

1994

BMW

**525i, 525it, 530i,
530it, 540i (E34)**

Electrical

Troubleshooting

Manual

540i Produced 2/93 to 6/94

525i, 525it, 530i, 530it Produced 9/93 to 6/94

PN 01 00 1 469 218



ELECTRICAL TROUBLESHOOTING MANUAL

5 SERIES – E34 (525i/t, 530i/t, 540i)

SCHEMATICS

MODEL YEAR 1994

0100.0	INDEX	3450.0	SLIP CONTROL (ABS)
0110.0	INTRODUCTION	3450.2	SLIP CONTROL (ABS/ASC + T)
0140.0	SYMBOLS	3450.5	SLIP CONTROL 5 (ASC 5)
0670.0	POWER DISTRIBUTION CHART	5116.0	POWER MIRRORS
0670.1	FUSE CHART	5120.0	ZKE DOOR LOCK HEATING (TSH)
0670.2	POWER DISTRIBUTION	5126.0	ZKE CENTRAL LOCKING (ZV)
0670.3	FUSE DETAILS	5133.0	ZKE POWER WINDOWS (FH)
0670.4	GROUND DISTRIBUTION	5200.0	POWER SEATS
0670.5	DATA LINK	5200.1	SEAT/MIRROR MEMORY SYSTEM (SM/SPM)
1210.11	ENGINE CONTROL SYSTEM (DME M3.3, 8-CYLINDER M60)	5203.0	HEATED SEATS
1210.13	ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)	5212.0	LUMBAR SUPPORT
1230.0	CHARGING SYSTEM	5410.0	ZKE SUNROOF (SHD)
1240.0	START	5410.2	DOUBLE PANEL POWER SUNROOF (ZKE)
1290.0	E-BOX FAN	6100.0	CENTRAL BODY ELECTRONICS (ZKE)
2460.2	ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)	6133.0	HORN
2460.7	ELECTRONIC TRANSMISSION CONTROL (AGS: GS 9.22/A5S 560Z)	6160.0	ZKE WIPER/WASHER CONTROL
2460.8	ELECTRONIC TRANSMISSION CONTROL (AGS: GS 7.32/A5S 310Z)	6162.0	REAR WINDOW WIPER/WASHER CONTROL
3231.0	ELECTRIC STEERING COLUMN ADJUSTMENT	6167.0	ZKE HEADLIGHT WASHER (SRA)
3231.1	STEERING COLUMN MEMORY (LSM)	6169.0	WINDSHIELD WASHER JET HEATERS
3234.0	SUPPLEMENTAL RESTRAINT SYSTEM (AIRBAG)	6200.0	INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)
		6213.2	MULTI-FUNCTION CLOCK

SCHEMATICS

6300.0	LIGHT SWITCH DETAILS	6454.0	AUXILIARY FAN
6301.0	LAMP MONITOR (LKM)	6510.1	RADIO/HIFI
6312.0	HEADLIGHTS/FOG LIGHTS	6510.2	RADIO PROVISIONS
6313.0	TURN/HAZARD LIGHTS	6561.0	CELLULAR TELEPHONE (PROVISIONS)
6314.0	PARK/TAIL/UNDERHOOD LIGHTS	6571.0	CRUISE CONTROL (TEMPOMAT)
6320.0	LICENSE PLATE/LUGGAGE COMPARTMENT LIGHTS	6575.2	ANTI-THEFT SYSTEM (ALPINE)
6322.0	BACK UP LIGHTS	6575.3	ANTI-THEFT SYSTEM IV (DWA IV)
6325.0	BRAKE LIGHTS	6581.0	ON-BOARD COMPUTER (BCIV)
6330.0	ZKE INTERIOR LIGHTS CONTROL (IB)	6610.1	REMOTE CONTROLLED LOCKING SYSTEM
6332.0	INTERIOR ACCESSORIES	7000.0	COMPONENT LOCATION CHART
6350.0	CRASH CONTROL MODULE	7100.0	COMPONENT LOCATION VIEWS
6412.19	PARK VENTILATION WITH IHKR/F3	8000.0	SPLICE LOCATION VIEWS
6424.0	REAR WINDOW DEFOGGER	8500.0	CONNECTOR VIEWS
6450.5	INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3)		

BMW
5

0100.0



INDEX

ABS HYDRAULIC UNIT, Y1	3450.0-00
ABS HYDRAULIC UNIT, Y1	3450.2-01
ABS HYDRAULIC UNIT, Y1w	3450.5-03
ABS PUMP MOTOR RELAY, K94	3450.0-06
ABS PUMP MOTOR RELAY, K94	3450.5-02
AIR BAG GAS GENERATOR, DRIVER'S, G5	3234.0-01
AIR BAG GAS GENERATOR I, PASSENGER'S, G6	3234.0-01
AIR CONDITIONING COMPRESSOR, Y2	6450.5-05
ANTENNA AMPLIFIER AM/FM, N8	6424.0-01
ANTENNA AMPLIFIER AM/FM, N8	6510.1-00
ANTI-THEFT CONTROL MODULE (ALPINE), N12w	6575.2-00
ANTI-THEFT CONTROL MODULE (DWA), N1	6575.3-00
ANTI-THEFT HORN, H1y	6575.3-03
ANTI-THEFT HORN, H1y	6575.2-00
ANTI-THEFT SYSTEM (ALPINE)	6575.2-00
ANTI-THEFT SYSTEM IV (DWA IV)	6575.3-00
ASC SWITCH, S6	3450.5-01
ASC SWITCH, S6	3450.2-00
AUTOMATIC TRANSMISSION RANGE SWITCH, S3	2460.2-04
AUTOMATIC TRANSMISSION RANGE SWITCH, S3	2460.7-05
AUTOMATIC TRANSMISSION RANGE SWITCH, S3	2460.8-04
AUXILIARY FAN	6454.0-00
AUXILIARY FAN MOTOR, M9	6454.0-00
AUXILIARY RELAY BOX, P92	0670.2-06
AUXILIARY THROTTLE POSITION MOTOR (ADS), M93	3450.5-04
AUXILIARY THROTTLE POSITION MOTOR (ADS), M93	3450.2-04
AUXILIARY THROTTLE POSITION SENSOR, R6253	3450.2-04
AUXILIARY THROTTLE POSITION SENSOR, R6253	3450.5-04
AUXILIARY WATER PUMP, M37a	6450.5-07
AUXILIARY WATER PUMP RELAY, K8	6450.5-07
BACK UP LIGHT SWITCH (MANUAL TRANSMISSION), S92	6322.0-00
BACK UP LIGHTS	6322.0-00
BACK UP LIGHT, LEFT, H27	6322.0-01
BACK UP LIGHT, RIGHT, H28	6322.0-01
BATTERY, G1	0670.2-00
BATTERY SWITCH (DWA), S22	6575.3-03
B+ DISTRIBUTOR, X7163	0670.2-00

B+ JUMP START JUNCTION POINT, G6430	0670.2-00
B+ JUNCTION POINT, X6400	0670.2-00
BLOWER MOTOR, M30	6412.19-00
BLOWER MOTOR, M30	6450.5-02
BLOWER RELAY, K4	6450.5-00
BLOWER RESISTORS, R11	6412.19-00
BLOWER RESISTORS, R11	6450.5-02
BLOWER SWITCH, S75	6412.19-00
BLOWER SWITCH, S75	6450.5-02
BRAKE FLUID LEVEL SWITCH, B18	6200.0-01
BRAKE LIGHT SWITCH, S30	6325.0-00
BRAKE LIGHTS	6325.0-00
BRAKE LIGHT, LEFT, H24	6325.0-01
BRAKE LIGHT, RIGHT, H31	6325.0-01
BRAKE PAD SENSOR, LEFT FRONT, B16	6200.0-01
BRAKE PAD SENSOR, RIGHT REAR, B17	6200.0-01
CAMSHAFT ACTUATOR, B6208	1210.13-01
CAMSHAFT POSITION SENSOR (CYLINDER IDENTIFICATION), B6204	1210.11-10
CARBON CANISTER, B60	1210.11-11
CD CHANGER, N22	6510.1-05
CELLULAR TELEPHONE (PROVISIONS)	6561.0-00
CENTRAL BODY ELECTRONICS (ZKE)	6100.0-00
CENTRAL LOCKING TRUNK LID MOTOR RELAY (ZV), K70	5126.0-08
CHARGING SOCKET, X779	6332.0-00
CHARGING SYSTEM	1230.0-00
CHECK CONTROL MODULE, A4	6200.0-11
CHIME MODULE, H10	6581.0-03
CLUTCH SWITCH, S32	6571.0-03
COMBINATION SWITCH, S7	6301.0-01
COMBINATION SWITCH, S7	6312.0-00
COMBINATION SWITCH, S7	6313.0-00
COMPONENT LOCATION CHART	7000.0-00
COMPONENT LOCATION VIEWS	7100.0-00
COMPRESSOR CONTROL RELAY, K19	6450.5-05
CONNECTOR VIEWS	8500.0-00
CONTACT RING, C101	3234.0-01



INDEX

CRANKSHAFT POSITION/RPM SENSOR, B6203	1210.11-10	CYL. 5-8 HEATED OXYGEN SENSOR, B6220w	1210.11-05
CRANKSHAFT POSITION/RPM SENSOR, B6203	1210.13-04	CYL. 6 FUEL INJECTION VALVE, Y6106	1210.11-01
CRASH CONTROL MODULE, N17	6350.0-01	CYL. 6 FUEL INJECTION VALVE, Y6106	1210.13-06
CRASH CONTROL MODULE	6350.0-00	CYL. 6 IGNITION COIL, T6156	1210.11-03
CRUISE CONTROL ACTUATOR (TEMPOMAT), M25	6571.0-02	CYL. 6 IGNITION COIL, T6156	1210.13-03
CRUISE CONTROL (TEMPOMAT)	6571.0-00	CYL. 7 FUEL INJECTION VALVE, Y6107	1210.11-01
CRUISE CONTROL MODULE (TEMPOMAT), A8	6571.0-01	CYL. 7 IGNITION COIL, T6157	1210.11-03
CRUISE CONTROL SWITCH, S28	6571.0-00	CYL. 7-8 KNOCK SENSOR, B6244	1210.11-07
CYL. 1-2 KNOCK SENSOR, B6241	1210.11-07	CYL. 8 FUEL INJECTION VALVE, Y6108	1210.11-01
CYL. 1-3 KNOCK SENSOR, B6241w	1210.13-04	CYL. 8 IGNITION COIL, T6158	1210.11-03
CYL. 1 FUEL INJECTION VALVE, Y6101	1210.11-01	DATA LINK	0670.5-00
CYL. 1 FUEL INJECTION VALVE, Y6101	1210.13-06	DATA LINK CONNECTOR, D100	0670.5-00
CYL. 1-4 HEATED OXYGEN SENSOR, B6210w	1210.11-05	DAYTIME RUNNING LIGHTS CODING DIODE, V4	6300.0-04
CYL. 1-6 FUEL PUMP RELAY, K6301	1210.11-04	DIMMER, N3	6300.0-00
CYL. 1-6 FUEL PUMP RELAY, K6301	1210.13-02	DIVERSITY, N404	6424.0-02
CYL. 1 IGNITION COIL, T6151	1210.11-02	DOOR HANDLE SWITCH, DRIVER'S, S48	5120.0-00
CYL. 1 IGNITION COIL, T6151	1210.13-03	DOOR JAMB SWITCH, DRIVER'S, S14	6330.0-00
CYL. 1-8 AIR TEMPERATURE SENSOR, B6215w	1210.11-06	DOOR JAMB SWITCH, LEFT REAR, S16	6330.0-00
CYL. 2 FUEL INJECTION VALVE, Y6102	1210.11-01	DOOR JAMB SWITCH, PASSENGER'S, S13	6330.0-00
CYL. 2 FUEL INJECTION VALVE, Y6102	1210.13-06	DOOR LOCK HEATER, E48	5120.0-01
CYL. 2 IGNITION COIL, T6152	1210.11-02	DOOR LOCK MOTOR, DRIVER'S, M12	5126.0-05
CYL. 2 IGNITION COIL, T6152	1210.13-03	DOOR LOCK MOTOR, LEFT REAR, M15	5126.0-05
CYL. 3 FUEL INJECTION VALVE, Y6103	1210.11-01	DOOR LOCK MOTOR, PASSENGER'S, M13	5126.0-05
CYL. 3 FUEL INJECTION VALVE, Y6103	1210.13-06	DOOR LOCK MOTOR, RIGHT REAR, M14	5126.0-05
CYL. 3-4 KNOCK SENSOR, B6242	1210.11-07	DOOR LOCK SWITCH, DRIVER'S, S47	5126.0-00
CYL. 3 IGNITION COIL, T6153	1210.11-02	DOOR LOCK SWITCH, PASSENGER'S, S49	5126.0-00
CYL. 3 IGNITION COIL, T6153	1210.13-03	DOUBLE PANEL POWER SUN ROOF SENSOR I, B54	5410.2-02
CYL. 4 FUEL INJECTION VALVE, Y6104	1210.11-01	DOUBLE PANEL POWER SUN ROOF SENSOR II, B55	5410.2-02
CYL. 4 FUEL INJECTION VALVE, Y6104	1210.13-06	DOUBLE PANEL POWER SUNROOF (ZKE)	5410.2-00
CYL. 4-6 KNOCK SENSOR, B6242w	1210.13-04	DOUBLE PANEL POWER SUNROOF CONTROL MODULE, A99	5410.2-00
CYL. 4 IGNITION COIL, T6154	1210.11-02	DWA LED, V5	6571.1-01
CYL. 4 IGNITION COIL, T6154	1210.13-03	E-BOX FAN, M6506	1290.0-00
CYL. 5 FUEL INJECTION VALVE, Y6105	1210.11-01	E-BOX FAN	1290.0-00
CYL. 5 FUEL INJECTION VALVE, Y6105	1210.13-06	ELECTRIC POWER PROTECTION RELAY, K15	6100.0-00
CYL. 5-6 KNOCK SENSOR, B6243	1210.11-07	ELECTRIC STEERING COLUMN ADJUSTMENT	3231.0-00
CYL. 5 IGNITION COIL, T6155	1210.11-03	ELECTRIC STEERING COLUMN ADJUSTMENT RELAY, K87	3231.0-00
CYL. 5 IGNITION COIL, T6155	1210.13-03	ELECTROCHROMIC REAR VIEW MIRROR, A22z	5116.0-02



INDEX

ELECTRONIC THROTTLE CONTROL MODULE (ADS II), A6007	1210.11-04
ELECTRONIC TRANSMISSION CONTROL (AGS: GS 7.32/A5S 310Z)	2460.8-00
ELECTRONIC TRANSMISSION CONTROL (AGS: GS 9.22/A5S 560Z)	2460.7-00
ELECTRONIC TRANSMISSION CONTROL (EGS A4S 310R)	2460.2-00
ELECTRONIC TRANSMISSION ENGINE SPEED SENSOR (EGS), Y8516	2460.2-01
ENGINE CONTROL MODULE (DME), A6000	1210.11-00
ENGINE CONTROL MODULE (DME), A6000	1210.13-00
ENGINE CONTROL MODULE RELAY, K6300	1210.11-00
ENGINE CONTROL MODULE RELAY, K6300	1210.13-00
ENGINE CONTROL SYSTEM (DME M3.3, 8-CYLINDER M60) ..	1210.11-00
ENGINE CONTROL SYSTEM (DME M3.3.1, 6-CYLINDER M50)	1210.13-00
ENGINE COOLANT LEVEL SWITCH, S63	6200.0-11
ENGINE COOLANT TEMPERATURE SENSOR, B6232	6200.0-10
ENGINE COOLANT TEMPERATURE SENSOR, B6236	1210.11-08
ENGINE COOLANT TEMPERATURE SENSOR, B6236	1210.13-05
ENGINE HOOD SWITCH, S21w	6575.2-01
ENGINE HOOD SWITCH (DWA), S21	6575.3-04
EVAPORATIVE EMISSION VALVE, Y6120	1210.13-00
EVAPORATOR TEMPERATURE SENSOR, B14	6450.5-03
FOG LIGHT, LEFT, E26	6312.0-02
FOG LIGHT, RIGHT, E27	6312.0-02
FOG LIGHT SWITCH, S10	6312.0-01
FRESH AIR FLAP MOTOR, M36	6450.5-04
FRONT CIGAR LIGHTER, E28	6332.0-01
FRONT CIGAR LIGHTER LIGHT, E29	6300.0-00
FRONT CONSOLE WINDOW SWITCH ASSEMBLY, S40	5133.0-00
FRONT DOME LIGHT/MAP READING ASSEMBLY, E34	6330.0-01
FRONT POWER DISTRIBUTION BOX, P90	0670.2-00
FUEL LEVEL SENSOR, B6	6200.0-07
FUEL PUMP, M2	1210.11-04
FUEL PUMP, M2	1210.13-02
FUSE CHART	0670.1-00

FUSE DETAILS	0670.3-00
FUSIBLE LINK, F0	0670.2-00
FUSIBLE LINK, F97	0670.2-00
GAS FILLER LOCK MOTOR, M16	5126.0-06
GENERAL MODULE, A1	6100.0-00
GENERATOR, G6509	1230.0-00
GLOVE BOX LIGHT, E42	6332.0-00
GLOVE BOX LIGHT SWITCH, S37	6332.0-00
GRADIENT MONITOR (DWA), B28	6575.3-06
GROUND DISTRIBUTION	0670.4-00
HALL EFFECT CAMSHAFT SENSOR, B6209	1210.13-01
HAZARD FLASHER RELAY, K16	6313.0-00
HAZARD SWITCH, S18	6313.0-01
HEADLIGHT/FOG LIGHT WASHER PUMP, M7	6167.0-02
HEADLIGHT/FOGLIGHT CLEANING MODULE (SRA), N6	6167.0-02
HEADLIGHTS/FOG LIGHTS	6312.0-00
HEADREST MOTOR, DRIVER'S, M54	5200.0-00
HEADREST MOTOR, DRIVER'S, M54	5200.1-04
HEADREST POTENTIOMETER, R5	5200.1-04
HEAT EXCHANGER TEMPERATURE SENSOR, LH, B11	6450.5-03
HEAT EXCHANGER TEMPERATURE SENSOR, RH, B12	6450.5-03
HEATED OXYGEN SENSOR, B6200	1210.13-04
HEATED SEATS	5203.0-00
HIFI AMPLIFIER, A18	6510.1-00
HIGH BEAM LIGHT, LEFT, E11	6312.0-01
HIGH BEAM LIGHT, RIGHT, E12	6312.0-01
HIGH LEVEL STOP LIGHT, H34	6325.0-01
HIGH RANGE SPEAKER, LEFT FRONT, H59	6510.1-02
HIGH RANGE SPEAKER, RIGHT FRONT, H50	6510.1-03
HIGH RANGE SPEAKER, LEFT REAR, H56	6510.1-04
HIGH RANGE SPEAKER, RIGHT REAR, H53	6510.1-04
HIGH SPEED RELAY, K22	6454.0-00
HORN	6133.0-00
HORN, LEFT, H2	6133.0-00
HORN, RIGHT, H3	6133.0-00
HORN RELAY, K2	6133.0-00
HORN SWITCH, S4	6133.0-00



INDEX

HOT FILM AIR MASS METER, B6217	1210.13-05	LIGHT ASSEMBLY, LEFT REAR, E16	6313.0-02
IDLE SPEED CONTROL VALVE, Y6130	1210.11-00	LIGHT RELAY, LEFT PARK, K26	6314.0-00
IDLE SPEED CONTROL VALVE, Y6130	1210.13-00	LIGHT SWITCH, S8	6300.0-00
IGNITION SWITCH, S2	0670.2-04	LIGHT SWITCH, S8	6312.0-00
IHKR/F3 CONTROL PANEL, S134w	6450.5-01	LIGHT SWITCH, S8	6314.0-00
IHKR/F3 SWITCHING UNIT, S135w	6450.5-02	LIGHT SWITCH DETAILS	6300.0-00
INDEX	0100.0-00	LOW BEAM LIGHT, LEFT, E13	6312.0-02
INERTIA SWITCH, S27	6350.0-01	LOW BEAM LIGHT, RIGHT, E14	6312.0-02
INSTRUMENT CLUSTER, A2w	6200.0-00	LOW RANGE SPEAKER, LEFT FRONT, H58	6510.1-02
INSTRUMENT CLUSTER/CHECK CONTROL (K/CC)	6200.0-00	LOW RANGE SPEAKER, RIGHT FRONT, H51	6510.1-03
INTAKE AIR TEMPERATURE SENSOR, B6205	1210.13-05	LOW RANGE SPEAKER, LEFT REAR, H57	6510.1-04
INTEGRATED CLIMATE REGULATION CONTROL		LOW RANGE SPEAKER, RIGHT REAR, H52	6510.1-04
MODULE (IHKR/F3), A87w	6412.19-00	LUMBAR SUPPORT	5212.0-00
INTEGRATED CLIMATE REGULATION CONTROL		MAKEUP MIRROR LIGHT, DRIVER'S, E35	6332.0-00
MODULE (IHKR/F3), A87w	6450.5-00	MAKEUP MIRROR LIGHT, PASSENGER'S, E36	6332.0-00
INTEGRATED CLIMATE REGULATION WITH FILTER (IHKR/F3) ..	6450.5-00	MAKEUP MIRROR SWITCH, DRIVER'S, S77	6332.0-00
INTERIOR ACCESSORIES	6332.0-00	MAKEUP MIRROR SWITCH, PASSENGER'S, S78	6332.0-00
INTERIOR LIGHT, LEFT REAR, E39	6330.0-01	MASS AIR FLOW SENSOR, B6206	1210.11-06
INTERIOR LIGHT, RIGHT REAR, E40	6330.0-01	MEMORY MIRRORS CONTROL SWITCH, S12	5200.1-06
INTRODUCTION	0110.0-00	MEMORY MIRROR, DRIVER'S SIDE, Y9	5200.1-07
JET HEATER THERMOSWITCH, S198	6169.0-00	MEMORY MIRROR, PASSENGER'S SIDE, Y10	5200.1-08
JUMPER PLUG, B900	1240.0-01	MEMORY SEAT ADJUSTMENT SWITCH, DRIVER'S, S50	5200.1-00
KICK-DOWN SWITCH, S8507	2460.2-05	MEMORY SEAT MIRRORS SWITCH, S57	5200.1-01
KICK-DOWN SWITCH, S8507	2460.7-03	MICROPHONE, B400	6561.0-00
KICK-DOWN SWITCH, S8507	2460.8-00	MIDRANGE SPEAKER, LEFT FRONT, H55	6510.1-02
LAMP CONTROL MODULE, A3	6301.0-00	MIDRANGE SPEAKER, RIGHT FRONT, H54	6510.1-03
LAMP MONITOR (LKM)	6301.0-00	MIRROR CONTROL SWITCH, S17	5116.0-00
LICENSE PLATE LIGHT, LEFT, E43	6320.0-00	MIRROR, DRIVER'S SIDE, Y5	5116.0-01
LICENSE PLATE/LUGGAGE COMPARTMENT LIGHTS	6320.0-00	MIRROR, PASSENGER'S SIDE, Y6	5116.0-01
LIFT GATE LIMIT SWITCH, S171	5126.0-08	MIXING ACTUATOR LIGHTS, E41z	6300.0-03
LIFT GATE LOCK SWITCH, S167	5126.0-07	MOTOR DRIVE I DOUBLE PANEL POWER SUNROOF, M87	5410.2-02
LIFT GATE MOTOR, M97	5126.0-08	MOTOR DRIVE II DOUBLE PANEL POWER SUNROOF, M88	5410.2-02
LIFT GATE SWITCH, S172	6320.0-02	MULTI-FUNCTION CLOCK, N10	6213.2-00
LIGHT ASSEMBLY, LEFT FRONT, E9001	6313.0-02	MULTI-FUNCTION CLOCK	6213.2-00
LIGHT ASSEMBLY, RIGHT FRONT, E9000	6313.0-02	NORMAL SPEED RELAY, K21	6454.0-00
LICENSE PLATE LIGHT, RIGHT, E44	6320.0-00	OIL LEVEL SENSOR, B6230	6200.0-12
LIGHT ASSEMBLY, RIGHT REAR, E17	6313.0-02	OIL PRESSURE SWITCH, B6231	1290.0-00



INDEX

OIL PRESSURE SWITCH, B6231	6200.0-02
ON-BOARD COMPUTER, N4	6581.0-00
ON-BOARD COMPUTER (BCIV)	6581.0-00
ON-BOARD COMPUTER HORN RELAY, K91	6575.2-00
ON-BOARD COMPUTER HORN RELAY, K91	6581.0-01
ON-BOARD COMPUTER TEMPERATURE SENSOR, B21	6213.2-00
ON-BOARD COMPUTER TEMPERATURE SENSOR, B21	6581.0-00
OUTSIDE TEMPERATURE SENSOR, B13	6450.5-03
OXYGEN SENSOR RELAY, K6303	1210.11-05
OXYGEN SENSOR RELAY, K6303	1210.13-04
PARK BRAKE SWITCH, S31	6200.0-00
PARK HEATING/VENTILATION RELAY BOX, A15	6412.19-00
PARK LIGHT, LEFT, E15	6314.0-01
PARK LIGHT, RIGHT, E19	6314.0-01
PARK LIGHT/LICENSE PLATE LIGHT RELAY, RIGHT, K25	6314.0-00
PARK LIGHT/LICENSE PLATE LIGHT RELAY, RIGHT, K25	6320.0-00
PARK/TAIL/UNDERHOOD LIGHTS	6314.0-00
PARK VENTILATION WITH IHKR/F3	6412.19-00
POWER DISTRIBUTION	0670.2-00
POWER DISTRIBUTION CHART	0670.0-00
POWER MIRRORS	5116.0-00
POWER SEATS	5200.0-00
PRESSURE SENSOR/PLUNGER, Y16	3450.2-05
PRESSURE SWITCH, B9508	6450.5-05
PRESSURE SWITCH, B9508	6454.0-00
PRESSURE SWITCH, B8y	6450.5-05
PRESSURE SWITCH, B8y	6454.0-00
PRESSURE SWITCH, B9y	6454.0-00
PROGRAM SWITCH, S8503	2460.2-02
PROGRAM SWITCH, S8503	2460.7-02
PROGRAM SWITCH, S8503	2460.8-02
QUARTER WINDOW SWITCH (DWA), LEFT REAR, R21	6575.3-06
QUARTER WINDOW SWITCH (DWA), RIGHT REAR, R22	6575.3-06
RADIO, N9	6510.1-00
RADIO ANTI-THEFT SWITCH (DWA), S20	6575.3-04
RADIO/HIFI	6510.1-00
RADIO PROVISIONS	6510.2-00

REAR DEFOGGER/ANTENNA, E10	6424.0-00
REAR DEFOGGER I, E9	6424.0-00
REAR DEFOGGER RELAY, K13	6424.0-00
REAR POWER DISTRIBUTION BOX, P91	0670.2-07
REAR RIGHT DOOR JAMB SWITCH, S15	6330.0-00
REAR SEAT SWITCH (DWA), S24	6575.3-03
REAR WINDOW DEFOGGER	6424.0-00
REAR WINDOW LIMIT SWITCH, S170	5126.0-08
REAR WINDOW MOTOR, M96	5126.0-08
REAR WINDOW OPENING SWITCH, S147	6162.0-01
REAR WINDOW WASHER PUMP, M95	6162.0-01
REAR WINDOW WIPER MOTOR, M94	6162.0-01
REAR WINDOW WIPER/WASHER CONTROL	6162.0-00
REAR WIPER/WASHER FLUID LEVEL SWITCH, S176	6200.0-11
REAR WIPER/WASHER INTERVAL CONTROL MODULE, A36	6162.0-00
RECIRCULATION FLAP MOTOR, M40	6450.5-04
RELAY MODULE, A5	6100.0-05
REMOTE CONTROLLED LOCKING SYSTEM	6610.1-00
REMOTE LOCKING RECEIVER, N13y	6610.1-00
REVERSING LIGHT SWITCH, S8524	6322.0-00
SEATBACK HEATER, DRIVER'S, E56	5203.0-00
SEATBACK HEATER, PASSENGER'S, E59	5203.0-00
SEATBACK POTENTIOMETER, R7	5200.1-03
SEATBACK RECLINER MOTOR, DRIVER'S, M53	5200.1-03
SEATBACK RECLINER MOTOR, DRIVER'S, M53	5200.0-00
SEATBACK RECLINER MOTOR, PASSENGER'S, M58	5200.0-03
SEAT BELT SWITCH, DRIVER'S, S58	3234.0-01
SEAT BELT SWITCH, PASSENGER'S, S59	3234.0-01
SEAT CONTROL SWITCH, DRIVER'S SEAT, S51	5200.0-00
SEAT CONTROL SWITCH, PASSENGER'S SEAT, S56	5200.0-02
SEAT CUSHION MOVEMENT POTENTIOMETER, R9	5200.1-02
SEAT CUSHION REAR HEIGHT POTENTIOMETER, R8	5200.1-02
SEAT CUSHION TILT MOTOR, DRIVER'S, M50	5200.0-02
SEAT CUSHION TILT MOTOR, PASSENGER'S, M61	5200.0-02
SEAT HEADREST MOTOR, PASSENGER'S, M57	5200.0-03
SEAT HEATER, DRIVER'S, E57	5203.0-00
SEAT HEATER, PASSENGER'S, E58	5203.0-00



INDEX

SEAT HEATER SWITCH, DRIVER'S SEAT, S53	5203.0-00
SEAT HEATER SWITCH, PASSENGER'S SEAT, S54	5203.0-00
SEAT HEIGHT MOTOR, PASSENGER'S, M59	5200.0-03
SEAT HEIGHT MOTOR, DRIVER'S, M52	5200.0-00
SEAT HEIGHT MOTOR, DRIVER'S, M52	5200.1-03
SEAT HEIGHT POTENTIOMETER, R6	5200.1-03
SEAT LUMBAR SUPPORT MOTOR, DRIVER'S, M55	5212.0-00
SEAT LUMBAR SWITCH, DRIVER'S, S52	5212.0-00
SEAT MOVEMENT MOTOR, DRIVER'S, M51	5200.0-02
SEAT MOVEMENT MOTOR, PASSENGER'S, M60	5200.0-02
SEAT/MIRROR MEMORY CONTROL MODULE, A21	5200.1-00
SEAT/MIRROR MEMORY CONTROL MODULE, A21	3231.1-00
SEAT/MIRROR MEMORY SYSTEM (SM/SPM)	5200.1-00
SEAT OCCUPANCY DETECTOR, A113	3234.0-00
SECONDARY AIR PUMP, M63	1210.11-12
SECONDARY AIR PUMP RELAY, K6304	1210.11-12
SECONDARY AIR PUMP VALVE, B6163	1210.11-12
SHIFT LOCK, S8522	2460.2-06
SHIFT LOCK, Y8522	2460.7-04
SHIFT LOCK, Y8522	2460.8-04
SLIP CONTROL (ABS/ASC + T)	3450.2-00
SLIP CONTROL (ABS)	3450.0-00
SLIP CONTROL 5 (ASC 5)	3450.5-00
SLIP CONTROL MODULE (ABS/ASC), A52	3450.5-00
SLIP CONTROL MODULE (ABS/ASC), A52	3450.2-00
SLIP CONTROL MODULE (ABS), A7	3450.0-00
SPEAKER, LEFT FRONT, H41	6561.1-00
SPEED SENSOR - ABS, B4	3450.0-03
SPEED SENSOR - ABS, LEFT FRONT, B2	3450.0-03
SPEED SENSOR - ABS, LEFT FRONT, B2	3450.2-06
SPEED SENSOR - ABS, LEFT FRONT, B2	3450.5-06
SPEED SENSOR - ABS, RIGHT FRONT, B1	3450.0-03
SPEED SENSOR - ABS, RIGHT FRONT, B1	3450.2-06
SPEED SENSOR - ABS, RIGHT FRONT, B1	3450.5-06
SPEED SENSOR - ABS, LEFT REAR, B4	3450.2-06
SPEED SENSOR - ABS, LEFT REAR, B4	3450.5-06
SPEED SENSOR - ABS, RIGHT REAR, B3	3450.0-03
SPEED SENSOR - ABS, RIGHT REAR, B3	3450.2-06
SPEED SENSOR - ABS, RIGHT REAR, B3	3450.5-06
SPLICE LOCATION VIEWS	8000.0-00
START	1240.0-00
STARTER, M6510	1240.0-01
STARTER IMMOBILIZATION RELAY, K1w	5126.0-01
STARTER RELAY, K1	1240.0-01
STEERING COLUMN ADJUST POTENTIOMETER, R18	3231.1-01
STEERING COLUMN LENGTH ADJUST MOTOR, M82	3231.0-00
STEERING COLUMN LENGTH ADJUST MOTOR, M82	3231.1-01
STEERING COLUMN MEMORY (LSM)	3231.1-00
STEERING COLUMN POSITION SWITCH, S119z	3231.0-00
STEERING COLUMN POSITION SWITCH, S119z	3231.1-00
SUNROOF MOTOR, M24	5410.0-03
SUNROOF POSITION SWITCH, S39	5410.0-02
SUNROOF SWITCH, S38	5410.0-02
SUNROOF SWITCH, S38	5410.2-01
SUPPLEMENTAL RESTRAINT SYSTEM (AIR BAG)	3234.0-00
SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE, A12	3234.0-00
SUPPRESSION FILTER, C900	6424.0-01
SYMBOLS	0140.0-00
TAIL LIGHT, LEFT, H25	6314.0-01
TAIL LIGHT, RIGHT, H30	6314.0-01
TELEPHONE HANDSET, U4	6561.0-01
TELEPHONE INTERFACE US, A192	6561.0-01
TELEPHONE TRANSCEIVER, H38	6561.0-00
TEMPERATURE SWITCH, B6235	1290.0-00
TEMPERATURE SWITCH, S36	6454.0-00
THIGH SUPPORT MOTOR, DRIVER'S, M65	5200.0-04
THIGH SUPPORT MOTOR, PASSENGER'S, M66	5200.0-04
THIGH SUPPORT POTENTIOMETER, R15	5200.0-06
THIGH SUPPORT SWITCH, DRIVER'S, S93	5200.0-04
THIGH SUPPORT SWITCH, PASSENGER'S, S94	5200.0-04
THROTTLE FLAP HEATER, E104	3450.5-04
THROTTLE POSITION SENSOR, R6252	1210.11-06
THROTTLE POSITION SENSOR, R6252	1210.13-05
TRANSMISSION CONTROL MODULE (AGS), A8600	2460.7-00



INDEX

TRANSMISSION CONTROL MODULE (AGS), A8600	2460.8-00
TRANSMISSION CONTROL MODULE (EGS), A8500	2460.2-00
TRANSMISSION CONTROL PROGRAM SELECTION SWITCH (EGS), S8514	2460.7-03
TRANSMISSION CONTROL PROGRAM SELECTION SWITCH (EGS), S8514	2460.8-03
TRANSMISSION POSITION INDICATOR LIGHT, E82	6300.0-03
TRANSMISSION VALVE UNIT, Y8505	2460.2-01
TRANSMISSION VALVE UNIT, Y8505w	2460.7-01
TRANSMISSION VALVE UNIT, Y8505y	2460.8-01
TRUNK COMPARTMENT LIGHT, E32	6320.0-01
TRUNK LID LIGHT, E33w	6320.0-02
TRUNK LID OPEN WARNING RELAY, K64w	6320.0-01
TRUNK LID SWITCH, S61	6320.0-01
TRUNK LIGHT, LEFT, H90	6320.0-01
TRUNK LIGHT, RIGHT, H91	6320.0-01
TRUNK LIGHT ASSEMBLY, LEFT, E46	6320.0-01
TRUNK LIGHT ASSEMBLY, RIGHT, E47	6320.0-01
TRUNK LOCK MOTOR, M17	5126.0-06
TURN/HAZARD LIGHTS	6313.0-00
TURN LIGHT, LEFT FRONT, H7	6313.0-02
TURN LIGHT, RIGHT FRONT, H4	6313.0-02
TURN LIGHT, LEFT REAR, H6	6313.0-02
TURN LIGHT, RIGHT REAR, H5	6313.0-02
UNCOUPLING DIODE, V6	6332.0-00
UNLOADER RELAY, TERMINAL 15, K9	0670.2-06
UNLOADER RELAY, TERMINAL 61, K61	1230.0-00
UNLOADER RELAY, TERMINAL R, K3	0670.2-06
VALVE RELAY (ABS/ASC), K95	3450.0-06
VALVE RELAY (ABS/ASC), K95	3450.5-02
VEHICLE SPEED SENSOR, B10	6200.0-05
WASHER FLUID LEVEL SWITCH, S64	6200.0-11
WASHER JET HEATER, LEFT, E51	6169.0-00
WASHER JET HEATER, RIGHT, E52	6169.0-00
WASHER PUMP, M4	6160.0-00
WASHER PUMP RELAY, K5	6160.0-02
WATER VALVE ASSEMBLY, Y4	6450.5-01

WHEEL CAMBER CONTROL MODULE, B22	6200.0-13
WINDOW SWITCH, RIGHT REAR, S42	5133.0-01
WINDOW LIMIT SWITCH, DRIVER'S, S43	5133.0-01
WINDOW LIMIT SWITCH, PASSENGER'S, S44	5133.0-01
WINDOW LIMIT SWITCH, LEFT REAR, S45	5133.0-03
WINDOW LIMIT SWITCH, RIGHT REAR, S46	5133.0-03
WINDOW MONITORING SWITCH (DWA), DRIVER'S, S100	6575.3-06
WINDOW MONITORING SWITCH (DWA), PASSENGER'S, S99 ..	6575.3-06
WINDOW MONITORING SWITCH (DWA), LEFT REAR, S102	6575.3-06
WINDOW MONITORING SWITCH (DWA), RIGHT REAR, S101 ...	6575.3-06
WINDOW MOTOR, DRIVER'S, M21	5133.0-04
WINDOW MOTOR, PASSENGER'S, M23	5133.0-05
WINDOW MOTOR, LEFT REAR, M20	5133.0-04
WINDOW MOTOR, RIGHT REAR, M22	5133.0-05
WINDOW MOTOR RELAY, K90	5126.0-08
WINDOW SWITCH, LEFT REAR, S41	5133.0-01
WINDSHIELD WASHER JET HEATERS	6169.0-00
WIPER MOTOR, M3	6160.0-01
WIPER RELAY, K11	6160.0-00
WIPER/WASHER SWITCH, S5	6160.0-00
WIPER/WASHER SWITCH, S5	6162.0-00
WIPER/WASHER SWITCH, S5	6167.0-01
ZKE CENTRAL LOCKING (ZV)	5126.0-00
ZKE DOOR LOCK HEATING (TSH)	5120.0-00
ZKE HEADLIGHT WASHER (SRA)	6167.0-00
ZKE INTERIOR LIGHTS CONTROL (IB)	6330.0-00
ZKE POWER WINDOWS (FH)	5133.0-00
ZKE SUNROOF (SHD)	5410.0-00
ZKE WIPER/WASHER CONTROL	6160.0-00



0110.0

Schematics

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

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

Important: The components and wires are not drawn to scale. For instance, a lead with a length of over 1m can be shown as a lead 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**.

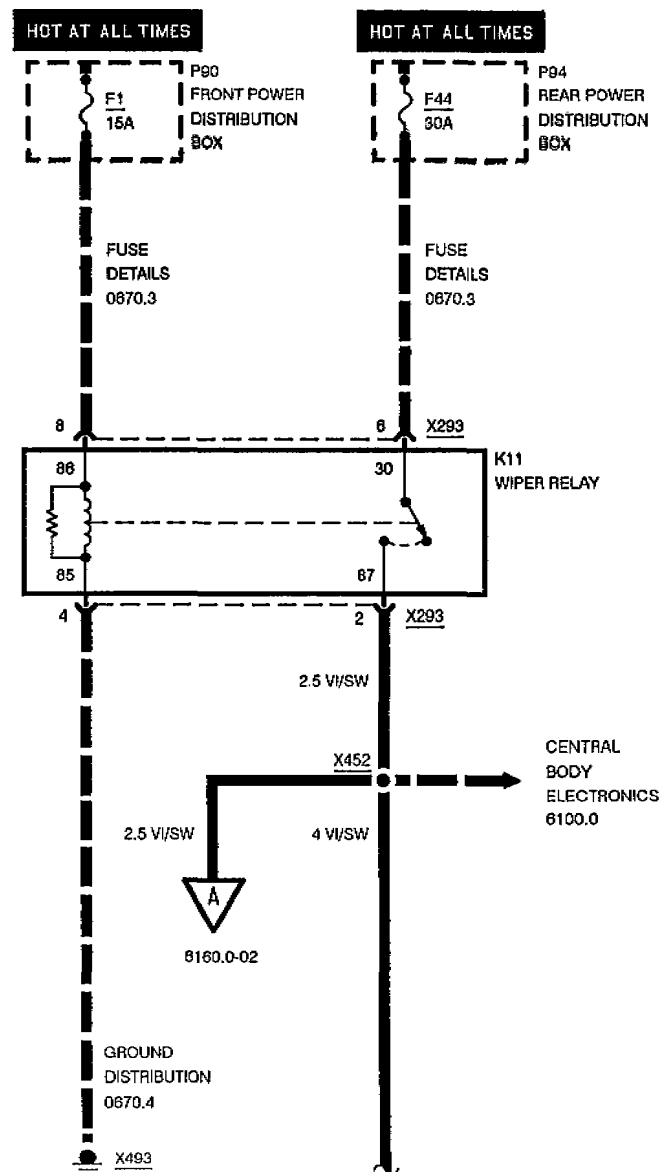
In cell **7000.0 Component Location Chart** all important connectors, ground points and components are listed in tabular form. It provides a precise description of the component locations in the vehicle.

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 **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 module of the system being diagnosed.

Example

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

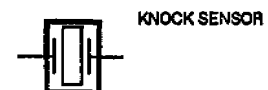
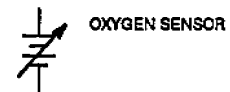
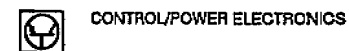
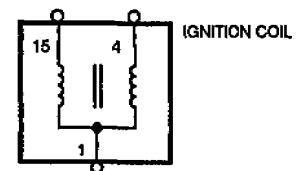
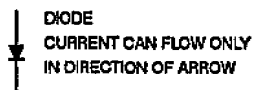
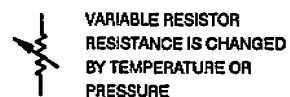
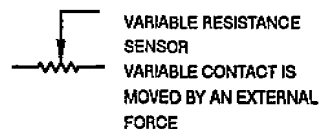
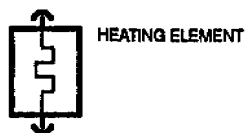
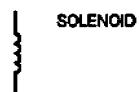
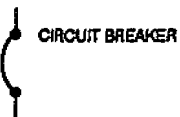
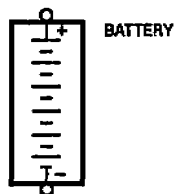




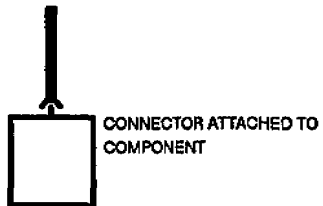
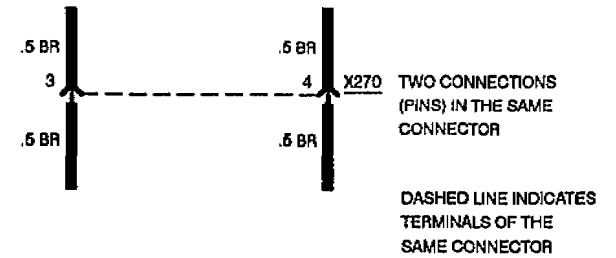
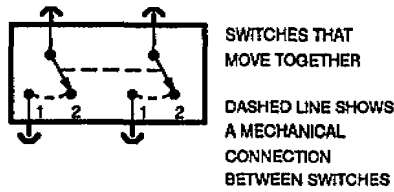
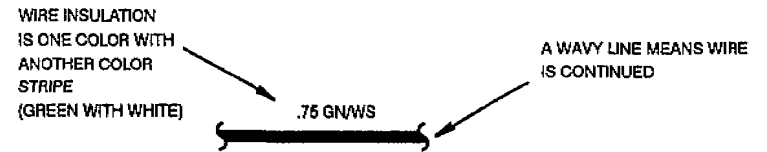
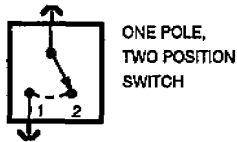
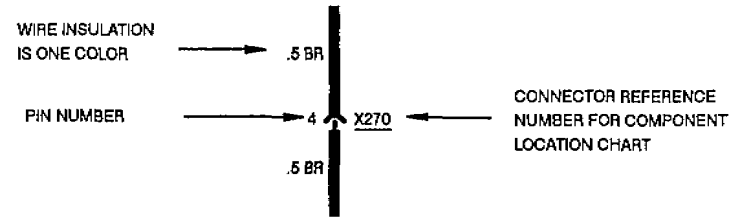
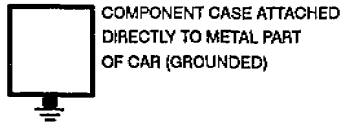
INTRODUCTION

General Conventions

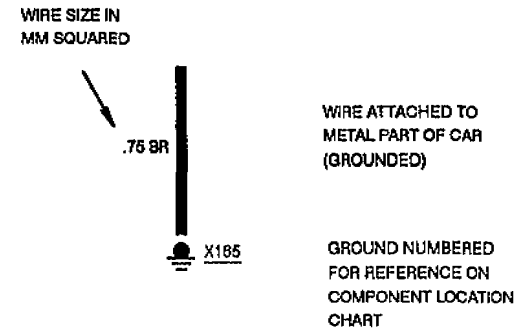
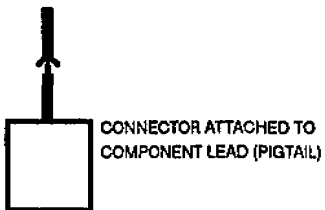
1. Switches and relays are always shown in rest position (e.g. K11).
2. A component shown in a dashed frame signifies that the component is illustrated only in part (e.g. P90 and P91).
3. A component shown in a completely drawn frame signifies that the component is illustrated in full (e.g. K11).
4. 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.
8. The interrupted line from splice X452 with an **A** in the open arrow is continued on page 6160.0-02. Termination of wire 4 VI/SW from splice X452 with a wavy line indicates that the wire is continued on the opposite page.



SYMBOLS

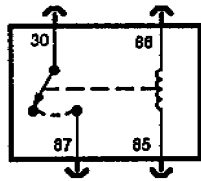


WIRE COLOR	
BL	BLUE
BR	BROWN
GE	YELLOW
GN	GREEN
GR	GRAY
OR	ORANGE
RS	PINK
RT	RED
SW	BLACK
VI	VIOLET
WS	WHITE
TR	TRANSPARENT

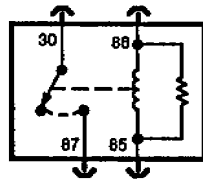




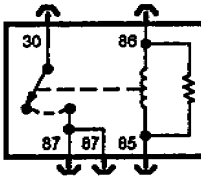
SYMBOLS



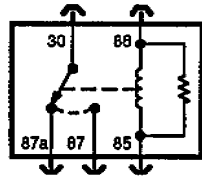
CONTACT RELAY



RELAY WITH RESISTOR ACROSS WINDING

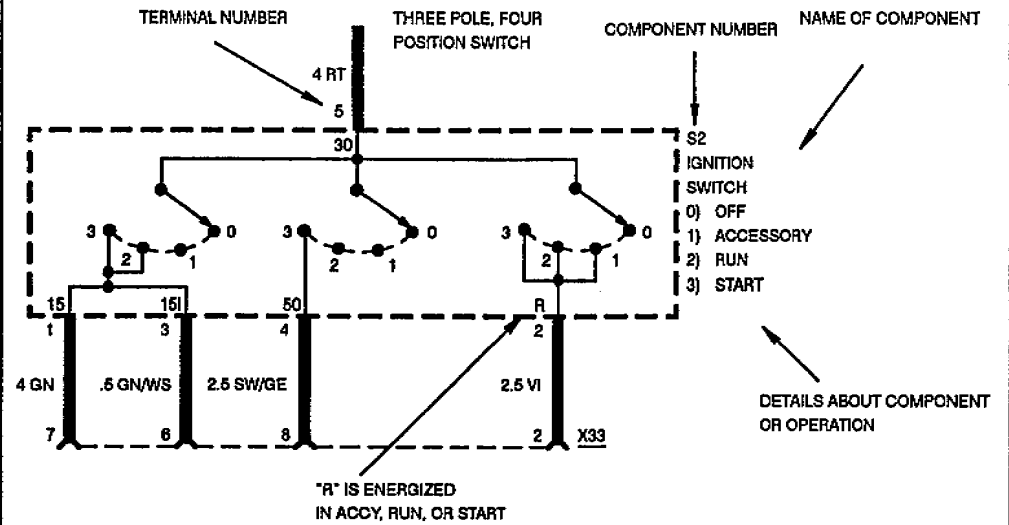


CONTACT RELAY WITH TWO OUTPUTS



CHANGEOVER RELAY WITH TWO OUTPUTS

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



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

HOT AT ALL TIMES



INDICATES THAT FUSE 9 IS SUPPLIED WITH POWER AT ALL TIMES

POWER STATUS

HOT AT ALL TIMES

HOT IN RUN AND START

HOT IN ACCY, RUN AND START

DESCRIPTION

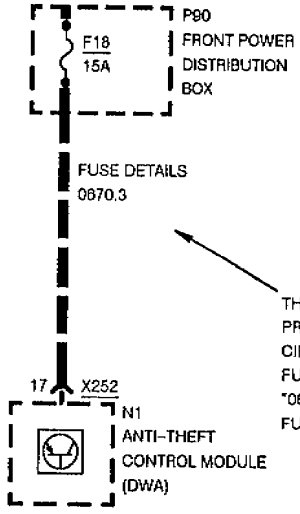
VOLTAGE: SUPPLIED AT ALL TIMES

VOLTAGE: IGNITION SWITCH IN RUN OR START

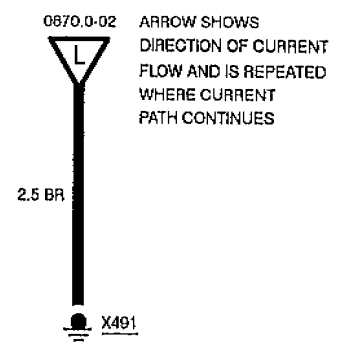
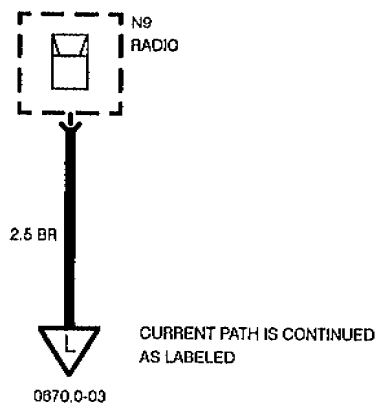
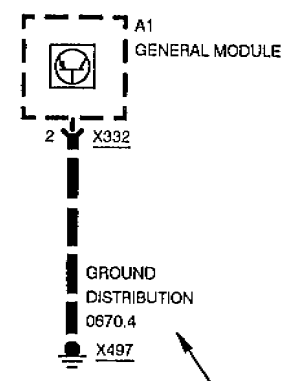
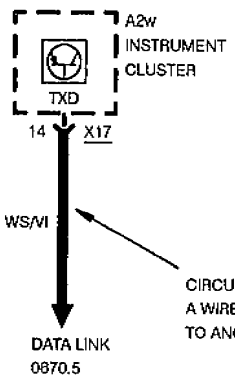
VOLTAGE: IGNITION SWITCH IN ACCESSORY, RUN OR START

SYMBOLS

HOT IN ACCY, RUN AND START



THE COMPLETE WIRE PROGRESSION AND FURTHER CIRCUITS CONNECTED TO FUSE 18 ARE SHOWN IN CELL "0870.3 FUSE DETAILS" AT FUSE 18





SYMBOLS

BLOCK DIAGRAM

