaft position/RPM sensor
44	М	Ground for sensors	Engine intake air temperature sensor, engine coolant temperature sensor, and throttle position sensor
45	М	Ground for shield	Shield
46	Α	ti measurement signal (fuel consumption)	Instrument cluster
47	Α	Crankshaft RPM speed signal TD	Instrument cluster
48	Α	A/C compressor control	Compressor control relay, terminal 85
49		Not used	
50	Α	Cyl. 1 ignition coil control	Cyl. 1 ignition coil
51	Α	Cyl. 2 ignition coil control	Cyl. 2 ignition coil
52	Α	Cyl. 3 ignition coil control	Cyl. 3 ignition coil
53		Not used	
54	E	Battery voltage from engine control module relay	Engine control module relay, terminal 87a
55	М	Ground, ignition	Ground point
56	E	Ignition switch, terminal 15	Ignition switch
57	E	Ignition timing intervention	Transmission control module (EGS)
58		Not used	
59	Α	5V component supply	Throttle position sensor
60	E	Programming voltage	Data link connector
61		Not used	
62		Not used	
63		Not used	

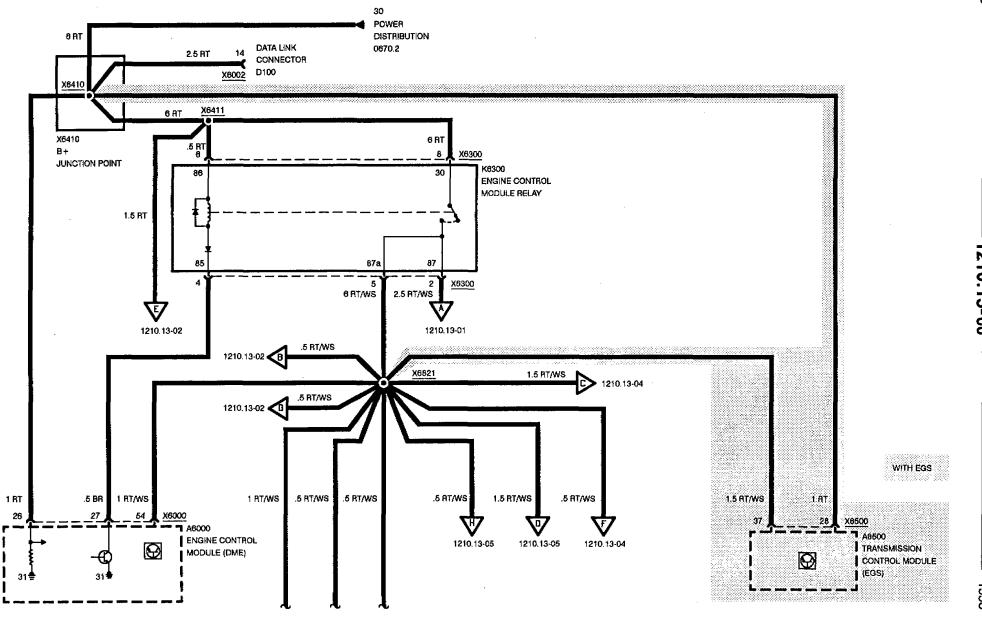




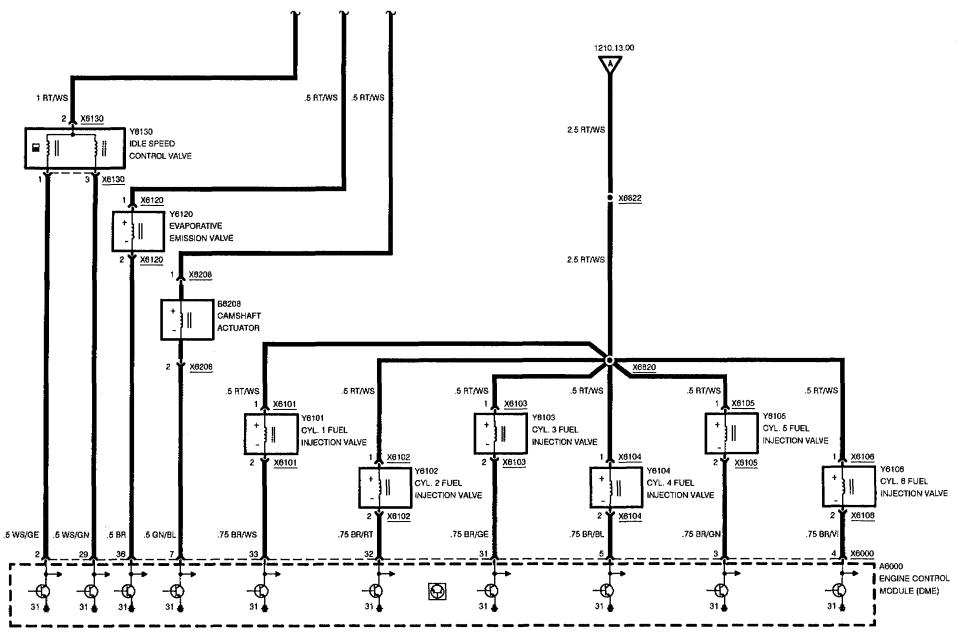


## Pin Assignments

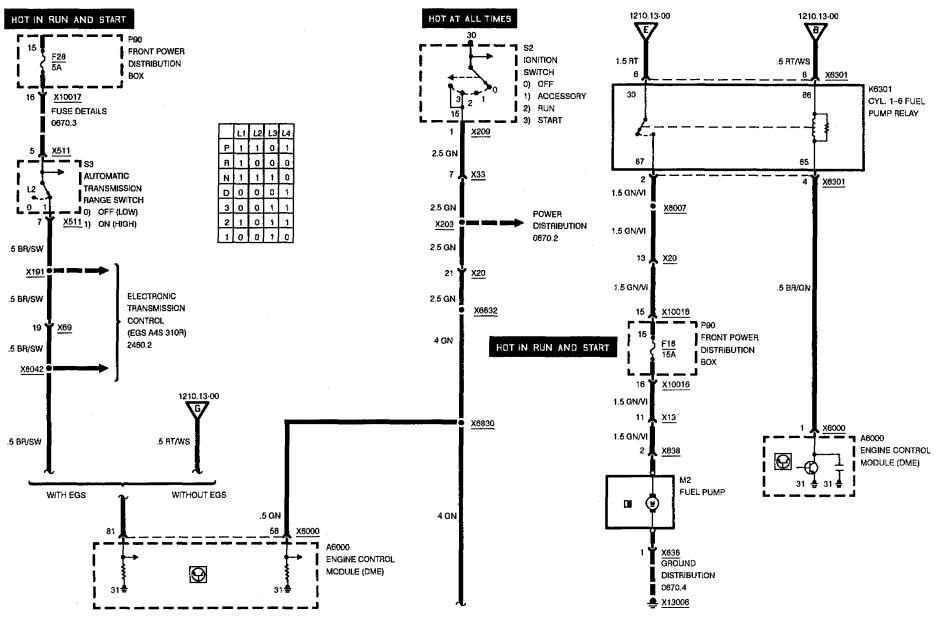
Pin	Туре	Description/Function	Connection
64	Ë	A/C switch	Integrated climate regulation control module
65	E	A/C pressure signal	Pressure switch
66	Е	Drive-away protection signal (code)	On-board computer
67		Not used	
68		Not used	
69	Ë	Cyl. 4-6 knock sensor	Cyl. 4-6 knock sensor
70	E	Cyl. 1-3 knock sensor	Cyl. 1-3 knock sensor
71	М	Ground for knock sensors and shields	Cyl. 1-3 knock sensor, cyl. 4-6 knock sensor, and shields
72		Not used	
73	E	Throttle position	Throttle position sensor
74	,	Not used	
75		Not used	
76		Not used	
77	E	Engine intake air temperature	Engine intake air temperature sensor
78	Ę	Engine coolant temperature	Engine coolant temperature sensor
79		Not used	
80		Not used	
81	Е	Drive range P/N	Automatic transmission range switch
82		Not used	
83		Not used	
84		Not used	7
85		Not used	
86		Not used	
87	Α	RxD diagnosis data line	Data link connector
88	E/A	TxD diagnosis data line	Data link connector

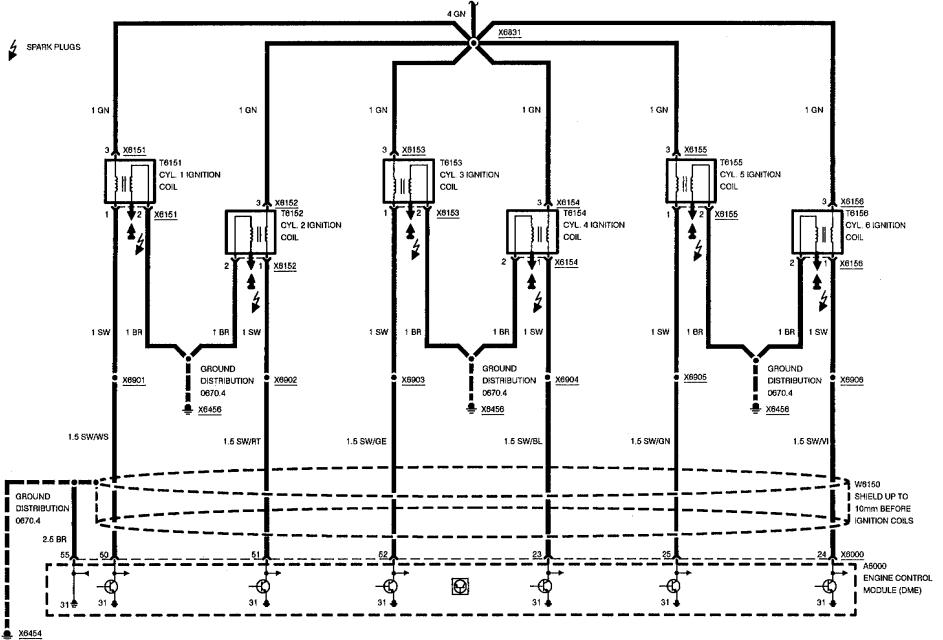


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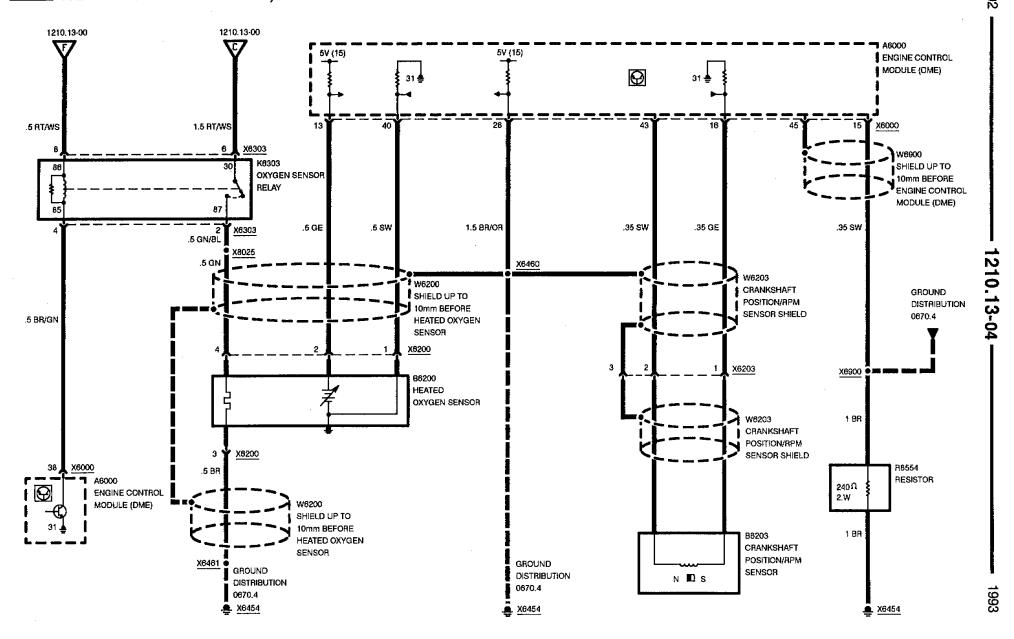




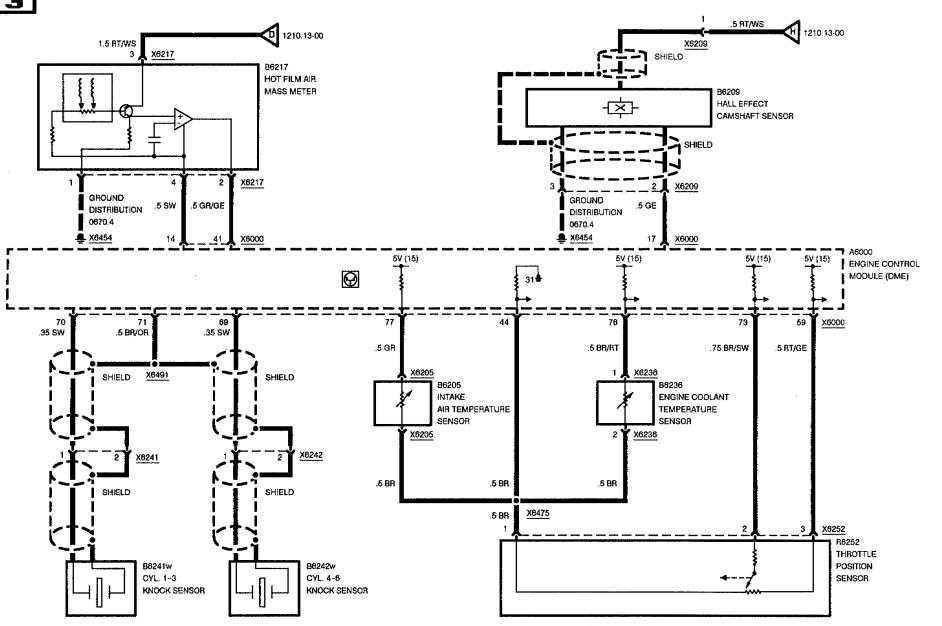
## BMW

#### **ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)**

### **HEATED OXYGEN SENSOR, CRANKSHAFT SENSORS**



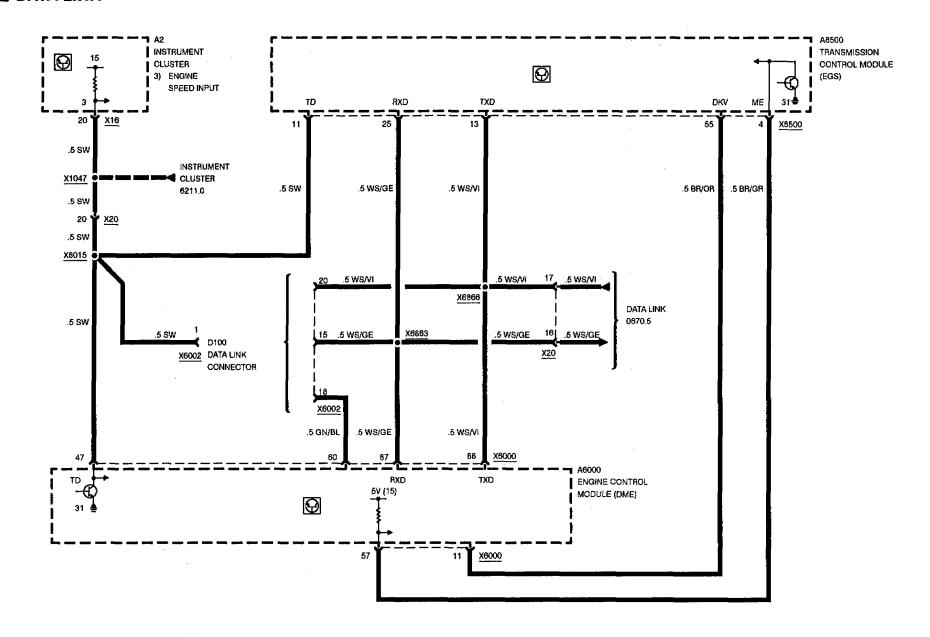
### **ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)**



1210.13-05

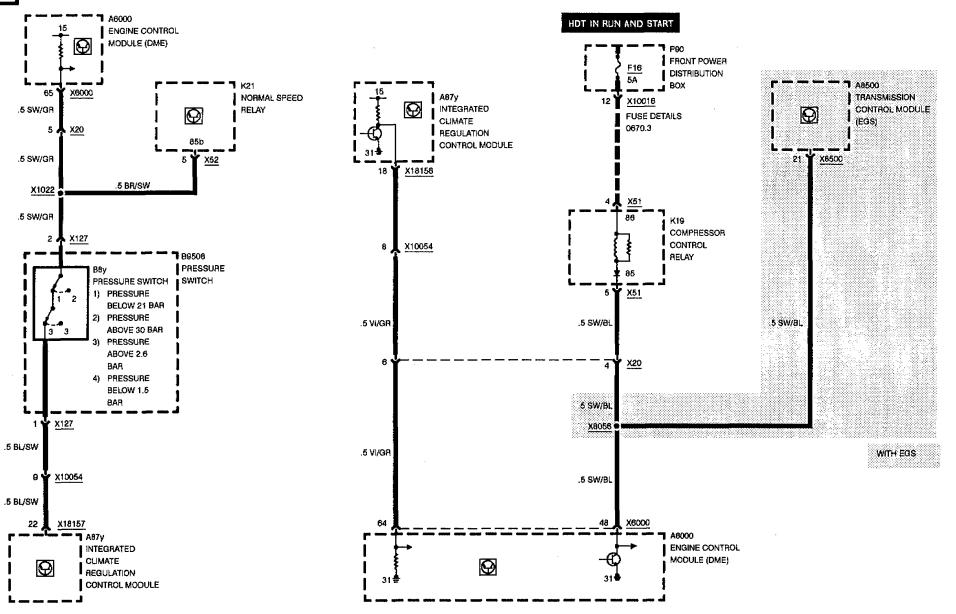
## ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)

DATA LINK

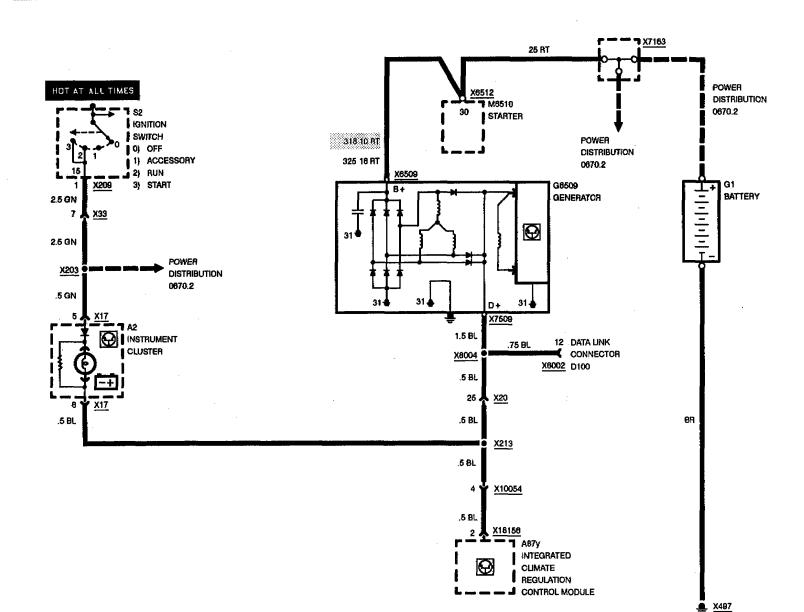




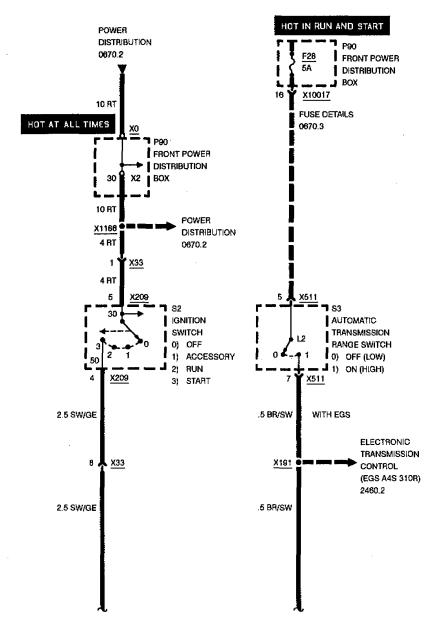
### **ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)**



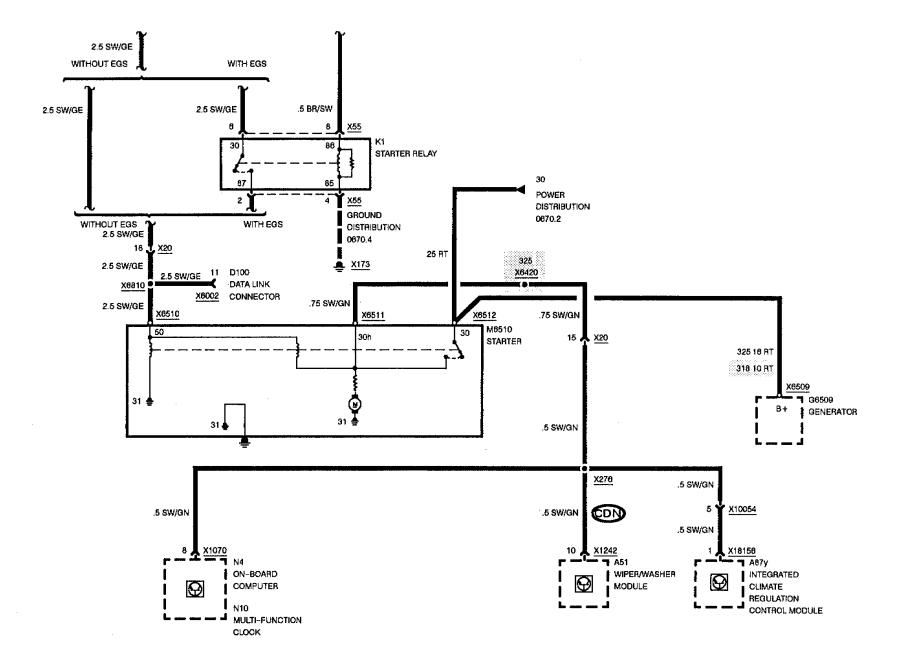




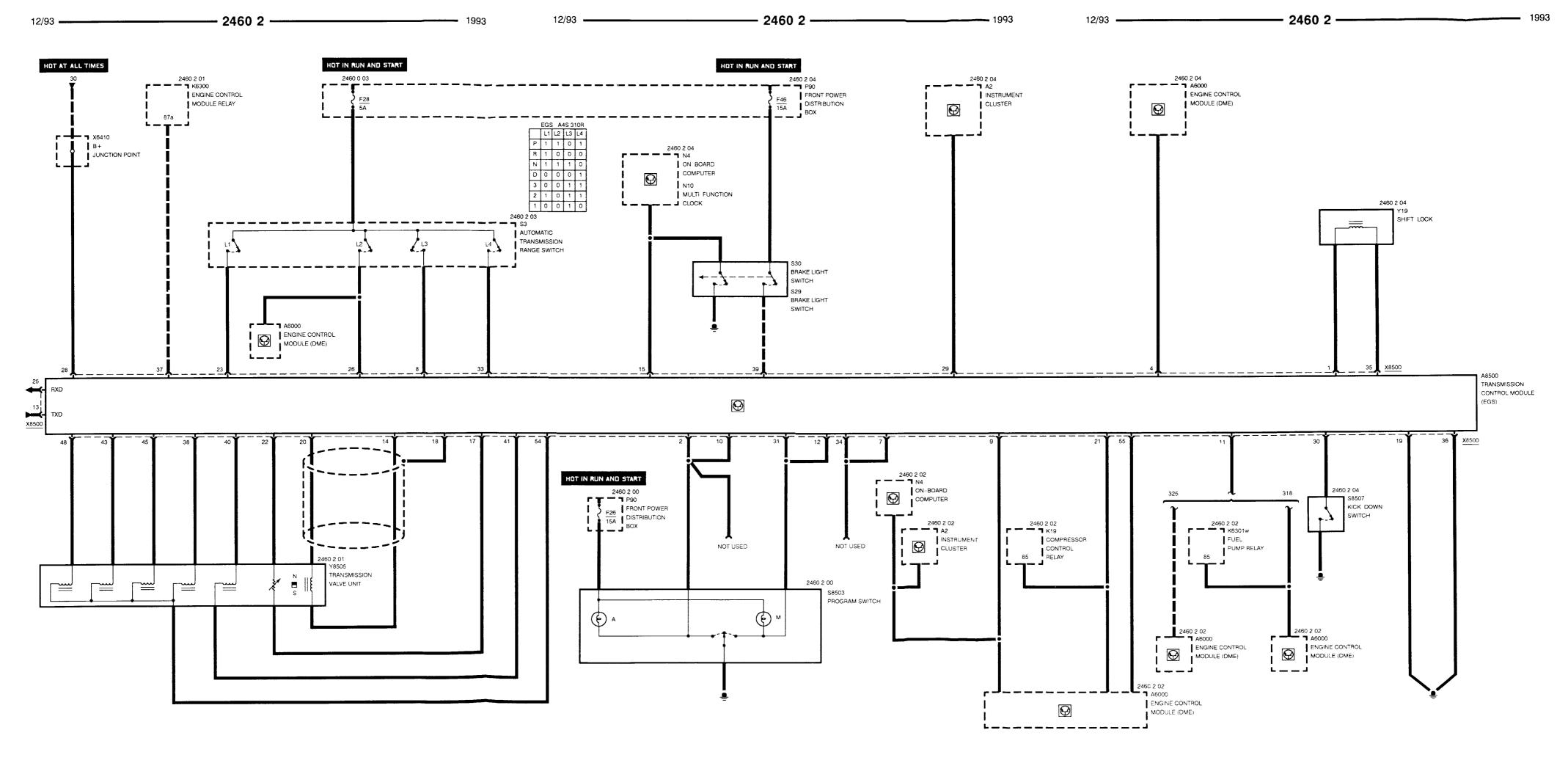




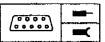
	Lİ	L2	L3	L4
Ъ	1	1	0	1
Ħ	1	0	0	٥
Ν	1	1	1	٥
D	0	0	0	1
3	0	0	-	Ť
2	7	0	1	1
1	0	0	1	0







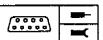




#### X8500

Pin	Туре	Description/Function	Connection
1	Α	Shift lock solenoid control	Shift lock
2	Ε	Automatic mode signal	Program switch
3		Not used	
4	Α	Ignition timing intervention	Engine control module (DME)
5		Not used	
6		Not used	
7	Α	S-program indication	Not used
8	Е	Gear range signal L3	Automatic transmission range switch
9	E	Ti measurement signal (fuel consumption)	Engine control module (DME)
10	Α	A-program indication	Program switch
11 (3	18) E	Cyl. 1-6 fuel pump relay control	Engine control module (DME)
11 (3	25) E	Crankshaft RPM speed signal TD	Engine control module (DME)
12	Α	M-program indication	Program switch
13	E/A	TxD diagnostic data link	Data link connector
14	Е	Output speed (-)	Transmission valve unit
15	E	Brake switch test signal	Brake light switch
16		Not used	
17	Е	Oil temperature signal (analog ground)	Transmission valve unit
18	Α	Shield for speed sensor	Transmission valve unit shield
19	М	Ground, power	Ground point
20	Е	Output speed (+)	Transmission valve unit
21	Е	A/C compressor ON signal	Engine control module (DME)
22	E	Oil temperature signal (+)	Transmission valve unit
23	Ε	Gear range signal L1	Automatic transmission range switch
24		Not used	
25	Α	RxD diagnostic data link	Data link connector
26	E	Gear range signal L2	Automatic transmission range switch
27		Not used	
28	Е	Battery voltage	B+ junction point
29	Α	Fault indicator signal	Instrument cluster
30	Е	Kick-down signal	Kick-down switch
31	E	Manual mode signal	Program switch
32		Not used	
	+ A _	Output M - Ground	





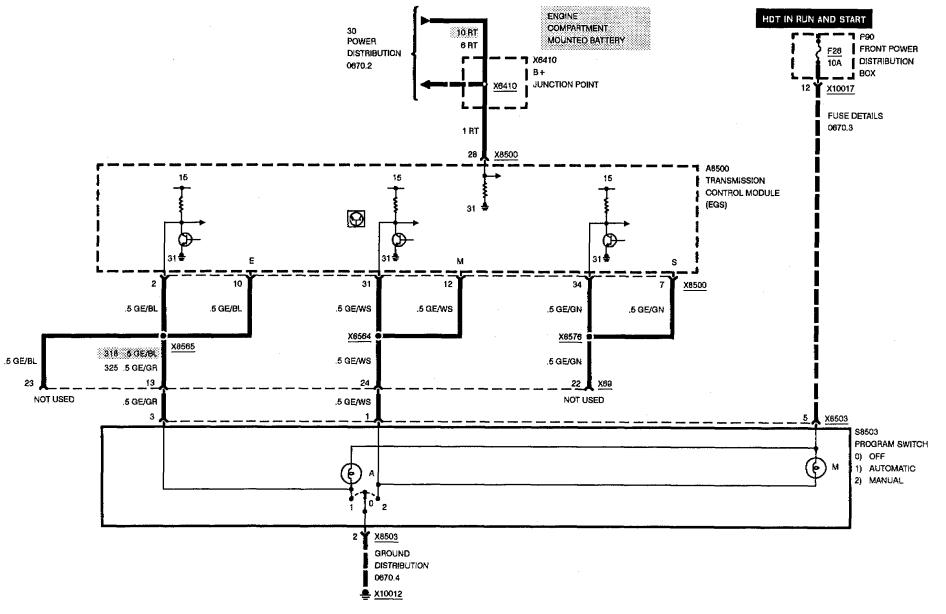
Pin	Туре	Description/Function	Connection
33	Е	Gear range signal L4	Automatic transmission range switch
34	E	S-program button	Not used
35	Α	Ground, shift lock solenoid	Shift lock
36	М	Ground, electronic	Ground point
37	Е	Voltage supply	Engine control module relay, terminal 87a
38	Α	Torque converter clutch solenoid valve control	Transmission valve unit
39	E	Brake pedal position	Brake light switch
40	Α	Hydraulic pressure regulator control (+)	Transmission valve unit
41	Α	Hydraulic pressure regulator control (-)	Transmission valve unit
42		Not used	
43	Α	Solenoid valve 2 control (+)	Transmission valve unit
44		Not used	
45	Α	Band solenoid control (+)	Transmission valve unit
46		Not used	
47		Not used	
48	Α	Solenoid valve 1 control (+)	Transmission valve unit
49		Not used	
50		Not used	
51		Not used	
52		Not used	
53		Not used	
54	, A	Solenoid valves ground control	Transmission valve unit
55	Е	Throttle position signal	Engine control module (DME)

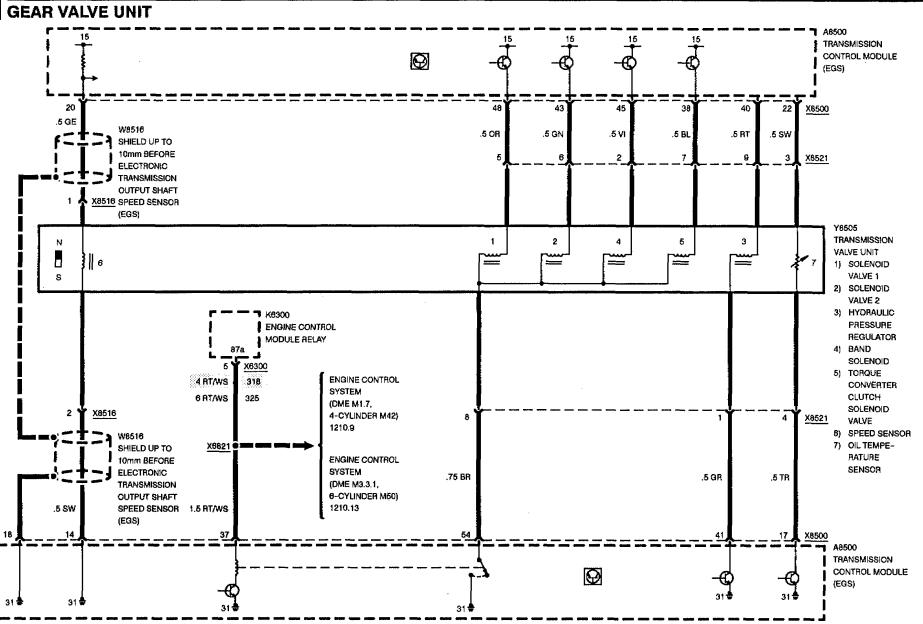




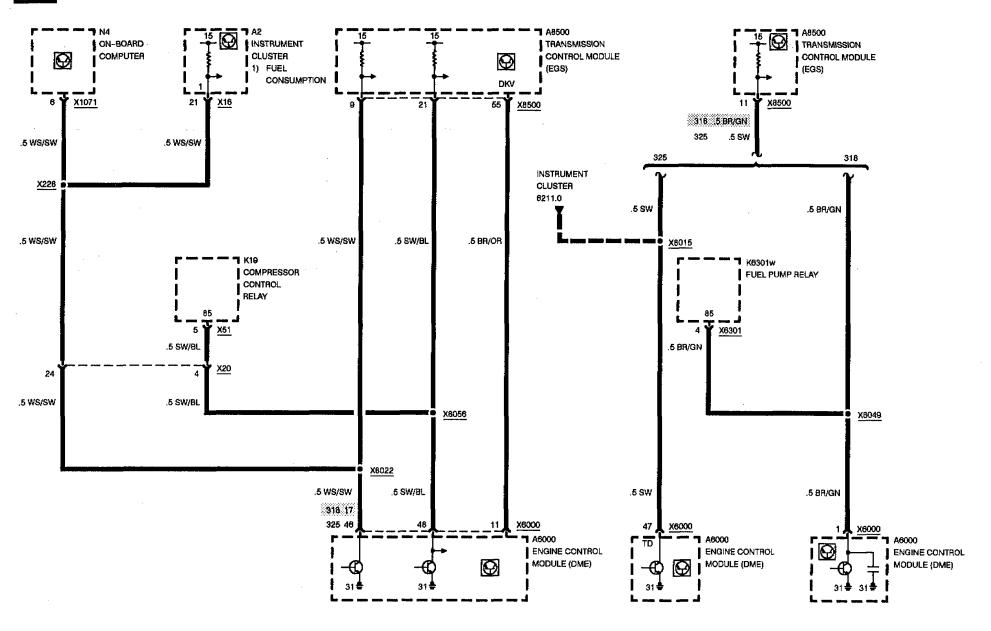
# ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R) POWER, PROGRAM SWITCH





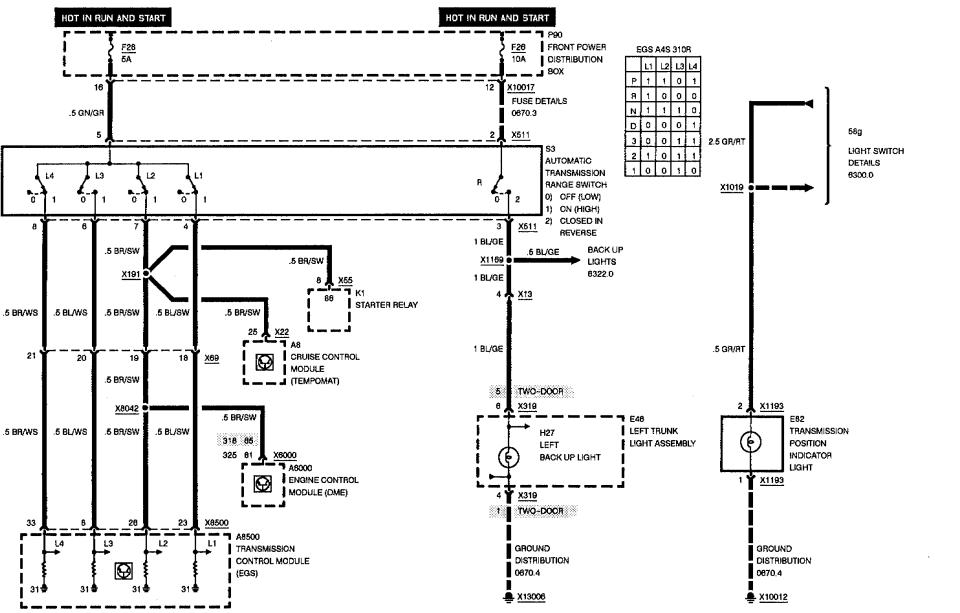


## **ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)**



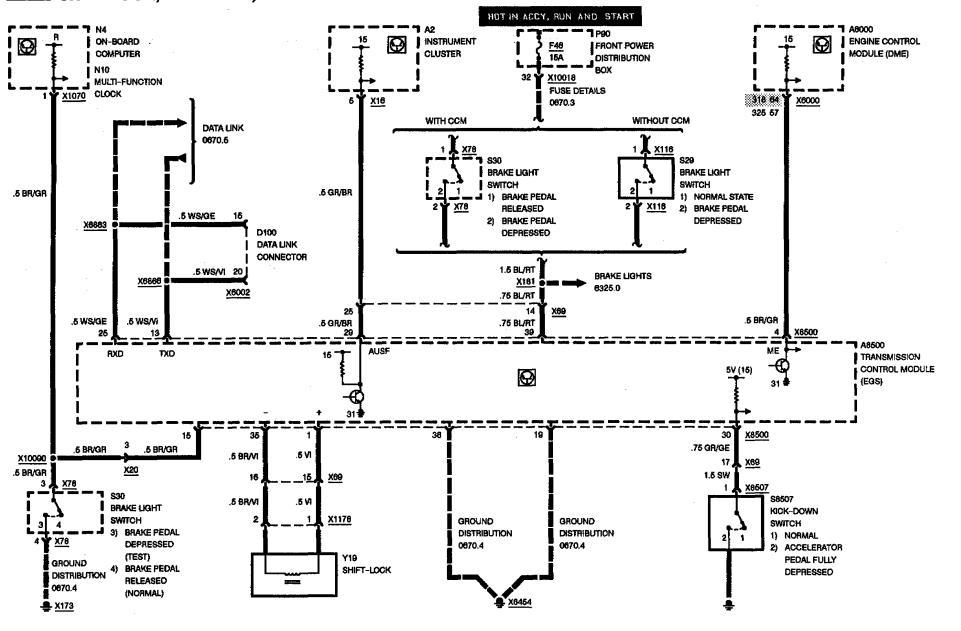
#### **ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)**

#### GEAR SELECTOR SWITCH



## **BMW** ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)

SHIFT LOCK, DATA LINK, KICK-DOWN SWITCH





3

.5 WS

.5 AT

X81

S71

LEFT FRONT

IMPACT SENSOR

2) SUFFICIENT

IMPACT

1) NORMAL STATE

.5 RT

2

.5 GE

.5 WS

2 X86

**S72** 

RIGHT FRONT

IMPACT SENSOR

1) NORMAL STATE

2) SUFFICIENT

IMPACT

.5 GE

2

.5 BR

.5 BR

.5 BL

.6 BL

.4 Ω

C101

X9997

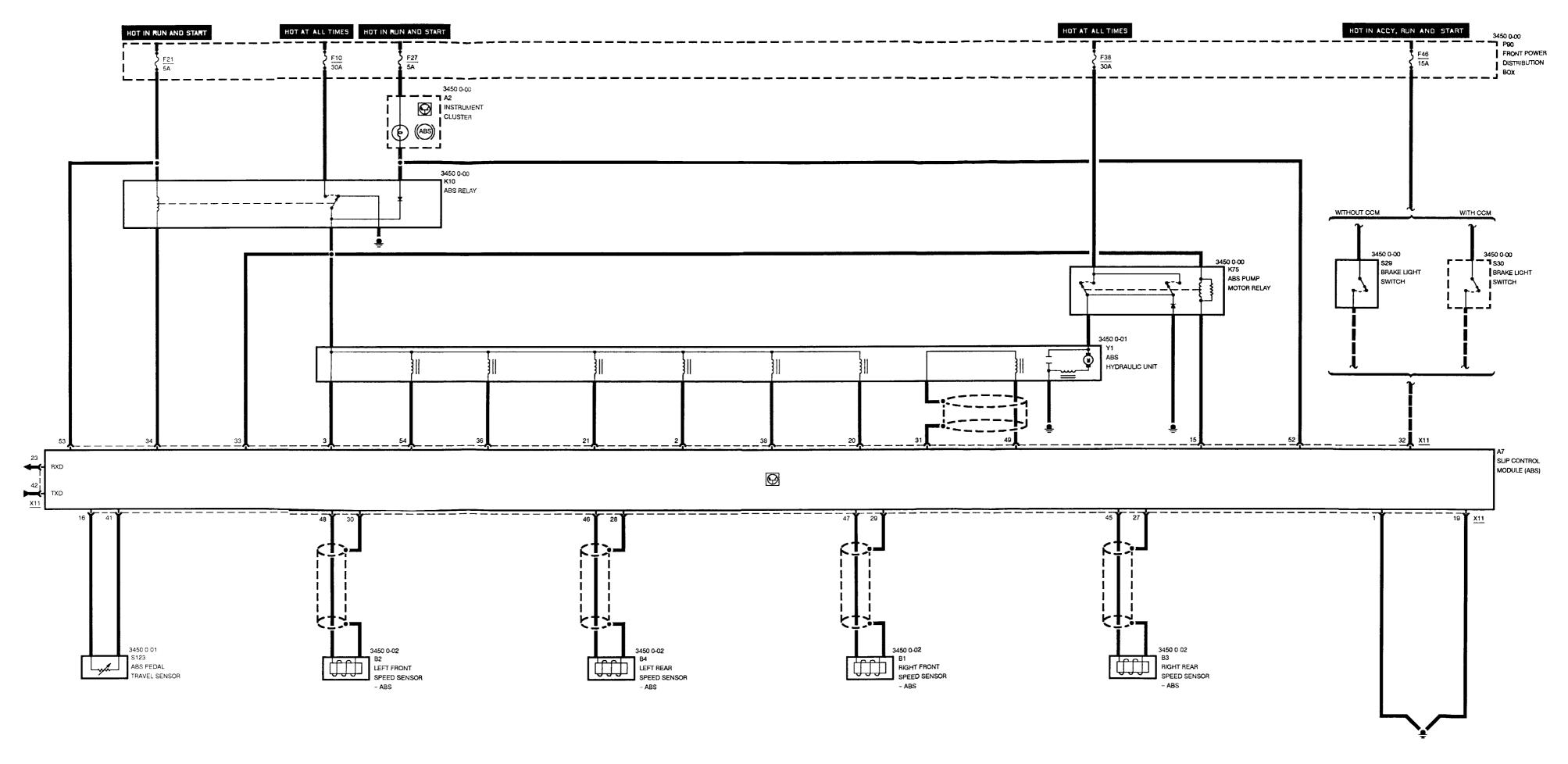
G5

DRIVER'S

AIR BAG GENERATOR

CONTACT RING









## <u>X11</u>

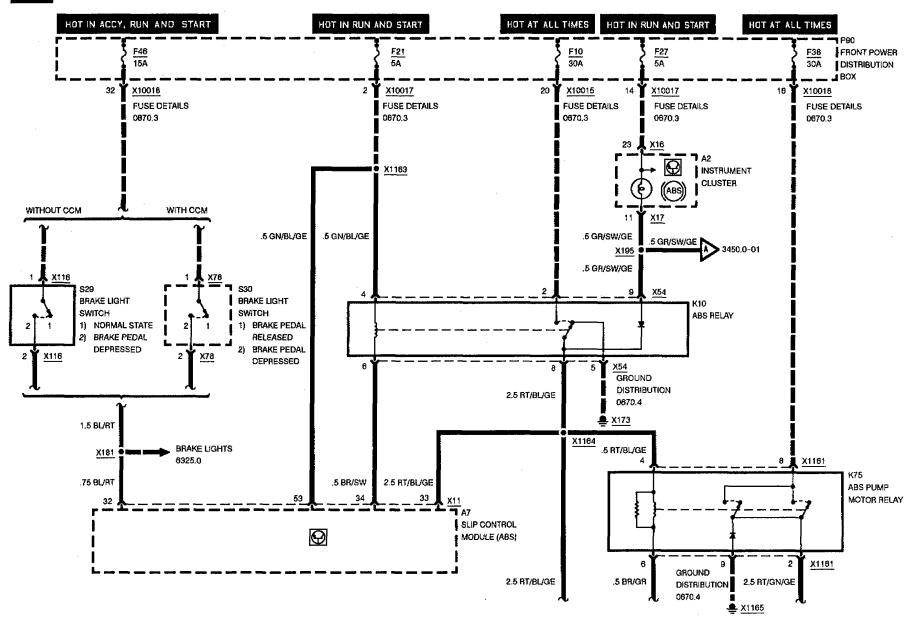
Pin	Туре	Description/Function	Connection
1	М	Ground, control module	Chassis ground
2	Α	Left front outlet valve control	ABS hydraulic unit
3	E	Voltage monitoring, hydraulics	ABS hydraulic unit
4		Not used	
5		Not used	
6		Not used	
7		Not used	
8		Not used	
9		Not used	
10		Not used	
11		Not used	
12		Not used	
13		Not used	
14		Not used	
15	Α	ABS pump motor relay control	ABS pump motor relay
16	E	ABS pedal travel sensor	ABS pedal travel sensor
17		Not used	
18		Not used	
19	М	Ground, control module	Chassis ground
20	Α	Left front inlet valve control	ABS hydraulic unit
21	Α	Right front outlet valve control	ABS hydraulic unit
22		Not used	
23	Α	RxD diagnostic data link	Data link connector
24		Not used	
25		Not used	
26		Not used	
27	Α	Speed sensor ground, RR	Right rear speed sensor - ABS
28	Α	Speed sensor ground, RL	Left rear speed sensor - ABS
29	Α	Speed sensor ground, FR	Right front speed sensor - ABS
30	Α	Speed sensor ground, FL	Left front speed sensor - ABS
31	E	Pump motor sensor shield	ABS hydraulic unit
32	E	Brake pedal position	Brake light switch
33	E	Operating voltage	ABS relay
		Output M. Cround	

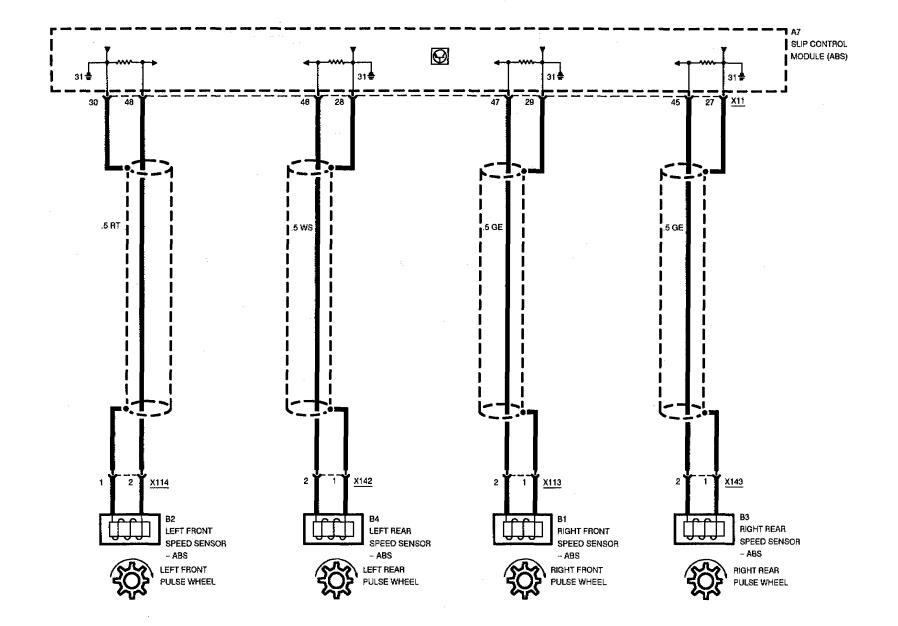




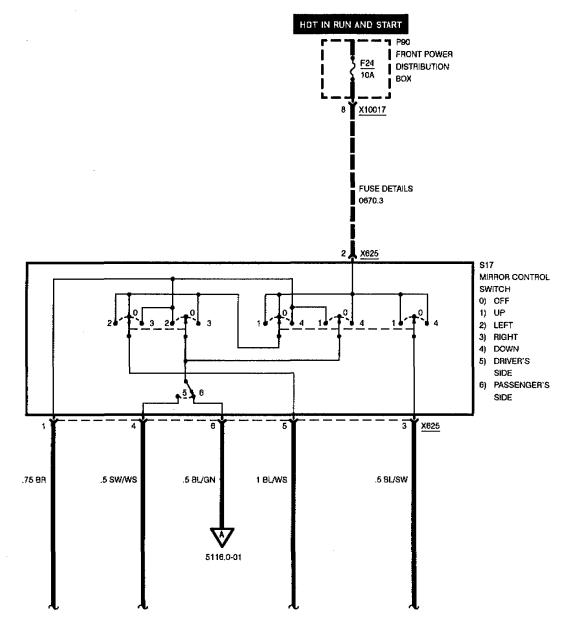
34 35	A	ABS relay control	ABS relay
35			•
		Not used	
36	A	Rear axle outlet valve control	ABS hydraulic unit
37		Not used	
38	A	Right front inlet valve control	ABS hydraulic unit
39		Not used	
40		Not used	
41	Ε	ABS pedal travel sensor	ABS pedal travel sensor
42	E/A	TxD diagnostic data link	Data link connector
43		Not used	
44		Not used	
45	E	Speed sensor signal RR	Right rear speed sensor - ABS
46	E	Speed sensor signal RL	Left rear speed sensor - ABS
47	E	Speed sensor signal FR	Right front speed sensor - ABS
48	Ε	Speed sensor signal FL	Left front speed sensor - ABS
49	Е	Pump motor sensor signal	ABS hydraulic unit
50	-	Not used	
51	· · · · · · · · · · · · · · · · · · ·	Not used	
52	Α	ABS warning lamp control	Instrument cluster
53	E	Voltage supply, terminal 15	Front power distribution box, fuse 21
54	Α	Rear axle inlet valve control	ABS hydraulic unit
55		Not used	

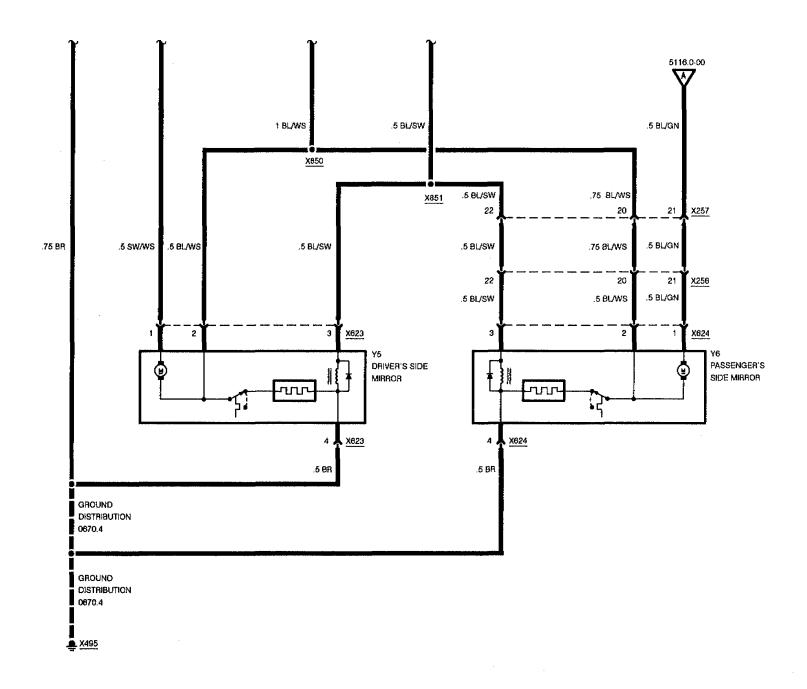




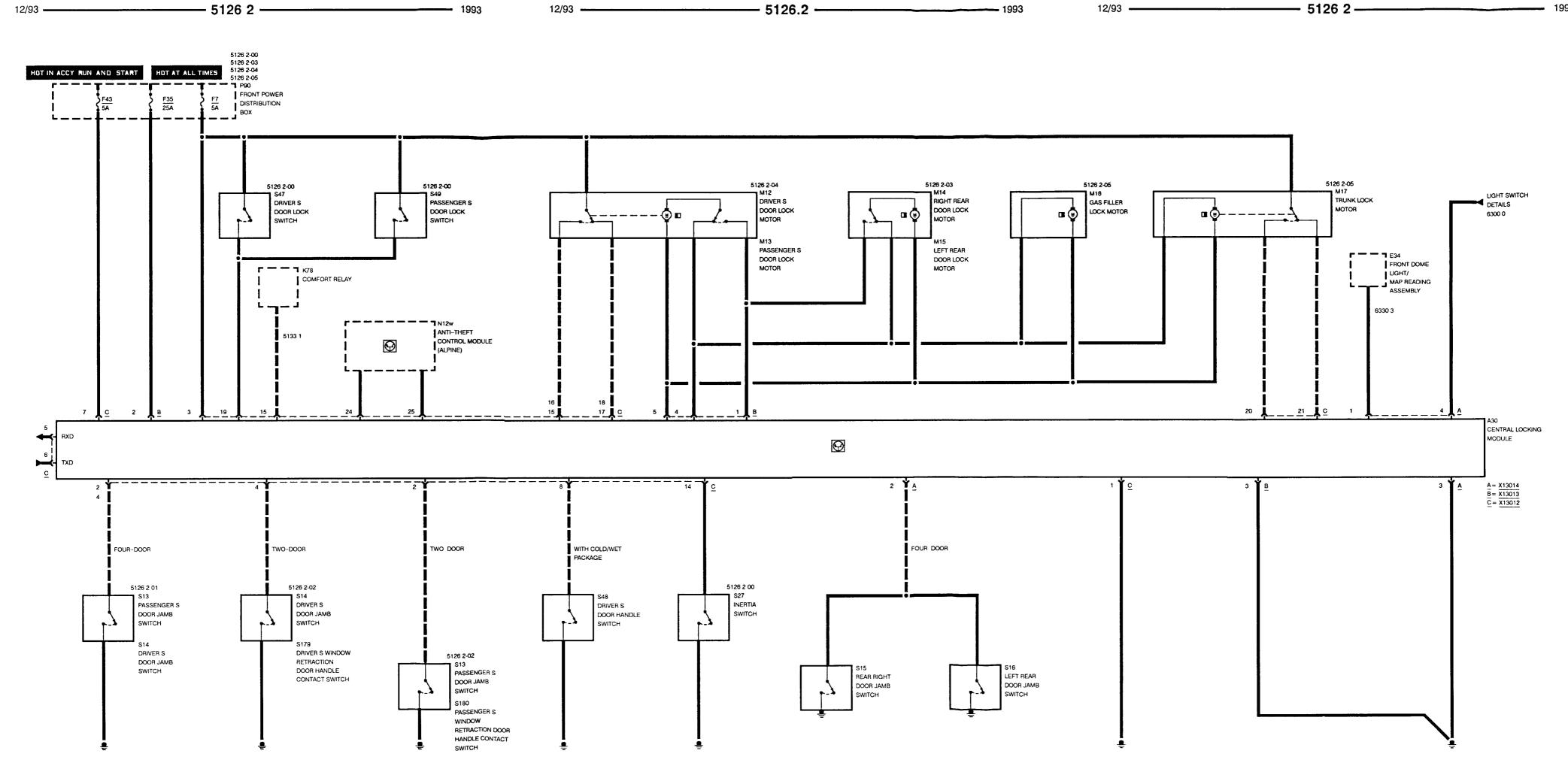




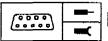












### X13012

Pin	Type	Description/Function	Connection
1	M	Ground, electronics	Ground point
2	E	Passenger's door open	Passenger's door jamb switch
3	E	Voltage supply, terminal 30	Front power distribution box, fuse 7
4	Е	Driver's door open	Driver's door jamb switch
5	Α	RxD diagnostic data link	Data link connector
6	E/A	TxD diagnostic data link	Data link connector
7	Ē	Voltage supply, terminal R	Front power distribution box, fuse 43
8	E	Driver's door handle switch	Driver's door handle switch
9	Α	Comfort relay control	Comfort relay
10		Not used	
11		Not used	
12		Not used	
13		Not used	
14	Ε	Crash signal	Inertia switch
15	Е	Passenger's door lock motor locked	Passenger's door lock motor
16	E	Driver's door lock motor locked	Driver's door lock motor
17	E	Passenger's door lock motor unlocked	Passenger's door lock motor
18	E	Driver's door lock motor unlocked	Driver's door lock motor
19	E	Lock contact for arrest	Driver's and passenger's door lock switches
20	E	Trunk lock motor locked	Trunk lock motor
21	Е	Trunk lock motor unlocked	Trunk lock motor
22		Not used	
23		Not used	
24	E	Interface to anti-theft module (Alpine)	Anti-theft module (Alpine)
25	Ε	Interface to anti-theft module (Alpine)	Anti-theft module (Alpine)
26		Not used	





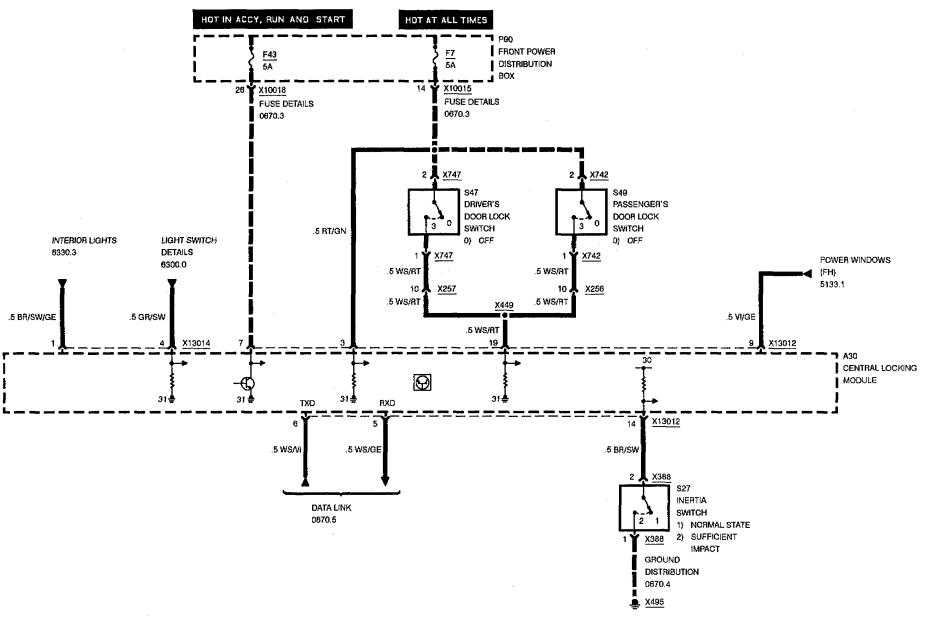
#### X13013

Pin	Туре	Description/Function	Connection
1	Α	Arrest ZV motor drives	Left and right rear lock motors
2	E	Battery voltage for ZV motor drive	Front power distribution box, fuse 35
3	М	Ground for ZV motor drives	Ground point
4	Α	Lock ZV motor drives	Left and right rear door lock motors
5	Α	Unlock ZV motor drives	Left and right rear door lock motors

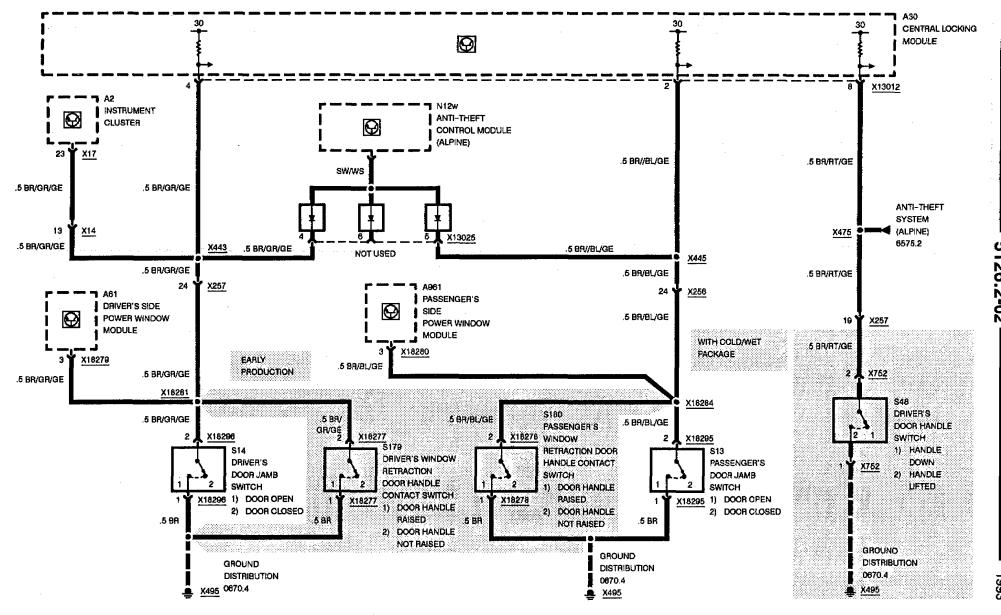
### X13014

Pin	Type	Description/Function	Connection
1	Α	Activation of interior lights	Front dome light/map reading assembly
2	E	Rear doors open	Left rear and right rear door jamb switches
3	М	Ground for interior lights	Ground point
4 €	DNE	Parking light detection	Right park light/license plate light relay
4 🔾	SAE	Parking light detection	Light switch

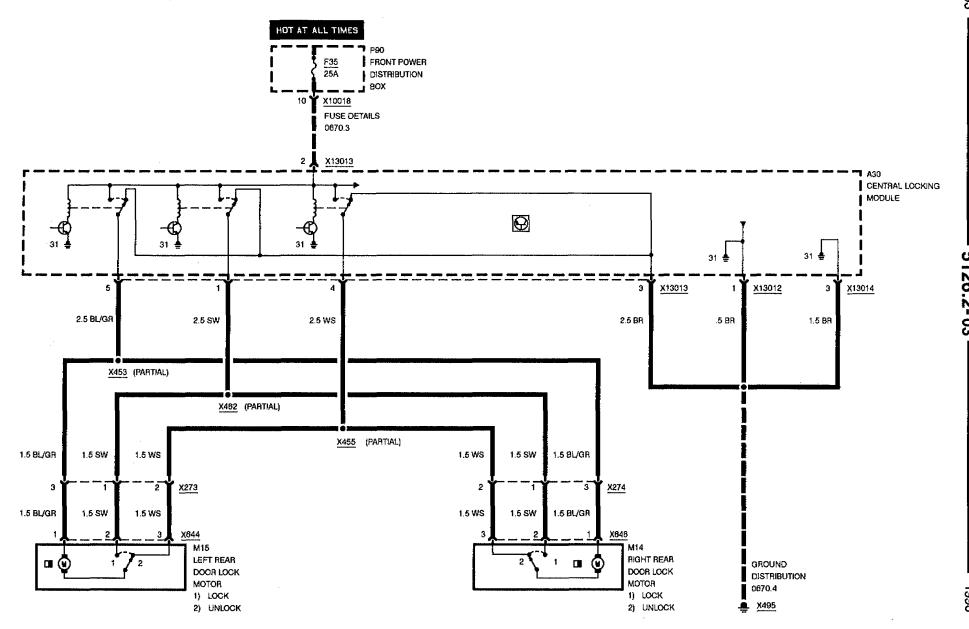


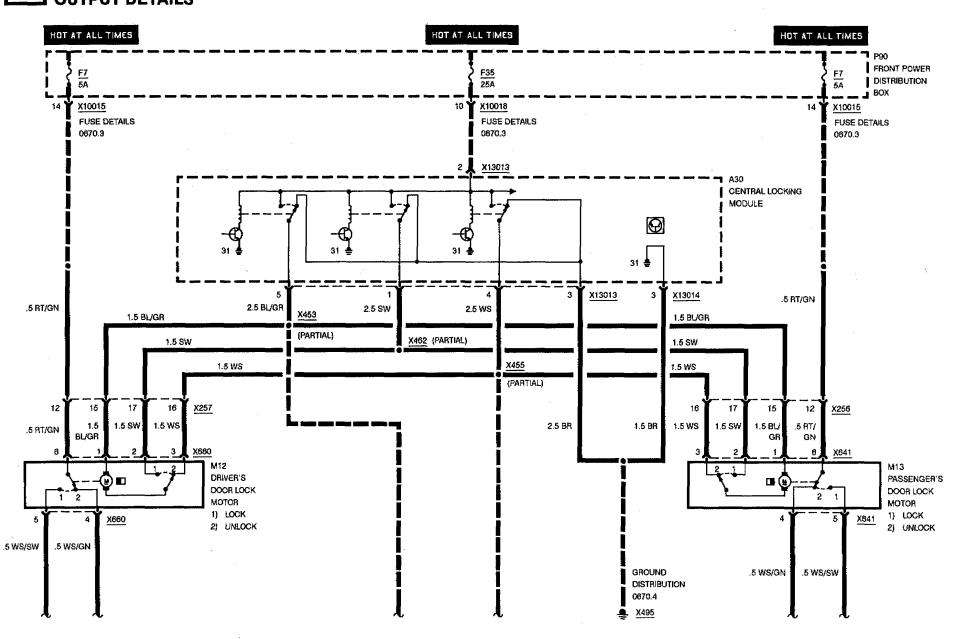


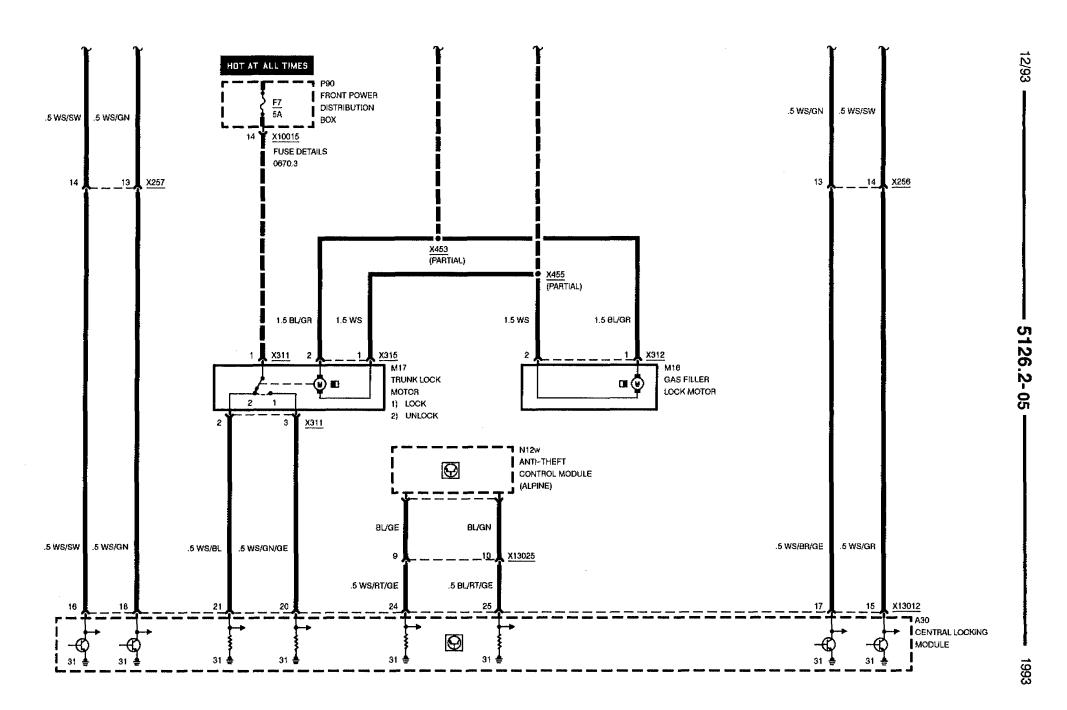
X13012 .5 BR/RT/GE ANTI-THEFT SYSTEM (ALPINE) X475 6575.2 .5 BR/RT/GE WITH COLD/WET X257 PACKAGE .5 BR/RT/GE X752 DRIVER'S DOOR HANDLE SWITCH X752 1) HANDLE DOWN 2) HANDLE LIFTED X354 LEFT REAR DOOR JAMB GROUND 1) DOOR OPEN DISTRIBUTION 2) DOOR CLOSED 0070.4

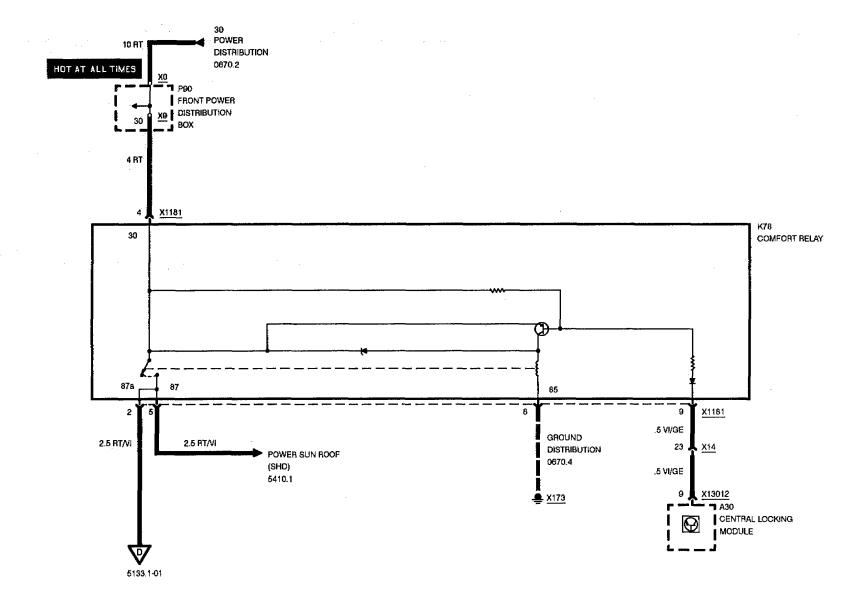


## **OUTPUT DETAILS**





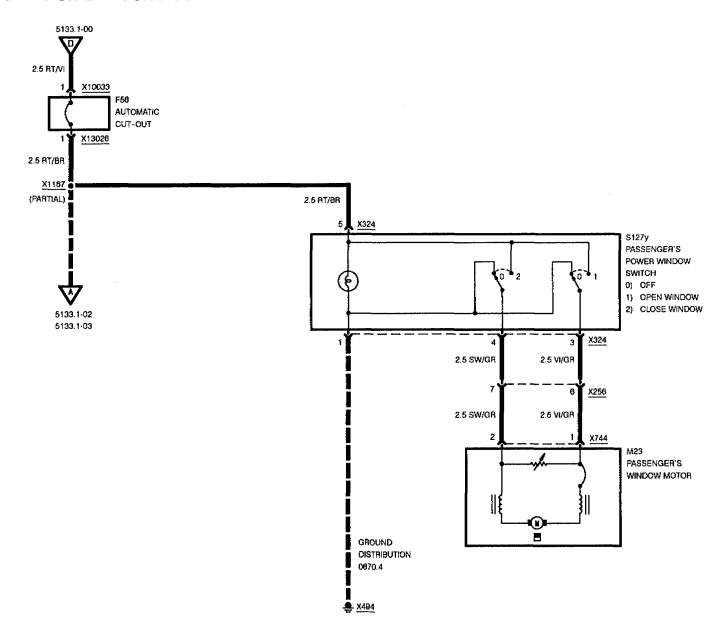


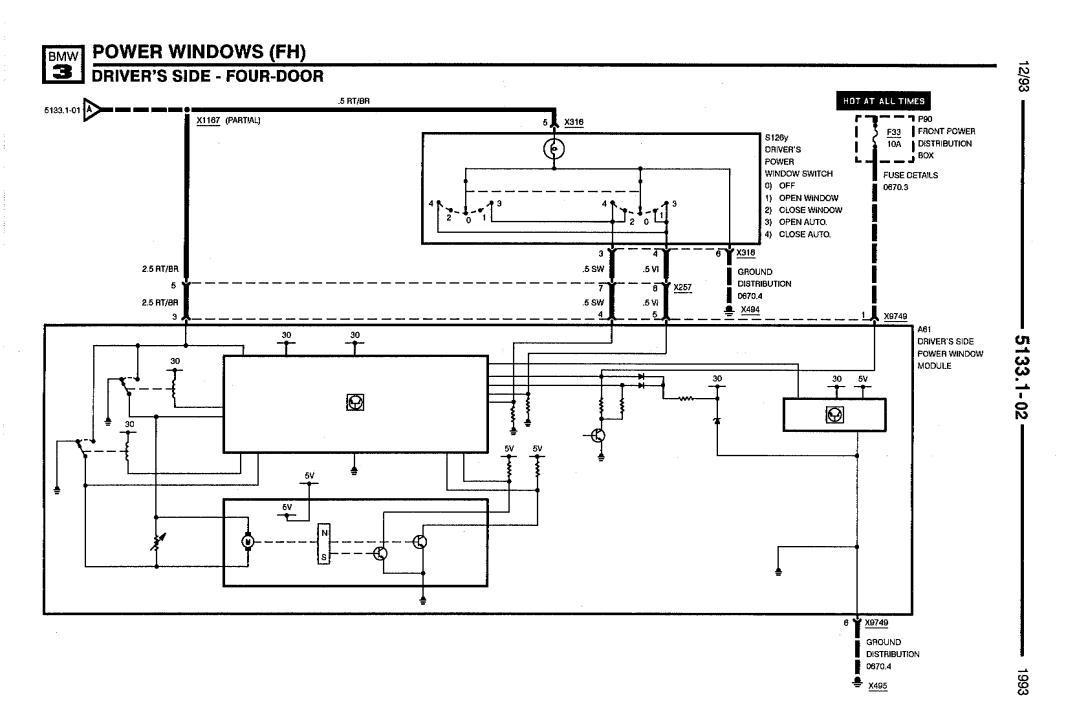


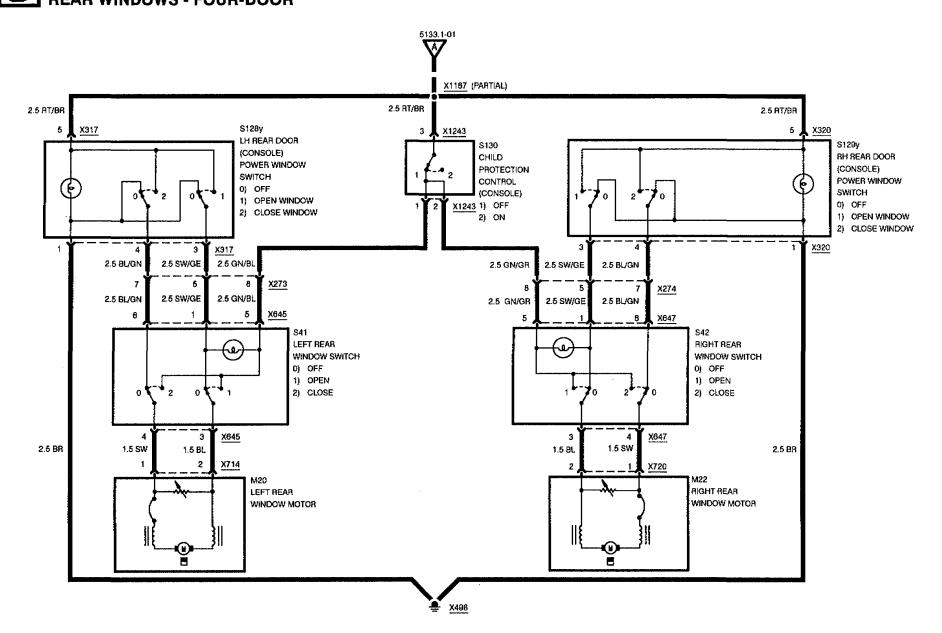
# 8MW

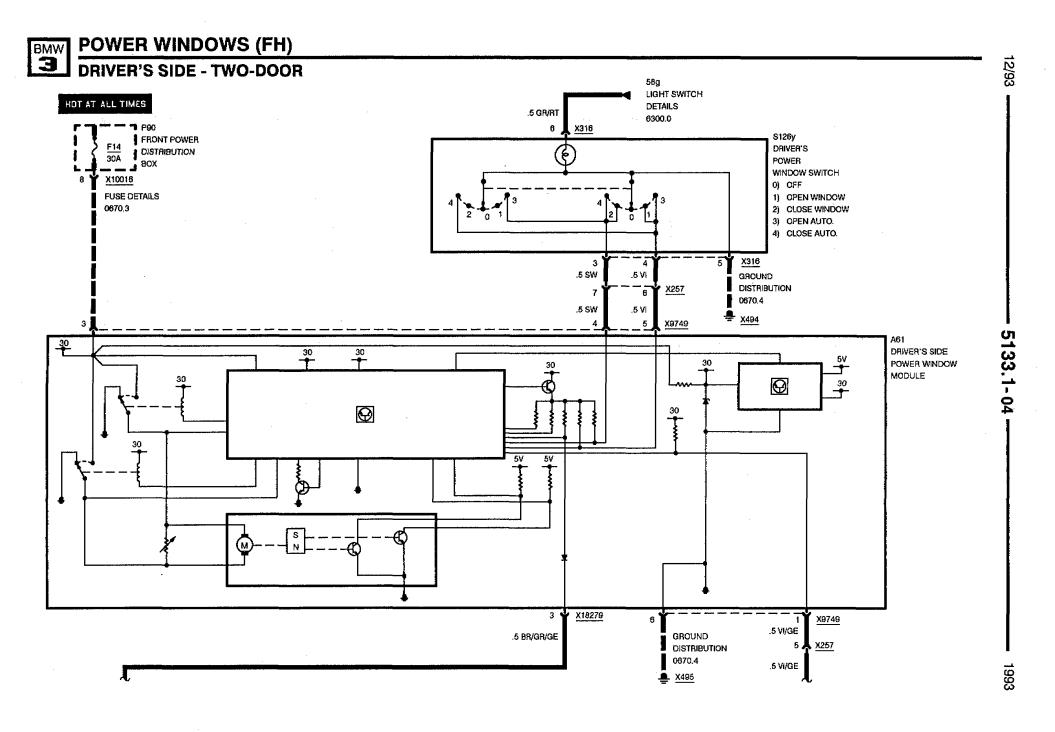
### **POWER WINDOWS (FH)**

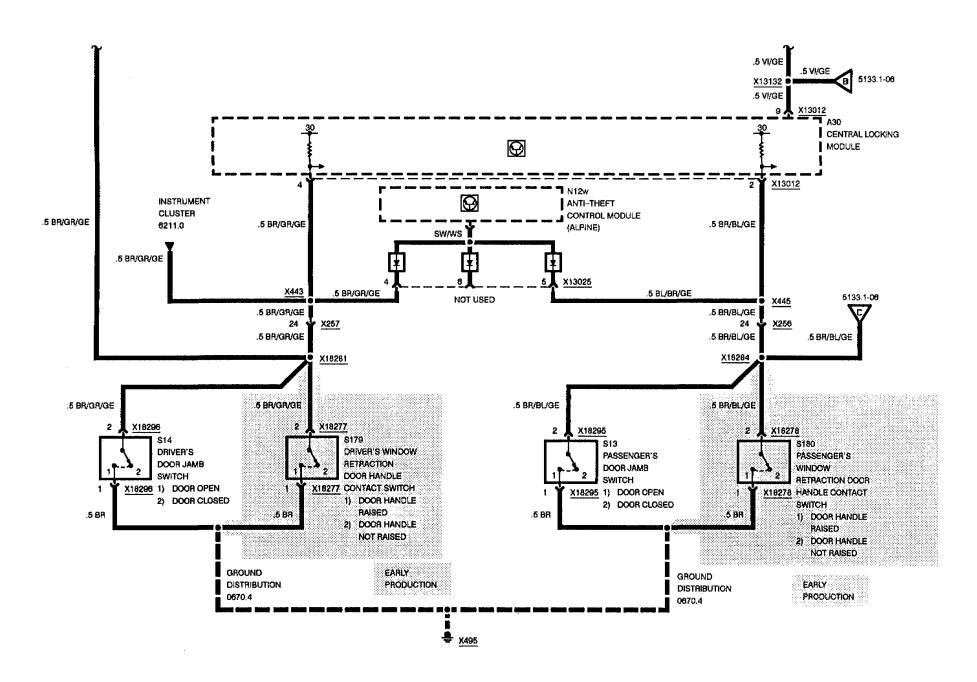
### PASSENGER'S SIDE - FOUR DOOR







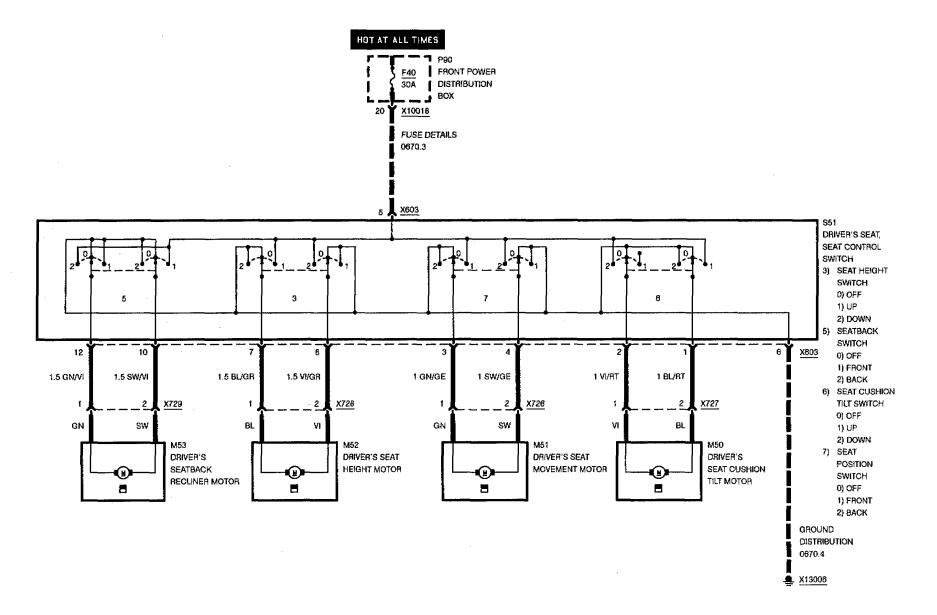


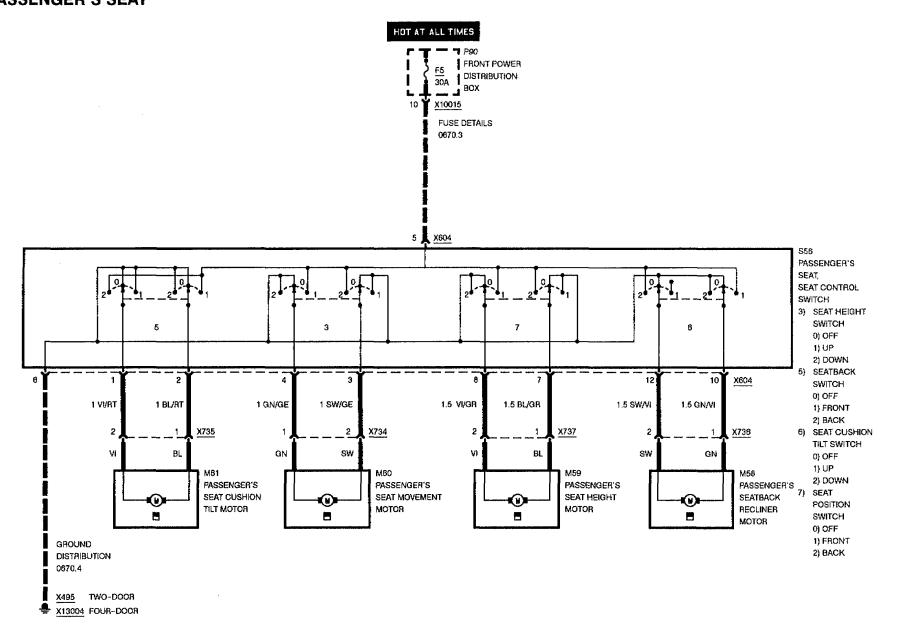


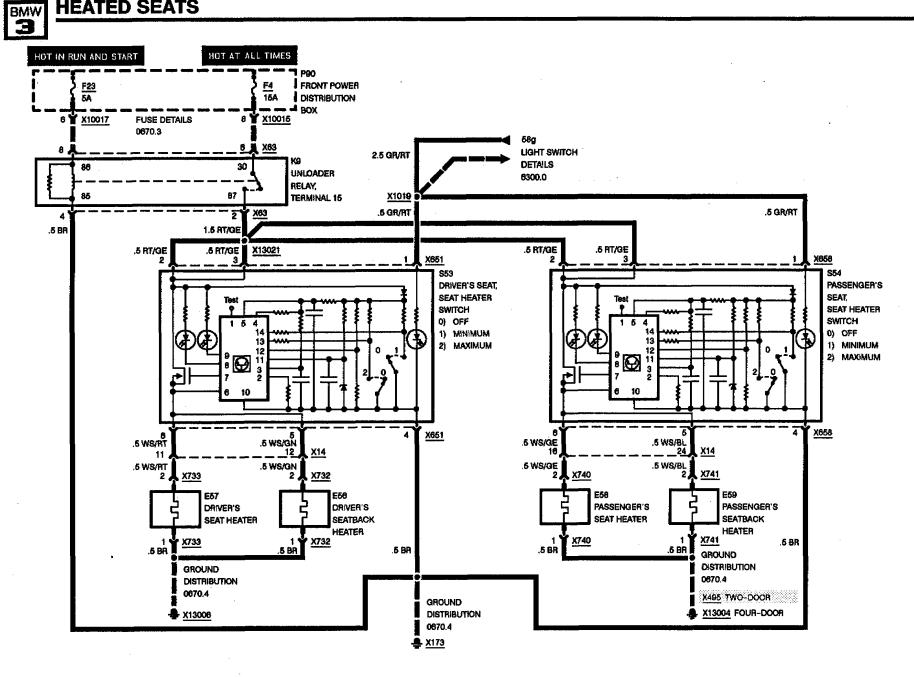


### **POWER SEATS**

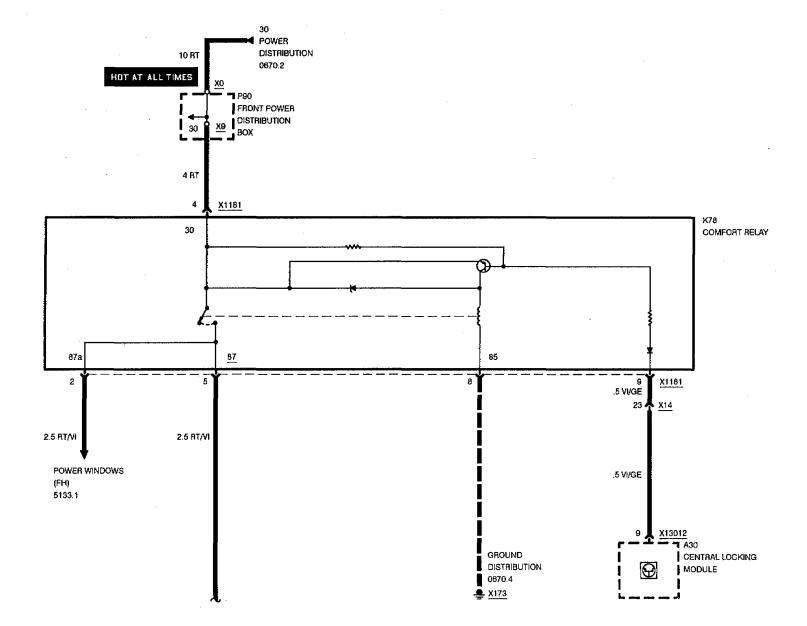
## DRIVER'S SEAT

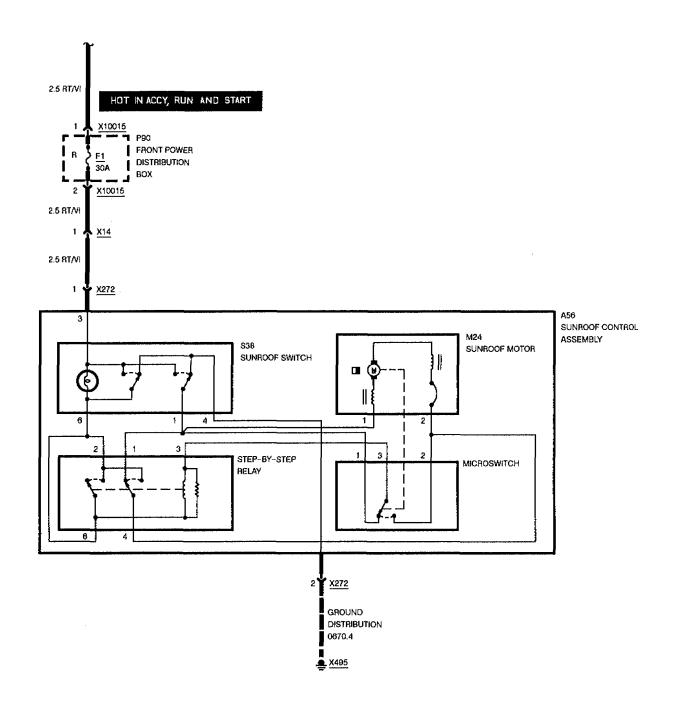


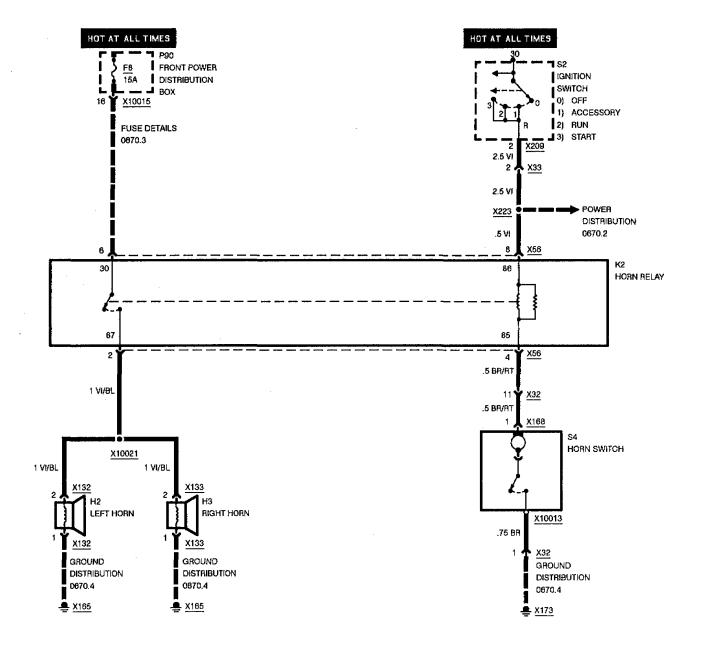






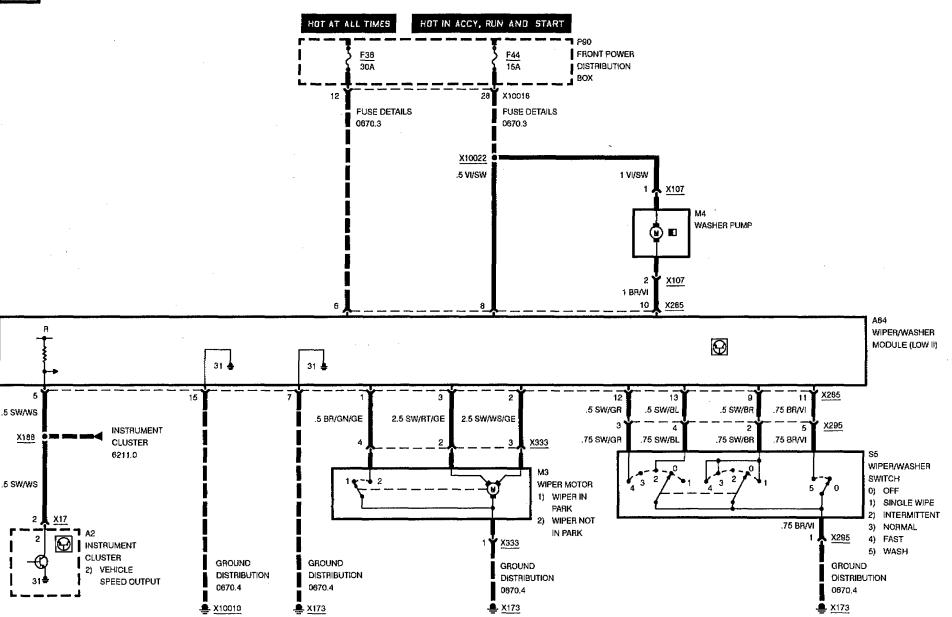


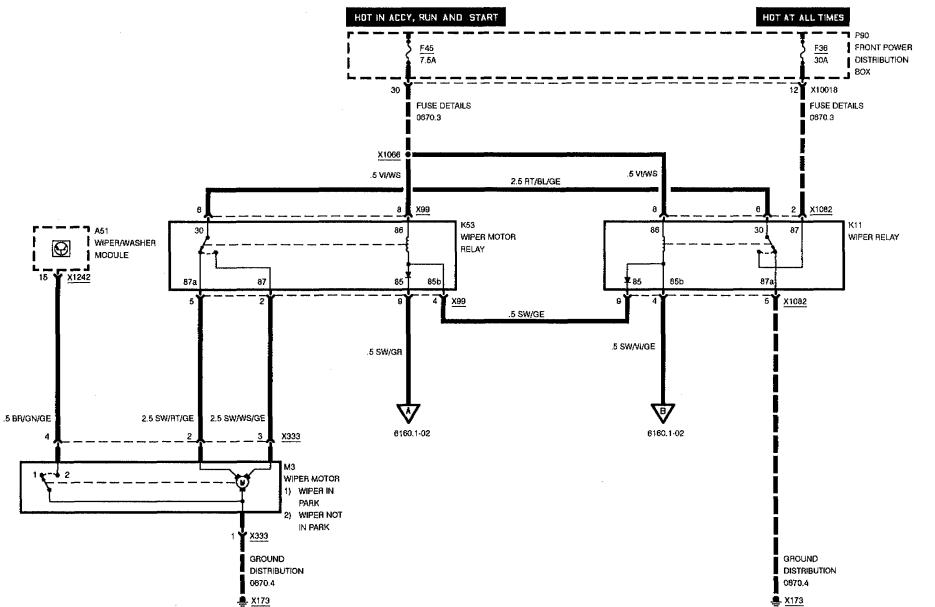


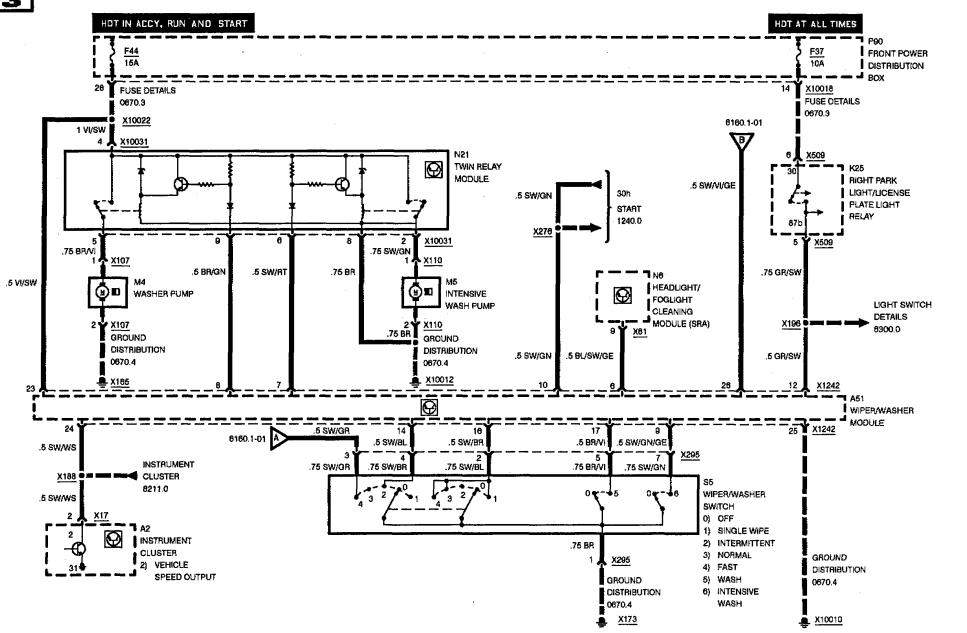




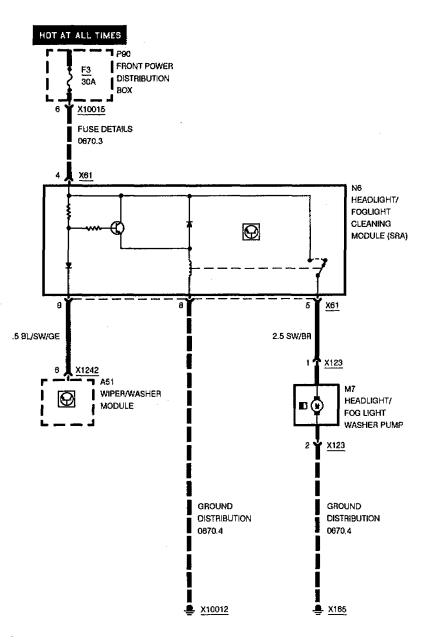




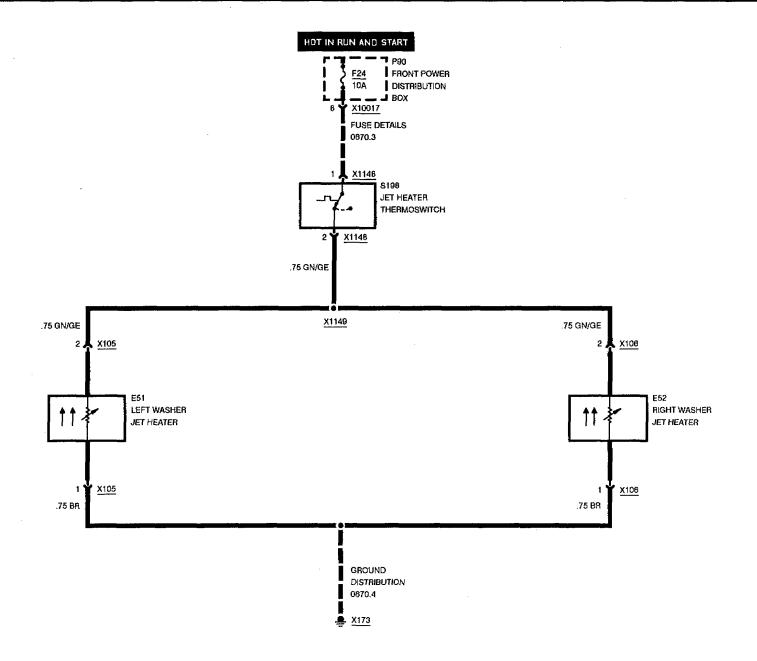


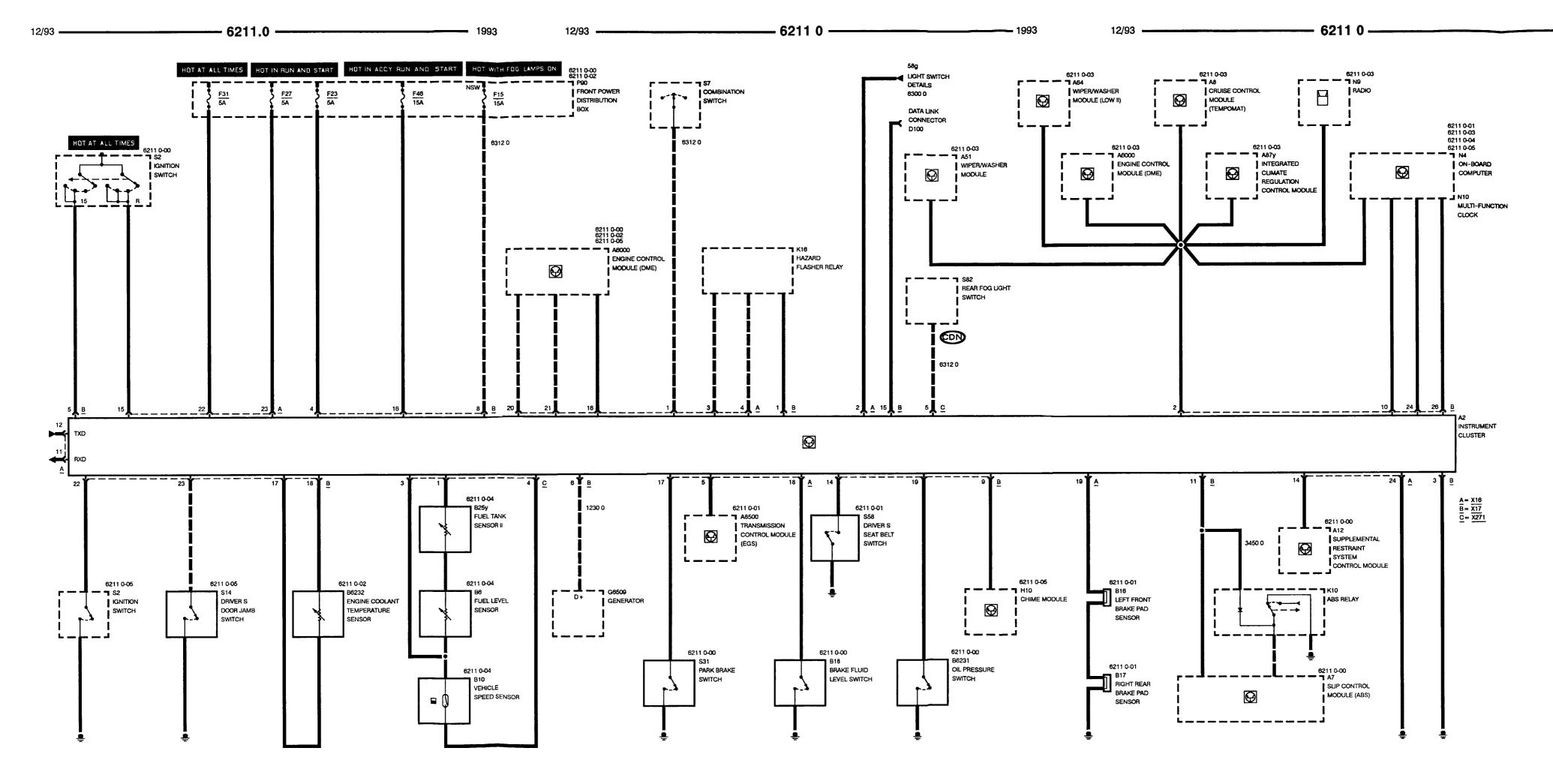
















A = X16	26 Pins, white	
B = X17	26 Pins, blue	
C = X271	12 Pins, black	

### <u>X16</u>

Pin	Type	Description/Function	Connection
1	E	High beam indicator control	Combination switch
2	E	Terminal 58g, instument illumination power	Dimmer
3	E	Right turn signal indicator control	Hazard flasher relay
4	E	Left turn signal indicator control	Hazard flasher relay
5	E	Warning lamp for EGS fault (information signal transmission oil temperature)	Transmission control module (EGS)
6		Not used	
7		Not used	
8		Not used	
9		Not used	
10		Not used	
11	Α	RxD diagnostic data link	Data link connector
12	E/A	TxD diagnostic data link	Data link connector
13		Not used	
14	E	Airbag warning lamp (SRS) control	Supplemental restraint system control module
15	E	Voltage supply, terminal R for airbag warning lamp (SRS)	Ignition switch, terminal R
16	Е	"Check engine" indicator control	Engine control module (DME)
17	E	Park brake warning lamp control	Park brake switch
18	E Brake fluid warning lamp control		Brake fluid level switch
19	E Brake pad wear warning lamp control		Brake pad sensors
20	Е	Crankshaft RPM speed signal TD	Engine control module (DME)
21	Е	Fuel consumption signal + KVA	Engine control module (DME)
22	E	Voltage supply, terminal 30	Front power distribution box, fuse 31
23	Е	Voltage supply, terminal 15 for indicator and warning lamps	Front power distribution box, fuse 27
24	М	Ground supply, terminal 31 for instrument cluster electronics	Ground point

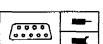




Pin	Туре	Description/Function	Connection
25		Not used	
26		Not used	

### <u>X17</u>

Pin	Type	Description/Function	Connection
1	E	Trailer turn signal indicator control	Hazard flasher relay
2	Α	Vehicle speed signal	Various control modules
3	М	Ground supply, terminal 31 for indicator and warning lamps	Ground point
4	E	Voltage supply, terminal 15 for instrument cluster electronics	Front power distribution box, fuse 23
5	E	Voltage supply, terminal 15 for battery charge indicator	Ignition switch, terminal 15
6	E	Ground supply, terminal 61 for battery charge indicator	Generator
7	•	Not used	
8	Ε	Fog light indicator control	Front power distribution box, fuse 15
9	Α	Sound tone signal	Chime module
10	Α	Information signal, fuel tank content	On-board computer
11	E	Slip control system warning lamp (ABS) control	Slip control module (ABS)
12		Not used	
13		Not used	
14	E	Seat belt warning lamp control	Driver's seat belt switch
15	Е	SIA reset/service interval indicator reset	Data link connector
16	E	Voltage supply, terminal R	Front power distibution box, fuse 46
17	Ε	Coolant temperature sensor	Coolant temperature sensor
18	Ē	Coolant temperature sensor	Coolant temperature sensor
19	E	Oil pressure warning lamp control	Oil pressure switch
20		Not used	
21		Not used	
22	E	Ignition key warning/audible ignition key warning	Ignition switch
23	E	Driver's door open	Driver's door jamb switch
24	Α	Dimmer signal/brightness information signal for connected control modules	On-board computer or multi-function clock

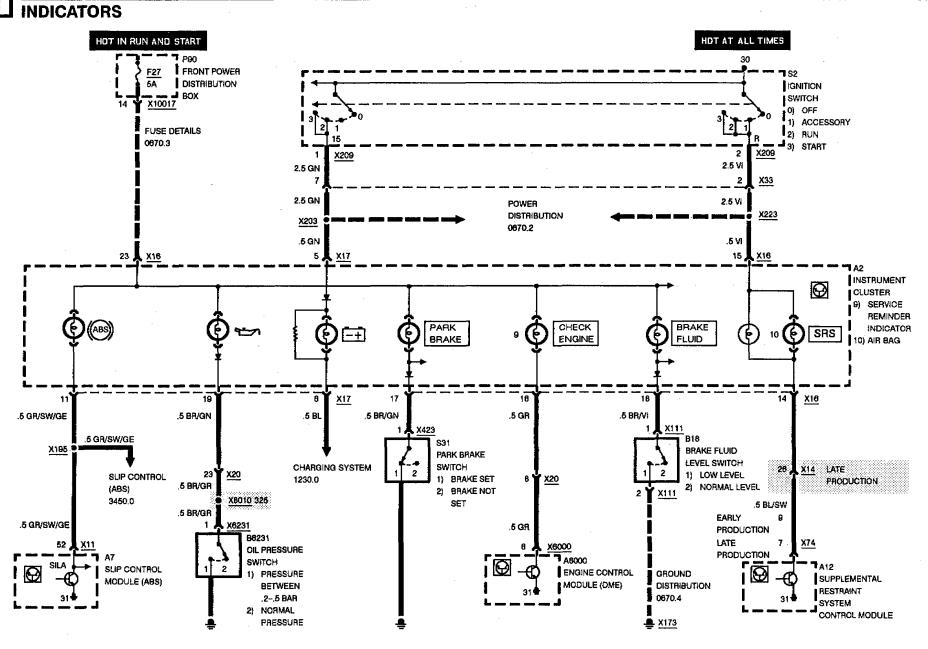


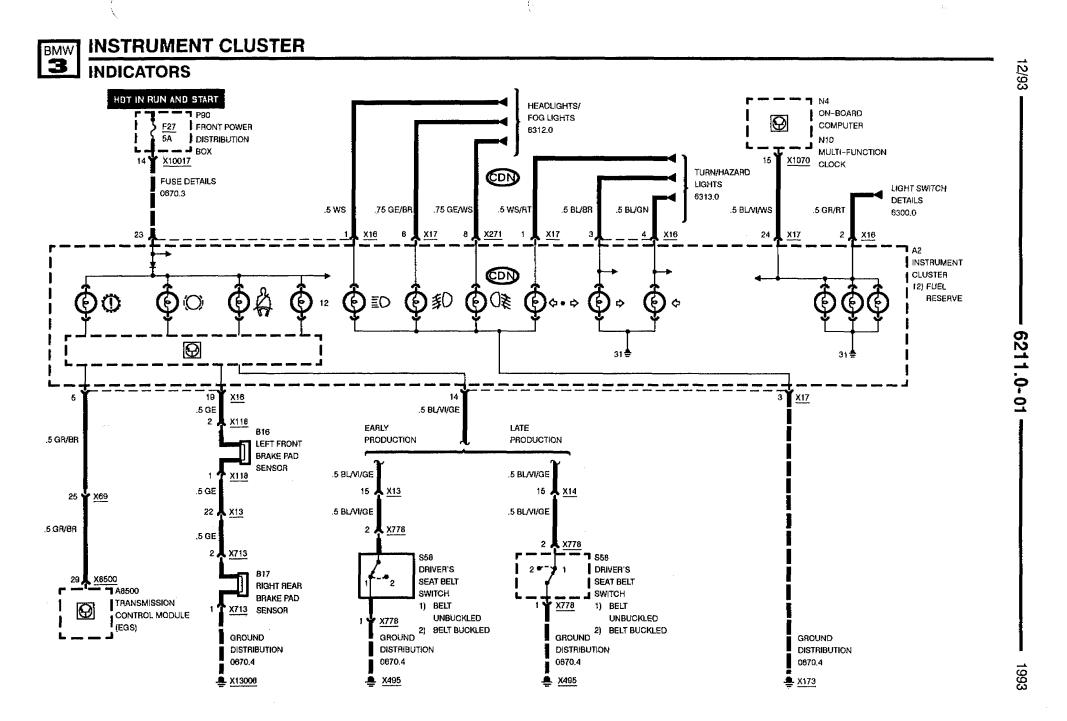
# Pin Assignments

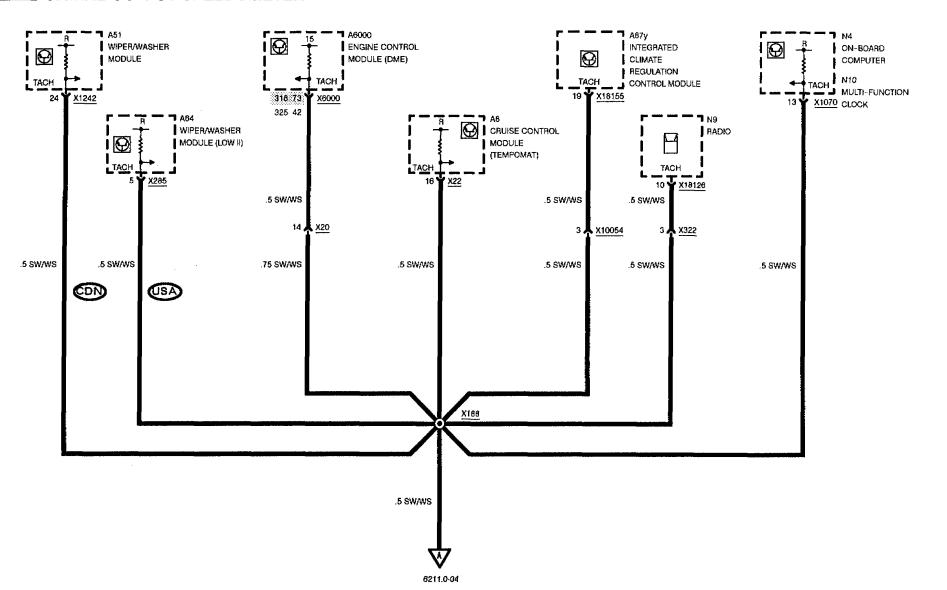
	Pin	Туре	Description/Function	Connection
	25		Not used	
_	26	E	Central indicator lamp/check-control	On-board computer or multi-function clock

### X271

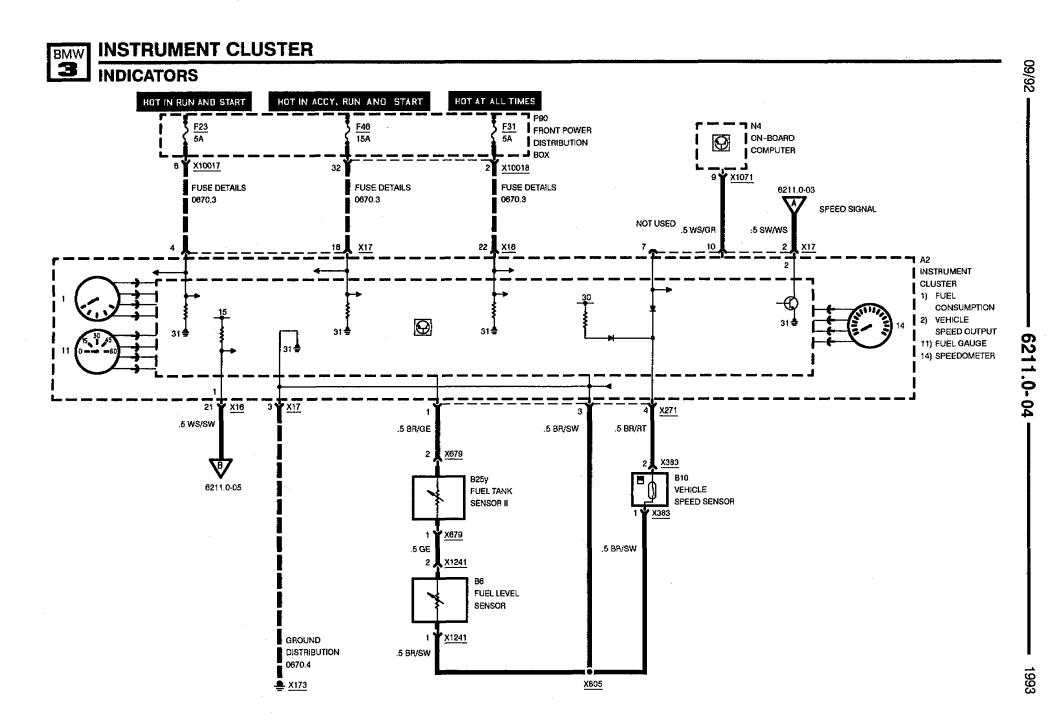
Pin	Туре	Description/Function	Connection
1	Α	Fuel level sensor	Fuel tank sensors
2	· · · · · · · · · · · · · · · · · · ·	Not used	
3	Α	Ground supply for fuel tank sensors and vehicle speed sensor	Fuel tank sensors and vehicle speed sensor
4	E	Position signal tw	Vehicle speed sensor
5 <b>©</b>	DN E	Rear fog lights indicator control	Rear fog light switch
6		Not used	
7		Not used	
8		Not used	
9		Not used	
10		Not used	
11		Not used	
12		Not used	

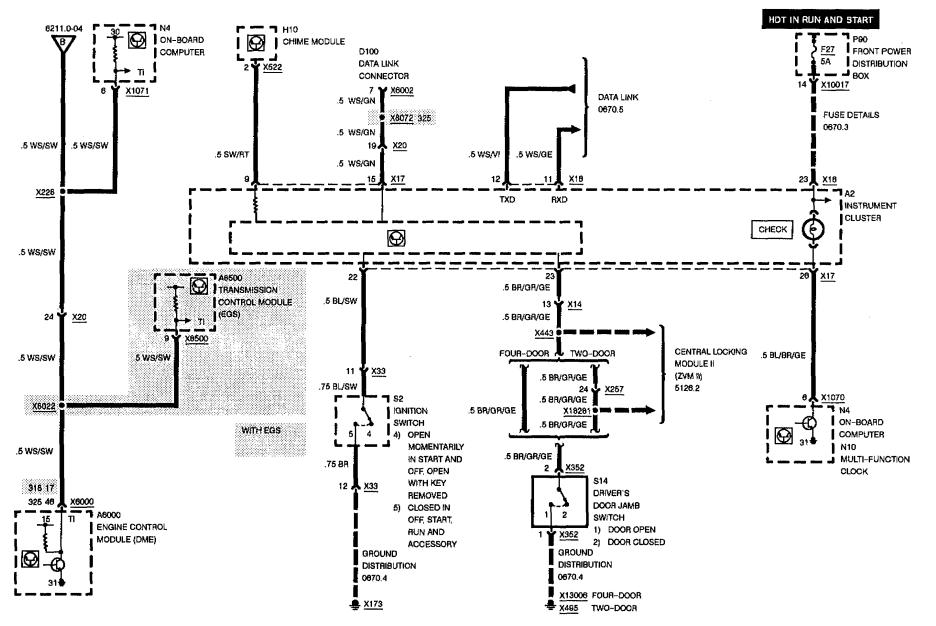




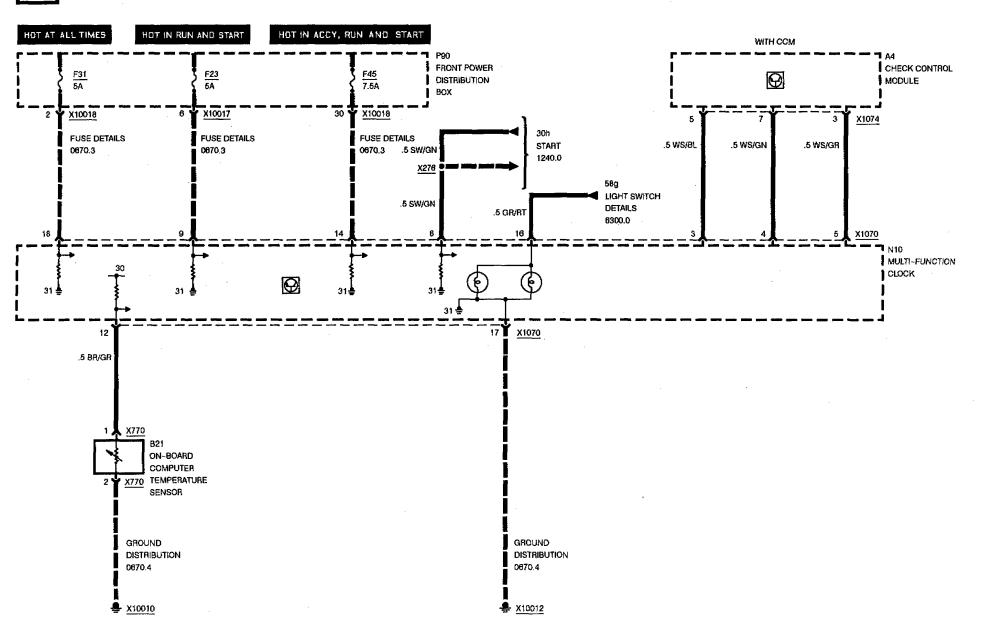


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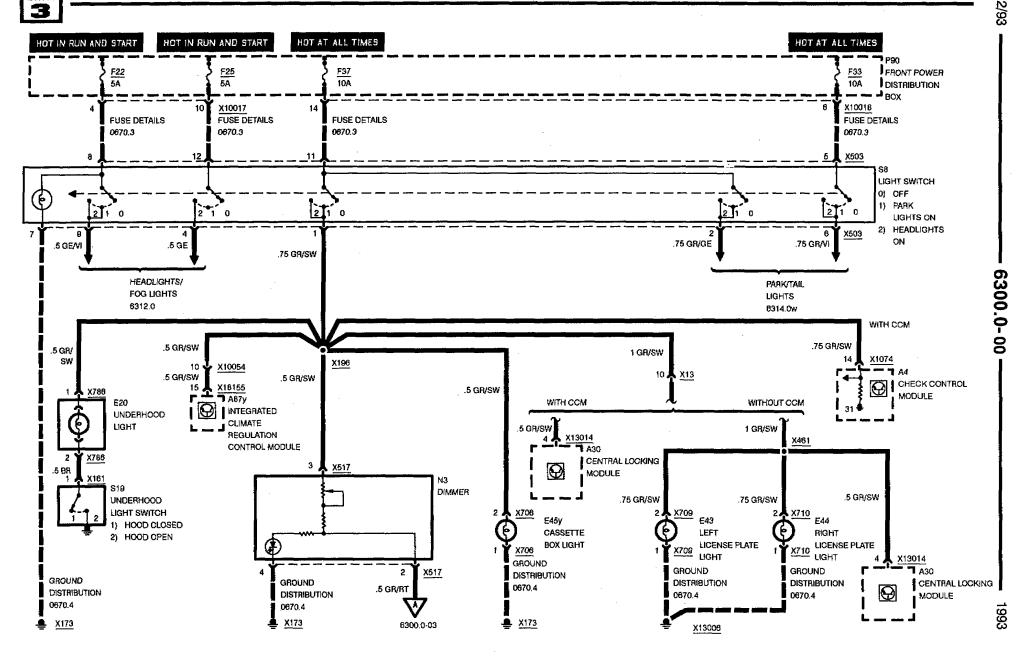


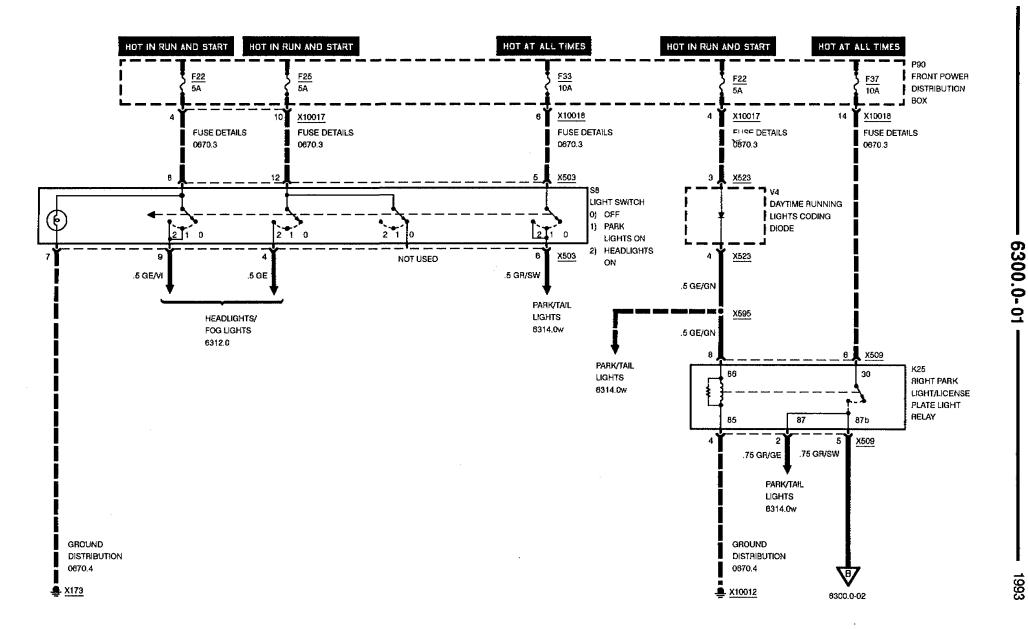


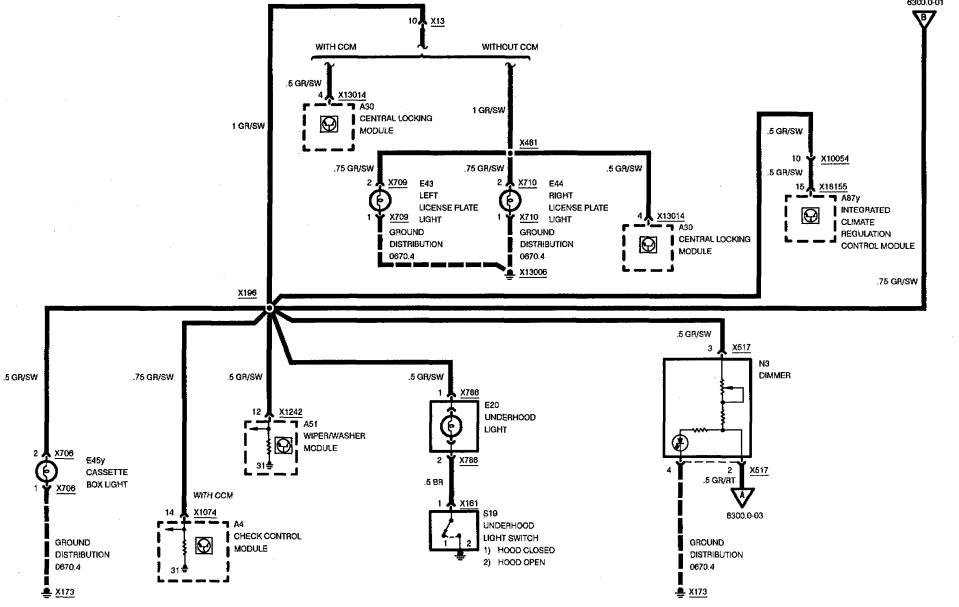
## **MULTI-FUNCTION CLOCK**

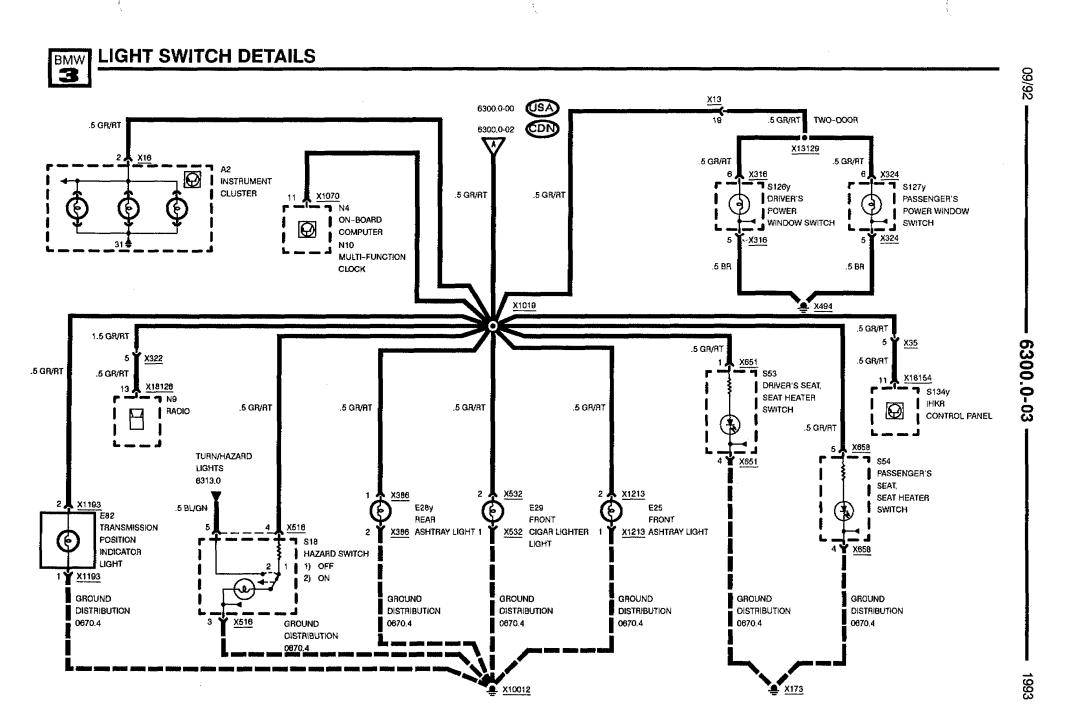


## LIGHT SWITCH DETAILS



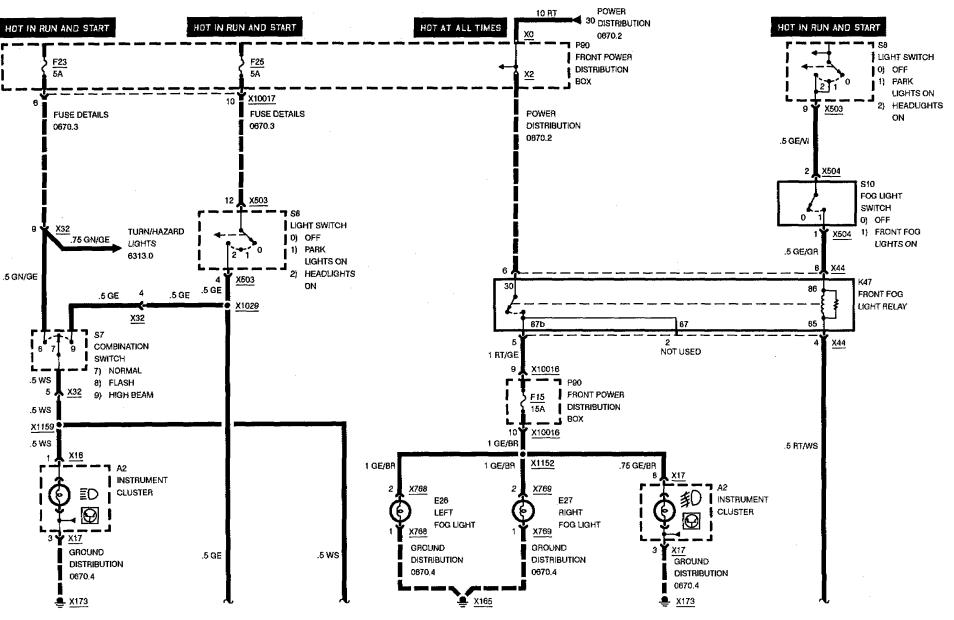


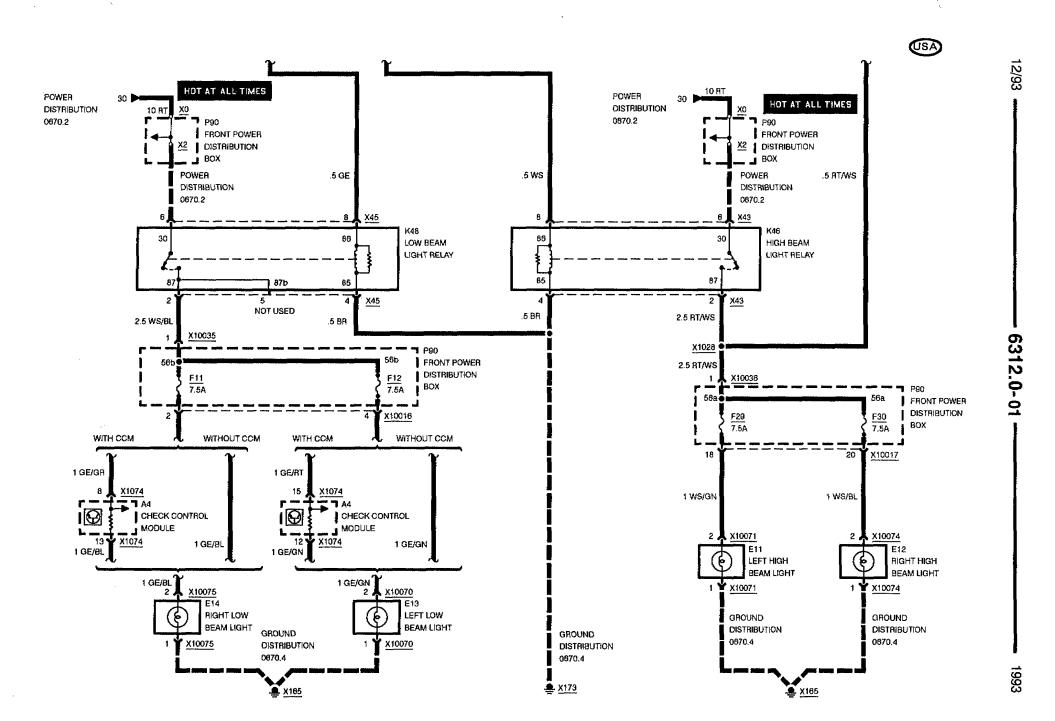


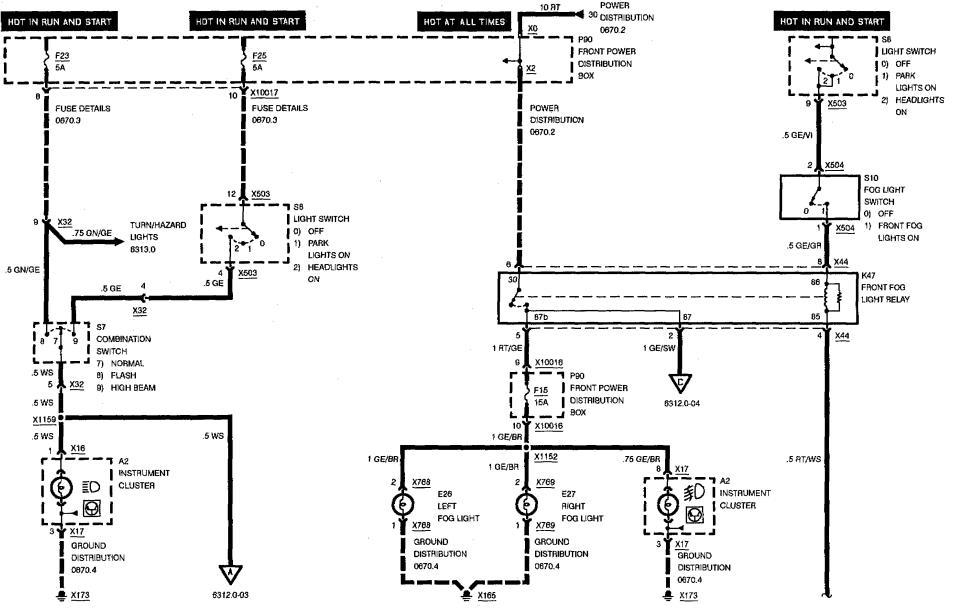


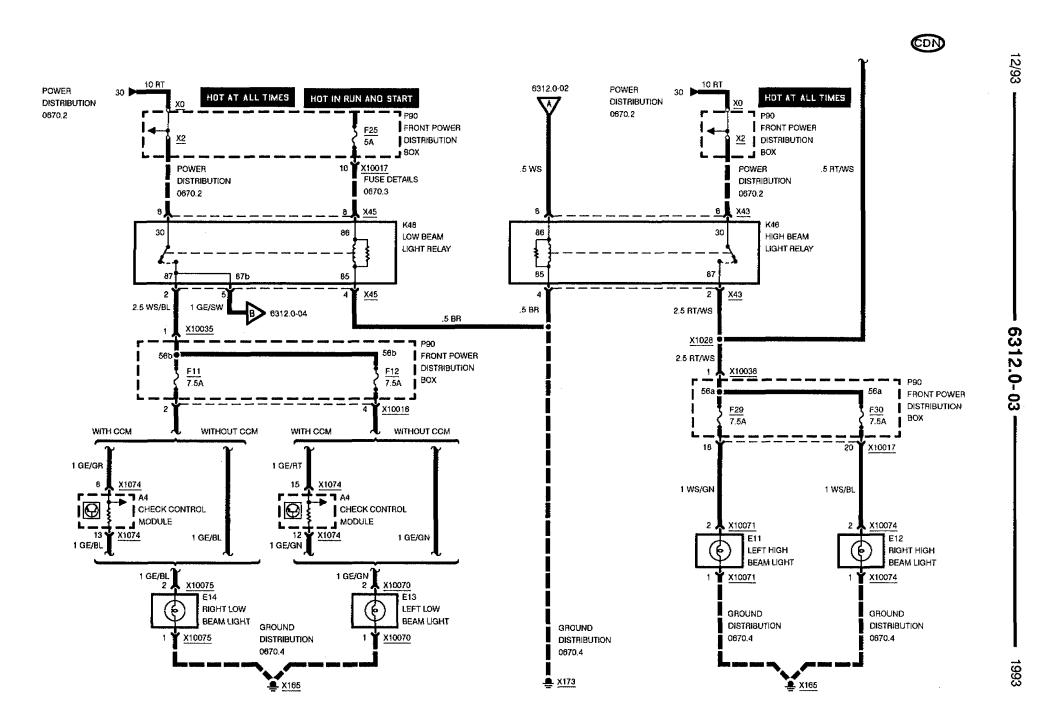
3

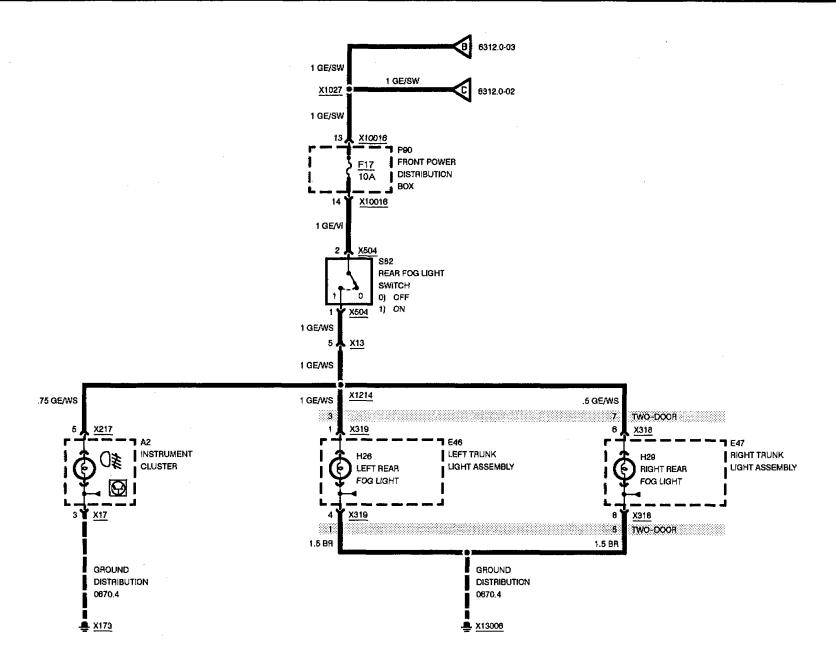










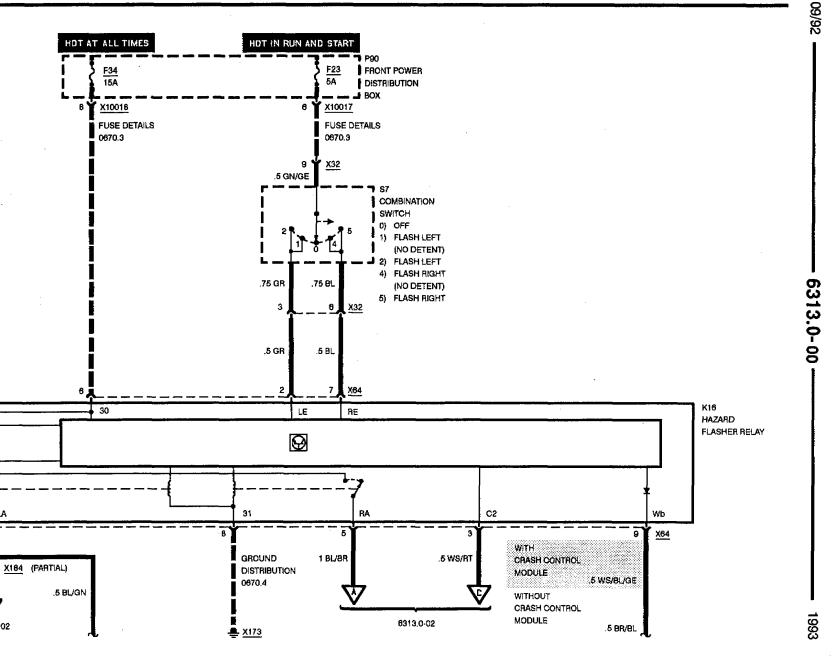




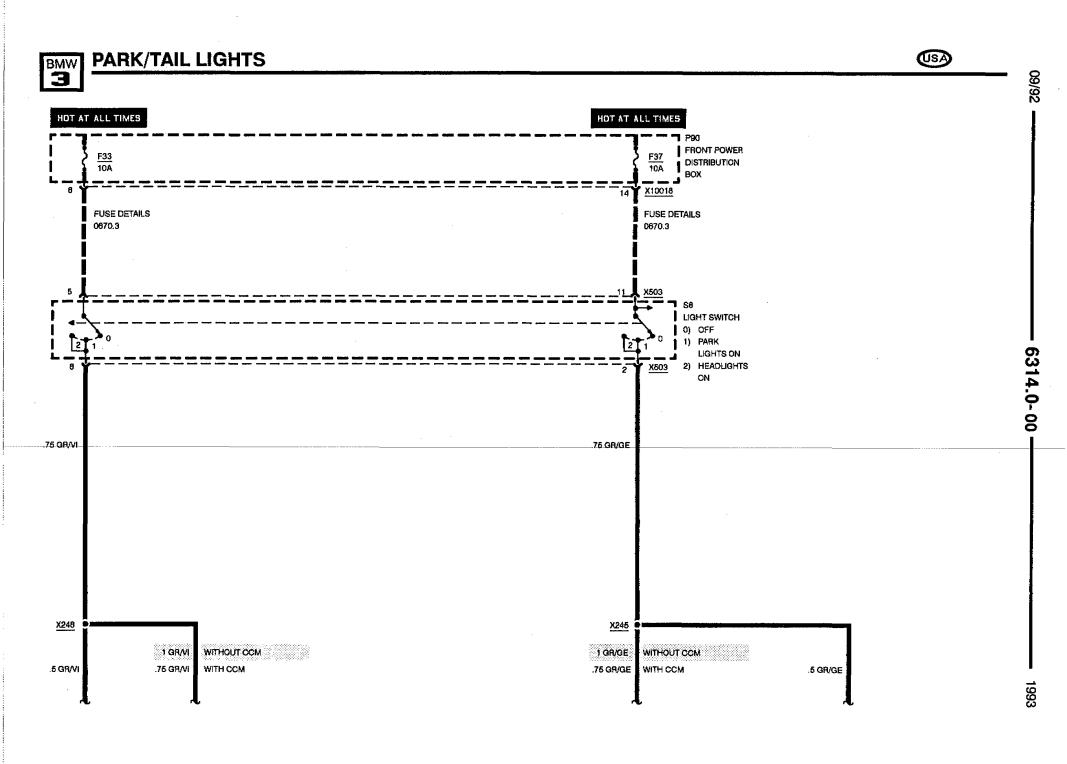
1 BL/GN

6313.0-02

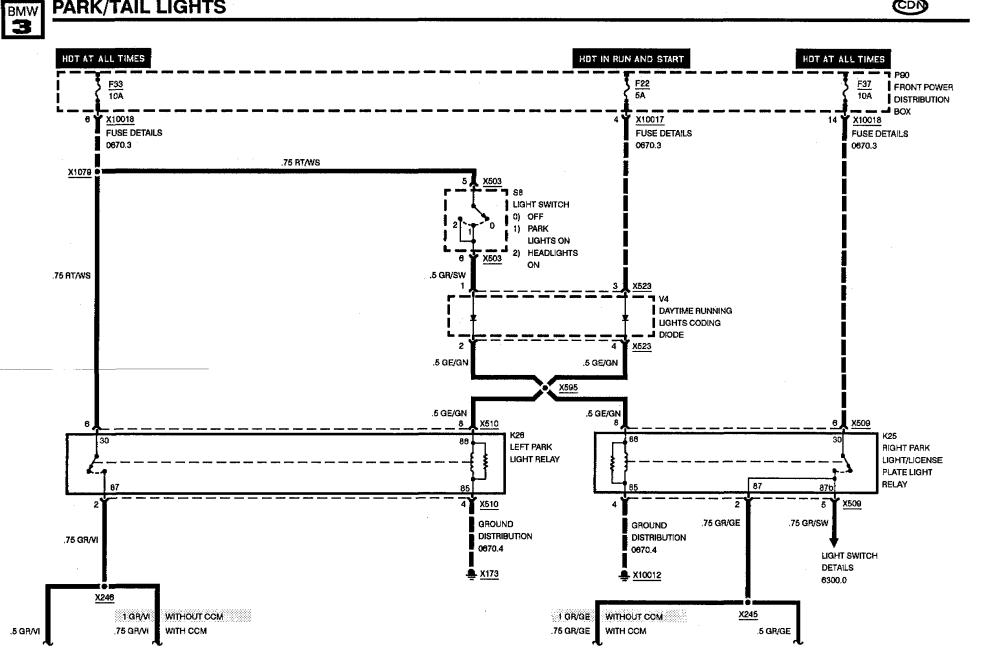
.5 8L/GN



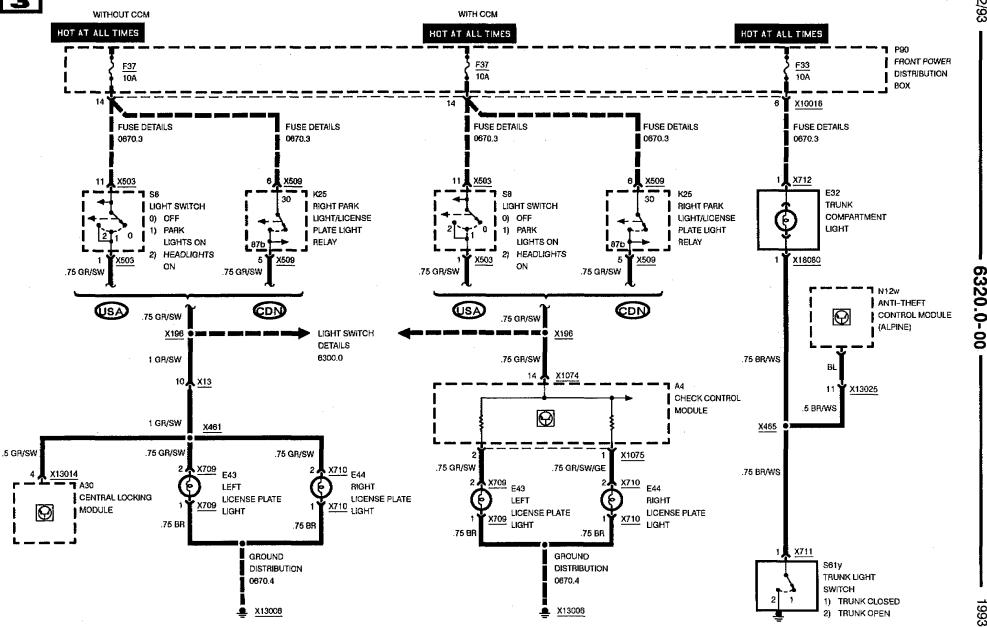




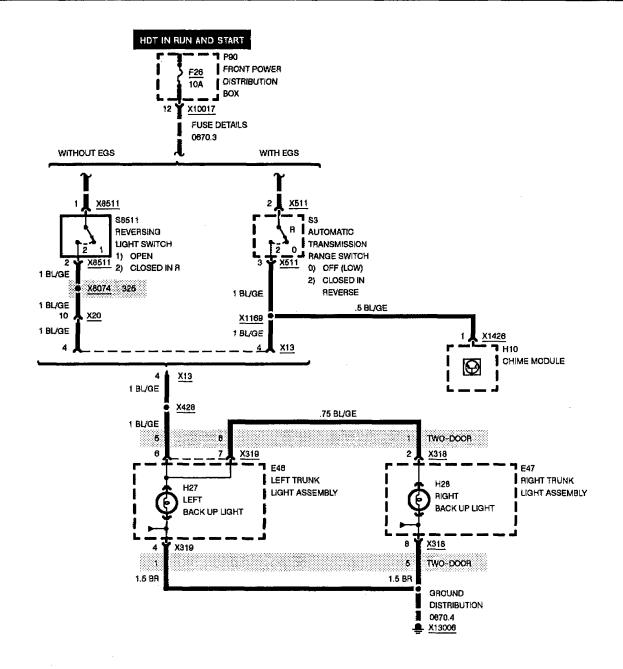
12/93



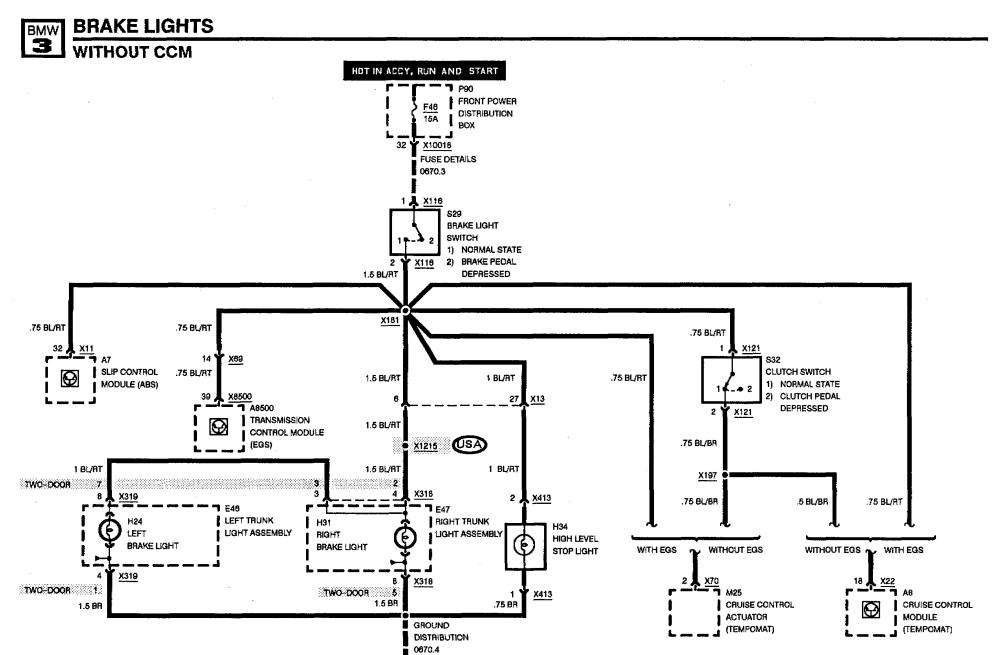
## LICENSE PLATE/ LUGGAGE COMPARTMENT LIGHTS





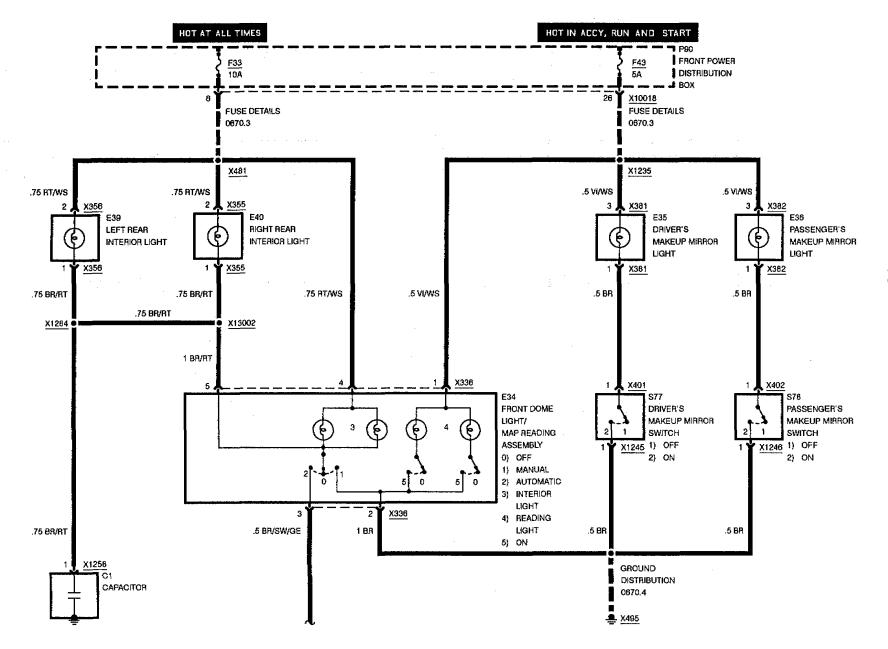


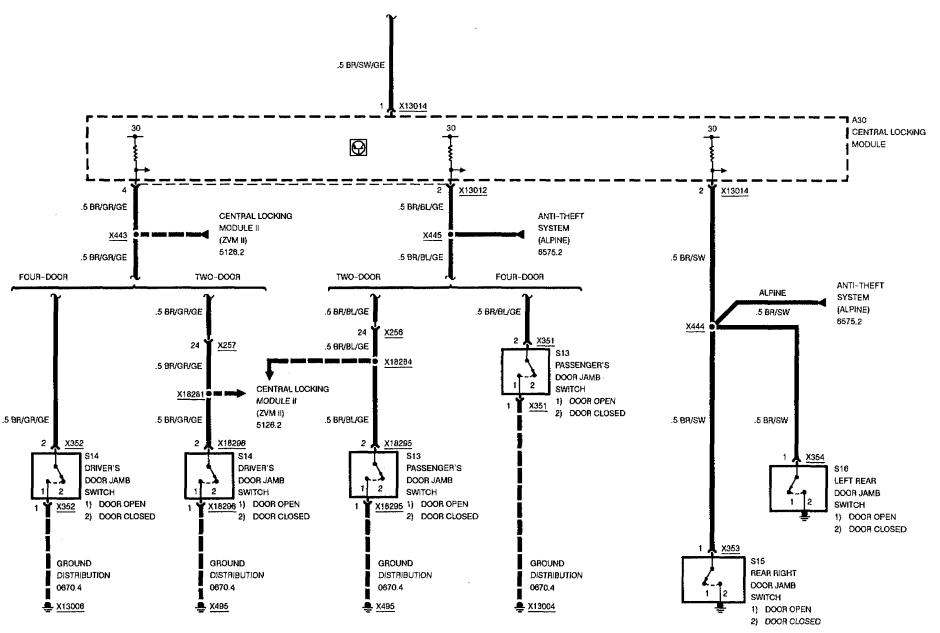




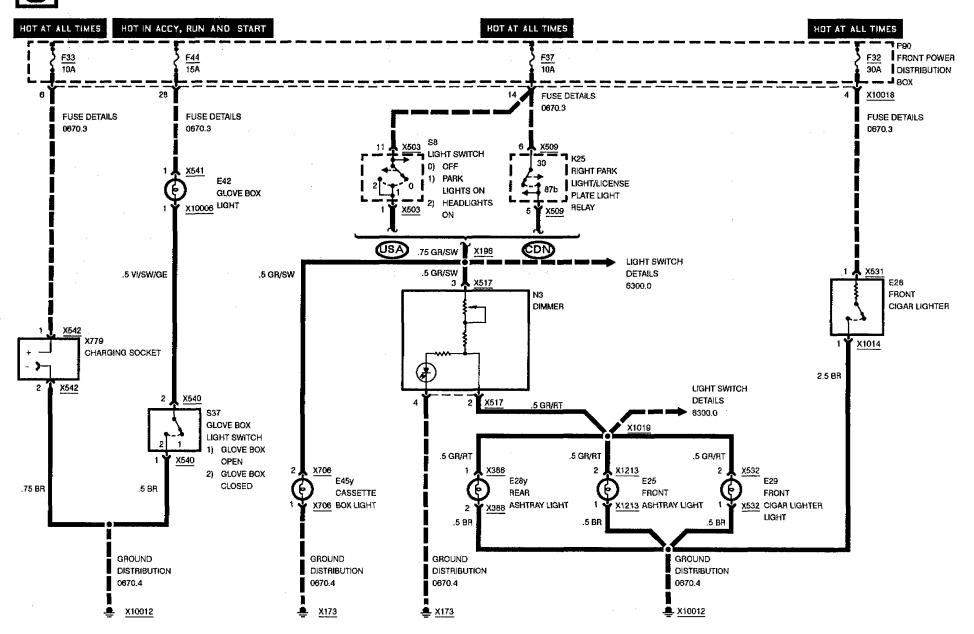
X13006

12/93





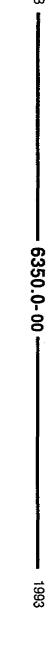
## GLOVE BOX LIGHT/CASSETTE BOX/ASHTRAY LIGHT/CHARGING SOCKET/CIGAR LIGHTER



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.5 BL/GN



HOT AT ALL TIMES

15A

X10018 FUSE DETAILS 0870.3

X1069

 $\Theta$ 

.5 WS/BL/GE

GROUND DISTRIBUTION 0670.4

🛖 X173

1 BL/GN

X184

TURN/HAZARD LIGHTS 6313.0

1.5 RT/SW/GE

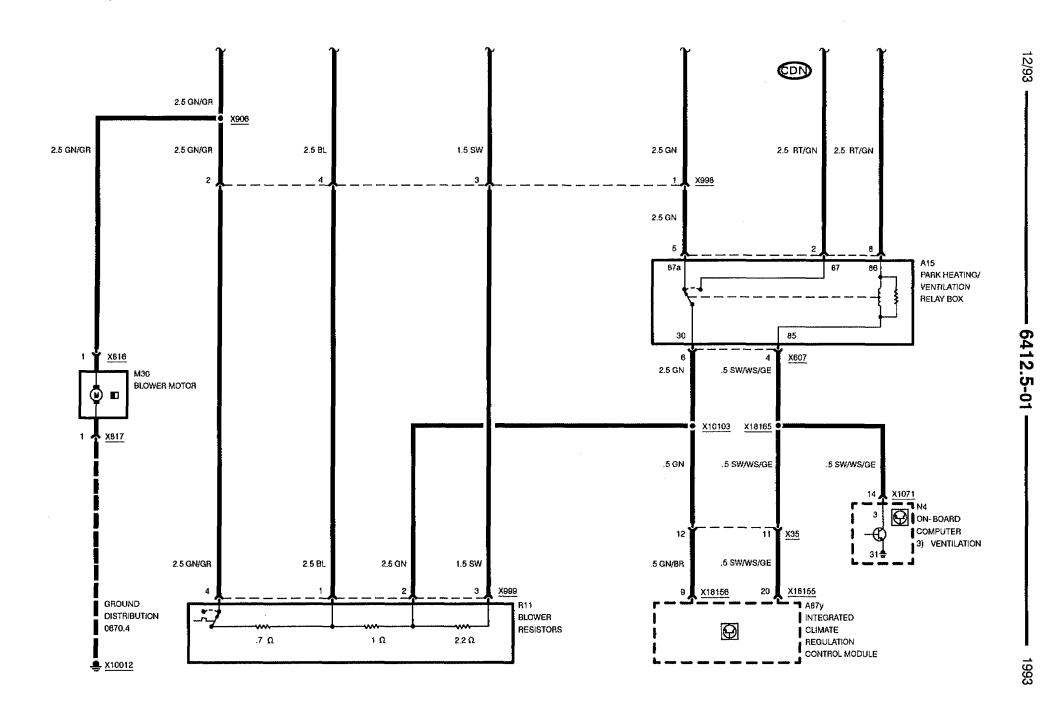
FRONT POWER

DISTRIBUTION

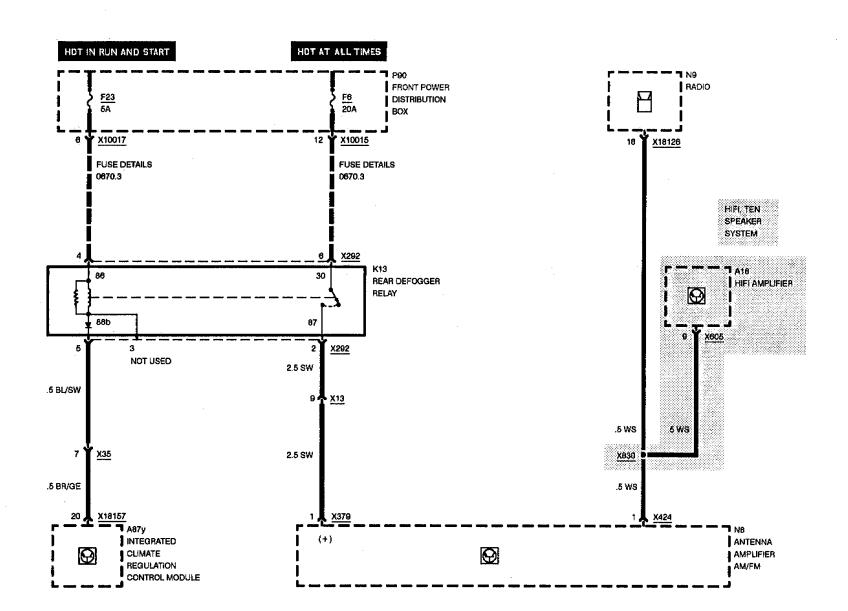
■ K18 | HAZARD | FLASHER RELAY

X64

1.5 RT/SW/GE

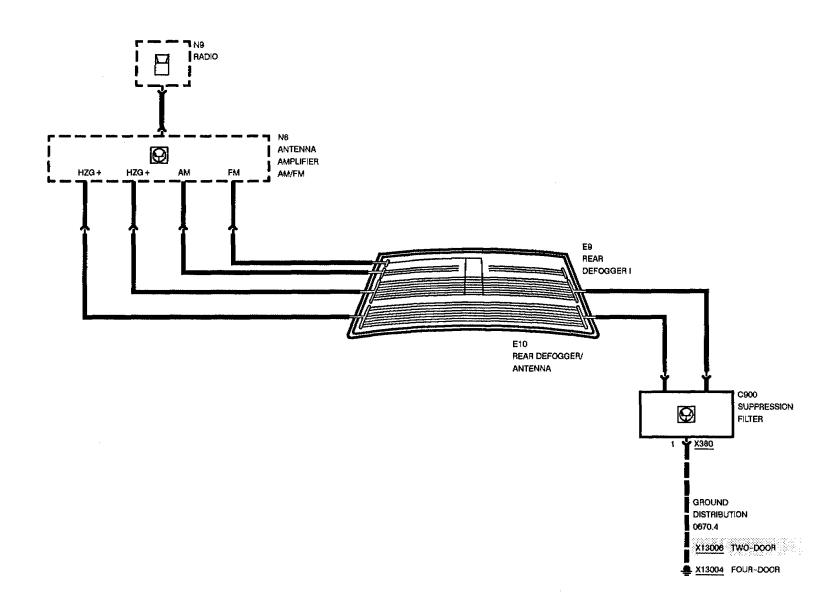


BMW

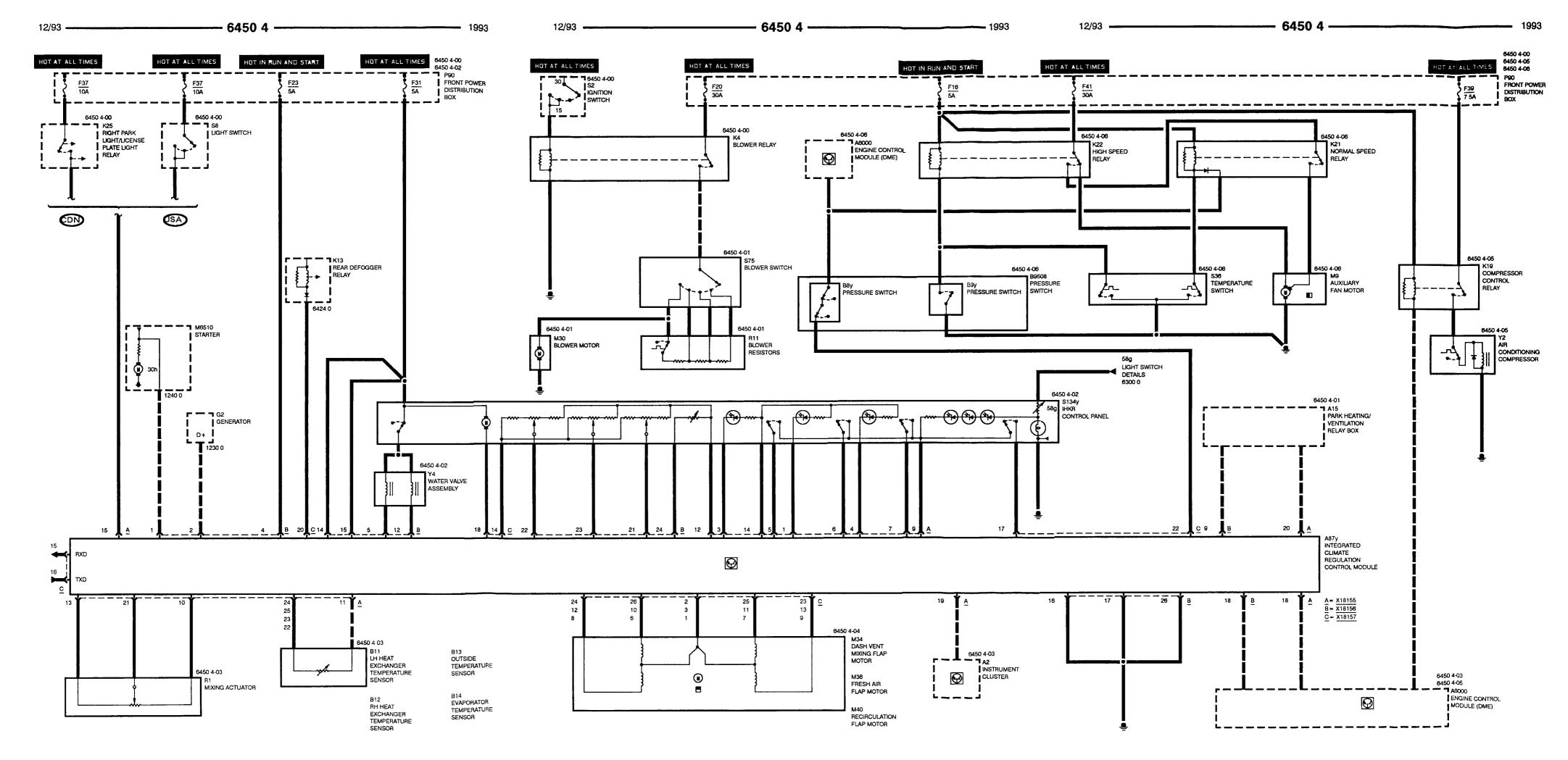


## **REAR WINDOW DEFOGGER**

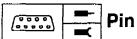
## REAR WINDOW ANTENNA











# Pin Assignments

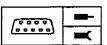
A = X18155	26 Pins, white
B = X18156	26 Pins, black
C = X18157	26 Pins, blue

#### X18155

Pin	Type	Description/Function	Connection
1	Α	Function light, air recirculation	IHKR control panel
2		Not used	
3	Α	Function light, rear window defogger	IHKR control panel
4	Α	Function light, air conditioning	IHKR control panel
5	Ë	Rear window defogger switch	IHKR control panel
6	E	Air circulation switch	IHKR control panel
7	E	Air conditioning switch	IHKR control panel
8		Not used	
9	Α	Ground for rear window defogger switch, air recirculation switch, air conditioning switch, electric flaps switches, and function lights	IHKR control panel
10	Α	Ground for mixing actuator	Mixing actuator
11	Α	Ground for temperature sensors	Various temperature sensors
12	Α	Ground for rotary switches and interior temperature sensor	IHKR control panel
13	Α	Voltage supply for mixing actuator	Mixing actuator
14	E	Voltage supply for function lights	IHKR control panel
15@	SAE	Terminal 58K	Light switch
15€	DNE	Terminal 58K	Right park light/license plate light relay, terminal 87
16		Not used	
17	_	Not used	
18	Е	Crankshaft position/RPM signal TD	Engine control module (DME)
19	Е	Vehicle speed	Instrument cluster
20	Ε	Independent ventilation	Park heating/ventilation relay box
21	E	Nominal mixing value	Mixing actuator
22	A/E	Evaporator temperature	Evaporator temperature sensor
23	A/E	Outside temperature	Outside temperature sensor
24	A/E	Heater temperature, left	Left heat exchanger temperature sensor

E = Input, A = Output, M = Ground





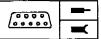
# Pin Assignments

Pin	Туре	Description/Function	Connection
25	A/E	Heater temperature, right	Right heat exchanger temperature sensor
26		Not used	

## X18156

Pin	Туре	Description/Function	Connection
1	Е	Terminal 30h	Starter, terminal 30h
2	E	Terminal 61	Generator
3		Not used	
4	E	Voltage supply, terminal 15	Front power distribution box, fuse 23
5	Α	Left water valve activation	Water valve assembly
6		Not used	
7		Not used	
8		Not used	,
9	E	Terminal 15 (independent ventilation only)	Park heating/ventilation relay box
10		Not used	
11		Not used	
12	A	Right water valve activation	Water valve assembly
13		Not used	11000
14	Е	Voltage supply, terminal 30	Front power distribution box, fuse 31
15	E	Voltage supply, terminal 30	Front power distribution box, fuse 31
16	M	Ground for load circuit	Ground point
17	М	Ground for load circuit	Ground point
18	Α	Engine control module (DME) activation (anti-stall)	Engine control module (DME)
19		Not used	
20		Not used	
21	E	Nominal temperature valve, right	IHKR control panel
22	Е	Nominal temperature valve, left	IHKR control panel
23	É	Nominal air flow valve	IHKR control panel
24	A/E	Interior temperature sensor	IHKR control panel
25	_	Not used	
26	М	Ground for electronics	Ground point

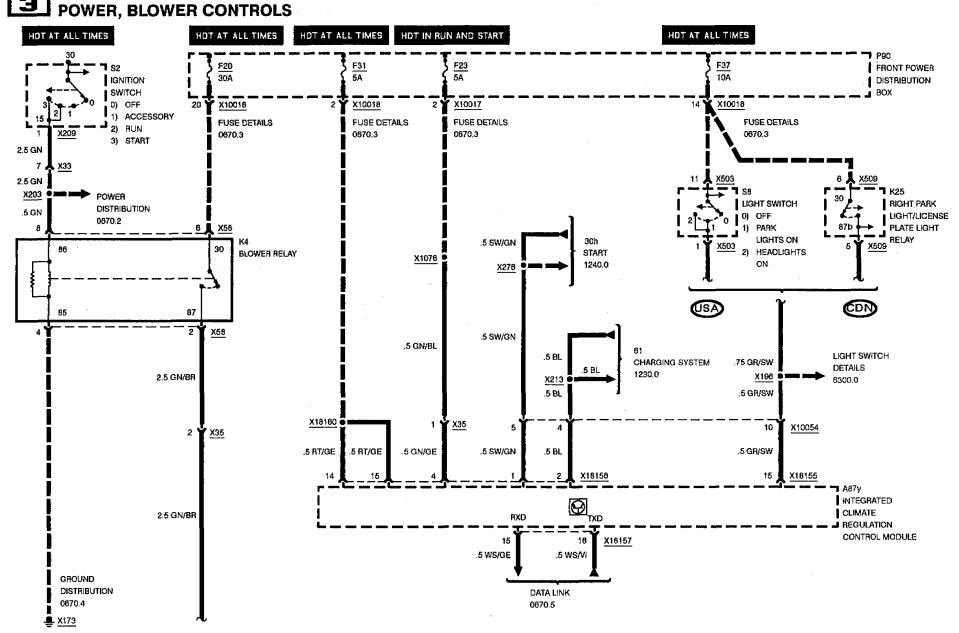


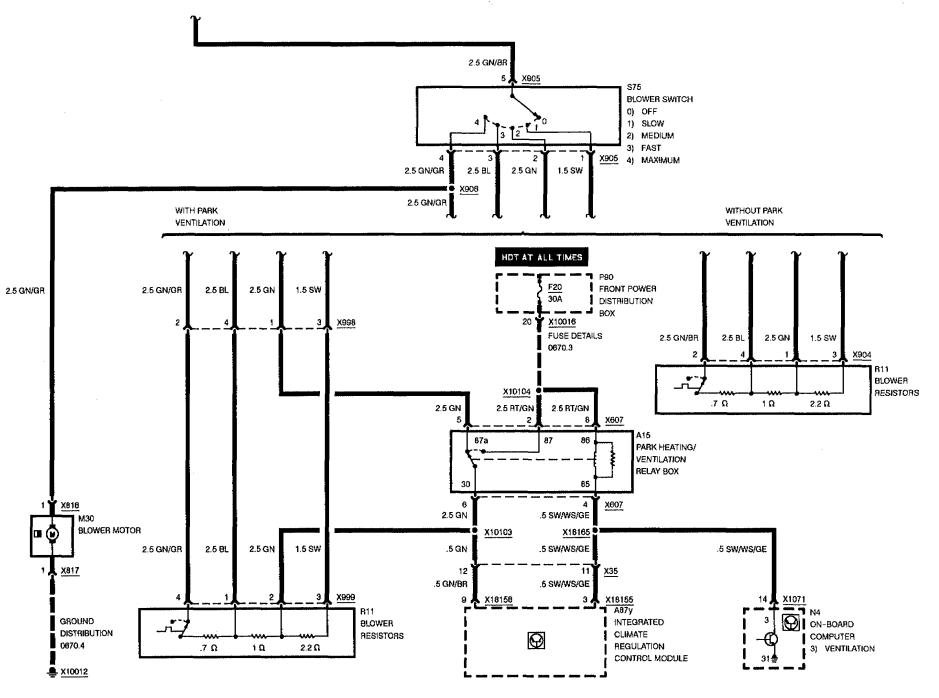


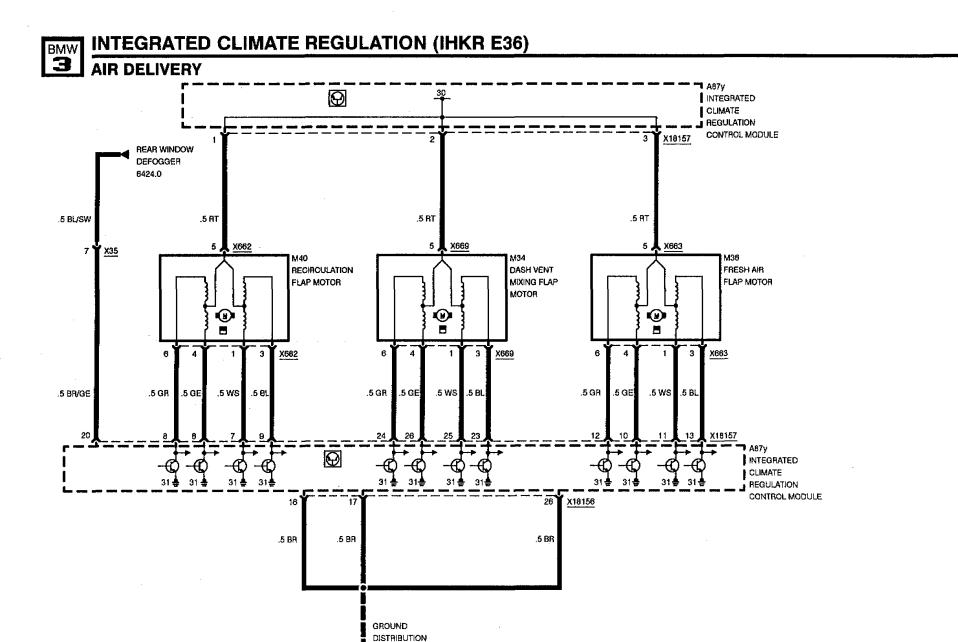
## Pin Assignments

## X18157

Pin	Туре	Description/Function	Connection
1	Α	Voltage supply for recirculation flap motor	Recirculation flap motor
2	Α	Voltage supply for dash vent mixing flap motor	Dash vent mixing flap motor
3	Α	Voltage supply for fresh air flap motor	Fresh air flap motor
4		Not used	
5		Not used	
6	Α	Recirculation flap motor activation	Recirculation flap motor
7	Α	Recirculation flap motor activation	Recirculation flap motor
8	Α	Recirculation flap motor activation	Recirculation flap motor
9	Α	Recirculation flap motor activation	Recirculation flap motor
10	Α	Fresh air flap motor activation	Fresh air flap motor
11	Α	Fresh air flap motor activation	Fresh air flap motor
12	Α	Fresh air flap motor activation	Fresh air flap motor
13	Α	Fresh air flap motor activation	Fresh air flap motor
14	Α	Voltage supply for rotary switches	IHKR control panel
15	Α	RxD diagnostic data line	Data link connector
16	E/A	TxD diagnostic data line	Data link connector
17	Ε	Ventilation flap switch	IHKR control panel
18	Α	Interior sensor blower activation	IHKR control panel
19		Not used	
20	Α	Rear window defogger activation	Rear defogger relay, terminal 86b
21		Not used	
22	Α	Activate A/C compressor/auxiliary fan stage 1	Engine control module (DME) and normal speed relay, terminal 85b
23	Α	Dash vent mixing flap motor activation	Dash vent mixing flap motor
24	Α	Dash vent mixing flap motor activation	Dash vent mixing flap motor
25	Α	Dash vent mixing flap motor activation	Dash vent mixing flap motor
26	Α	Dash vent mixing flap motor activation	Dash vent mixing flap motor





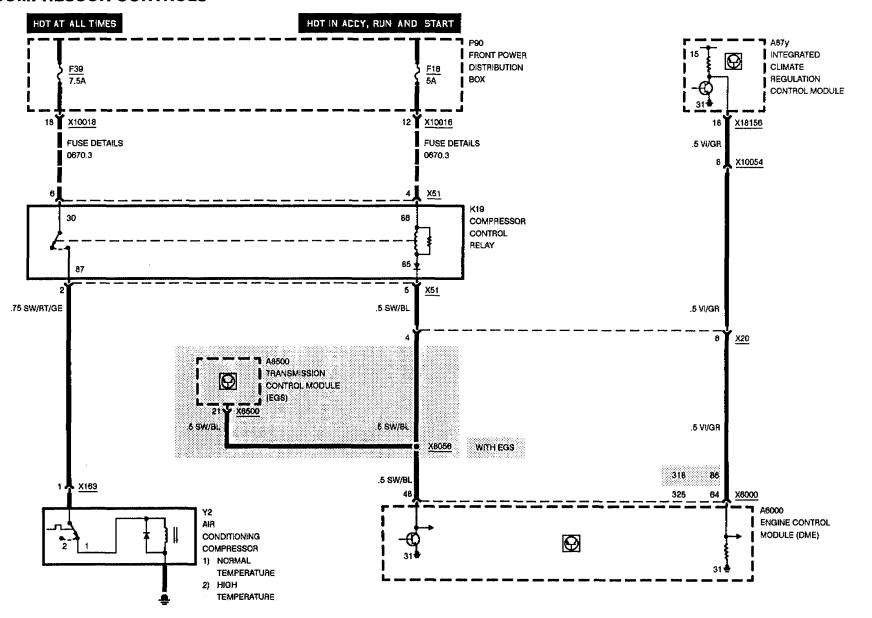


0670.4

# BMW

## **INTEGRATED CLIMATE REGULATION (IHKR E36)**

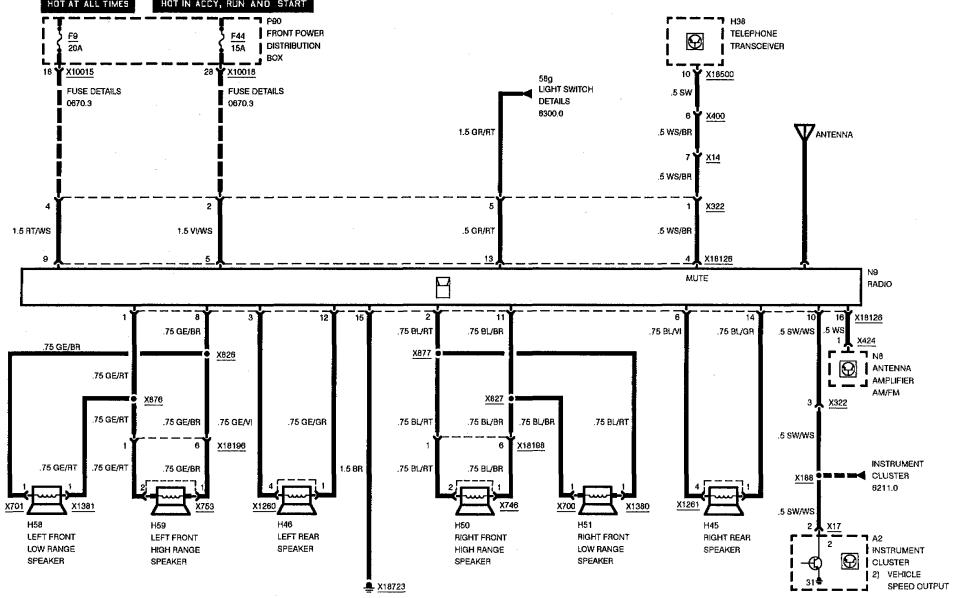
## **COMPRESSOR CONTROLS**



<u>X165</u>

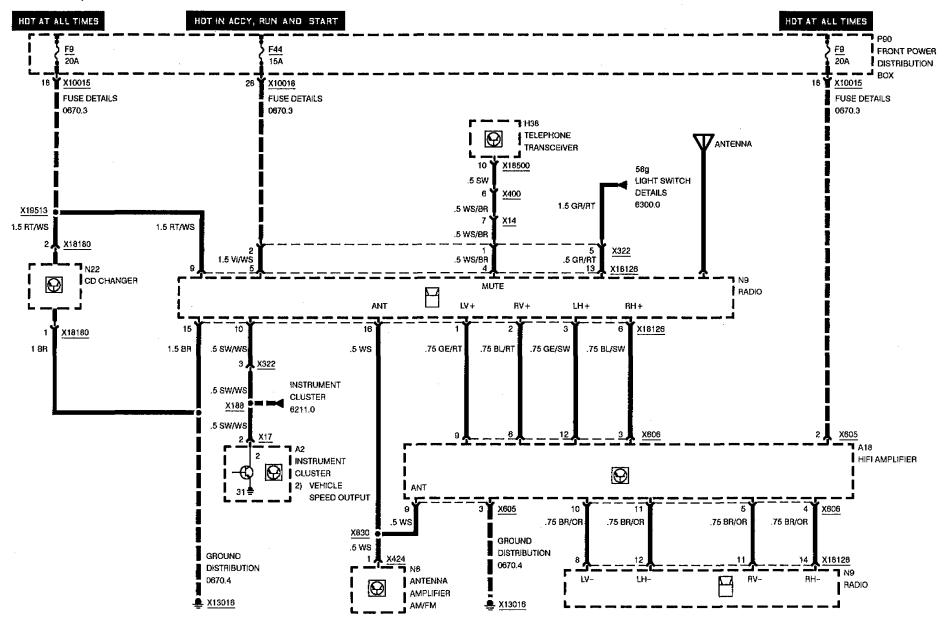
CLIMATE
REGULATION
CONTROL MODULE

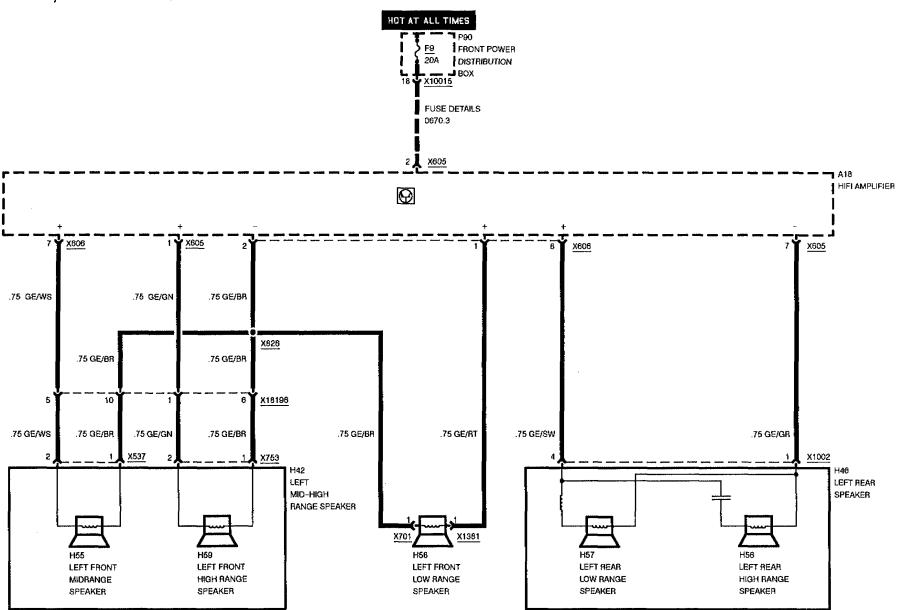




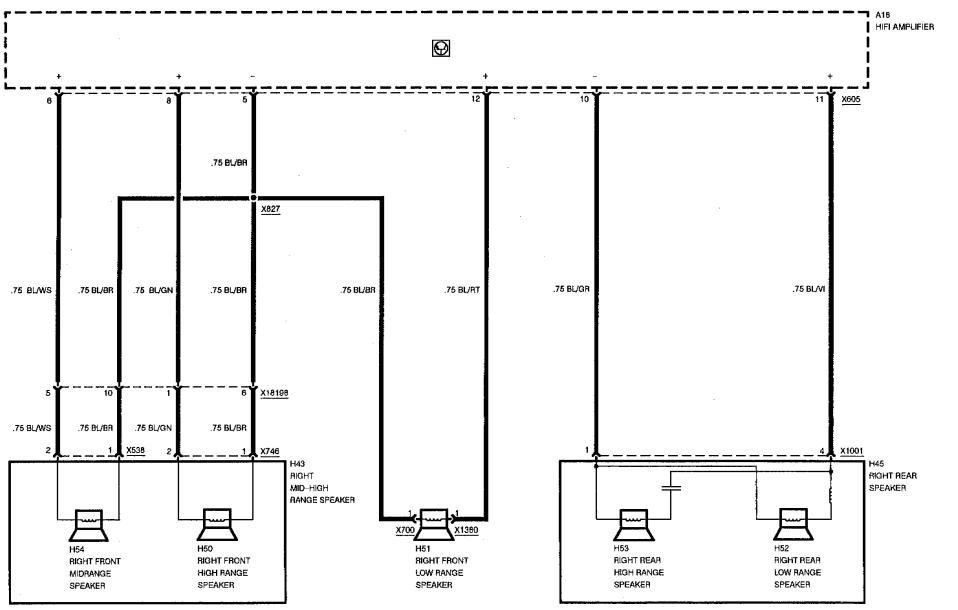


## HIFI, 10-SPEAKER SYSTEM



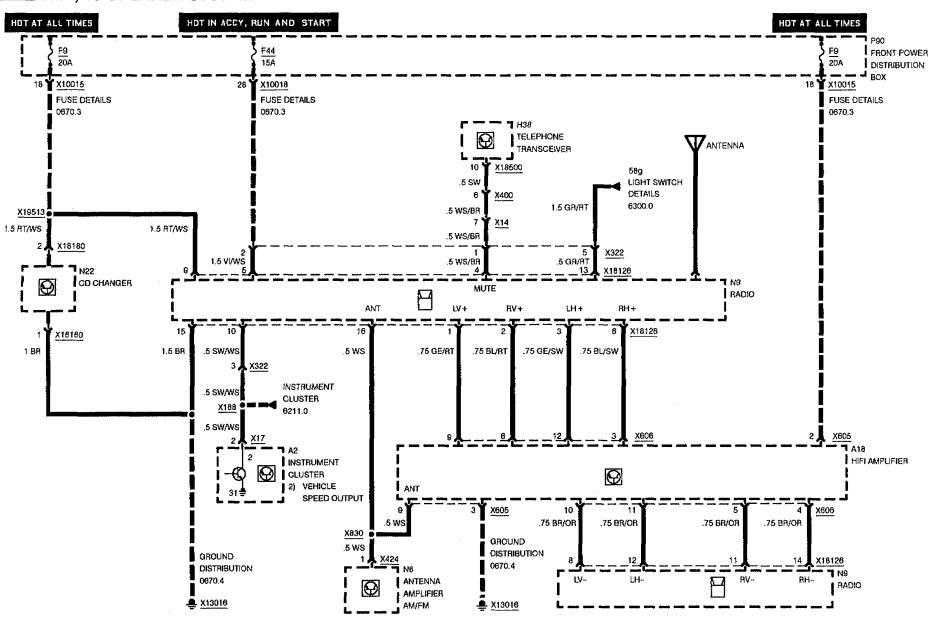


12/93



12/93

#### HIFI, 10-SPEAKER SYSTEM



.75 GE/WS

.75 GE/WS

.75 GE/BR

10

.75 GE/BR

H55

LEFT FRONT

MIDRANGE

SPEAKER

.75 GE/GN

.75 GE/GN

.75 GE/BR

6

.75 GE/BR

H59

LEFT FRONT

HIGH RANGE

SPEAKER

X18196

LEFT

MID-HIGH

RANGE SPEAKER

HIGH RANGE

SPEAKER

HDT AT ALL TIMES

X10015

 $\Theta$ 

H58

LEFT FRONT

LOW RANGE

SPEAKER

.75 GE/BR

**FUSE DETAILS** 0670.3

.75 GE/RT

.75 GE/SW

.75 GE/SW

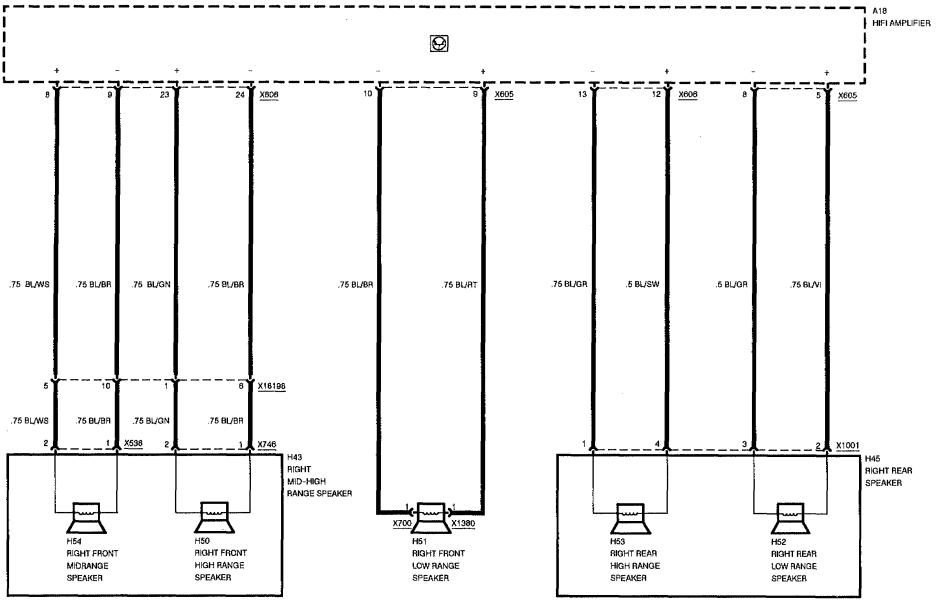
H57

LEFT REAR

LOW RANGE

SPEAKER

FRONT POWER DISTRIBUTION





.2 GE

 $\Theta$ 

.2 BR

.2 WS

TELEPHONE

HANDSET

MICROPHONE

X18515

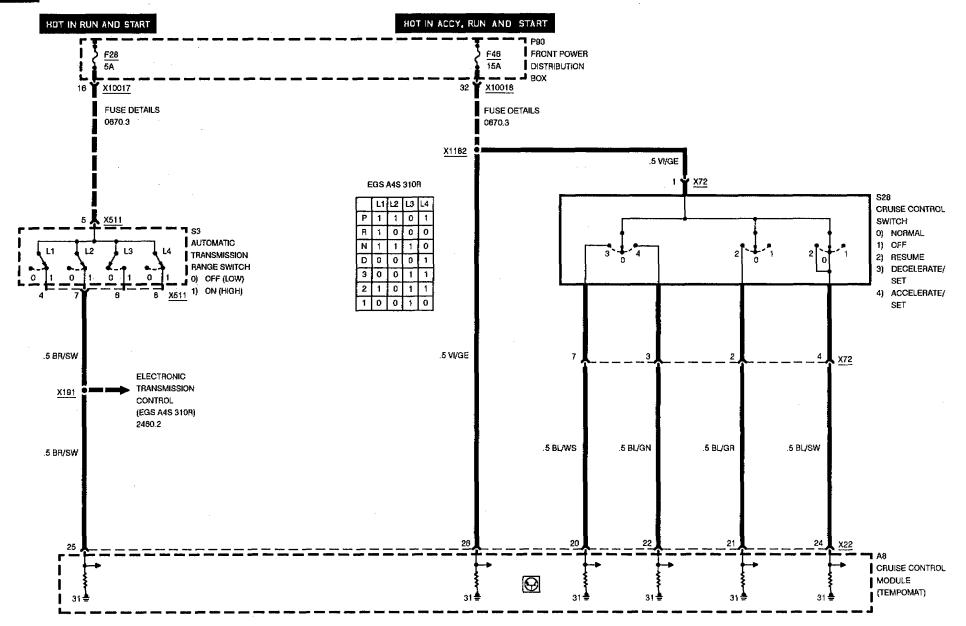
,LH LOUDSPEAKER

MUTE RADIO

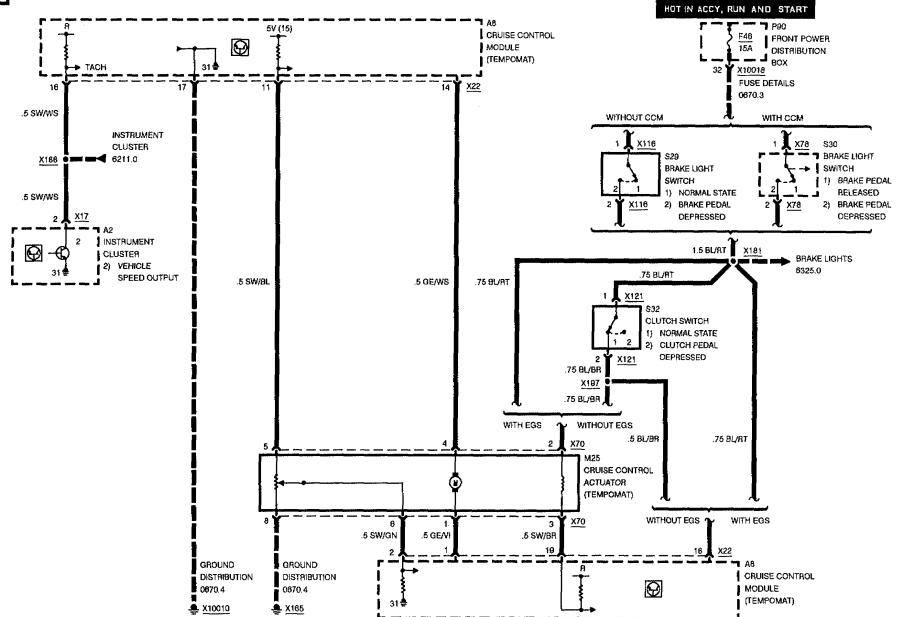
X18514

NOT USED

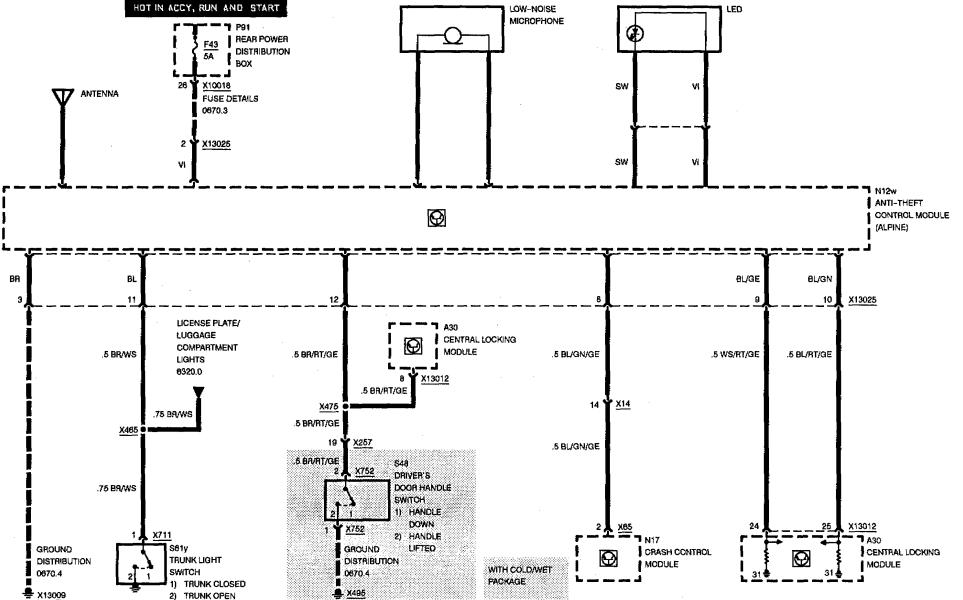


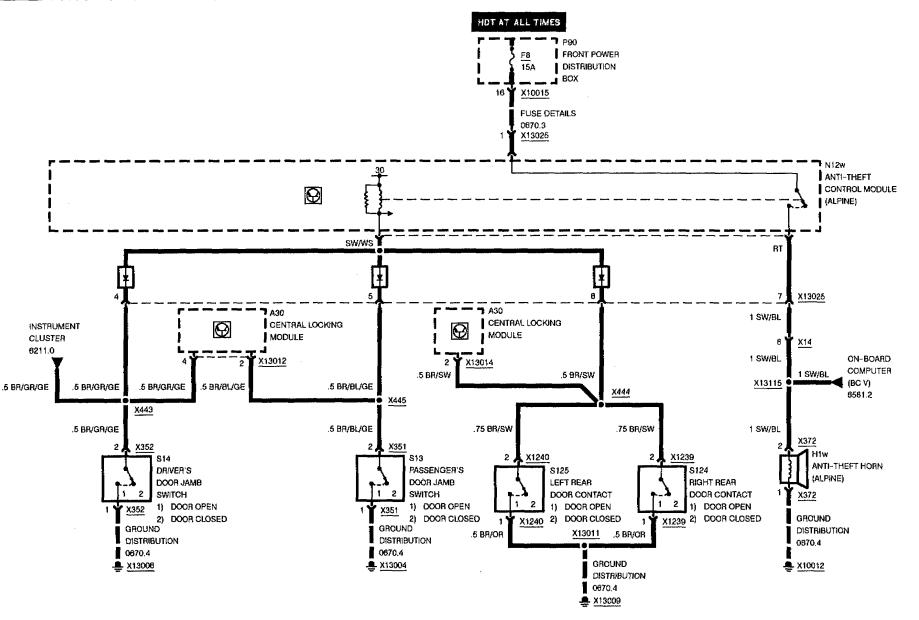


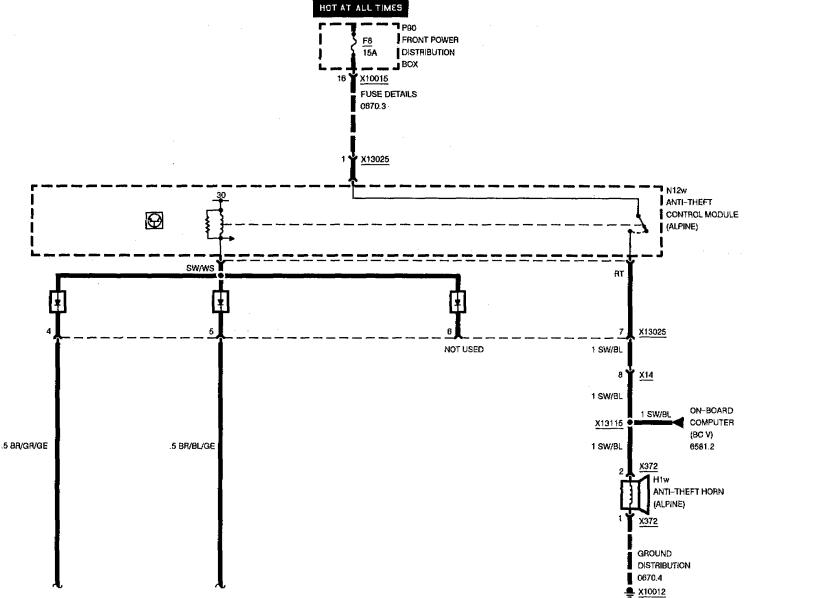
## **CRUISE CONTROL (TEMPOMAT)**

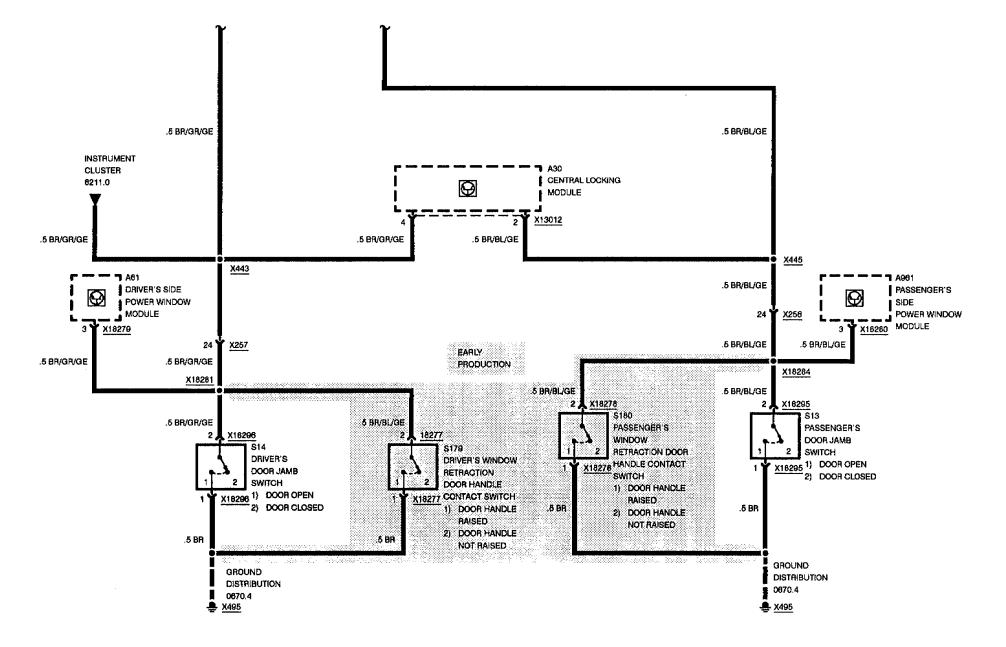


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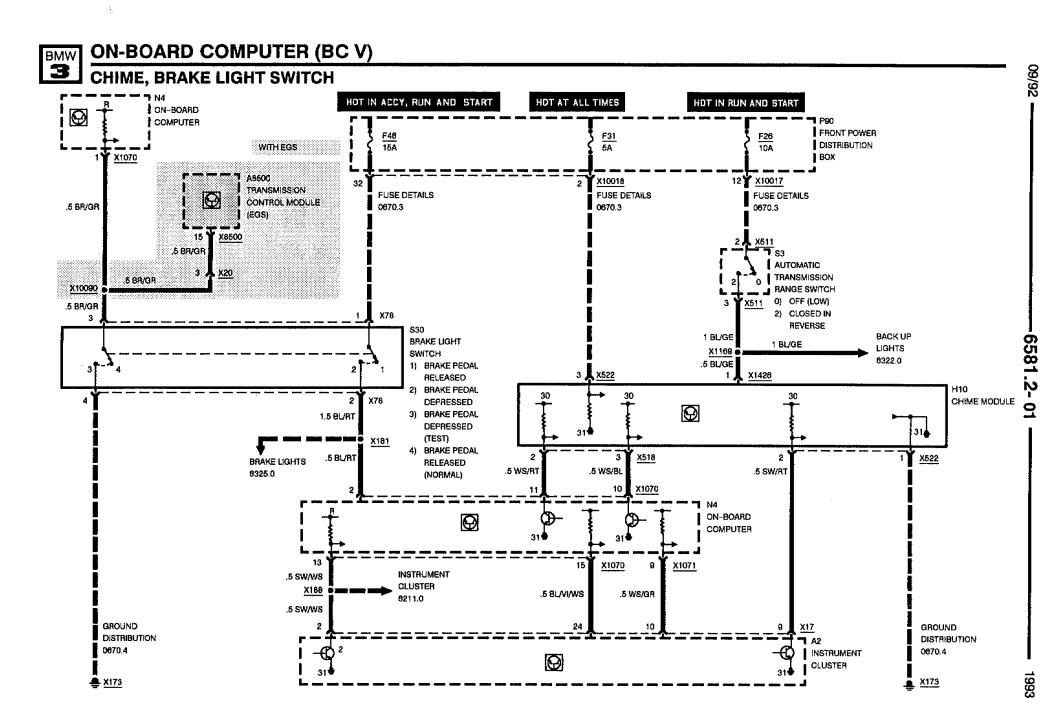


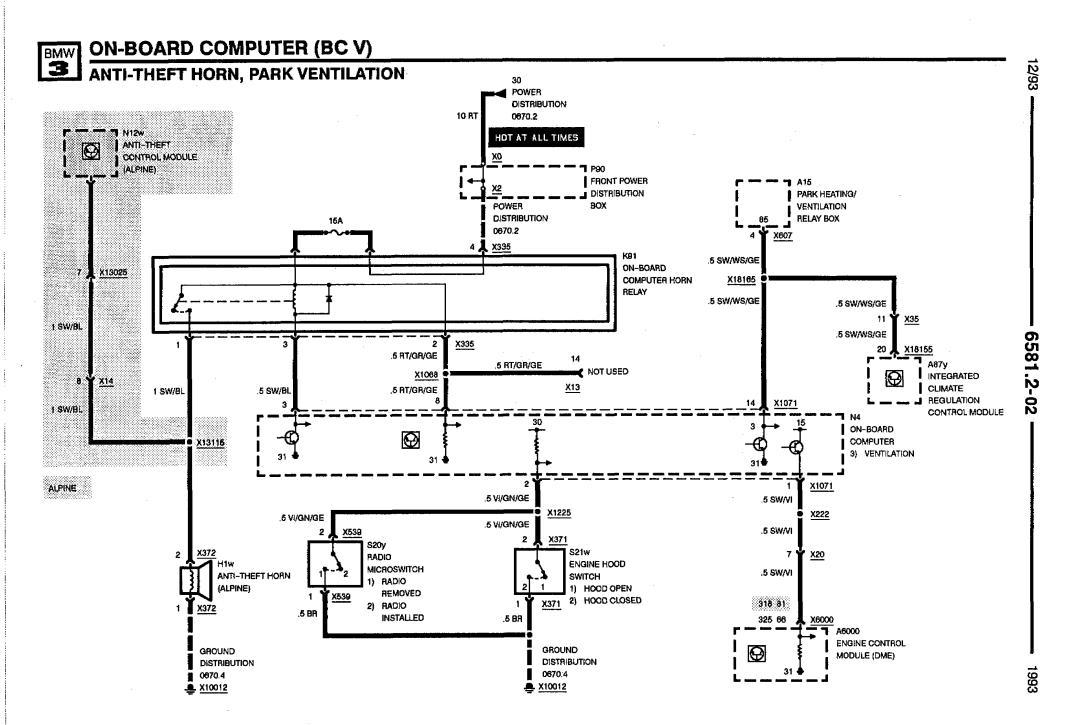


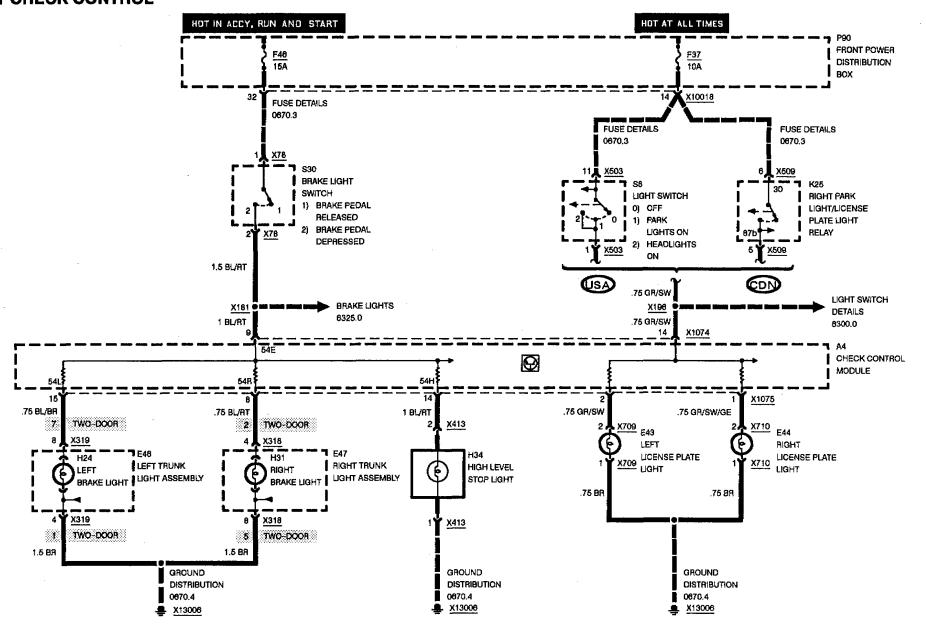




6581.2-00







6581.2-05

GROUND DISTRIBUTION

0670.4

🏯 <u>X13006</u>

GROUND

<u>A X13008</u>

DISTRIBUTION 0670.4

# вм**у**

COMPONENT	PAGE - 7100.0	FIGURE 8500.0
A2 INSTRUMENT CLUSTER LH side of dash	. 01-1	
A4 CHECK CONTROL MODULE Below LH side of dash	. 00-3	
A7 SLIP CONTROL MODULE (ABS) RH side of dash behind glove box	. 01-2	
A8 CRUISE CONTROL MODULE (TEMPOMAT) RH side of dash behind glove box	. 02-1	
A12 SUPPLEMENTAL RESTRAINT SYSTEM  CONTROL MODULE	. 01-3	
A12 SUPPLEMENTAL RESTRAINT SYSTEM  CONTROL MODULE	. 02-1	
A15 PARK HEATING/VENTILATION RELAY BOX Footwell, driver's side	. 03-3	
A18 HIFI AMPLIFIER In LH forward side of luggage compartment	. 04–1	
A30 CENTRAL LOCKING MODULE RH side of dash behind glove box	. 01-2	
A35 ON-BOARD DISPLAY Center of dash		
A51 WIPER/WASHER MODULE LH side of LH footwell under footrest EARLY PRODUCTION	. 00-2	
A51 WIPER/WASHER MODULE RH side of dash behind glove box LATE PRODUCTION		
A56 SUNROOF CONTROL ASSEMBLY Under roof center panel	. 02-2	
A61 DRIVER'S SIDE POWER WINDOW MODULE . In lower LH front door behind trim panel		
A64 WIPER/WASHER MODULE (LOW II) RH side of dash behind glove box	. 01-2	
A87y INTEGRATED CLIMATE REGULATION  CONTROL MODULE	. 02-3	
A961 PASSENGER'S SIDE POWER WINDOW  MODULE		

COMP	ONENT		PAGE - 7100.0	FIGURE 8500.0
A6000 .	ENGINE CONTROL MODULE (DME)	Rear RH side of engine compartment in E-Box behind trim panel	00-1	
A8500 .	TRANSMISSION CONTROL MODULE (EGS) .	Rear RH side of engine compartment in E-Box behind trim panel	00-1	
В1	RIGHT FRONT SPEED SENSOR - ABS	On RH front wheel, above brake caliper	27-3	
B2	LEFT FRONT SPEED SENSOR - ABS	On LH front wheel, above brake caliper	27-3	
В3	RIGHT REAR SPEED SENSOR - ABS	On RH rear wheel, above brake caliper		
В4	LEFT REAR SPEED SENSOR - ABS	On LH rear wheel, above brake caliper		
В6	FUEL LEVEL SENSOR	Below LH side of rear seat	25-1	
B10	VEHICLE SPEED SENSOR	Under rear of car	29-3	
B11	LH HEAT EXCHANGER TEMPERATURE SENSOR	Center console	02-3	
B12	RH HEAT EXCHANGER TEMPERATURE SENSOR	Center console	02-3	
В13	OUTSIDE TEMPERATURE SENSOR	Rear of engine compartment behind RH fresh air cowl	15-3	
В14	EVAPORATOR TEMPERATURE SENSOR	RH side of LH footwell LH side of IHKR Plenum	20-2	
B16	LEFT FRONT BRAKE PAD SENSOR	On LH front wheel, above brake caliper	27-3	
B17	RIGHT REAR BRAKE PAD SENSOR	Behind RH rear wheel		
B18	BRAKE FLUID LEVEL SWITCH	Rear LH side of engine compartment near brake master cylinder top of brake fluid reservoir	10-3	
B21	ON-BOARD COMPUTER TEMPERATURE SENSOR	Front RH side of engine compartment		
B400	MICROPHONE	Center of dash		
B6200 .	HEATED OXYGEN SENSOR	Under center of car (325)	28-2	
B6200 .	HEATED OXYGEN SENSOR	Under center of car (318)	29-1	



COMP	ONENT		PAGE - 7100.0	FIGURE 8500.0
B6203 .	CRANKSHAFT POSITION/RPM SENSOR	Under RH front of car rear of radiator (325)	28-1	
B6203 .	CRANKSHAFT POSITION/RPM SENSOR	Under front of car (318)	28-3	
B6204 .	CAMSHAFT POSITION SENSOR (CYLINDER IDENTIFICATION)	RH front of engine below intake manifold rear of radiator (325)	12-1	
B6205 .	INTAKE AIR TEMPERATURE SENSOR	LH side of engine (near oil level stick) (325)	11-2	
B6208 .	CAMSHAFT ACTUATOR	Front of engine		
B6209 .	HALL EFFECT CAMSHAFT SENSOR	Front of engine		
B6217 .	HOT FILM AIR MASS METER	Top front of engine		
B6231 .	OIL PRESSURE SWITCH	RH front of engine below intake manifold (325)	12-1	
B6231 .	OIL PRESSURE SWITCH	LH side of engine compartment (near oil level stick) (318)	15-1	
B6232 .	ENGINE COOLANT TEMPERATURE SENSOR	RH front of engine below intake manifold (325)	08-2	
B6233 .	VOLUME AIR FLOW SENSOR	LH side of engine compartment right of LH side shock tower (318)	14-3	
B6236 .	ENGINE COOLANT TEMPERATURE SENSOR	RH front of engine below intake manifold (325)	12-1	
B6241 .	CYL. 1-2 KNOCK SENSOR	Top front of engine (318)		
B6242 .	CYL. 3-4 KNOCK SENSOR	Top front of engine (318)		
B9508 .	PRESSURE SWITCH	Front RH side of engine compartment near RH headlight assembly	15-2	
B6241w	CYL. 1-3 KNOCK SENSOR	Top front of engine (325)		
B6242w	CYL. 4-6 KNOCK SENSOR	Top front of engine (325)		
C1	CAPACITOR	In upper LH C-piliar		
C100	CONTACT RING	Top of steering column	19-2	

# •

COMP	DNENT		PAGE - 7100.0	FIGURE 8500.0
C900	SUPPRESSION FILTER	In upper RH C-pillar	06-3	
D100	DATA LINK CONNECTOR	Rear RH side of engine compartment front of battery	05-1	
E7	LEFT HEADLIGHT	LH side of body rear end		
E8	RIGHT HEADLIGHT	RH side of body rear end		
E9	REAR DEFOGGER	In upper RH C-pillar	06-3	
E10	REAR DEFOGGER/ANTENNA	In rear window		
E11	LEFT HIGH BEAM LIGHT	Near LH headlight assembly		
E12	RIGHT HIGH BEAM LIGHT	Near RH headlight assembly		
E13	LEFT LOW BEAM LIGHT	Near LH headlight assembly		
E14	RIGHT LOW BEAM LIGHT	Near RH headlight assembly		
E15	LEFT PARK LIGHT	Front of vehicle		
E19	RIGHT PARK LIGHT	Front of vehicle		
E20	UNDERHOOD LIGHT	On underside of engine hood		
E25	FRONT ASHTRAY LIGHT	Center console	22-3	
E26	LEFT FOG LIGHT	Under LH front bumper	09-1	
E27	RIGHT FOG LIGHT	Under RH front bumper	09-1	
E28	FRONT CIGAR LIGHTER	Near gearshift lever		
E29	FRONT CIGAR LIGHTER LIGHT	Center console		
E32	TRUNK COMPARTMENT LIGHT	Rear of luggage compartment		
E34	FRONT DOME LIGHT/MAP READING ASSEMBLY	Under roof center panel	02-2	

COMPONENT		- FIGURE
	7100.0	8500.0
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	. 08–1	
E40 RIGHT REAR INTERIOR LIGHT In upper RH C-pillar	. 06-3	
E42 GLOVE BOX LIGHT LH side of glove box		
E43 LEFT LICENSE PLATE LIGHT Underside of trunk lid, near license plate	. 27-1	
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E47 RIGHT TRUNK LIGHT ASSEMBLY in RH rear side of luggage compartment	. 03-2	
E48 DOOR LOCK HEATER LH front door		
E51 LEFT WASHER JET HEATER On underside of engine hood		
E52 RIGHT WASHER JET HEATER On underside of engine hood		
E56 DRIVER'S SEATBACK HEATER In upper LH front seatback		
E57 DRIVER'S SEAT HEATER Under LH front seat		
E58 PASSENGER'S SEAT HEATER Underside of RH front seat		
E59 PASSENGER'S SEATBACK HEATER in upper RH front seatback		
E82 TRANSMISSION POSITION INDICATOR LIGHT Center console		
E28y REAR ASHTRAY LIGHT Below center console	. 22-3	
E45y CASSETTE BOX LIGHT Center of dash		
F56 AUTOMATIC CUT-OUT LH side of dash	. 20-1	

#### BMW **3**

COMPONENT	PAGE - FIGURE	Ξ
	7100.0 8500.0	)
G1 BATTERY In RH rear side of luggage compartment (325)		
G1 BATTERY Front RH side of engine compartment (318)		
G5 DRIVER'S AIR BAG GENERATOR Behind steering wheel		
G6 PASSENGER'S AIR BAG GAS GENERATOR I . RH side of dash		
G6430 . B+ JUMP START JUNCTION POINT Rear RH side of engine compartment back of RH side shock tower		
G6509 . GENERATOR Front LH side of engine compartment	05-2	
H2 LEFT HORN Front of engine compartment		
H3 RIGHT HORN Front of engine compartment		
H4 RIGHT FRONT TURN LIGHT Front of vehicle	•	
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 vehicle		
H8 RIGHT FRONT AUXILIARY TURN LIGHT Front of vehicle		
H9 LEFT FRONT AUXILIARY TURN LIGHT Front of vehicle		
H10 CHIME MODULE Below LH side of dash		
H1w ANTI-THEFT HORN (ALPINE)		
H24 LEFT BRAKE LIGHT LH side of body rear end		
H25 LEFT TAIL LIGHT LH side of body rear end		
H34 HIGH LEVEL STOP LIGHT At back of rear window shelf		
H38 TELEPHONE TRANSCEIVER	04–1	

#### **COMPONENT**

PAGE - FIGURE 7100.0 8500.0

H41	LEFT FRONT SPEAKER	In lower LH A-pillar
H42	LEFT MID-HIGH RANGE SPEAKER	In upper LH front door
H43	RIGHT MID-HIGH RANGE SPEAKER	In upper RH front door
H45	RIGHT REAR SPEAKER	Under rear window shelf
H46	LEFT REAR SPEAKER	Under rear window shelf
H50	RIGHT FRONT HIGH RANGE SPEAKER	In upper RH front door
H51	RIGHT FRONT LOW RANGE SPEAKER	In lower RH A-pillar
H52	RIGHT REAR LOW RANGE SPEAKER	Under rear window shelf
Н53	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
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	In lower LH A-pillar
H59	LEFT FRONT HIGH RANGE SPEAKER	In upper LH front door
К1	STARTER RELAY	Below LH side of dash19-
к2	HORN RELAY	Rear LH side of engine compartment in Power Distribution Box
К4	BLOWER RELAY	Rear LH side of engine compartment in Power Distribution Box
к9	UNLOADER RELAY, TERMINAL 15	Below LH side of dash19-
K10	ABS RELAY	Rear LH side of engine compartment in Power Distribution Box

COMP	ONENT		PAGE - 7100.0	FIGURE 8500.0
K11	WIPER RELAY	Below LH side of dash	19-1	
K13	REAR DEFOGGER RELAY	Rear LH side of engine compartment in Power Distribution Box	09-3	
K16	HAZARD FLASHER RELAY	Rear LH side of engine compartment in Power Distribution Box	10-1	
K19	COMPRESSOR CONTROL RELAY	Rear LH side of engine compartment in Power Distribution Box	09-3	
K21	NORMAL SPEED RELAY	Rear LH side of engine compartment in Power Distribution Box	10-2	
К22	HIGH SPEED RELAY	Rear LH side of engine compartment in Power Distribution Box	10-2	
K25	RIGHT PARK LIGHT/LICENSE PLATE LIGHT RELAY	RH side of dash behind glove box		
K26	LEFT PARK LIGHT RELAY	RH side of dash behind glove box		
K46	HIGH BEAM LIGHT RELAY	Rear LH side of engine compartment in Power Distribution Box	10-1	
K47	FRONT FOG LIGHT RELAY	Rear LH side of engine compartment in Power Distribution Box	10-1	
K48	LOW BEAM LIGHT RELAY	Rear LH side of engine compartment in Power Distribution Box	10-1	
K53	WIPER MOTOR RELAY	Below LH side of dash	19-1	
K75	ABS PUMP MOTOR RELAY	Rear LH side of engine compartment in Power Distribution Box	09-3	
K78	COMFORT RELAY	Below LH side of dash		
K91	ON-BOARD COMPUTER HORN RELAY	RH side of dash behind glove box		
K6300 .	ENGINE CONTROL MODULE RELAY	Rear LH side of engine compartment in Power Distribution Box	09-3	
K6301 .	CYL. 1-6 FUEL PUMP RELAY	Rear LH side of engine compartment in Power Distribution Box (325)	09-3	
K6303 .	OXYGEN SENSOR RELAY	In Front Power Distribution Box		
K6301w	FUEL PUMP RELAY	Rear LH side of engine compartment in Front Power Distribution Box (318)		

COMP	ONENT		PAGE -	FIGUR
			7100.0	8500.0
M2	FUEL PUMP	Below RH side of rear seat	24-3	
мз	WIPER MOTOR	Rear of engine compartment below center of cowi	141	
М4	WASHER PUMP	Front RH side of engine compartment on washer fluid reservoir	12-2	
М5	INTENSIVE WASH PUMP	Front RH side of engine compartment		
М7	HEADLIGHT/FOG LIGHT WASHER PUMP	Front RH side of engine compartment on washer fluid reservoir	12-3	
мэ	AUXILIARY FAN MOTOR	Behind front grille behind trim panel		
M12	DRIVER'S DOOR LOCK MOTOR	In lower LH front door behind trim panel		
М13	PASSENGER'S DOOR LOCK MOTOR	In lower RH side of front door behind trim panel		
M14	RIGHT REAR DOOR LOCK MOTOR	In lower RH rear door behind trim panel		
М15	LEFT REAR DOOR LOCK MOTOR	In lower LH rear door behind trim panel		
M16	GAS FILLER LOCK MOTOR	In RH rear side of luggage compartment	03-2	
M17	TRUNK LOCK MOTOR	Rear side of luggage compartment		
M20	LEFT REAR WINDOW MOTOR	In lower LH rear door behind trim panel		
M22	RIGHT REAR WINDOW MOTOR	In lower RH rear door behind door panel		
M23	PASSENGER'S WINDOW MOTOR	RH front door behind door panel	17-2	
M24	SUNROOF MOTOR	Center of windshield header		
M25	CRUISE CONTROL ACTUATOR (TEMPOMAT)	Front LH side of engine compartment	09-2	
М30	BLOWER MOTOR	Rear of engine compartment behind RH fresh air cowl	15-3	
М34	DASH VENT MIXING FLAP MOTOR	Below LH side of dash RH side of steering column	20-3	
мз6	FRESH AIR FLAP MOTOR	Below RH side of dash center console right	23-1	

COMP	ONENT	LOCATION	CHART

COMPONENT	PAGE - 7100.0	FIGURE 8500.0
M40 RECIRCULATION FLAP MOTOR Below LH side of dash RH side of steering column	. 20-3	
M50 DRIVER'S SEAT CUSHION TILT MOTOR Under LH front seat		
M51 DRIVER'S SEAT MOVEMENT MOTOR Under LH front seat		
M52 DRIVER'S SEAT HEIGHT MOTOR Under LH front seat		
M53 DRIVER'S SEATBACK RECLINER MOTOR Under LH front seat		
M58 PASSENGER'S SEATBACK RECLINER  MOTOR		
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		
M55z . DRIVER'S SEAT LUMBAR SUPPORT  MOTOR/VALVE Under LH front seat		,
M6510 . STARTER Rear LH side of engine compartment		
N3 DIMMER LH side of dash top of steering column	. 03-3	
N4 ON-BOARD COMPUTER Center console	. 03-1	
N6 HEADLIGHT/FOGLIGHT CLEANING  MODULE (SRA) Footwell, driver's side	. 03-3	
N8 ANTENNA AMPLIFIER AM/FM In upper LH C-pillar	. 08–1	
N9 RADIO Center console		
N10 MULTI-FUNCTION CLOCK Center console		
N17 CRASH CONTROL MODULE Footwell, driver's side	. 03-3	
N21 TWIN RELAY MODULE Footwell, driver's side	. 03-3	

COMP	ONENT		PAGE - FIG 7100.0 8	GURE 3500.0
N22	CD CHANGER	In RH side of luggage compartment	03-2	
N12w	ANTI-THEFT CONTROL MODULE (ALPINE) $\dots$	RH side of dash behind glove box	02-1	
P90	FRONT POWER DISTRIBUTION BOX	Rear LH side of engine compartment	05-3	
R1	MIXING ACTUATOR	Center console	21-2	
R11	BLOWER RESISTORS	Behind center of dashboard LH side of IHKR Plenum	23-2	
R6252 .	THROTTLE POSITION SENSOR	LH side of engine (near oil level stick) (325)	11-2	
R6252 .	THROTTLE POSITION SENSOR	LH side of engine (318)	14-2	
S2	IGNITION SWITCH	LH side of dash top of steering column	19-3	
S3	AUTOMATIC TRANSMISSION RANGE SWITCH	Center console near gearshift lever	22-2	
S4	HORN SWITCH	Top of steering column	19-2	
S5	WIPER/WASHER SWITCH	LH side of dash RH side of steering column above		
S7	COMBINATION SWITCH	LH side of steering column	20-1	
S8	LIGHT SWITCH	LH side of dash		
S10	FOG LIGHT SWITCH	LH side of dash		
S13	PASSENGER'S DOOR JAMB SWITCH	Rear RH door pillar (with ZVM)	25-2	
S14	DRIVER'S DOOR JAMB SWITCH	LH rear door jamb (with ZVM)	25-2	
S15	REAR RIGHT DOOR JAMB SWITCH	în lower RH C-pillar	25-2	
S16	LEFT REAR DOOR JAMB SWITCH	în lower LH C-pillar	25-2	
S17	MIRROR CONTROL SWITCH	In upper LH front door		
S18	HAZARD SWITCH	Center console near gearshift lever	22-2	

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COMPONENT	PAGE - FIGURE
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S19 UNDERHOOD LIGHT SWITCH Near RH headlight assembly	
S27 INERTIA SWITCH In lower RH A-pillar	
S28 CRUISE CONTROL SWITCH LH side of dash RH side of steering column above	
S29 BRAKE LIGHT SWITCH LH footwell on brake pedal support bracket behind LH footwell trim .	
S30 BRAKE LIGHT SWITCH LH footwell on brake pedal support bracket behind LH footwell trim .	
S31 PARK BRAKE SWITCH Center console on rear of park brake lever	
S32 CLUTCH SWITCH LH footwell on clutch pedal support bracket behind LH footwell trim .	18–2
S36 TEMPERATURE SWITCH Front RH side of engine compartment RH top of radiator	15–2
S37 GLOVE BOX LIGHT SWITCH RH side of dash behind glove box right	
S41 LEFT REAR WINDOW SWITCH In lower LH rear door behind trim panel	
S42 RIGHT REAR WINDOW SWITCH In lower RH rear door behind trim panel	
\$47 DRIVER'S DOOR LOCK SWITCH LH front door in door at key lock assembly	
S48 DRIVER'S DOOR HANDLE SWITCH LH front door in door at key lock assembly	
S49 PASSENGER'S DOOR LOCK SWITCH RH front door in door at key lock assembly	
S51 DRIVER'S SEAT, SEAT CONTROL SWITCH LH side of driver's seat	
S53 DRIVER'S SEAT, SEAT HEATER SWITCH Center console near gearshift lever	21-3
S54 PASSENGER'S SEAT, SEAT HEATER SWITCH Center console near gearshift lever	03-1
S56 PASSENGER'S SEAT, SEAT CONTROL SWITCH	
S58 DRIVER'S SEAT BELT SWITCH In LH front seat belt buckle	
S63 ENGINE COOLANT LEVEL SWITCH Front RH side of engine compartment	

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S64	WASHER FLUID LEVEL SWITCH	Front RH side of engine compartment on washer fluid reservoir	12-2	
S71	LEFT FRONT IMPACT SENSOR	LH side of engine compartment EARLY PRODUCTION		
S72	RIGHT FRONT IMPACT SENSOR	Front RH side of engine compartment EARLY PRODUCTION	12-3	
S75	BLOWER SWITCH	Center of dash under the control modules		
S77	DRIVER'S MAKEUP MIRROR SWITCH	Above LH sun visor		
<b>S</b> 78	PASSENGER'S MAKEUP MIRROR SWITCH	Above RH sun visor		
\$82	REAR FOG LIGHT SWITCH	LH side of dash		
S123	ABS PEDAL TRAVEL SENSOR	Rear LH side of engine compartment near brake fluid reservoir	10-3	
S130	CHILD PROTECTION CONTROL (CONSOLE) .	Center console		
S179	DRIVER'S WINDOW RETRACTION DOOR HANDLE CONTACT SWITCH	LH front door in door at key lock assembly		
S180	PASSENGER'S WINDOW RETRACTION DOOR HANDLE CONTACT SWITCH	RH front door in door at key lock assembly		
S198	JET HEATER THERMOSWITCH	Front LH side of engine compartment		
S20y	RADIO MICROSWITCH	Center of dash		
S21w	ENGINE HOOD SWITCH	Rear RH side of engine compartment back of RH side shock tower	13-3	
S61y	TRUNK LIGHT SWITCH	Underside of trunk lid left	26-3	
S126y .	DRIVER'S POWER WINDOW SWITCH	Center console near gearshift lever	22-1	
S127y .	PASSENGER'S POWER WINDOW SWITCH $\ \ .$	Center console near gearshift lever	22-1	

COMPONENT	PAGE -	- FIGURE
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S128y .	WINDOW SWITCH	Center console
S129y .	RH REAR DOOR (CONSOLE) POWER WINDOW SWITCH	Center console
S134y .	IHKR CONTROL PANEL	Center of dash
S8503 .	PROGRAM SWITCH	Center console
S8507 .	KICK-DOWN SWITCH	LH footwell
S8511 .	REVERSING LIGHT SWITCH	Under front of car LH side of transmission
T6151 .	CYL. 1 IGNITION COIL	Top RH side of engine (325)
T6152 .	CYL. 2 IGNITION COIL	Top RH side of engine (325)
T6153 .	CYL. 3 IGNITION COIL	Top RH side of engine (325)
T6154 .	CYL. 4 IGNITION COIL	Top RH side of engine (325)
T6155 .	CYL. 5 IGNITION COIL	Top RH side of engine (325)
T6156 .	CYL. 6 IGNITION COIL	Top RH side of engine (325)
U4	TELEPHONE HANDSET	Below front of console
V4	DAYTIME RUNNING LIGHTS CODING DIODE	LH side of dash
хо	B+ JUNCTION POINT	Rear LH side of engine compartment05-3
Х2	BATTERY B + START POINT	Rear LH side of engine compartment
ХЗ	B+ JUNCTION POINT	Rear LH side of engine compartment
хэ	B+ JUNCTION POINT	Rear LH side of engine compartment



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X11 CONNECTOR (55-PINS, BLACK) Behind glove box RH side of dash	01–2	00-1
X13 CONNECTOR (30-PINS, BLACK) LH side of LH footwell under footrest	00-2	00-4
X14 CONNECTOR (30-PINS, WHITE) Behind LH footwell trim left	00-2	00~4
X16 CONNECTOR (26-PINS, WHITE) LH side of dash rear of A2 instrument cluster	01–1	00~2
X17 CONNECTOR (26-PINS, BLUE) LH side of dash rear of A2 instrument cluster	01–1	00~2
X20 CONNECTOR (25-PINS, BŁACK) Rear LH side of engine compartment	10–3	06~2
X22 CONNECTOR (26-PINS, BLUE) RH side of dash behind glove box	02-1	00~2
X31 CONNECTOR (12-PINS, BLACK) Rear LH side of engine compartment back of LH side shock tower	11–1	02~2
X32 CONNECTOR (12-PINS, WHITE) LH footwell underside of steering column	18–1	09-1
X33 CONNECTOR (12-PINS, BLACK) LH footwell underside of steering column behind LH footwell trim	18–3	03-5
X35 CONNECTOR (12-PINS, WHITE) Below LH side of dash RH side of steering column		02-2
X43 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment		04~6
X44 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment		04-6
X45 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment		04-6
X51 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment		04-6
X52 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment		04-6
X53 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment		04~6
X54 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment	• •	04~6
X55 CONNECTOR (9-PINS, BLACK) Below LH side of dash		04-6
X56 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment	• •	04-6

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X58 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment	04-6
X61 CONNECTOR (9-PINS, BLACK) Below LH side of dash	04-6
X63 CONNECTOR (9-PINS, BLACK) Below LH side of dash	04-6
X64 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear LH side of engine compartment	04-6
X65 CONNECTOR (9-PINS, BLACK) Below LH side of dash	04-6
X69 CONNECTOR (25-PINS, BLACK) Rear LH side of engine compartment	10-3 06-3
X70 CONNECTOR (8-PINS, BLACK) Front LH side of engine compartment	09-2 02-4
X72 CONNECTOR (8-PINS, WHITE) LH footwell underside of steering column behind LH footwell trim	18-3 04-5
X74 CONNECTOR (30-PINS, ORANGE) Underside of rear seat LATE PRODUCTION	01-3 02-5
X74 CONNECTOR (12-PINS, WHITE) RH side of dash behind glove box EARLY PRODUCTION	02-1 01-3
X75 CONNECTOR (12-PINS, BLUE) RH side of dash behind glove box EARLY PRODUCTION	01-3
X78 CONNECTOR (4-PINS, BLACK) LH footwell on brake pedal support bracket behind LH footwell trim	18-3 04-3
X81 CONNECTOR (3-PINS, ORANGE) LH side of engine compartment	03-4
X82 CONNECTOR (3-PINS, BLACK) Front of engine compartment on auxiliary fan	08-2
X86 CONNECTOR (3-PINS, ORANGE) Front RH side of engine compartment on washer fluid reservoir	12-3 03-4
X87 CONNECTOR (3-PINS, BLACK) Front RH side of engine compartment RH top of radiator	15-2 08-2
X99 CONNECTOR (9-PINS, BLACK) Below LH side of dash WIPER MOTOR RELAY, K53	04-6
X105 CONNECTOR (2-PINS, GRAY) On underside of engine hood	
X106 CONNECTOR (2-PINS, GRAY) On underside of engine hood	
X107 CONNECTOR (2-PINS, GRAY) Front RH side of engine compartment on washer fluid reservoir	12-2



COMPONENT	PAGE - 7100.0	FIGURE 8500.0
X109 CONNECTOR (2-PINS, BLACK) Front RH side of engine compartment on washer fluid reservoir	. 12–2	
X110 CONNECTOR (2-PINS, GRAY) Rear RH side of engine compartment back of RH side shock tower	. 13–3	
X111 CONNECTOR (2-PINS, BLACK) Rear LH side of engine compartment near brake master cylinder top of brake fluid reservoir	. 10–3	
X112 CONNECTOR (2-PINS, BLACK) Front RH side of engine compartment RH top of radiator		
X113 CONNECTOR (2-PINS, GRAY) Above RH front wheel well behind RH front wheel	. 27-2	
X114 CONNECTOR (2-PINS, GRAY) Above LH front wheel well behind LH front wheel	. 27-2	
X116 CONNECTOR (2-PINS, BLACK) LH footwell on clutch pedal support bracket behind LH footwell trim	. 18–2	
X118 CONNECTOR (2-PINS, BLACK) Above LH front wheel well behind LH front wheel	. 27-2	
X121 CONNECTOR (2-PINS, WHITE) LH footwell underside of steering column	. 18–2	
X123 CONNECTOR (2-PINS, GRAY) Front RH side of engine compartment on washer fluid reservoir	. 12-3	
X128 CONNECTOR (2-PINS, BLACK) Front RH side of engine compartment		
X132 CONNECTOR (2-PINS, BLACK) Front of engine compartment		
X133 CONNECTOR (2-PINS, BLACK) Front of engine compartment		
X137 CONNECTOR (2-PINS, BLACK) Front LH side of engine compartment		
X142 CONNECTOR (3-PINS, GRAY) Under rear of car LH side of on differential	. 29-2	03-2
X143 CONNECTOR (3-PINS, GRAY) Under rear of car LH side of on differential	. 29-3	03-2
X161 CONNECTOR (1-PINS, WHITE) Near RH headlight assembly		
X163 CONNECTOR (3-PINS, BLACK) Front RH side of engine compartment on washer fluid reservoir near RH headlight assembly	. 12–2	03-2



COMPONENT	PAGE - 7100.0	FIGURE 8500.0
X165 GROUND Front LH side of engine compartment	06-1	
X173 GROUND Below LH side of dash	07-3	
X256 CONNECTOR (26-PINS, BLACK) Ahead of RH front door in lower RH A-pillar	17-2	05-1
X257 CONNECTOR (26-PINS, BLACK) Ahead of LH front door in lower LH A-pillar	16-2	05-1
X271 CONNECTOR (12-PINS, BLACK) LH side of dash rear of A2 instrument cluster	01-1	01-3
X272 CONNECTOR (2-PINS, BLACK) Under roof center panel	21-1	
X273 CONNECTOR (12-PINS, BLACK) în lower LH B-pillar	25-3	01-2
X274 CONNECTOR (12-PINS, BLACK) In lower RH B-pillar	25-3	01-2
X275 CONNECTOR (4-PINS, WHITE) Under LH front seat under carpet	26-1	04-3
X279 CONNECTOR (4-PINS, WHITE) Under RH front seat	24-2	04-3
X285 CONNECTOR (15-PINS, BLUE) Behind glove box RH side of dash	01-2	00-3
X292 CONNECTOR (9-PINS, BLACK) Power Distribution Box rear ŁH side of engine compartment		04-6
X295 CONNECTOR (8-PINS, BLACK) LH footwell underside of steering column behind LH footwell trim	18-3	04-5
X304 CONNECTOR (9-PINS, BLACK) Below LH side of dash		04-6
X311 CONNECTOR (3-PINS, BLACK) Underside of trunk lid left	26-3	05-6
X312 CONNECTOR (2-PINS, BLACK) In RH rear side of luggage compartment behind RH rear light assembly	03-2	
X315 CONNECTOR (2-PINS, BLACK) Underside of trunk lid left	26-3	
X316 CONNECTOR (6-PINS, WHITE) Center console near gearshift lever	22-1	09-2
X317 CONNECTOR (6-PINS, WHITE) Center console near gearshift lever	22-2	09-2
X318 CONNECTOR (8-PINS, BLACK) In RH rear side of luggage compartment behind RH rear light assembly	03-2	02-1

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X319 CONNECTOR (8-PINS, BLACK) In LH rear side of luggage compartment behind LH rear light assembly	26-2 02-1
X320 CONNECTOR (6-PINS, WHITE) Center console near gearshift lever	22-2 09-2
X322 CONNECTOR (6-PINS, BLACK) LH footwell	8–1 07–4
X324 CONNECTOR (6-PINS, WHITE) Center console near gearshift lever	22-1 09-2
X333 CONNECTOR (4-PINS, BLACK) Rear of engine compartment below center of cowl	4-1 09-3
X335 CONNECTOR (4-PINS, BLACK) RH side of dash behind glove box	01-6
X336 CONNECTOR (6-PINS, WHITE)	)2-2 10-6
X353 CONNECTOR (2-PINS, BLACK) In lower RH C-pillar	
X354 CONNECTOR (2-PINS, BLACK) In lower LH C-pillar	
X355 CONNECTOR (2-PINS, BLACK) In upper RH C-pillar	)6 <b>-</b> 3
X356 CONNECTOR (2-PINS, BLACK) In upper LH C-pillar	)8-1
X371 CONNECTOR (2-PINS, BLACK) Rear RH side of engine compartment back of RH side shock tower	3-3
X372 CONNECTOR (2-PINS, GRAY) Rear RH side of engine compartment back of RH side shock tower	3-3
X379 CONNECTOR (1-PINS, NATURAL) In upper LH C-pillar	)8-1
X380 CONNECTOR (1-PINS, NATURAL) In upper RH C-pillar	)6-3
X381 CONNECTOR (3-PINS, BLACK)	21-1 01-1
X382 CONNECTOR (3-PINS, BLACK)	02-2 01-1
X383 CONNECTOR (2-PINS, BLACK)	<del>2</del> 9-3
X386 CONNECTOR (1-PINS, BLACK) Center console REAR ASHTRAY LIGHT, E28y	
X388 CONNECTOR (2-PINS, BLACK) In lower RH A-pillar	

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X389 CONNECTOR (2-PINS, GRAY) Rear LH side of engine compartment		
X390 CONNECTOR (2-PINS, BLACK) RH side of dash behind glove box	<b>24</b> –1	
X401 CONNECTOR (1-PINS, BLACK) Above LH sun visor	21-1	
X402 CONNECTOR (1-PINS, BLACK) Above RH sun visor	02-2	
X413 CONNECTOR (2-PINS, BLACK) At back of rear window shelf		
X423 CONNECTOR (1-PINS, NATURAL) Below center console on rear of park brake leve	er	
X424 CONNECTOR (1-PINS, BROWN) In upper LH C-pillar		
X494 GROUND Center console		
X495 GROUND Behind RH footwell trim		
X498 GROUND Center console	07~2	
X503 CONNECTOR (12-PINS, WHITE) Below LH side of dash		-2
X504 CONNECTOR (4-PINS, WHITE) Center console		-6
X509 CONNECTOR (9-PINS, BLACK)		-6
X510 CONNECTOR (9-PINS, BLACK)		-6
X511 CONNECTOR (8-PINS, BLACK) Center console near gearshift lever	22-2 02	-1
X516 CONNECTOR (5-PINS, BLACK) Center console near gearshift lever	22-2 04	-2
X517 CONNECTOR (4-PINS, BLACK) Below LH side of dash	<b>04</b>	-3
X518 CONNECTOR (4-PINS, BLACK) LH footwell	18-1 04	-3
X522 CONNECTOR (3-PINS, WHITE) LH footwell	18-1 05	-6
X523 CONNECTOR (3-PINS, NATURAL) LH side of dash		-6

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X531 CONNECTOR (1-PINS, BLACK) Center console near gearshift lever	21-3	
X532 CONNECTOR (2-PINS, BLACK) Center console near gearshift lever	21-3	
X537 CONNECTOR (2-PINS, BLACK) In upper LH front door behind door panel	16-1	
X538 CONNECTOR (2-PINS, BLACK) RH front door behind door panel	17-2	
X539 CONNECTOR (2-PINS, BLACK) Center console	•	
X540 CONNECTOR (2-PINS, BLACK) RH side of dash behind glove box right	23-3	
X541 CONNECTOR (1-PINS, WHITE) RH side of dash behind glove box above	23-3	
X542 CONNECTOR (2-PINS, BLACK) RH side of dash behind glove box left	23-3	
X603 CONNECTOR (6-PINS, ()) Center console		06-1
X604 CONNECTOR (6-PINS, ()) Center console		06-1
X605 CONNECTOR (12-PINS, BLACK) In LH forward side of luggage compartment	04-1	03-1
X606 CONNECTOR (12-PINS, WHITE) In LH forward side of luggage compartment EARLY PRODUCTION	04-1	03-1
X606 CONNECTOR (26-PINS, BLACK) In t.H forward side of luggage compartment LATE PRODUCTION		00-2
X607 CONNECTOR (9-PINS, BLACK) Below LH side of dash		04-6
X623 CONNECTOR (4-PINS, BLACK) in upper LH front door behind door panel	16-1	09-6
X624 CONNECTOR (4-PINS, BLACK) in upper RH front door behind door panel	17-2	09-6
X625 CONNECTOR (6-PINS, WHITE) LH front door	16-1	06-1
X638 CONNECTOR (2-PINS, BLACK) Below RH side of rear seat	24-3	
X641 CONNECTOR (6-PINS, BLACK) RH front door behind door panel	17-3	10-3
X644 CONNECTOR (6-PINS, BLACK) In lower LH rear door		07-3

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X645 CONNECTOR (6-PINS, BLUE)	10-4
X646 CONNECTOR (6-PINS, BLACK)	07-3
X647 CONNECTOR (6-PINS, BLUE)	10-4
X651 CONNECTOR (6-PINS, YELLOW) Center console near gearshift lever	21-3 06-4
X658 CONNECTOR (6-PINS, YELLOW) Center console near gearshift lever	03-1 06-4
X660 CONNECTOR (6-PINS, BLACK) LH front door in door at key lock assembly	16-3 07-3
X662 CONNECTOR (6-PINS, GRAY) Below RH side of dash center console right	23-1 05-5
X663 CONNECTOR (6-PINS, GRAY) Below RH side of dash	05-5
X669 CONNECTOR (6-PINS, GRAY) Below LH side of dash RH side of steering column	20-3 05-5
X679 CONNECTOR (2-PINS, WHITE) Below RH side of rear seat	24-3
X692 CONNECTOR (3-PINS, BLACK) Center console	21-2 02-3
X700 CONNECTOR (1-PINS, NATURAL) Behind RH footwell speaker grille	
X701 CONNECTOR (1-PINS, NATURAL) Behind LH footwell kickpanel	
X706 CONNECTOR (2-PINS, BLACK) Center console	22-3
X709 CONNECTOR (2-PINS, BLACK) Underside of trunk lid, near license plate	27-1
X710 CONNECTOR (2-PINS, BLACK) Underside of trunk lid, near license plate	27-1
X711 CONNECTOR (1-PINS, NATURAL) Underside of trunk lid left	26-3
X712 CONNECTOR (1-PINS, NATURAL) Underside of trunk lid left	
X713 CONNECTOR (2-PINS, BLACK) Under rear of car LH side of on differential	29-3
X714 CONNECTOR (2-PINS, GRAY) In lower LH rear door behind trim panel	

COMPONENT	PAGE - 7100.0	- FIGURE 8500.0
X720 CONNECTOR (2-PINS, GRAY) in lower RH rear door behind trim panel		
X726 CONNECTOR (2-PINS, ()) Under LH front seat		
X727 CONNECTOR (2-PINS, ()) Under LH front seat		
X728 CONNECTOR (2-PINS, ()) Under LH front seat		
X729 CONNECTOR (2-PINS, ()) Under LH front seat		
X732 CONNECTOR (4-PINS, BLACK) Under LH front seat under carpet	26-1	04-3
X733 CONNECTOR (4-PINS, BLACK) Under LH front seat under carpet	<b>26</b> -1	04-3
X734 CONNECTOR (2-PINS, ()) Under RH front seat		
X735 CONNECTOR (2-PINS, ()) Under RH front seat		·
X736 CONNECTOR (2-PINS, ()) Under RH front seat		
X737 CONNECTOR (2-PINS, ()) Under RH front seat		
X740 CONNECTOR (4-PINS, BLACK) Under RH front seat	24-2	04-3
X741 CONNECTOR (4-PINS, BLACK) Under RH front seat	24-2	04-3
X742 CONNECTOR (2-PINS, YELLOW) RH front door in door at key lock assembly		
X744 CONNECTOR (2-PINS, GRAY) RH front door behind door panel	17-2	
X746 CONNECTOR (2-PINS, BLACK) RH front door behind door panel	17-2	
X747 CONNECTOR (2-PINS, YELLOW) LH front door in door at key lock assembly	17-1	
X751 CONNECTOR (2-PINS, WHITE) LH front door in door at key lock assembly	17–1	
X752 CONNECTOR (2-PINS, GRAY) LH front door in door at key lock assembly	17–1	
X753 CONNECTOR (2-PINS, BLACK) LH front door	16–1	

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X768 CONNECTOR (2-PINS, WHITE) In the engine compartment near LH headlight assembly	09-1	
X769 CONNECTOR (2-PINS, WHITE) In the engine compartment near RH headlight assembly	09-1	
X770 CONNECTOR (2-PINS, YELLOW) In the engine compartment near LH headlight assembly	06-1	
X771 CONNECTOR (2-PINS, BLACK) RH side of LH footwell LH side of IHKR Plenum	20-2	
X772 CONNECTOR (2-PINS, WHITE) Center console	02-3	
X773 CONNECTOR (2-PINS, WHITE) Center console	02-3	
X774 CONNECTOR (1-PINS, GRAY) Rear of engine compartment behind RH fresh air cowl		
X778 CONNECTOR (2-PINS, BLACK) In LH front seat belt buckle		
X779 CHARGING SOCKET RH side of dash behind glove box left	23-3	
X783 CONNECTOR (2-PINS, ORANGE) Underside of steering column		
X784 CONNECTOR (12-PINS, BLUE) RH side of dash behind glove box		01-3
X786 CONNECTOR (2-PINS, BLACK) UNDERHOOD LIGHT, E20		
X816 CONNECTOR (2-PINS, BLACK) Rear of engine compartment behind RH fresh air cowl		
X817 CONNECTOR (1-PINS, BLACK) Rear of engine compartment behind RH fresh air cowl		
X904 CONNECTOR (4-PINS, BLACK) Behind center of dashboard LH side of IHKR Plenum	23-2	04-3
X905 CONNECTOR (5-PINS, BLACK) Behind center of dashboard		08-3
X998 CONNECTOR (4-PINS, BLACK) Below center console		03-6
X999 CONNECTOR (4-PINS, BLACK) Behind center of dashboard RH side of IHKR Plenum		04-3
X1001 . CONNECTOR (4-PINS, BLACK) RIGHT REAR SPEAKER, H45		04-3

COMPONENT	PAGE - 7100.0	- FIGURE 8500.0
X1002 . CONNECTOR (4-PINS, ()) LEFT REAR SPEAKER, H46		04-3
X1014 . CONNECTOR (1-PINS, BLACK) Center console near gearshift lever	. 21-3	
X1070 . CONNECTOR (18-PINS, BLACK) Center console	. 21-2	01-5
X1071 . CONNECTOR (18-PINS, WHITE) Center console	. 21–2	01-5
X1074 . CONNECTOR (15-PINS, WHITE) Below LH side of dash	. 00–3	00-3
X1075 . CONNECTOR (15-PINS, BLACK) Below LH side of dash	. 00-3	00-3
X1082 . CONNECTOR (9-PINS, BLACK) Below LH side of dash		04-6
X1161 . CONNECTOR (9-PINS, BLACK) Rear LH side of engine compartment		04-6
X1162 . CONNECTOR (2-PINS, BLACK) Rear LH side of engine compartment near brake fluid reservoir	. 10–3	•
X1165 . GROUND Below LH side of dash	. 07-3	
X1166 . GROUND Behind RH footwell trim	. 07–1	
X1178 . CONNECTOR (2-PINS, WHITE) Center console LH side of gearshift selector		
X1181 . CONNECTOR (9-PINS, BLACK) Below LH side of dash	• .	04-6
X1193 . CONNECTOR (2-PINS, BLACK) Center console RH side of gearshift selector		
X1213 CONNECTOR (2-PINS, BLACK) Center console	. 22-3	
X1241 . CONNECTOR (2-PINS, WHITE) Below LH side of rear seat	. 25-1	
X1242 . CONNECTOR (26-PINS, BLACK) LH side of LH footwell under footrest	. 00-2	00-2
X1243 . CONNECTOR (6-PINS, BLACK) Center console near gearshift lever	. 22-1	09-2
X1245 . CONNECTOR (1-PINS, BLACK) Above LH sun visor	. 21–1	
X1246 . CONNECTOR (1-PINS, BLACK) Above RH sun visor	. 02-2	

PAGE - 7100.0	FIGURE 8500.0
X1260 . CONNECTOR (2-PINS, ()) LEFT REAR SPEAKER, H46	
X1261 . CONNECTOR (2-PINS, ()) RIGHT REAR SPEAKER, H45	
X1285 . CONNECTOR (1-PINS, ()) In upper LH C-pillar CAPACITOR, C1	
X1380 . CONNECTOR (1-PINS, NATURAL) Behind RH footwell speaker grille	
X1381 . CONNECTOR (1-PINS, NATURAL) Behind LH footwell kickpanel	
X1426 . CONNECTOR (9-PINS, BROWN) Rear RH side of engine compartment in E-Box	04-6
X6000 . CONNECTOR (88-PINS, BLACK)	08-1
X6002 . CONNECTOR (20-PINS, BLACK)	05-4
X6101 . CONNECTOR (2-PINS, BLACK) Top center of engine (318)	
X6101 . CONNECTOR (2-PINS, BLACK) Top center of engine (325)	
X6102 . CONNECTOR (2-PINS, BLACK) Top center of engine (318)	
X6102 . CONNECTOR (2-PINS, BLACK) Top center of engine (325)	
X6103 . CONNECTOR (2-PINS, BLACK) Top center of engine (318)	
X6103 . CONNECTOR (2-PINS, BLACK) Top center of engine (325)	
X6104 . CONNECTOR (2-PINS, BLACK) Top center of engine (318)	
X6104 . CONNECTOR (2-PINS, BLACK) Top center of engine (325)	
X6105 . CONNECTOR (2-PINS, BLACK) Top center of engine (325)	
X6106 . CONNECTOR (2-PINS, BLACK) Top center of engine (325)	
X6120 . CONNECTOR (2-PINS, BLACK)	
X6120 . CONNECTOR (2-PINS, BLACK)	

COMP	ONENT		PAGE - 7100.0	FIGURE 8500.0
X6130 .	CONNECTOR (2-PINS, BLACK)	RH front of engine below intake manifold (325)	08-2	
X6130 .	CONNECTOR (2-PINS, BLACK)	LH side of engine compartment (near oil level stick) (318)	. 15–1	
X6131	CONNECTOR (2-PINS, BLACK)	Rear LH side of engine compartment		
X6151 .	CONNECTOR (3-PINS, GRAY)	Top RH side of engine	ı	09-5
X6152 .	CONNECTOR (3-PINS, GRAY)	Top RH side of engine		09-5
X6153 .	CONNECTOR (3-PINS, GRAY)	Top RH side of engine	ı	09-5
X6154 .	CONNECTOR (3-PINS, GRAY)	Top RH side of engine		09-5
X6155 .	CONNECTOR (3-PINS, GRAY)	Top RH side of engine	ı	09-5
X6156 .	CONNECTOR (3-PINS, GRAY)	Top RH side of engine		09-5
X6200 .	CONNECTOR (4-PINS, BLACK)	Under center of car (325)	28-2	04-4
X6200 .	CONNECTOR (4-PINS, BLACK)	Under front of car on RH side of transmission (318)	29-1	04-4
X6203 .	CONNECTOR (3-PINS, BLACK)	Front of engine below intake manifold	05-2	09-4
X6204 .	CONNECTOR (3-PINS, BLACK)	Front of engine below intake manifold	05-2	09-4
X6205 .	CONNECTOR (2-PINS, BLACK)	LH side of engine (near oil level stick) (325)	11-2	
X6208 .	CONNECTOR (2-PINS, BLACK)	Front of engine CAMSHAFT ACTUATOR, B6208		
X6209 .	CONNECTOR (3-PINS, BLACK)	Front of engine HALL EFFECT CAMSHAFT SENSOR, B6209		09-4
X6217 .	CONNECTOR (4-PINS, BLACK)	Top front of engine		
X6231 .	CONNECTOR (2-PINS, BLACK)	RH front of engine below intake manifold (near oil level stick) (325)	12-1	
X6231 .	CONNECTOR (2-PINS, BLACK)	LH side of engine compartment (near oil level stick) (318)	15-1	
X6232 .	CONNECTOR (2-PINS, BLACK)	RH front of engine below intake manifold (325)	08-2	

COMPONENT	PAGE - FIGUR 7100.0 8500
X6233 . CONNECTOR (7-PINS, BLACK) LH sid	e of engine compartment right of LH side shock tower (318)14-3 05-3
X6236 . CONNECTOR (2-PINS, BLACK) RH fro	nt of engine below intake manifold (325)12-1
X6241 . CONNECTOR (2-PINS, BLACK) LH sid	e of engine
X6242 . CONNECTOR (2-PINS, BLACK) LH sid	e of engine
X6252 . CONNECTOR (2-PINS, BLACK) LH sid	e of engine (near oil level stick) (325)11-2
X6252 . CONNECTOR (3-PINS, BLACK) LH sid	e of engine (318)
X6300 . CONNECTOR (9-PINS, BLACK) Rear L	H side of engine compartment
X6301 . CONNECTOR (9-PINS, BLACK) Rear L	H side of engine compartment
X6303 . CONNECTOR (9-PINS, BLACK) Rear L	H side of engine compartment
X6454 . GROUND Rear F	H side of engine compartment06-2
X6456 . GROUND	nt of engine (325)
X6509 . CABLE SOCKET ALTERNATOR B + Front b	H side of engine compartment below
X6510 . CABLE SOCKET STARTER TERMINAL 50 Rear L	H side of engine compartment below intake manifold
X6511 . CABLE SOCKET ALTERNATOR TERMINAL 30h Rear L	H side of engine compartment below intake manifold
X6512 . CABLE SOCKET STARTER TERMINAL 30h Rear L	H side of engine compartment below intake manifold
X7509 . CABLE SOCKET ALTERNATOR TERMINAL D+ Front L	H side of engine compartment below
X8500 . CONNECTOR (55-PINS, BLACK) Rear F	H side of engine compartment in E-Box00-1 00-1
X8503 . CONNECTOR (10-PINS, WHITE) Center	console RH side of gearshift selector
X8507 . CONNECTOR (1-PINS, BLACK) Below	LH side of dash
X8511 . CONNECTOR (1-PINS, BLACK) Under	front of car LH side of transmission



COMP	ONENT		PAGE 7100.0	- FIGUR 8500
X8516 .	CONNECTOR (2-PINS, BLACK)	Under center of car above		
X8521 .	CONNECTOR (9-PINS, BLACK)	Under center of car above	ı	10-1
X8524	CONNECTOR (1-PINS, BLACK)	Under front of car LH side of transmission		
X9744 .	CONNECTOR (6-PINS, BLACK)	In lower RH side of front door behind trim panel		10-3
X9749 .	CONNECTOR (6-PINS, BLACK)	In lower LH front door behind trim panel		10-3
X9997 .	CONNECTOR (2-PINS, ORANGE)	Behind steering wheel	19-2	
X10010	GROUND	Behind RH footwell trim	07-1	
X10012	GROUND	Behind RH footwell trim	07-1	
X10013	CONNECTOR (1-PINS, ())	Top of steering column		
X10015	CONNECTOR (20-PINS, BLACK)	Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90		
X10016	CONNECTOR (20-PINS, BLACK)	Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90		
X10017	CONNECTOR (20-PINS, BLACK)	Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90		
X10018	CONNECTOR (32-PINS, BLACK)	Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90		
X10026	CONNECTOR (6-PINS, BLACK)	Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90		

X10030 CONNECTOR (5-PINS, BLACK)  Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90  X10031 CONNECTOR (9-PINS, BLACK)  Below LH side of dash  CONNECTOR (1-PINS, BLACK)  LH side of dash  CONNECTOR (2-PINS, BLACK)  Power Distribution Box rear LH side of engine compartment  X10035 CONNECTOR (2-PINS, ())  Power Distribution Box rear LH side of engine compartment  X10036 CONNECTOR (2-PINS, BLACK)  Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90  X10054 CONNECTOR (12-PINS, BLACK)  Below LH side of dash RH side of steering column  20-3 03-5  X10055 CONNECTOR (2-PINS, WHITE)  LH side of LH footwelf under footrest  X10070 CONNECTOR (2-PINS, GRAY)  Near LH headlight assembly  X10071 CONNECTOR (2-PINS, BLACK)  Near LH headlight assembly  X10075 CONNECTOR (2-PINS, BLACK)  Near LH headlight assembly  X10075 CONNECTOR (2-PINS, GRAY)  Near RH headlight assembly  X13004 GROUND  In upper RH rear seatback  06-3  113006 GROUND  Behind RH footwelf trim  07-1	COMP	PONENT		PAGE - 7100.0	FIGURE 8500.0
X10033 CONNECTOR (1-PINS, BLACK). LH side of dash	X10030	CONNECTOR (5-PINS, BLACK)			
X10034 CONNECTOR (2-PINS, ()) Power Distribution Box rear LH side of engine compartment  X10035 CONNECTOR (2-PINS, ()) Power Distribution Box rear LH side of engine compartment  X10036 CONNECTOR (2-PINS, BLACK) Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90  X10054 CONNECTOR (12-PINS, BLACK) Below LH side of dash RH side of steering column 20-3 03-5  X10065 CONNECTOR (2-PINS, WHITE) LH side of LH footwell under footrest  X10070 CONNECTOR (2-PINS, GRAY) Near LH headlight assembly  X10071 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly  X10074 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly  X10075 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly  X10076 GROUND In upper RH rear seatback 06-3  X13006 GROUND Behind RH footwell trim 07-1	X10031	CONNECTOR (9-PINS, BLACK)	Below LH side of dash		04-6
X10035CONNECTOR (2-PINS, ())Power Distribution Box rear LH side of engine compartmentX10036CONNECTOR (2-PINS, BLACK)Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90X10054CONNECTOR (12-PINS, BLACK)Below LH side of dash RH side of steering column20-303-5X10055CONNECTOR (2-PINS, WHITE)LH side of LH footwell under footrestX10070CONNECTOR (2-PINS, GRAY)Near LH headlight assemblyX10071CONNECTOR (2-PINS, BLACK)Near LH headlight assemblyX10074CONNECTOR (2-PINS, BLACK)Near LH headlight assemblyX10075CONNECTOR (2-PINS, GRAY)Near RH headlight assemblyX13004GROUNDIn upper RH rear seatback06-3X13006GROUNDIn upper LH rear seatback08-1X13009GROUNDBehind RH footwell trim07-1	X10033	CONNECTOR (1-PINS, BLACK)	LH side of dash	20-1	
X10036 CONNECTOR (2-PINS, BLACK). Power Distribution Box rear LH side of engine compartment FRONT POWER DISTRIBUTION BOX, P90  X10054 CONNECTOR (12-PINS, BLACK). Below LH side of dash RH side of steering column	X10034	CONNECTOR (2-PINS, ())	Power Distribution Box rear LH side of engine compartment		
X10054 CONNECTOR (12-PINS, BLACK) Below LH side of dash RH side of steering column 20-3 03-5 X10065 CONNECTOR (2-PINS, WHITE) LH side of LH footwell under footrest X10070 CONNECTOR (2-PINS, GRAY) Near LH headlight assembly X10071 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly X10074 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly X10075 CONNECTOR (2-PINS, GRAY) Near RH headlight assembly X10076 GROUND in upper RH rear seatback 06-3 X13006 GROUND In upper LH rear seatback 08-1 X13009 GROUND Behind RH footwell trim 07-1	X10035	CONNECTOR (2-PINS, ())	Power Distribution Box rear LH side of engine compartment		
X10065 CONNECTOR (2-PINS, WHITE) LH side of LH footwell under footrest  X10070 CONNECTOR (2-PINS, GRAY) Near LH headlight assembly  X10071 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly  X10074 CONNECTOR (2-PINS, BLACK) Near LH headlight assembly  X10075 CONNECTOR (2-PINS, GRAY) Near RH headlight assembly  X13004 GROUND in upper RH rear seatback 06-3  X13006 GROUND In upper LH rear seatback 08-1  X13009 GROUND Behind RH footwell trim 07-1	X10036	CONNECTOR (2-PINS, BLACK)			
X10070CONNECTOR (2-PINS, GRAY)Near LH headlight assemblyX10071CONNECTOR (2-PINS, BLACK)Near LH headlight assemblyX10074CONNECTOR (2-PINS, BLACK)Near LH headlight assemblyX10075CONNECTOR (2-PINS, GRAY)Near RH headlight assemblyX13004GROUNDin upper RH rear seatback.06-3X13006GROUNDIn upper LH rear seatback.08-1X13009GROUNDBehind RH footwell trim.07-1	X10054	CONNECTOR (12-PINS, BLACK)	Below LH side of dash RH side of steering column	20-3	03-5
X10071CONNECTOR (2-PINS, BLACK)Near LH headlight assemblyX10074CONNECTOR (2-PINS, BLACK)Near LH headlight assemblyX10075CONNECTOR (2-PINS, GRAY)Near RH headlight assemblyX13004GROUNDIn upper RH rear seatback06-3X13006GROUNDIn upper LH rear seatback08-1X13009GROUNDBehind RH footwell trim07-1	X10065	CONNECTOR (2-PINS, WHITE)	LH side of LH footwell under footrest		
X10074       CONNECTOR (2-PINS, BLACK)       Near LH headlight assembly         X10075       CONNECTOR (2-PINS, GRAY)       Near RH headlight assembly         X13004       GROUND       in upper RH rear seatback       06-3         X13006       GROUND       In upper LH rear seatback       08-1         X13009       GROUND       Behind RH footwell trlm       07-1	X10070	CONNECTOR (2-PINS, GRAY)	Near LH headlight assembly		
X10075       CONNECTOR (2-PINS, GRAY)       Near RH headlight assembly         X13004       GROUND       in upper RH rear seatback       06-3         X13006       GROUND       in upper LH rear seatback       08-1         X13009       GROUND       Behind RH footwell trlm       07-1	X10071	CONNECTOR (2-PINS, BLACK)	Near LH headlight assembly		
X13004       GROUND       In upper RH rear seatback       .06-3         X13006       GROUND       In upper LH rear seatback       .08-1         X13009       GROUND       Behind RH footwell trim       .07-1	X10074	CONNECTOR (2-PINS, BLACK)	Near LH headlight assembly		
X13006         GROUND         In upper LH rear seatback         08-1           X13009         GROUND         Behind RH footwell trlm         07-1	X10075	CONNECTOR (2-PINS, GRAY)	Near RH headlight assembly		
X13009 GROUND Behind RH footwell trlm	X13004	GROUND	in upper RH rear seatback	. 06-3	
	X13006	GROUND	In upper LH rear seatback	. 08-1	
V40040 COMMITTO DE 100 DIMO MILITER DE PRINCIPIO DE PRINCIPIO DE 100 DE	X13009	GROUND	Behind RH footwell trim	. 07–1	
A 13/012 CONNECTOR (20-PINS, WHITE) Bening glove box RH side of dash	X13012	CONNECTOR (26-PINS, WHITE)	Behind glove box RH side of dash	. 24-1	00-2
X13013 CONNECTOR (5-PINS, BLACK)	X13013	CONNECTOR (5-PINS, BLACK)	Behind glove box RH side of dash	. 01–2	01-4
X13014 CONNECTOR (4-PINS, BLACK) Behind glove box RH side of dash	X13014	CONNECTOR (4-PINS, BLACK)	Behind glove box RH side of dash	24-1	01-6

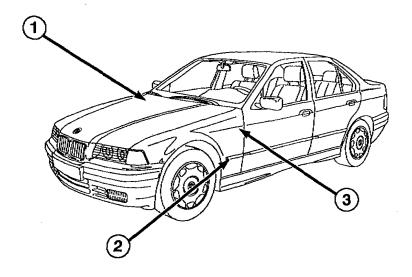
COMP	ONENT		PAGE 7100.0	- FIGURE 8500.0
X13016	GROUND	Below LH side of dash	07-3	
X13025	CONNECTOR (12-PINS, BLACK)	RH side of dash behind glove box	02-1	03-5
X13026	CONNECTOR (1-PINS, BLACK)	LH side of dash	20-1	
X18080	CONNECTOR (1-PINS, ())	In luggage compartment		
X18126	CONNECTOR (17-PINS, BLACK)	Center console behind radio		02-6
X18154	CONNECTOR (26-PINS, BLUE)	Center console		00-2
X18155	CONNECTOR (26-PINS, WHITE)	Center console	21-2	00-2
X18156	CONNECTOR (26-PINS, BLACK)	Center console	21-2	00-2
X18157	CONNECTOR (26-PINS, BLUE)	Center console	02-3	00-2
X18180	CONNECTOR (3-PINS, WHITE)	In RH side of luggage compartment	03-2	10-5
X18196	CONNECTOR (10-PINS, BLACK)	LEFT FRONT HIGH RANGE SPEAKER, H59		
X18198	CONNECTOR (10-PINS, BLACK)	RIGHT FRONT HIGH RANGE SPEAKER, H50		
X18277	CONNECTOR (2-PINS, BLACK)	LH front door in door at key lock assembly		
X18278	CONNECTOR (2-PINS, BLACK)	RH front door in door at key lock assembly		
X18279	CONNECTOR (3-PINS, BLACK)	In lower LH front door behind trim panel		
X18280	CONNECTOR (3-PINS, BLACK)	In lower RH side of front door behind trim panel		
X18295	CONNECTOR (2-PINS, YELLOW)	In lower RH B-pillar behind trim panel		
X18296	CONNECTOR (2-PINS, YELLOW)	In lower LH B-pillar behind trim panel		
X18500	CONNECTOR (25-PINS, ())	In LH forward side of luggage compartment	04-1	07-2
X18507	CONNECTOR (2-PINS, ())	Center console		

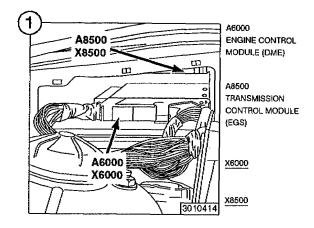
COMPONENT PAGE 7100.0	E - FIGURE 8500.0
X18509 CONNECTOR (8-PINS, ()) Center console	
X18515 CONNECTOR (2-PINS, ()) Center console	
X18520 CONNECTOR (10-PINS, ()) Center console RADIO, N9	03-3
X18521 CONNECTOR (10-PINS, ()) In LH forward side of luggage compartment CD CHANGER, N22	07-1
X18723 GROUND Below LH side of dash	
X18741 CONNECTOR (4-PINS, ()) Center of dash MICROPHONE, B400	09-6
Y1 ABS HYDRAULIC UNIT Rear LH side of engine compartment back of LH side shock tower	
Y2 AIR CONDITIONING COMPRESSOR Front of engine	
Y5 DRIVER'S SIDE MIRROR in upper LH front door	
Y6 PASSENGER'S SIDE MIRROR In upper RH front door	
Y19 SHIFT-LOCK Center console RH side of gearshift selector	
Y6101 . CYL. 1 FUEL INJECTION VALVE	
Y6101 . CYL. 1 FUEL INJECTION VALVE Top center of engine (318)	
Y6102 . CYL. 2 FUEL INJECTION VALVE	
Y6102 . CYL. 2 FUEL INJECTION VALVE Top center of engine (318)	
Y6103 . CYL. 3 FUEL INJECTION VALVE	
Y6103 . CYL. 3 FUEL INJECTION VALVE Top center of engine (318)	
Y6104 . CYL. 4 FUEL INJECTION VALVE	
Y6104 . CYL. 4 FUEL INJECTION VALVE Top center of engine (318)	
Y6105 . CYL. 5 FUEL INJECTION VALVE	

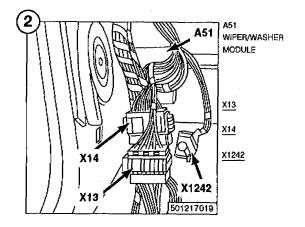
#### BMW **3**

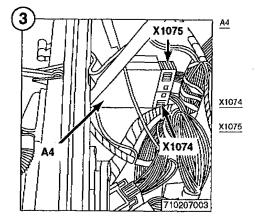
COMPONENT	PAGE - FIGUR 7100.0 8500.
Y6106 . CYL. 6 FUEL INJECTION VALVE Top center of engine (325)	
Y6120 . EVAPORATIVE EMISSION VALVE Front LH side of engine compartment right of LF	l side shock tower (325)
Y6120 . EVAPORATIVE EMISSION VALVE LH side of engine compartment right of LH side	shock tower (318)14-3
Y6130 . IDLE SPEED CONTROL VALVE RH front of engine below intake manifold (325)	
Y6130 . IDLE SPEED CONTROL VALVE LH side of engine compartment (near oil level si	tick) (318)15-1
Y6131 . INTAKE AIR RESONANCE CHANGEOVER VALVE	



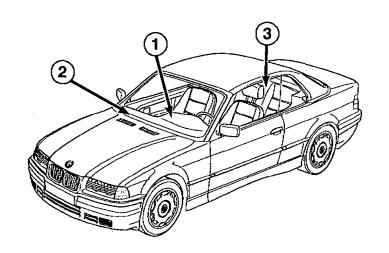


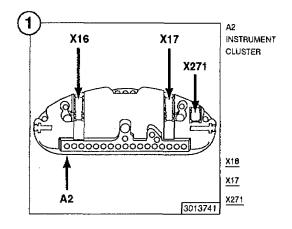


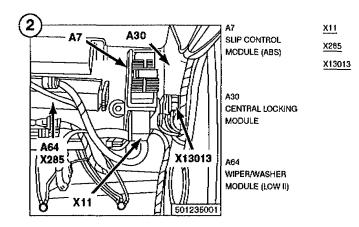


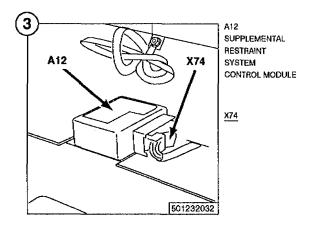


### **ELECTRICAL CONTROL MODULE LOCATIONS**

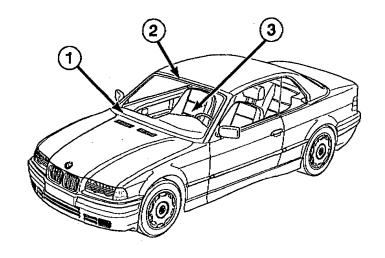


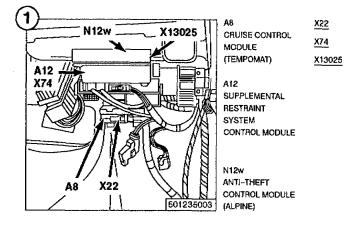


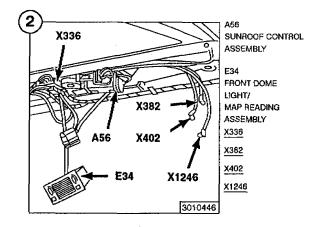


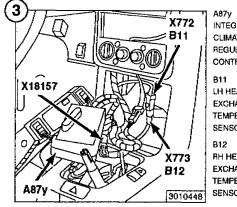


## ELECTRICAL CONTROL MODULE LOCATIONS



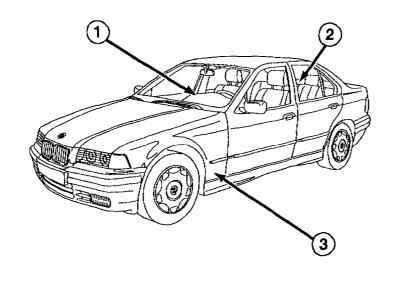


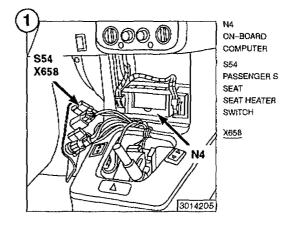


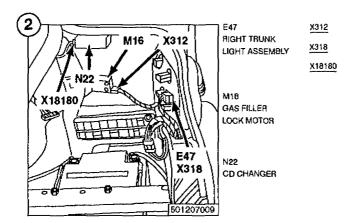


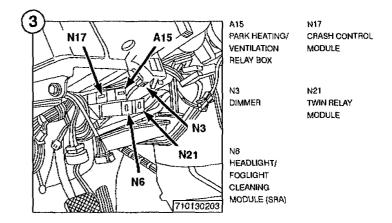
X772 INTEGRATED X773 CLIMATE X18157 REGULATION CONTROL MODULE LH HEAT EXCHANGER **TEMPERATURE** SENSOR RH HEAT EXCHANGER **TEMPERATURE** SENSOR

### ELECTRICAL CONTROL MODULE LOCATIONS

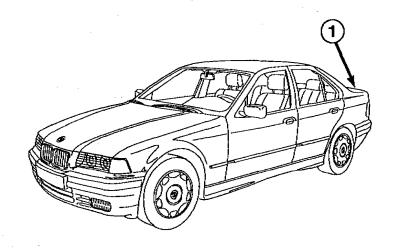


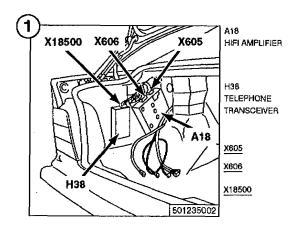




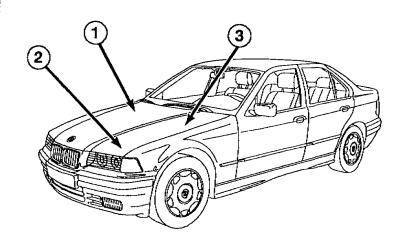


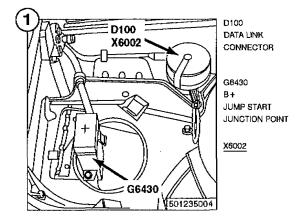
# COMPONENT LOCATION VIEWS ELECTRICAL CONTROL MODULE LOCATIONS

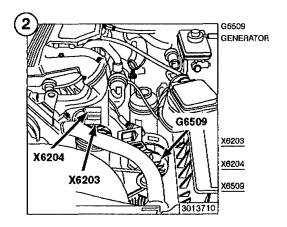


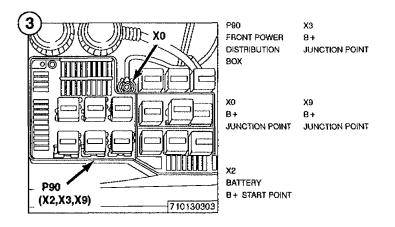






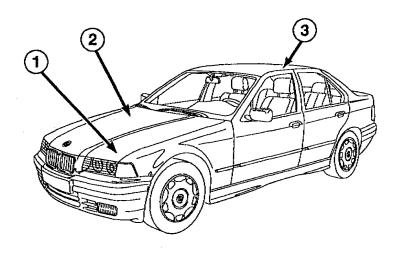


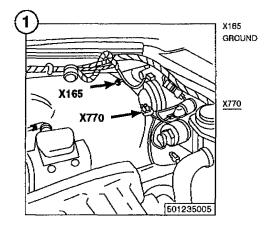


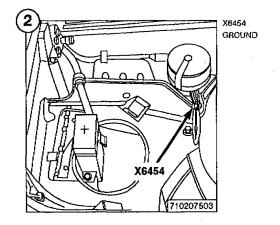


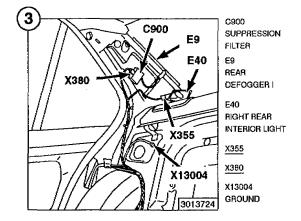
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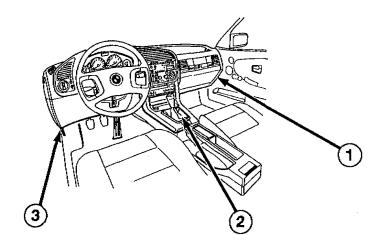


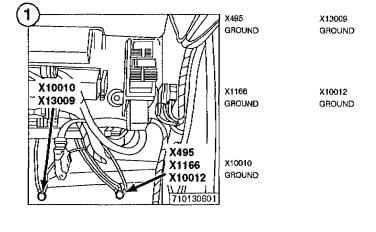


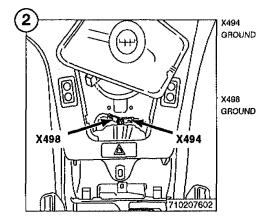


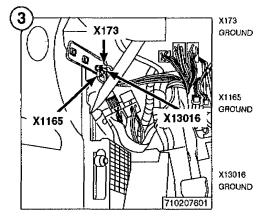




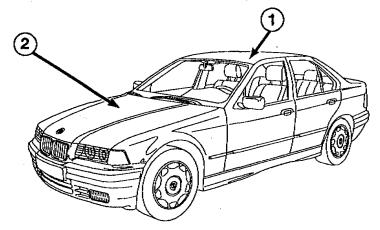


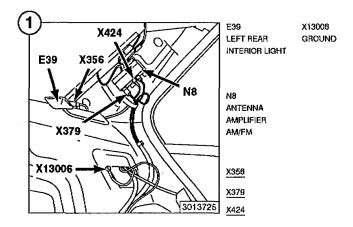


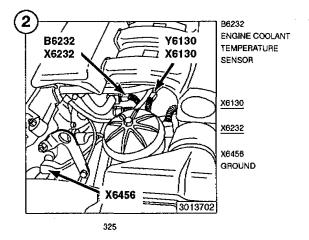




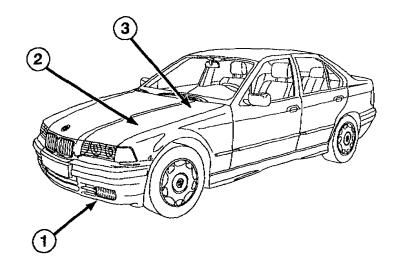


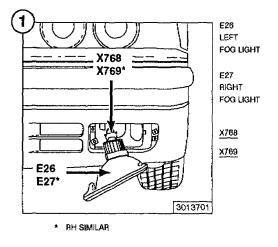


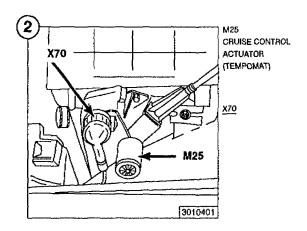


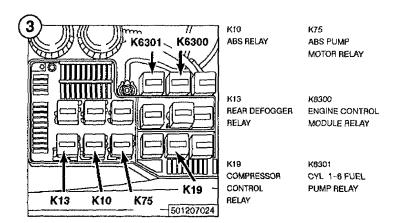


Y8130 IDLE SPEED CONTROL VALVE

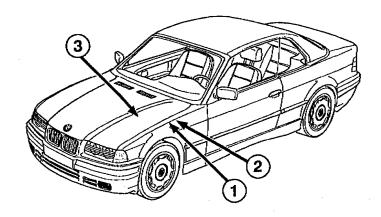


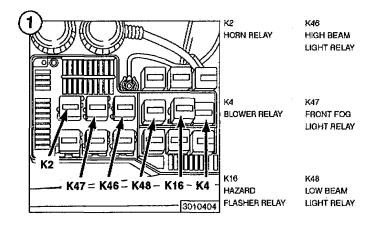


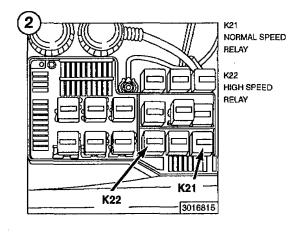


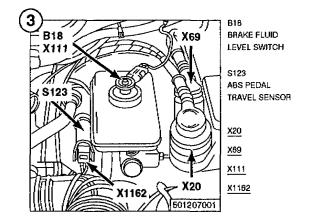


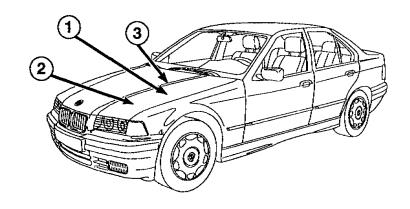
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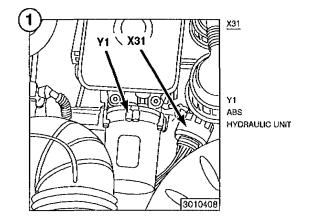


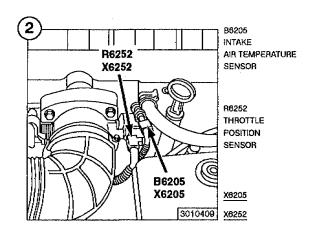


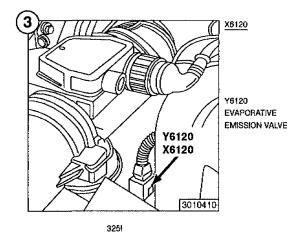


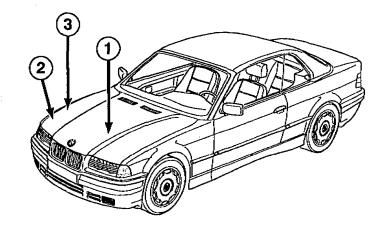


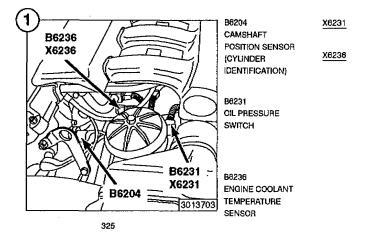


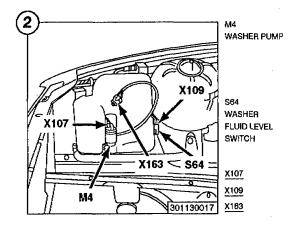


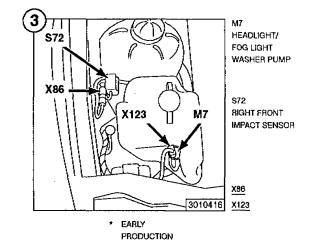


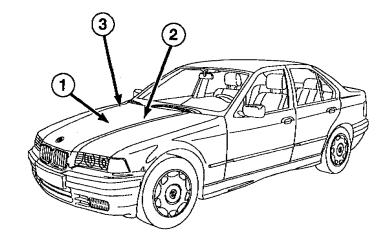


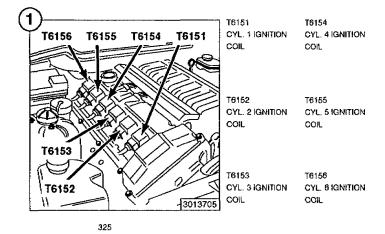


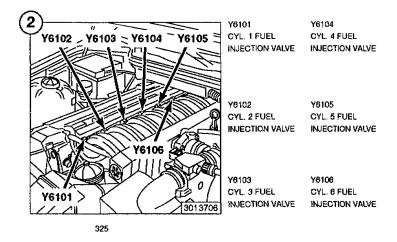


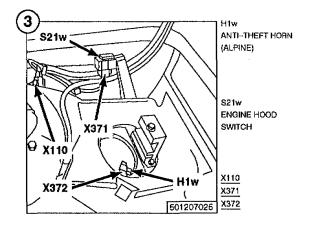


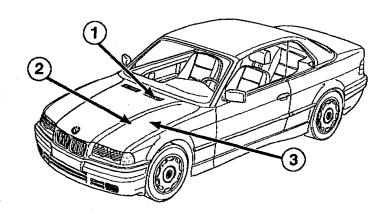


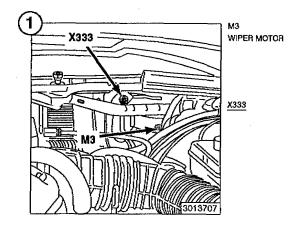


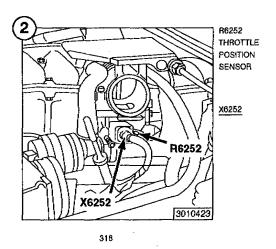


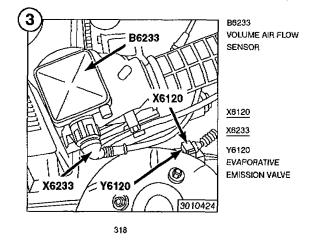


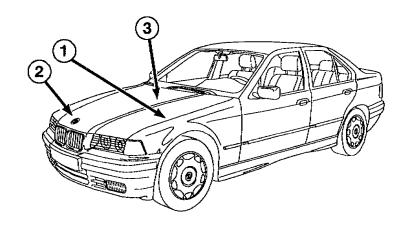


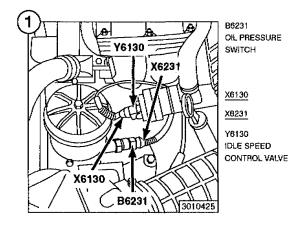


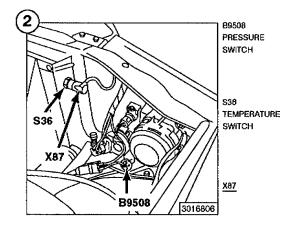


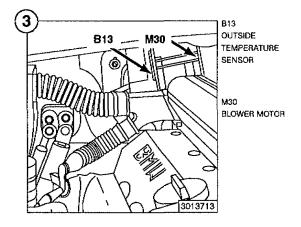


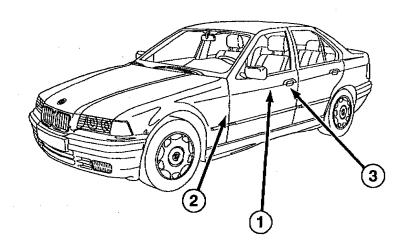


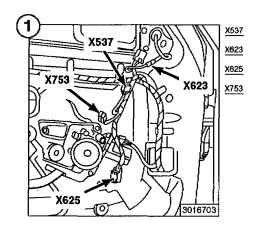


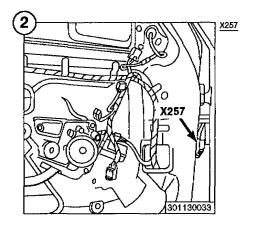


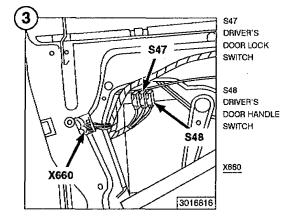


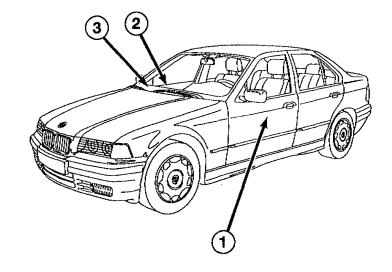


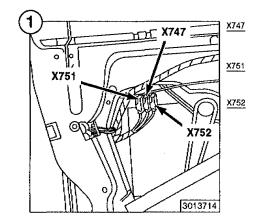


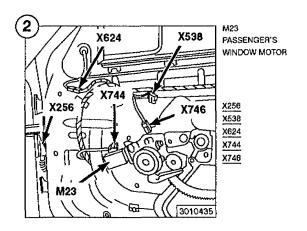


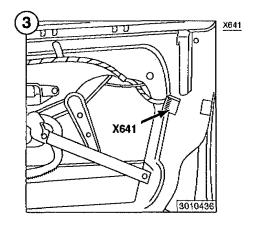


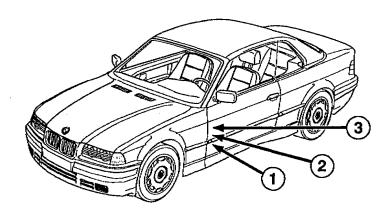


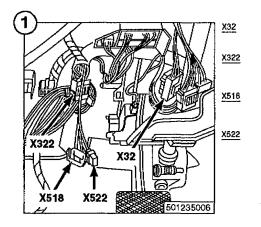


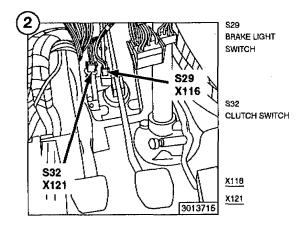


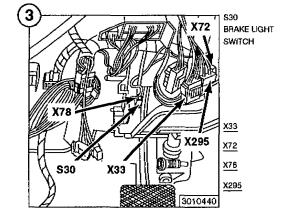


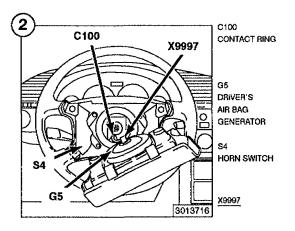


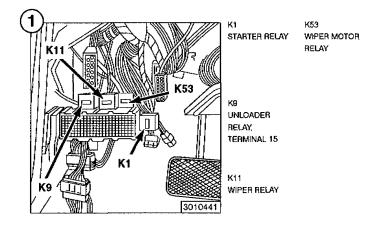


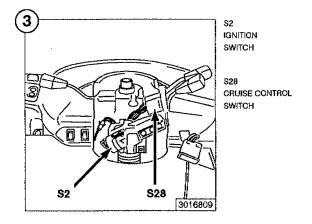


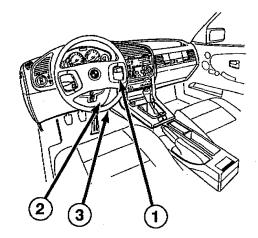


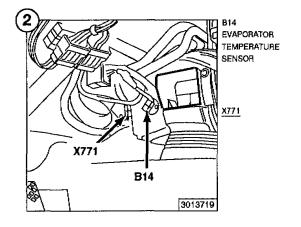


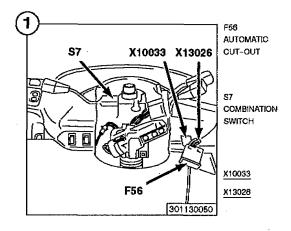


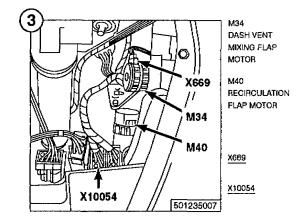


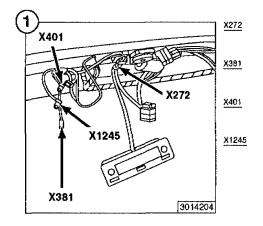


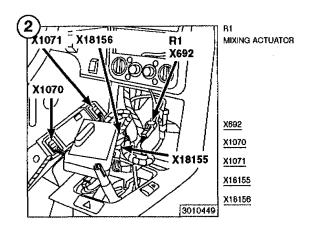


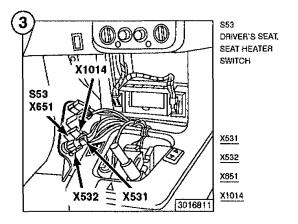


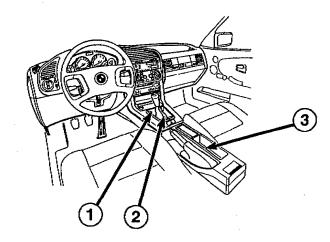


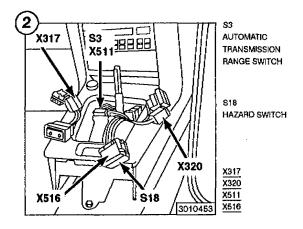


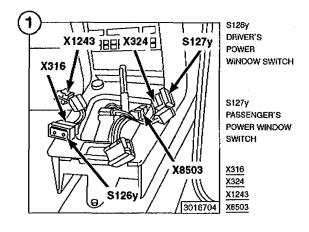


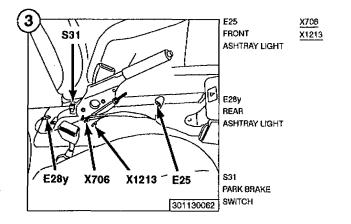




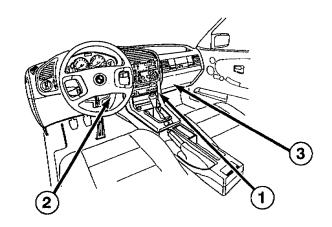


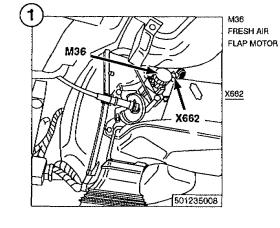


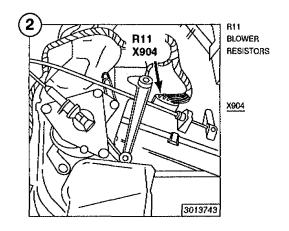


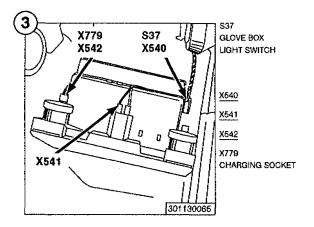


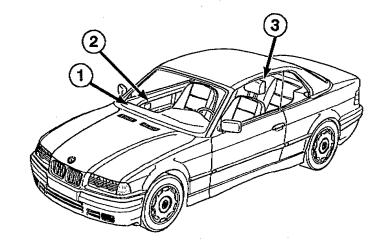


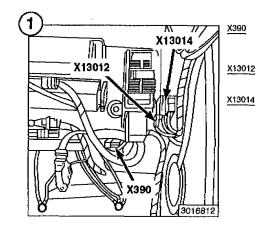


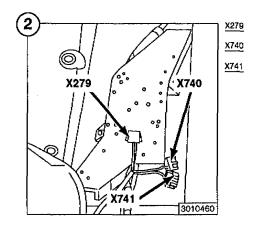


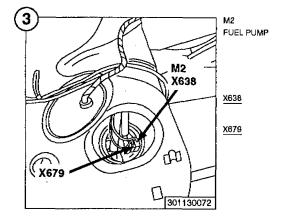




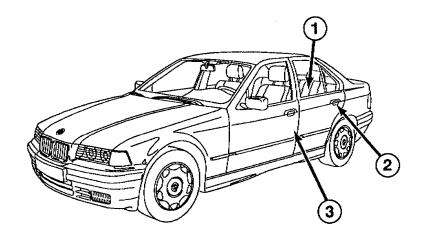


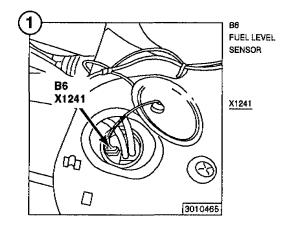


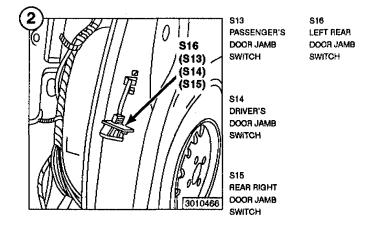


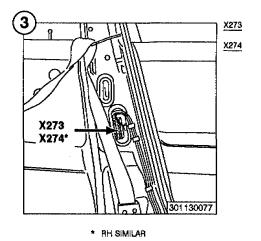




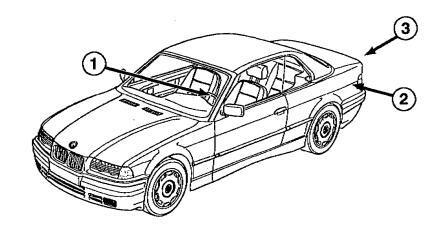


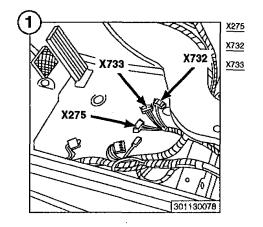


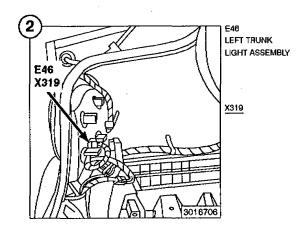


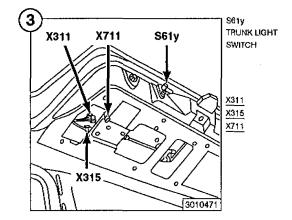


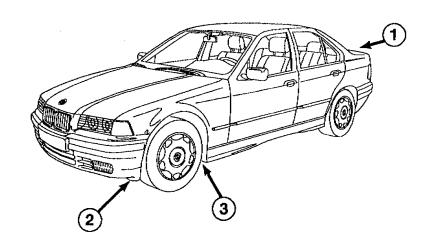


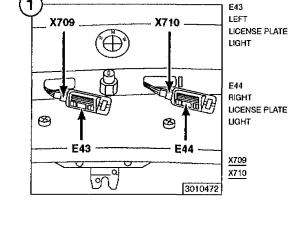


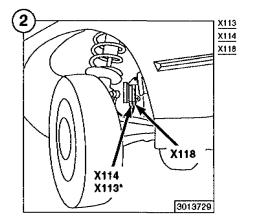


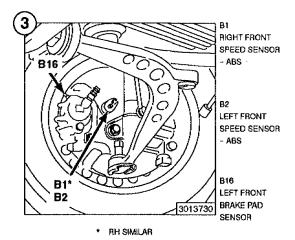


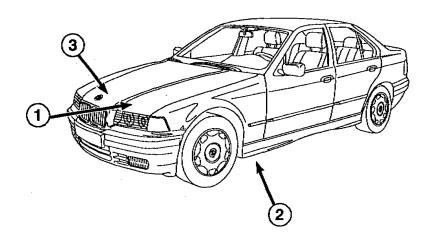


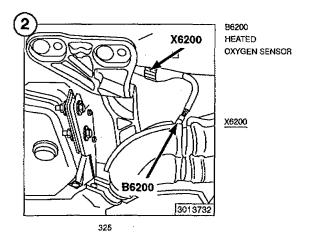


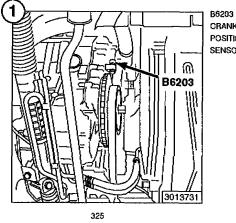


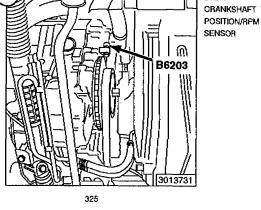


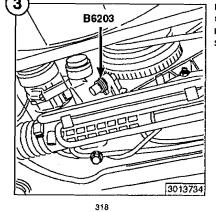




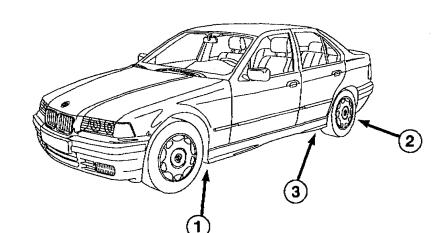


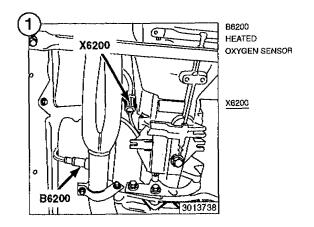


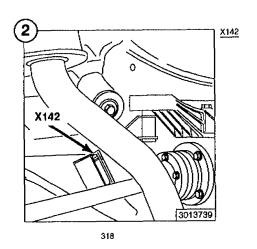


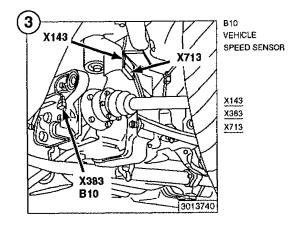


B6203 CRANKSHAFT POSITION/RPM SENSOR









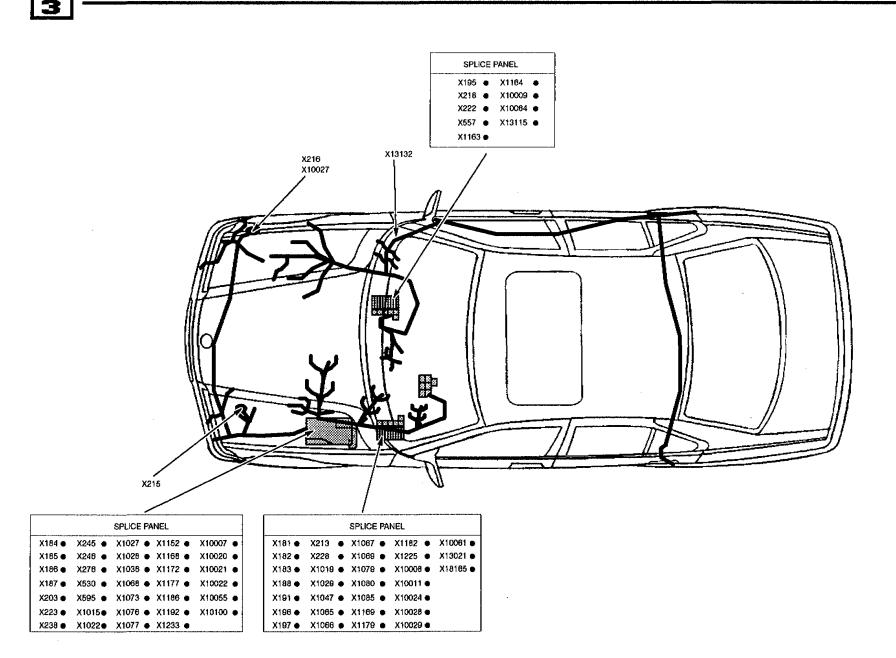
# SPLICE LOCATION VIEWS SPLICE LOCATION

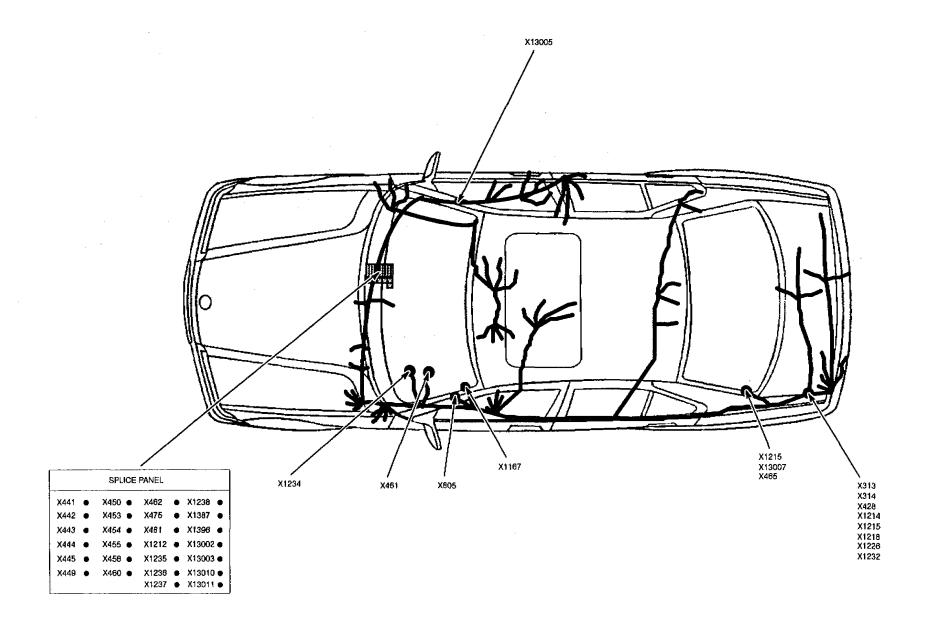
X6860 ...... M50 ENGINE ..... NOT SHOWN

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X313-X314	REAR	8000.0-02	X6900-X6906	ENGINE	NOT SHOWN
X428-X481	REAR	8000.0-02	X7163	ENGINE	NOT SHOWN
X530-X595	FRONT	8000.0-01	X8004	ENGINE	NOT SHOWN
X805	REAR	8000.0-02	X8005	M42 ENGINE	NOT SHOWN
	. RADIO		X8007-X8010	ENGINE	NOT SHOWN
X849-X851	. DRIVER'S DOOR	NOT SHOWN	X8015	ENGINE	NOT SHOWN
X876-X878	. RADIO	NOT SHOWN	X8021	M50 ENGINE	NOT SHOWN
X906	IHKR	NOT SHOWN	X8022	ENGINE	NOT SHOWN
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X1167	REAR	8000.0-02	X8043-X8049	M42 ENGINE	NOT SHOWN
X1169-X1192	FRONT	8000.0-01	X8051	ENGINE	NOT SHOWN
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X6410	ENGINE	NOT SHOWN	X13021-X13132	FRONT	8000.0-01
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X6475	M50 ENGINE	NOT SHOWN	X18251	DRIVER'S DOOR	NOT SHOWN
X6492-X6810	ENGINE	NOT SHOWN	X18252	PASSENGER'S DOOR	NOT SHOWN
X6820	M50 ENGINE	NOT SHOWN	X18253	DRIVER'S DOOR	NOT SHOWN
	ENGINE	NOT SHOWN	X18254-X18284	PASSENGER'S DOOR	NOT SHOWN
	ENGINE		X19513-X19514	RADIO	NOT SHOWN
X6835-X6855	ENGINE				







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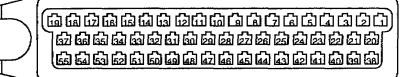


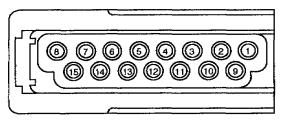


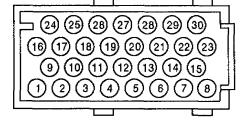
FIG. 3

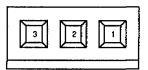
B150003.00



B300001.00







<del>\_\_\_</del>(



B120003.00

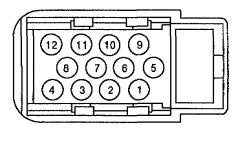


FIG. 3

8120001.00

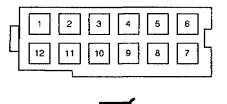


FIG. 4

B050005.00

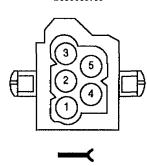


FIG. 5

B180000.00

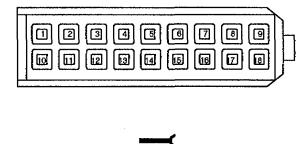


FIG. 6

B040003.00



FIG. 1

B080002.00

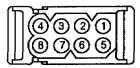


FIG. 2

B120015



FIG. 3

B030001.00

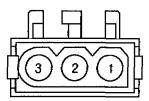


FIG. 4

B080003.00

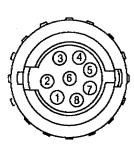


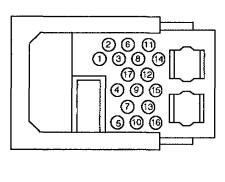
FIG. 5

8300003.00

30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



B170001.00



8500.0-03

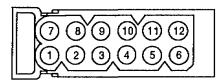


FIG. 2

B030004.00



FIG. 3

B100008.00

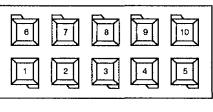


FIG. 4

B030005.00

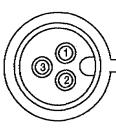


FIG. 5

B120004.01

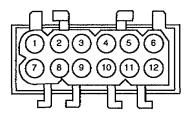


FIG. 6

B040002.00

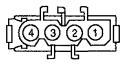




FIG. 1 B060006.00

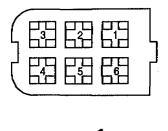


FIG. 2 B050003.00

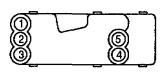


FIG. 3 B040004.00

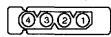


FIG. 4

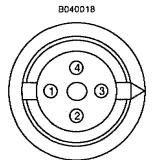


FIG. 5



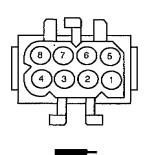
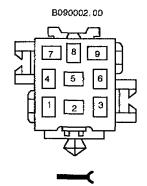


FIG. 6



B210002.00

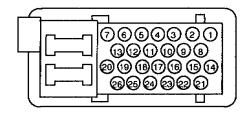




FIG. 2

B060001.02

FIG. 3

B070005.01

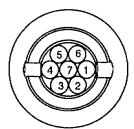


FIG. 4

B200003.00

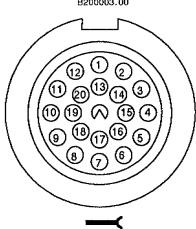


FIG. 5

B060010,01

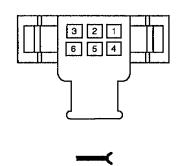


FIG. 6

8030003.02



8060008.00

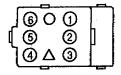


FIG. 2

B250001.00

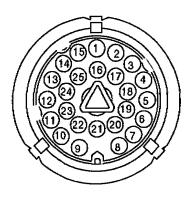
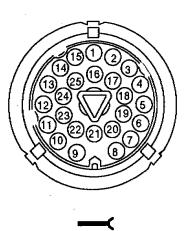


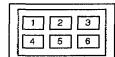
FIG. 3

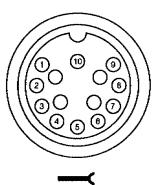
B250001.01



F1G. 4

B060019.02





B250003.00

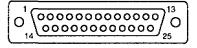


FIG. 3

B060037.00

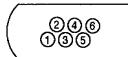


FIG. 4

B060038.00

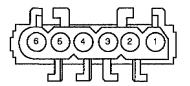
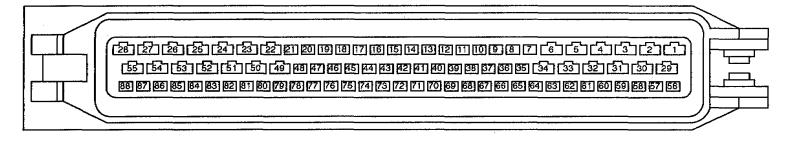


FIG. 1

B880001.00



\_\_\_

FIG. 2

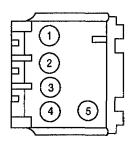
B030006.00



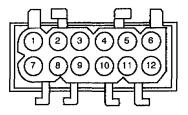
\_\_\_

FIG. 3

B050002.00



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B060012.00

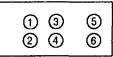


FIG. 3

8040023.00

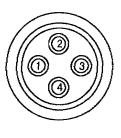


FIG. 4

B030038.00



FIG. 5

B030015.12

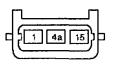
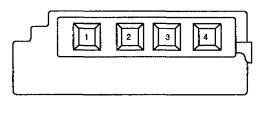


FIG. 6

B040020.00



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B090006.01



FIG. 4

B060036.00

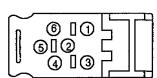


FIG. 2

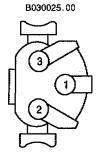


FIG. 5

B030001.00

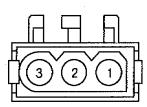


FIG. 3

8060037.01

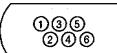


FIG. 6

B060001.00



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