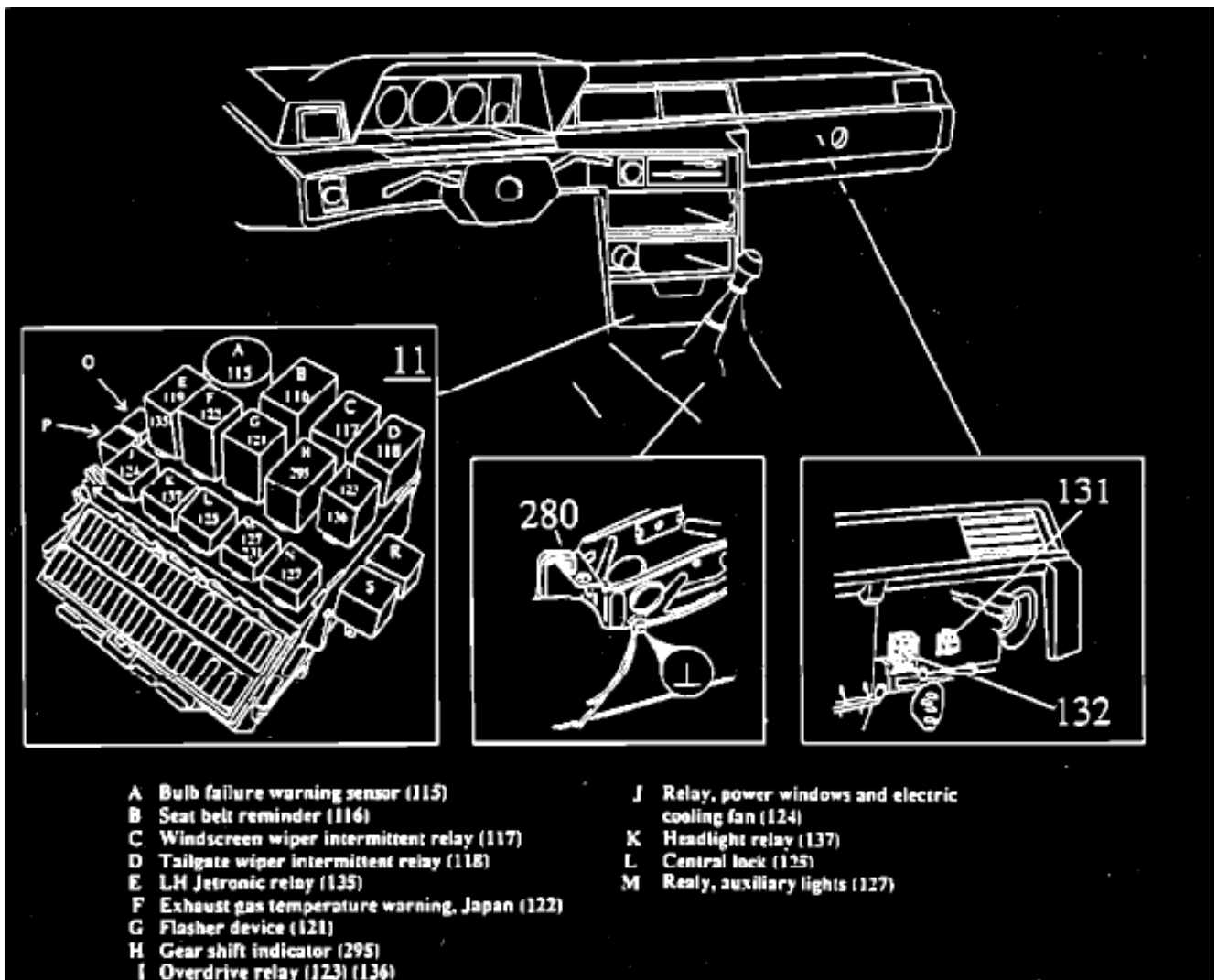


Locations



Hazard Flasher Relay: Locations

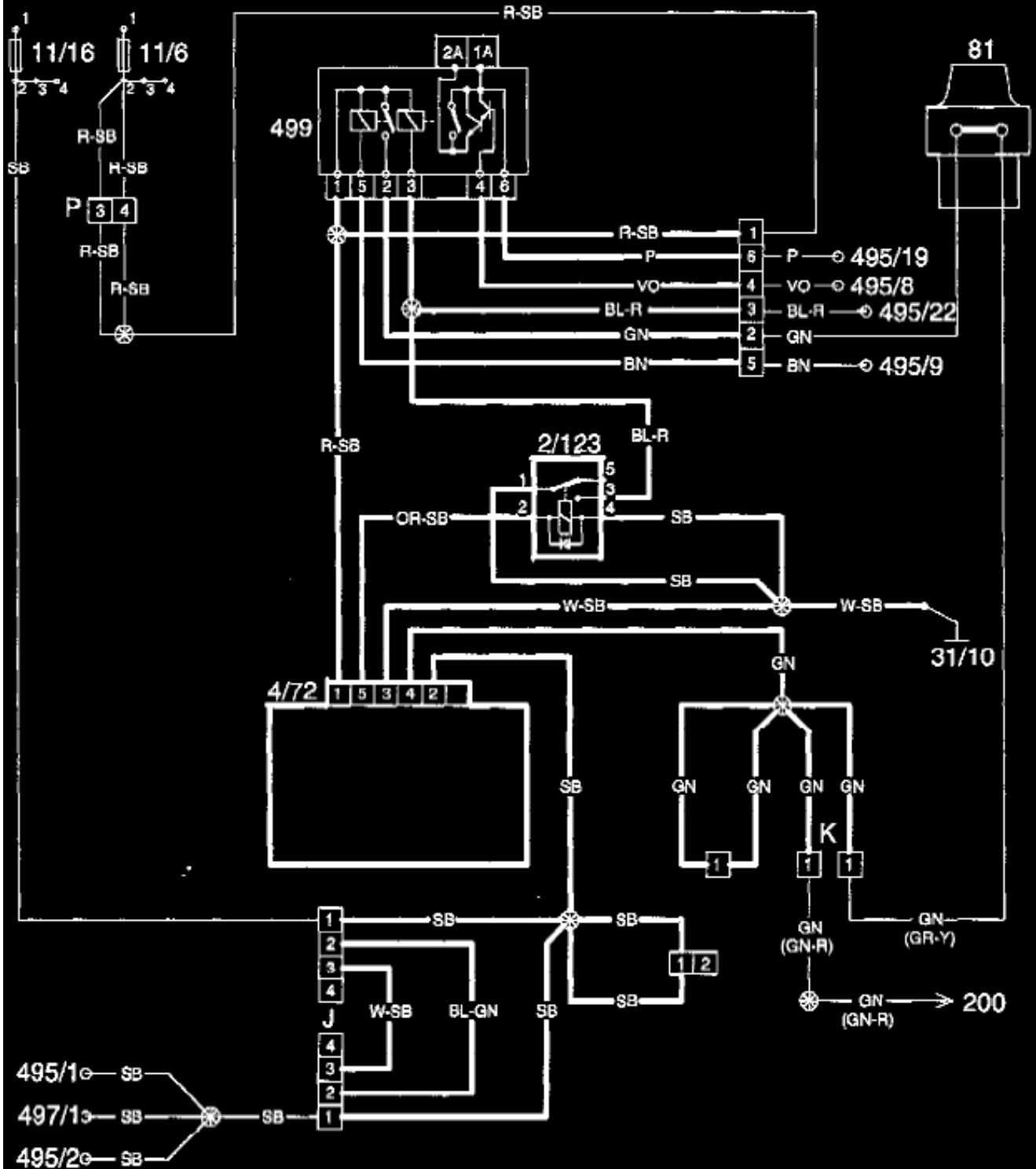
Refer to "Lighting and Horns : Hazard Warning Lamps : Locations : Components".

Relay Locations

In Fuse Panel

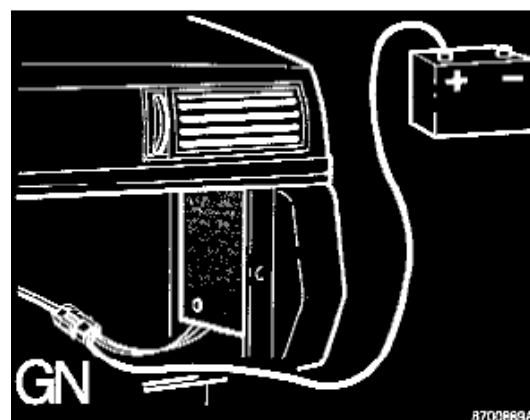
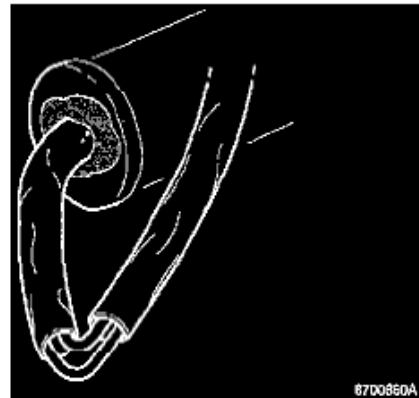
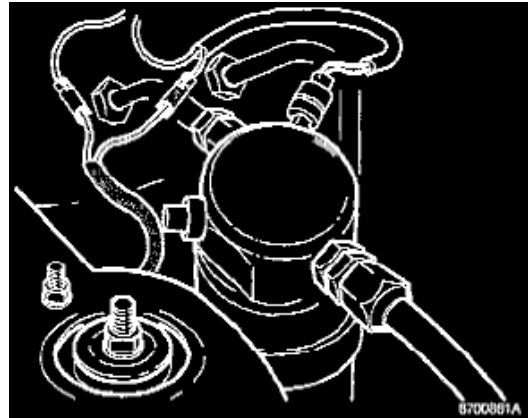
17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

740/940 ECC 1991



740/940 ECC 1991

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		D7	Connector, ambient temperature sensor, 6-pin



B11 Route cables to engine compartment -

Route cables without housing receptacles to engine compartment through unused cutout in grommet under suspension strut brace.

- Attach the round housing receptacles included in the new cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.
- Connect cables from the new cable harness to the separated connectors.

B12 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

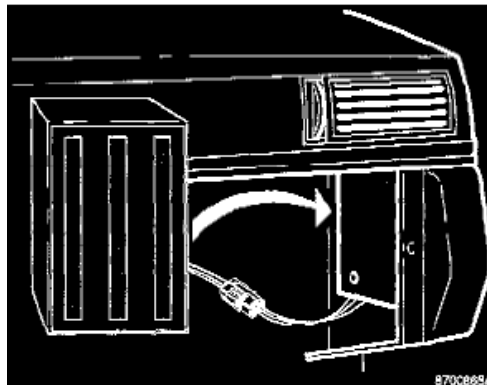
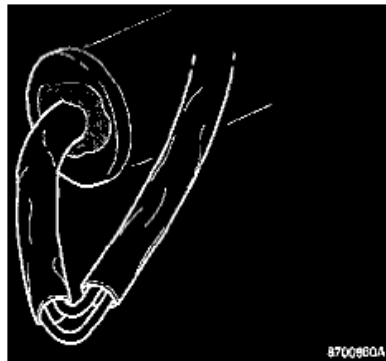
- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

Function verification and information

B13 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor. The A/C system starts if the temperature exceeds approx. 7°C (45°F).
- Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to control module connector. Connect to green cable, connector



A10 Route cables to engine compartment -

Route the green cables on the cable harness to the engine compartment through the vacant hole in the grommet under the brace to the suspension tower.

1988 and 1989 model years: -

Connect the flat connectors.

Year model 1990 cars (shown here): -

Connect the round connectors.

- Connect all unconnected connectors to each other.

A11 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.

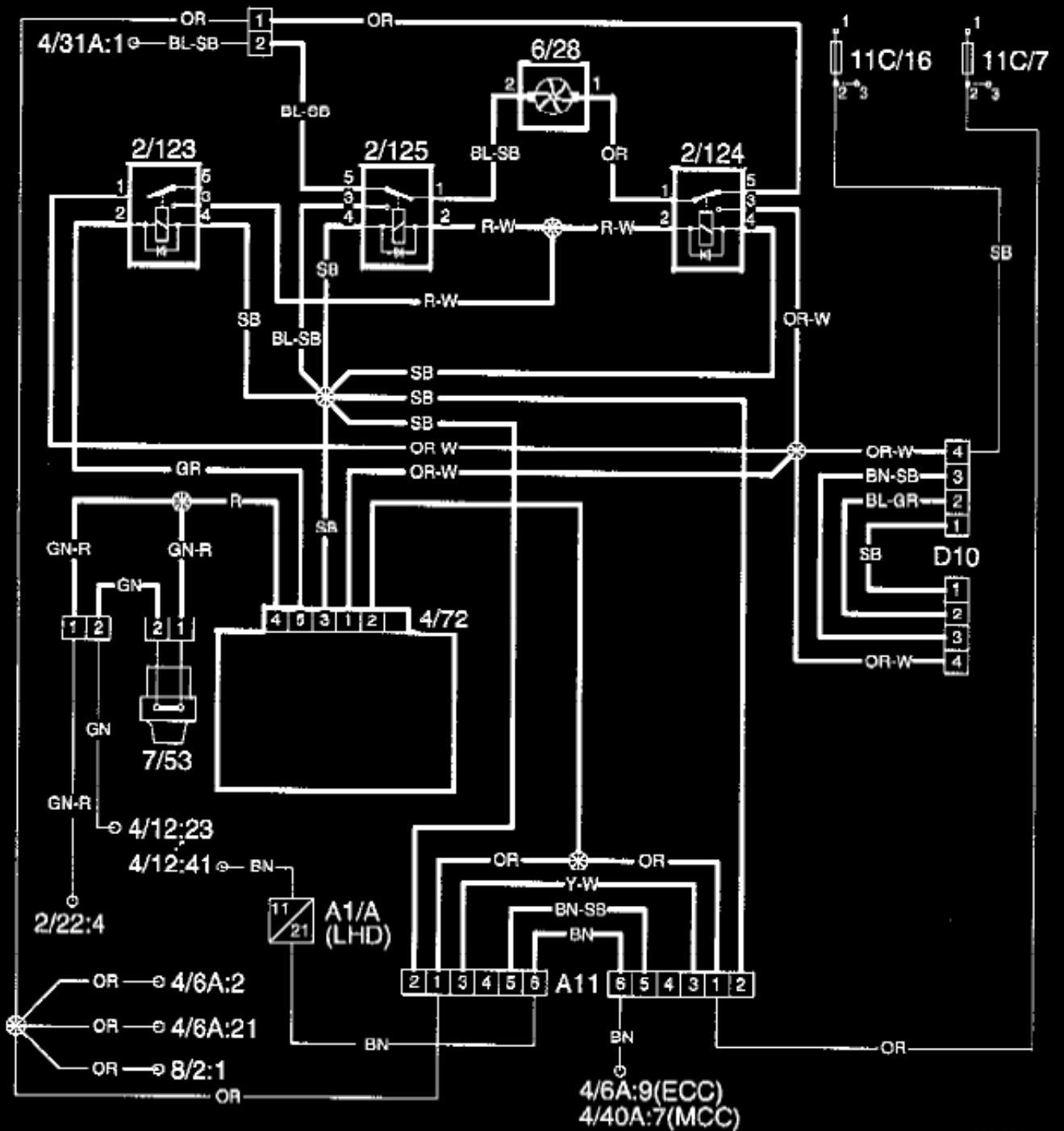
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Installing control module from kit

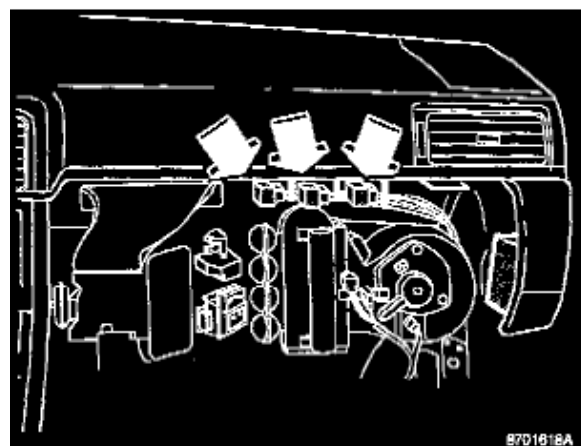
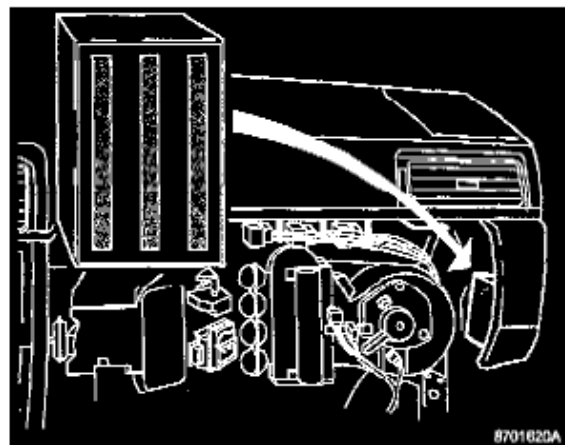
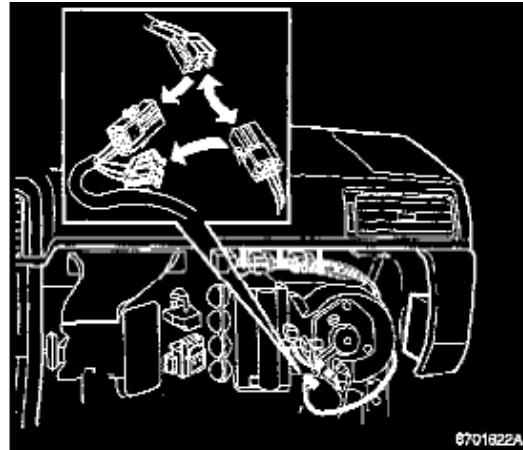
A12

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		D7	Connector, ambient temperature sensor, 6-pin

960 MCC/ECC 1995



3701325A



If there are accessories connected to the accessory cabling, the new cable harness connectors should be connected between the existing ones.

Installing control module from kit

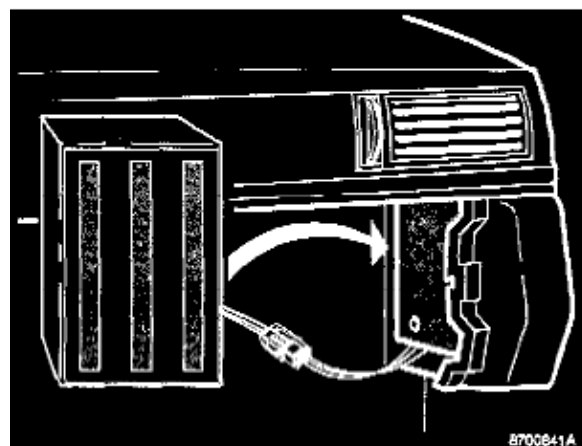
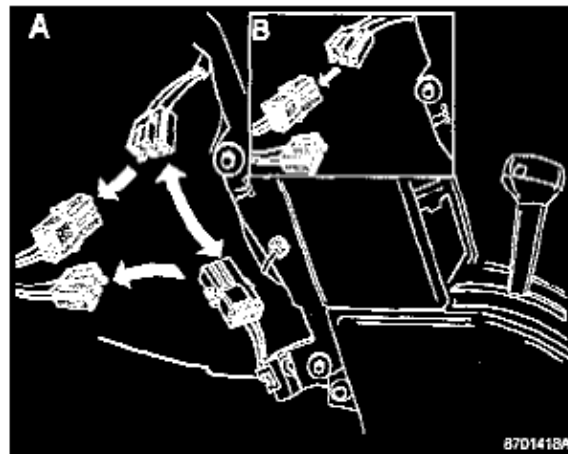
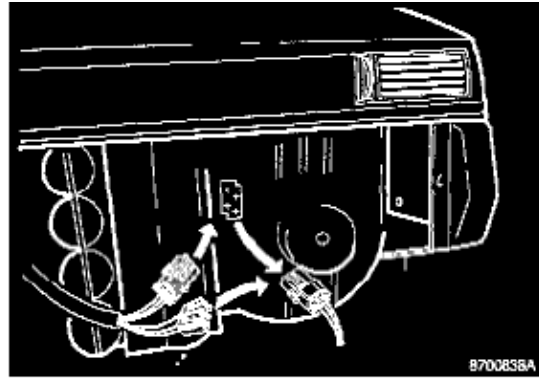
F9 Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

F10 Fastening cables In cars without SRS (Airbag) and knee bolster -

Fasten cable harness and relay to the air hose that runs above the glove compartment to the side defroster with cable ties.



D6 Connection of yellow connector -

Disconnect the yellow connector from the heater and attach the yellow connector from the cable harness.

- Install the detached connector in the other cable harness yellow connector.

D7 Connection of orange cable -

Route the orange cable with connector to driver's side of centre console.

- Locate the black 4-pin accessories connector. The connector can be connected to accessories (A) or unused (B).
- (A) If accessories are connected, separate connectors and connect them to both connectors on the new cable harness.
- (B) Connect the unused existing black 4-pin connector to one of the new harness connectors. Leave the other connector unused.

Installing control module from kit

D8 Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

32 - Pump Pwr. Rel. Contacts (NC Ford, GM) 33 - Outlet Solenoid Valve (Rear) 34 - Outlet Solenoid Valve (Right Front) 35 - Inlet Solenoid Valve (Left Front)

NC = No connection

Diagram Information and Instructions

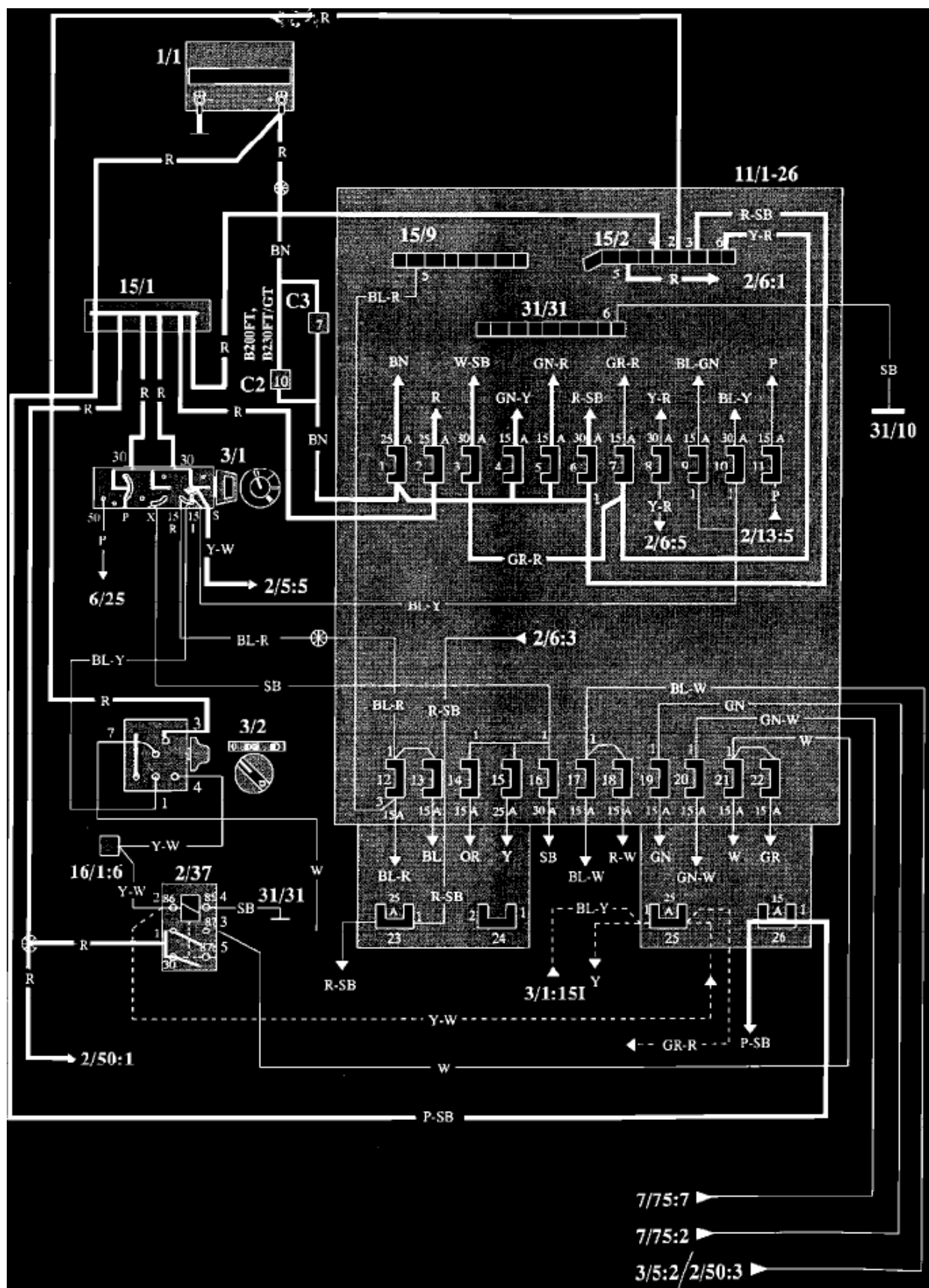
List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Refer to "Accessories and Optional Equipment : Antitheft and Alarm Systems : Diagrams : Electrical".



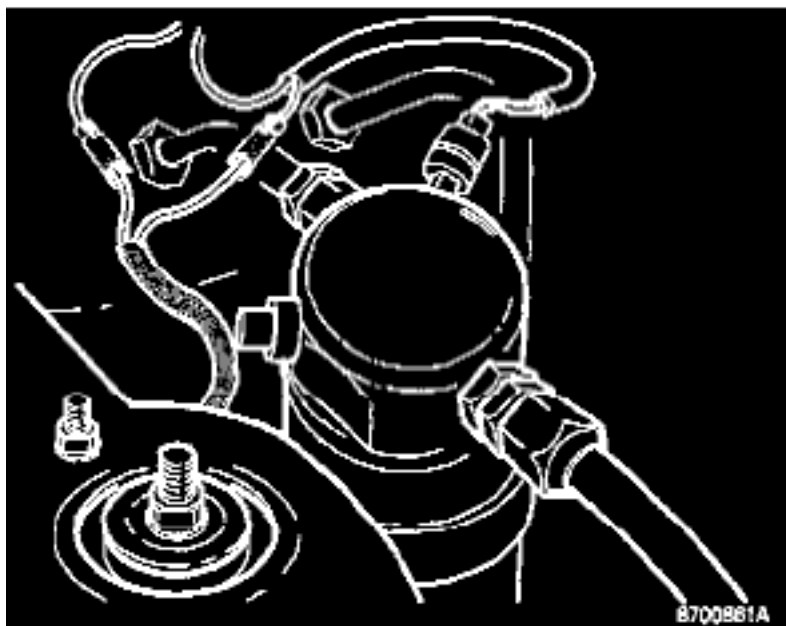
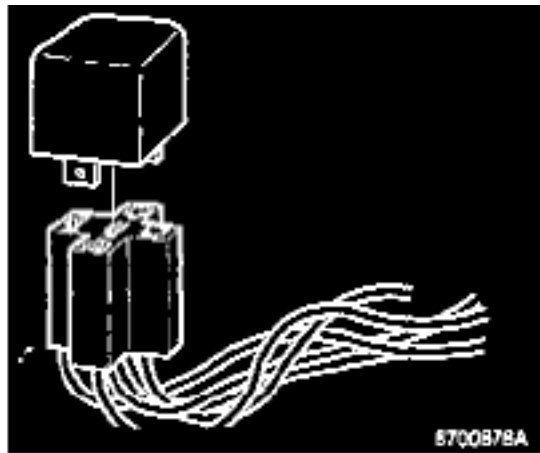
Relay Box: Locations Fuse/Relay Identification and Location

Fuse/Relay Identification and Location

Electrical Distribution Unit

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
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10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Refer to "Body and Frame : Seats : Diagrams : Electrical".



G1 Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control 700/900 1982- Section V

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.
- Glove compartment
- Ashtray.
- Cigarette lighter.
- Storage compartment.
- Detach, pull out and turn central electronics module.

Refer to Service Manual:

Section 3(35-39) (see group 37) Lighting, instrumentation and other electrical equipment 700/900
1982- Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections

G2 Installing new relay on cable harness

- Take out cable harness (P/N 9447729) supplied with kit.
- Install relay supplied in the 5-pin connector.

G3 Route cables to engine compartment -

Route cables without housing receptacles to engine compartment through unused cutout in grommet below suspension strut brace.

- Install round housing receptacles supplied with cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, BGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

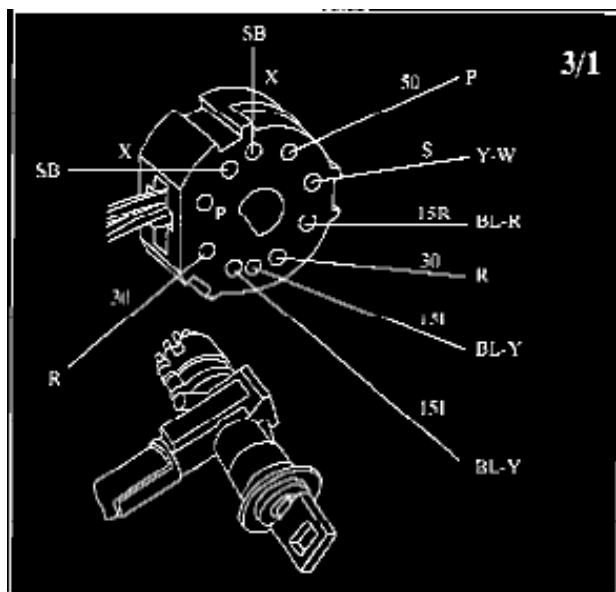
17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, BGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

-	Key withdrawn
0	Off
I	Radio
II	Drive
III	Start

Voltage at connection:

P
S,P
X,S,P
X,15R,15LS
15R,50,S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

Refer to "Body and Frame : Seats : Diagrams : Electrical".

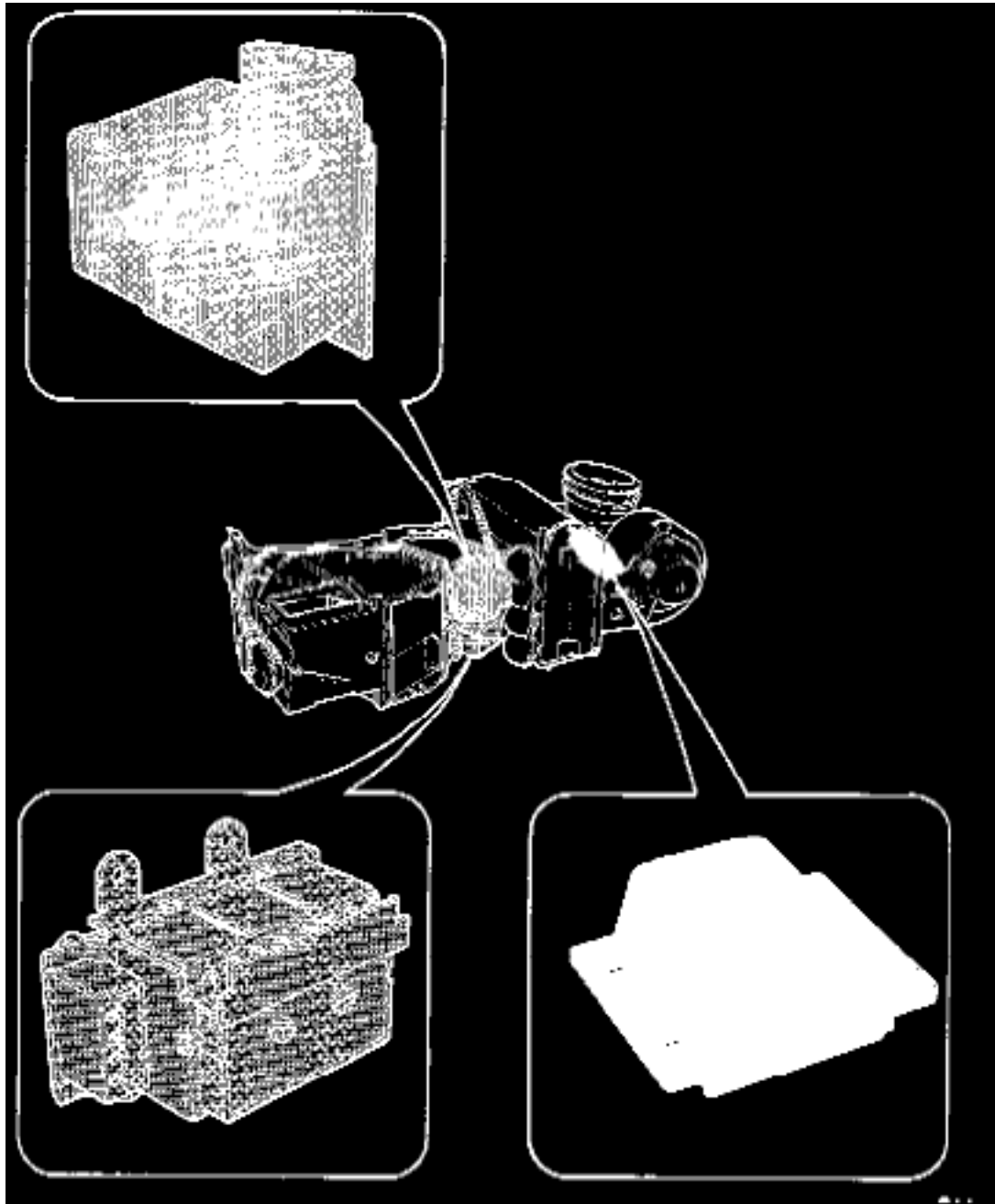
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2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
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2/8	Overdrive relay	4/3	Control module, cruise control
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2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
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Component Index And Identification

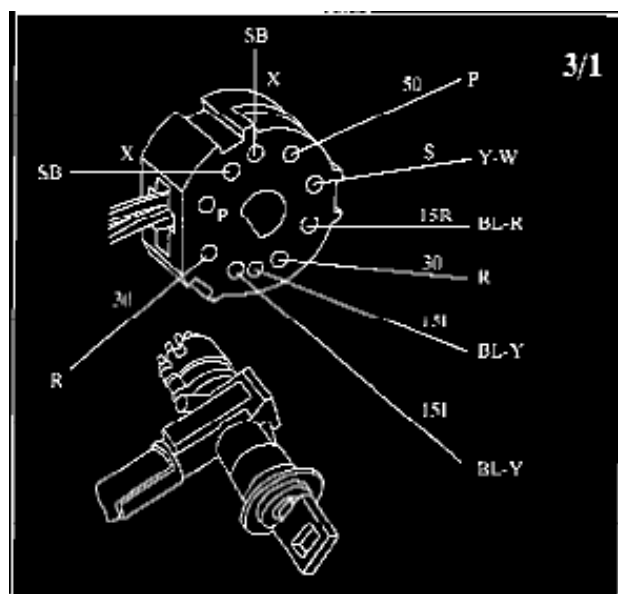
Fan Control Module



Control Module HVAC: Description and Operation Fan Control Module

- The Power Stage amplifies the control signals to operate the blower motor and control compressor operation.
- The blower speed is controlled by a power transistor. A relay is connected into the circuit at the highest speed reduce the load on the transistor, while a second relay controls the operation of the compressor through the low-pressure pressostat on the air receiver/dryer.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

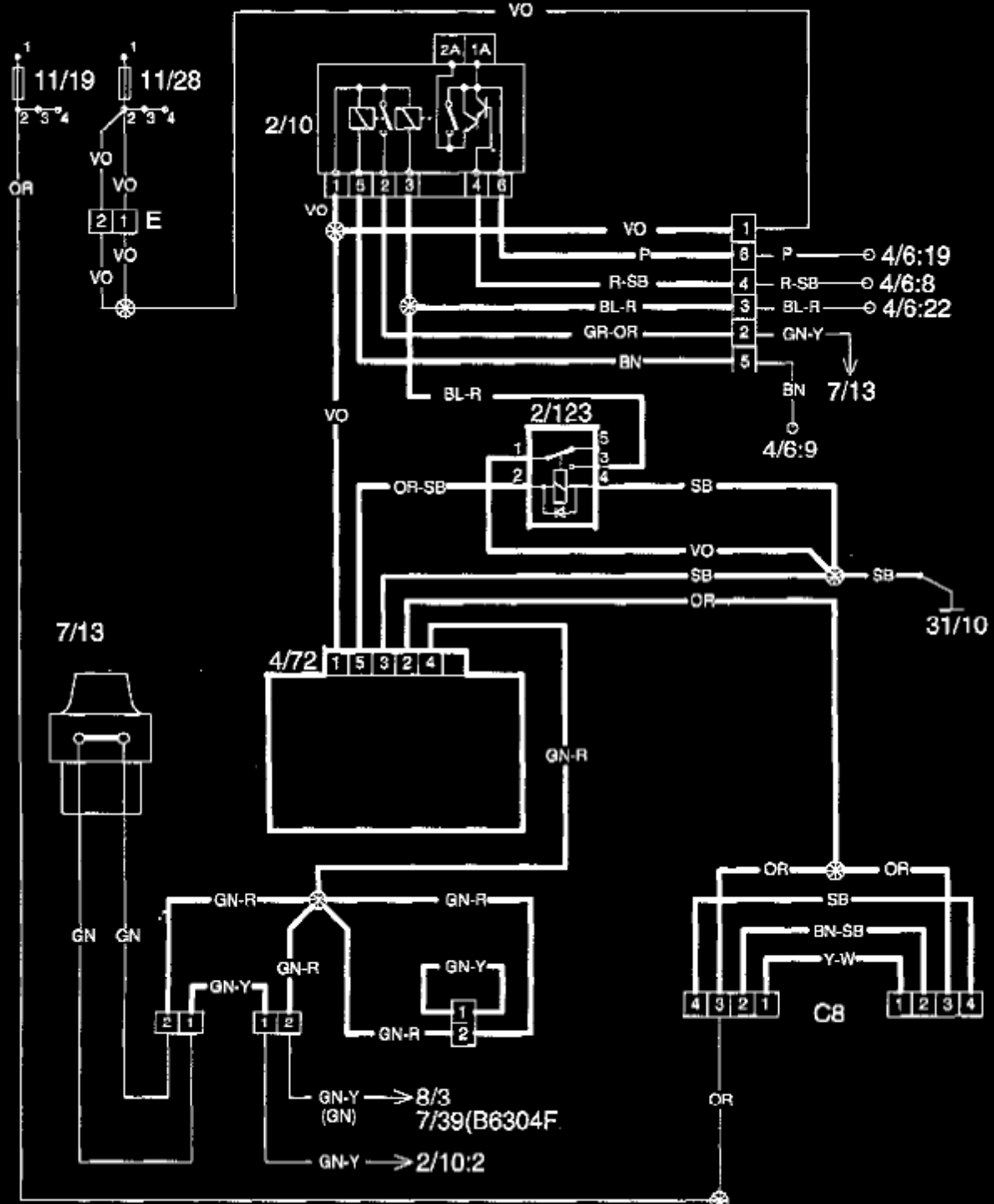
Key position:	Voltage at connection:
- Key withdrawn	P
0 Off	S,P
I Radio	X,S,P
II Drive	X,15R,15LS
III Start	15R,50.S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

760/960 MCC/ECC 1988-1991

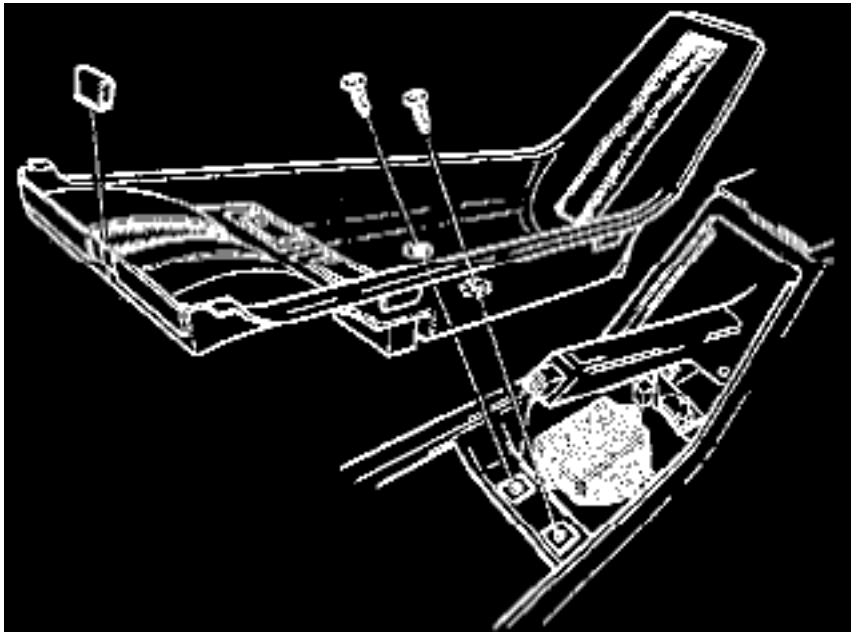


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Refer to "Lighting and Horns : Turn Signals : Diagrams : Electrical".

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

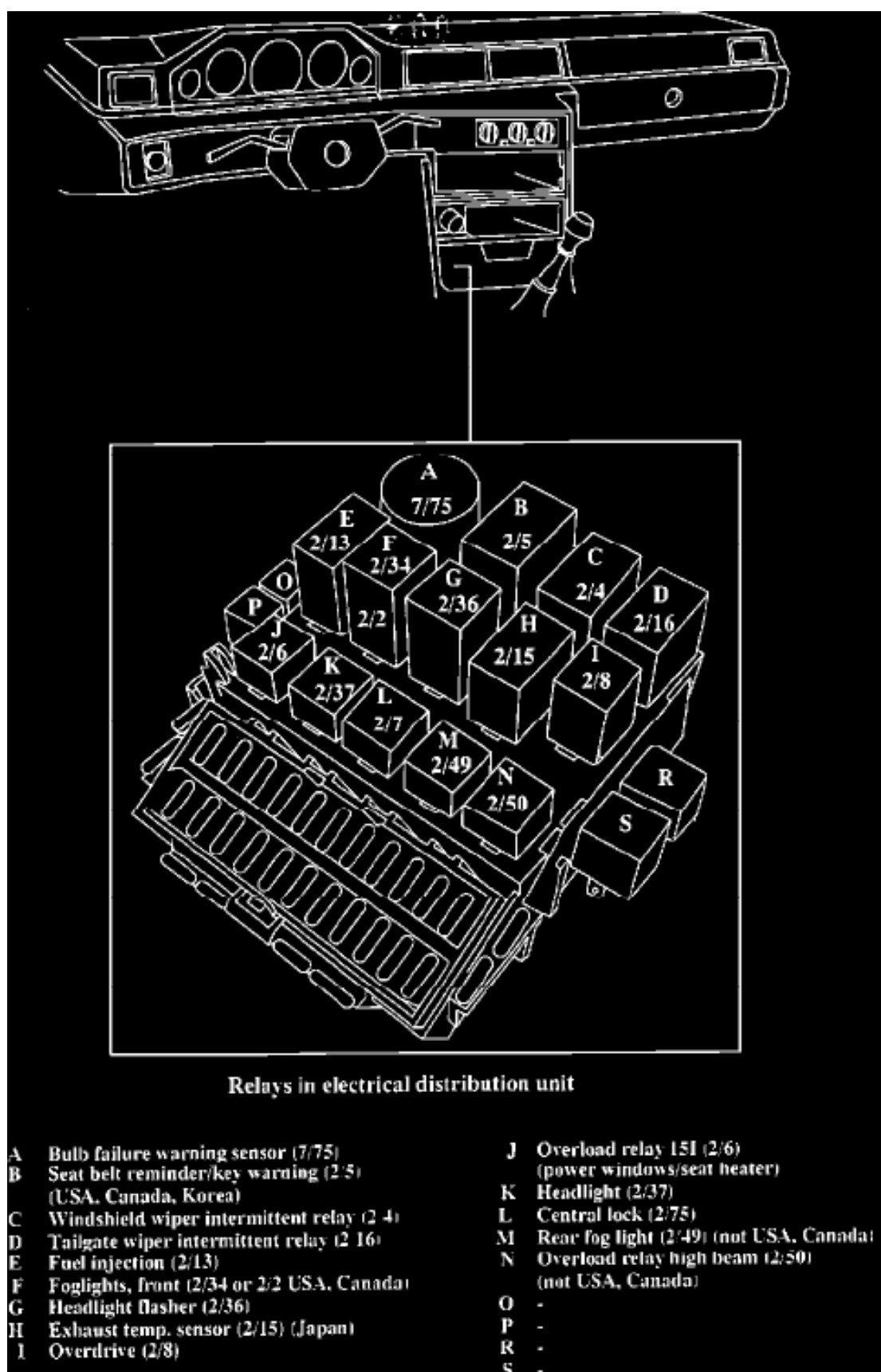
Service and Repair



Oil Level Warning Indicator Control Module: Service and Repair

Oil level control module, replacement
..... T12

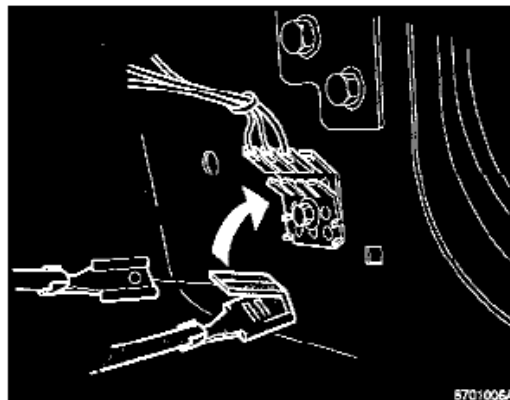
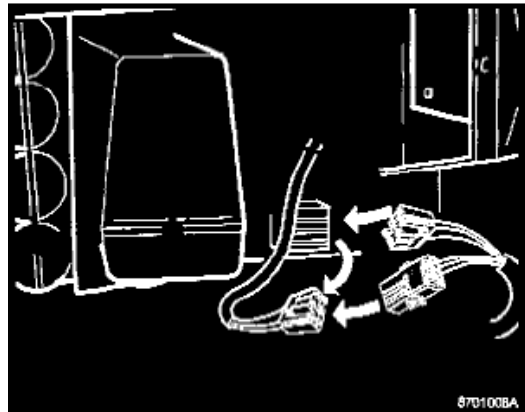
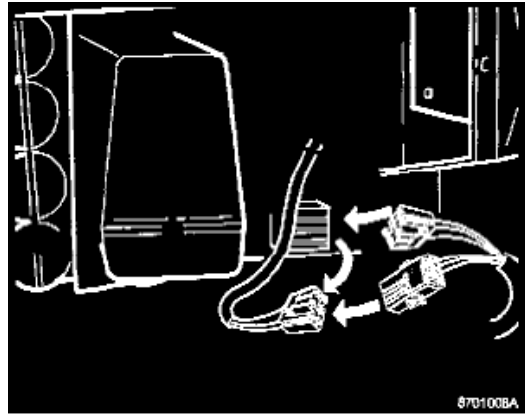
- Remove battery negative lead.
- Remove ashtray and holder.
- Remove clip from front of panel.
- Remove panel screws.
- Lift away panel.
- Remove control module. Control module held by butyl tape.
- Fit new unit.
- Reassemble in reverse order.
- Test.



Relay Locations

Refer to "Lighting and Horns : Hazard Warning Lamps : Diagrams : Electrical".

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



E5 Connection of yellow connector

- Disconnect the yellow connector from the heater and connect the yellow connector from the new cable harness.
- Connect the detached yellow connector to the yellow connector on the cable harness.

Installing control module from kit

E6 Connection and mounting of control module

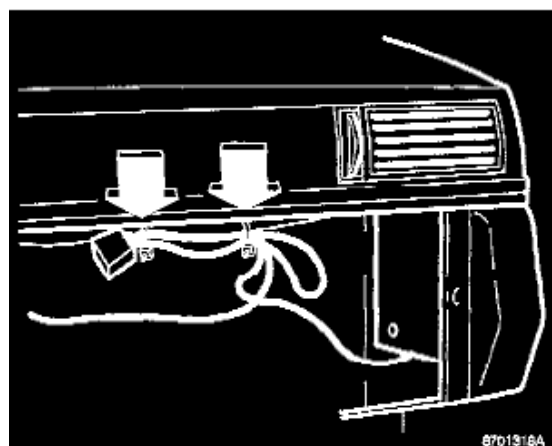
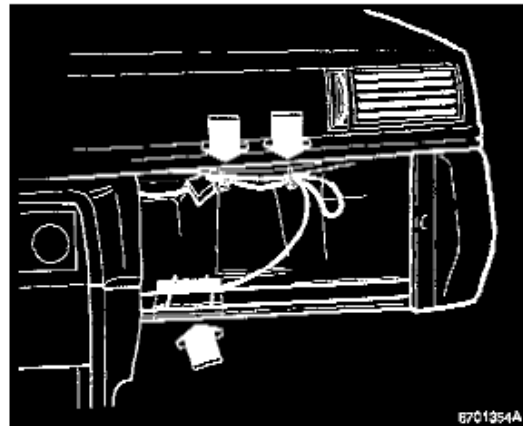
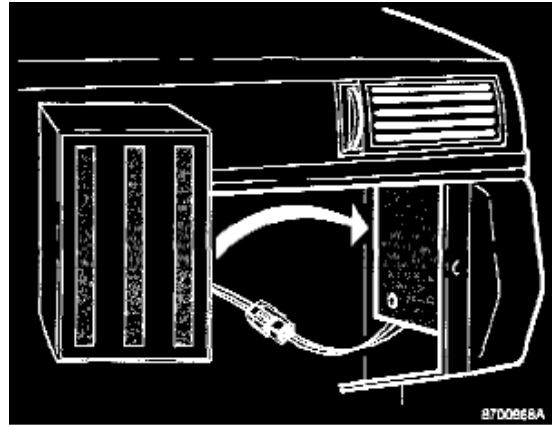
- Connect control module and cable harness connectors together.
- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

E7 Connection to ground plate -

Connect the black-white cable included in the cable harness to the ground plate on the right side of the cowl

The ground plate is located behind the fuel control module. The ground lead has a twin tab terminal for when there are no vacant spaces on the ground plate.

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



C6 Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three strips of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

C7 Connecting and mounting control module in cars with SRS (Airbag) and knee bolster -

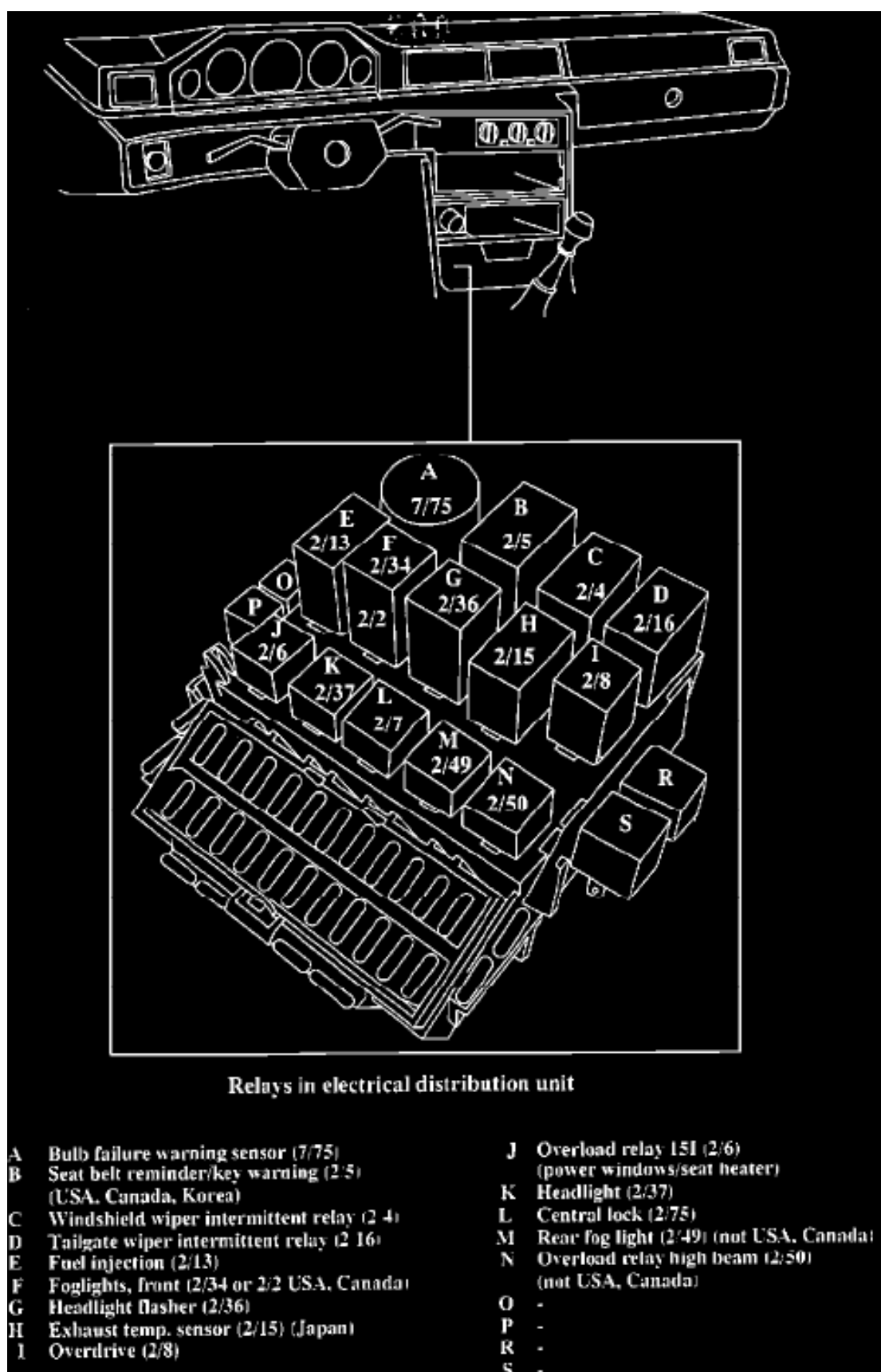
Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.

- Attach cable harness to existing cable harness at side of SAS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

C8 Fastening cables In cars without SRS (Airbag) and knee bolster -

Attach cable harness to existing cable harness with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

2/10	ECC Power unit
2/22	Air conditioning (A/C) relay
2/123	Airing cycle system relay
2/124	Airing cycle system supply relay
2/125	Airing cycle ground relay
4/6	ECC Control module
4/12	Motronic Control module
4/31	Control module for blower fan motor
4/40	MCC Climate control
4/46	Engine control module (ECM)
4/72	Airing cycle system control module
6/28	Blower fan motor
7/13	Air conditioning (A/C) High-Pressure Switch
7/39	Air conditioning (A/C) Overload switch
7/41	Air conditioning (A/C) High-Pressure Switch
7/53	Air conditioning (A/C) Low-Pressure Switch
8/2	ECC Solenoid valves
8/3	Air conditioning (A/C) Solenoid valves
11/1	Fuses
11C/1-	Fuses in passenger compartment fusebox (960)
20/18	Blower fan resistor
31/6	Ground terminal, LH A-post
31/10	Ground terminal right A-post
55	Blower fan switch
81	Air conditioning pressure switch
131	Engine cooling fan (FC) relay
132	Delay relay
165	Blower fan
169	Blower fan resistor
200	Control solenoid, A/C Compressor
260	Control module ignition system
485	MCC Climate control system
495	ECC control module
497	Solenoid valves
499	ECC power unit
A	Dashboard connectors 4-pin (740/940 MCC 1991) 2-pin (940 MCC 1992) 10-pin (780)
A1/A	Multi-connector at left A-post
A2/B	Multi-connector under dashboard at left A-post
A11	Connector cable harness passenger compartment - cable harness climate unit, 6-pin



Relay Locations

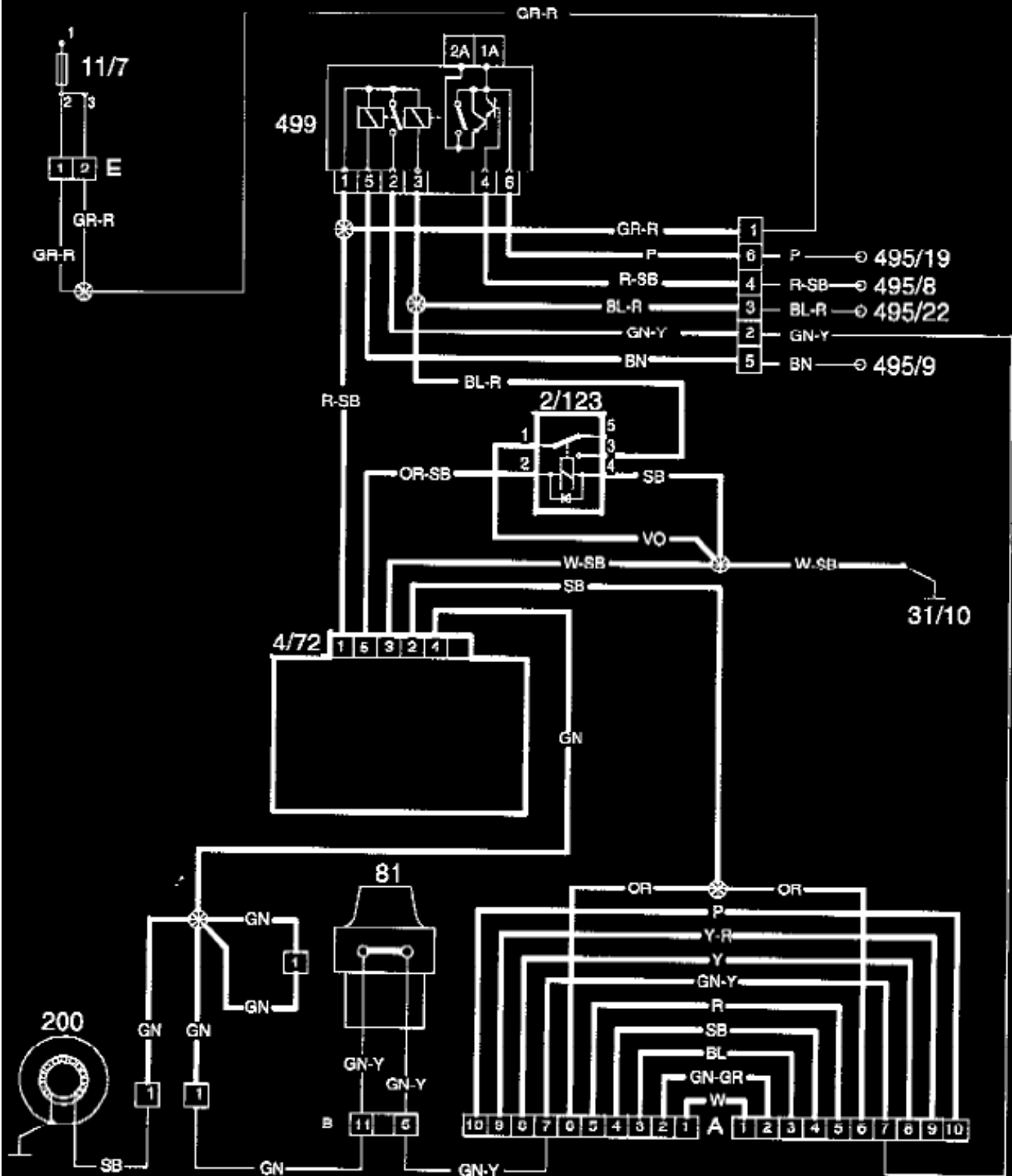
Diagram Information and Instructions

List of components

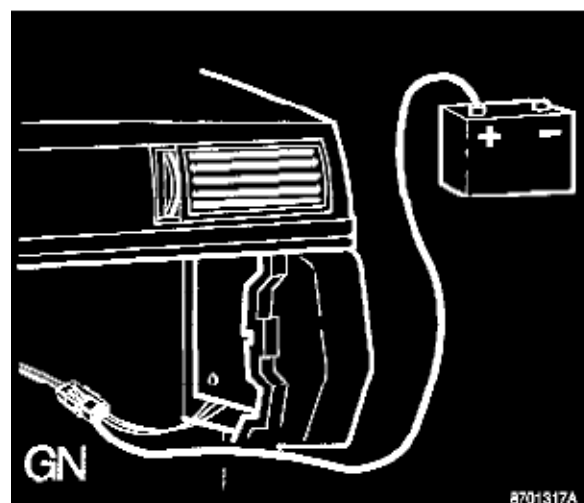
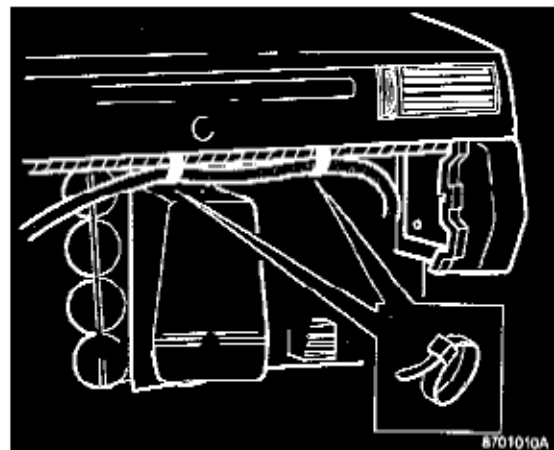
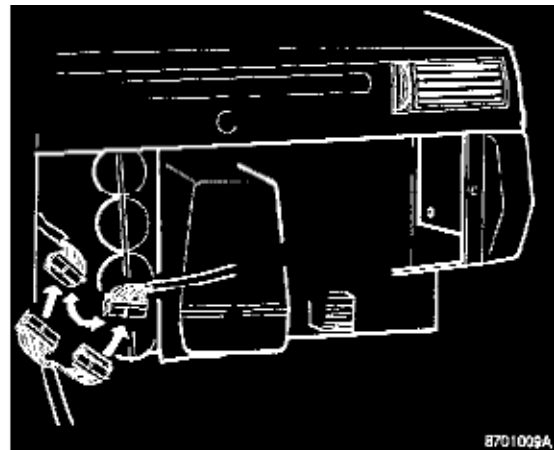
1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

780 ECC 1988-1991



960 MCC/ECC 1995



E8 Connection of 10-pin contact -

Separate the halves of the 10-pin connector at the centre console and install the 10-pin connectors from the new cables.

E9 Fastening cables -

Attach the cable harness to the defroster duct above the glove compartment using a cable tie.

Function verification and information

E10 Check airing cycle is working -

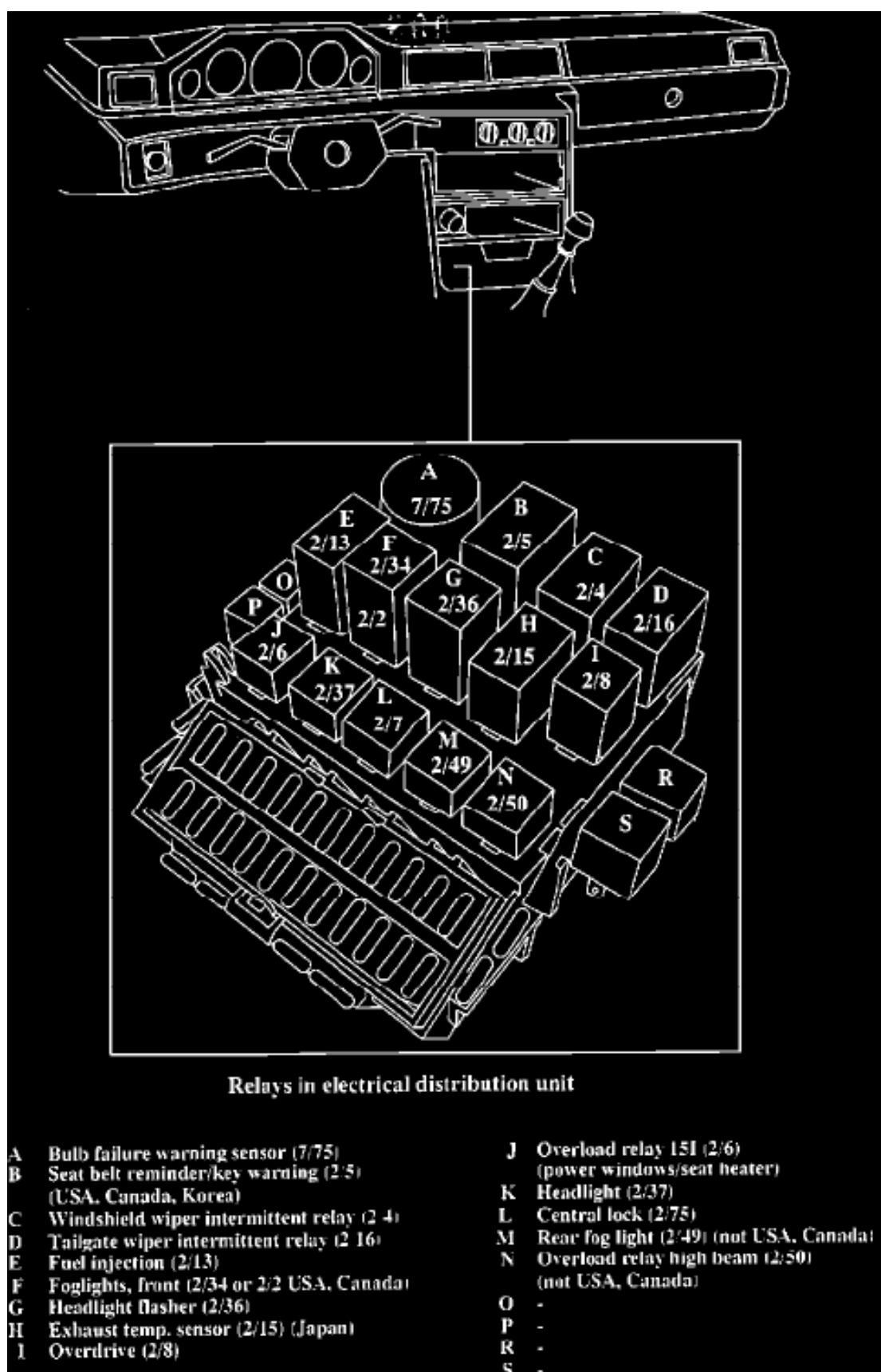
Connect battery lead and start car.

- Turn on A/C system to start compressor.

The A/C system starts if the temperature exceeds approx. 7°C (45°F). -

Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to control module connector. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.



Relay Locations

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

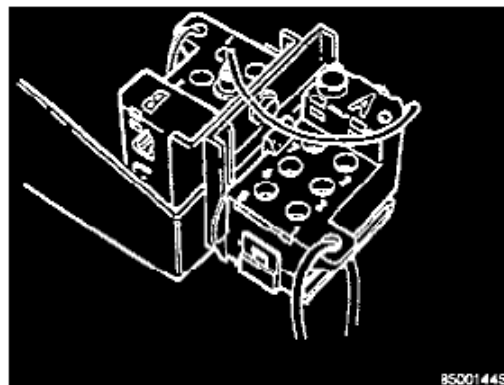
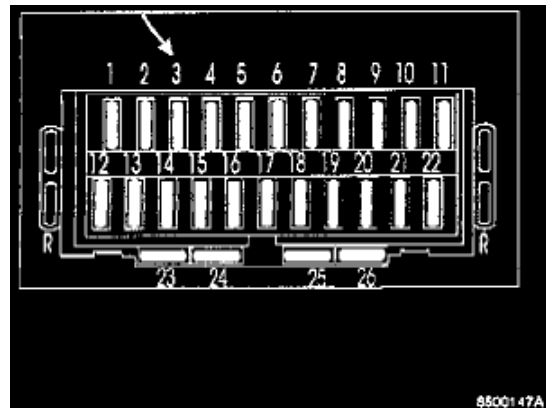
Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

Refer to "Brakes and Traction Control : Antilock Brakes / Traction Control Systems : Diagrams : Electrical".



- Press and hold any button on control panel of seat to be tested while switching ignition on. Keep button depressed for at least 1 second after turning on ignition.

C5

- Reinstall fuse No. 3.

Diagnostic system must now be activated within one minute, i.e., test button must be pressed once to select DTM 1 (self-diagnostics) or four times to select DTM 4 (calibration).

Control module will exit diagnostic function after approx. 1 minute if no activity takes place between module and DLC. Module will also exit diagnostic function if ignition is switched off for at least 5 seconds. Seat cannot be operated either with control buttons or memory buttons while using diagnostic system.

Codes for DTM 1 are listed and explained in the table on page 9 of the SM; use of DTM 4 (calibration) is described on SM page 7.

Method For Version 4 (D)

1960, 1993 4-door models as from chassis No. 018367 5-door models as from chassis No. 012113

Note:

Unlike earlier models, the power seats in the above models can be operated with the ignition off.

D1

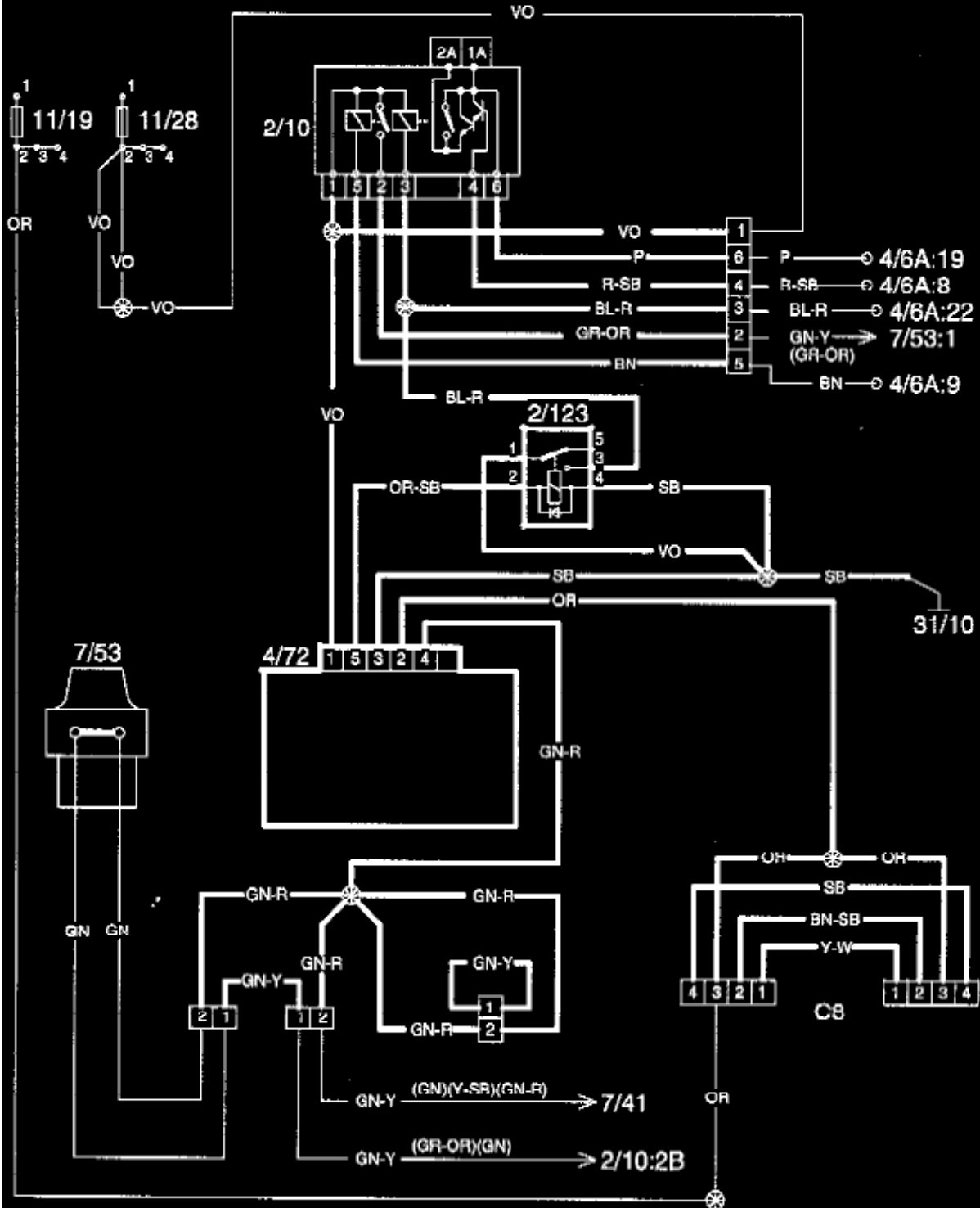
- Switch off ignition.

D2

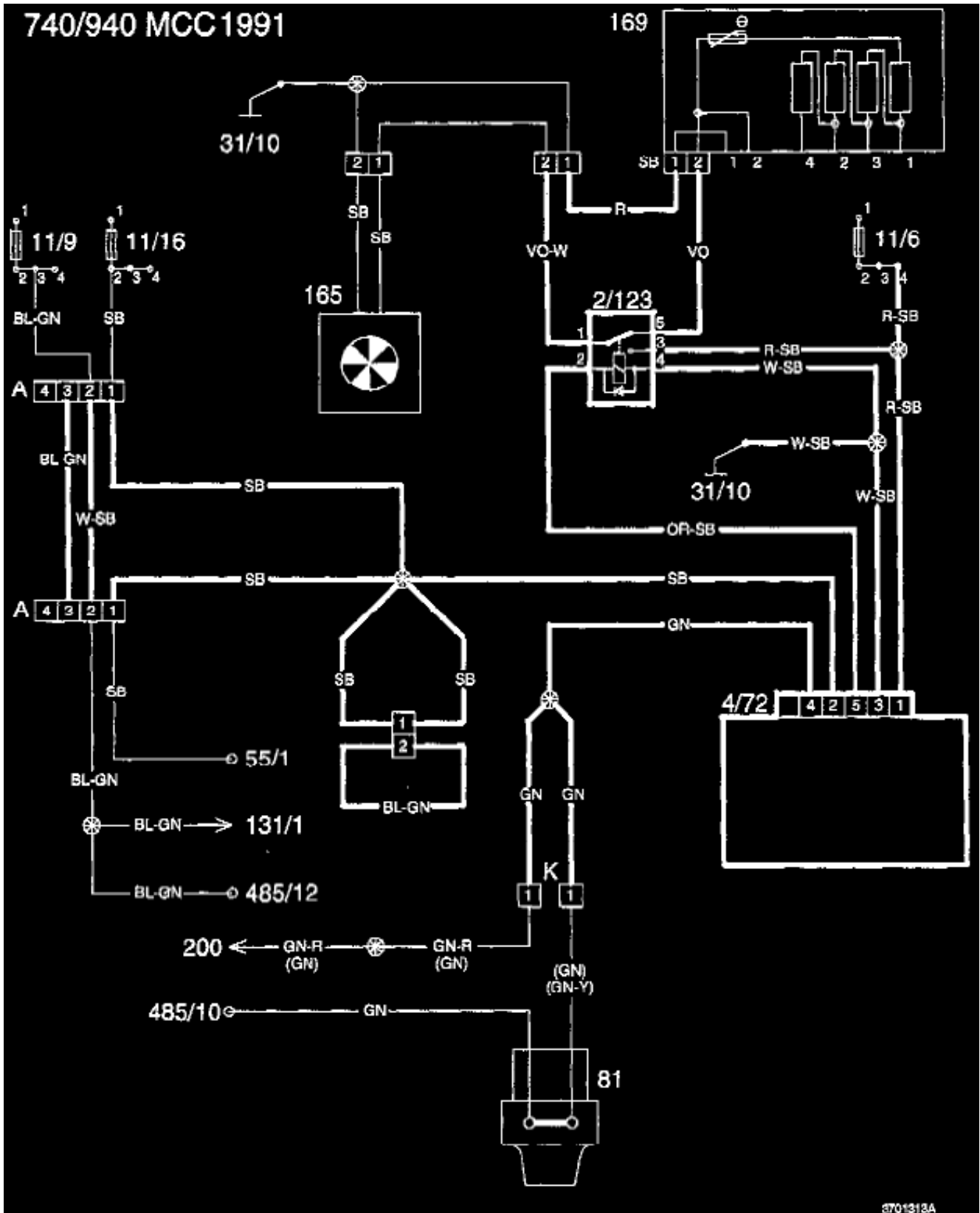
- Manual fault tracing/calibration: Connect test lead from DLC A to socket No. 6 on DLC B.
- Fault tracing/calibration with VST with OBD System Memory Cassette: Connect instrument to DLC B.

D3

760/960 MCC/ECC 1992-1994

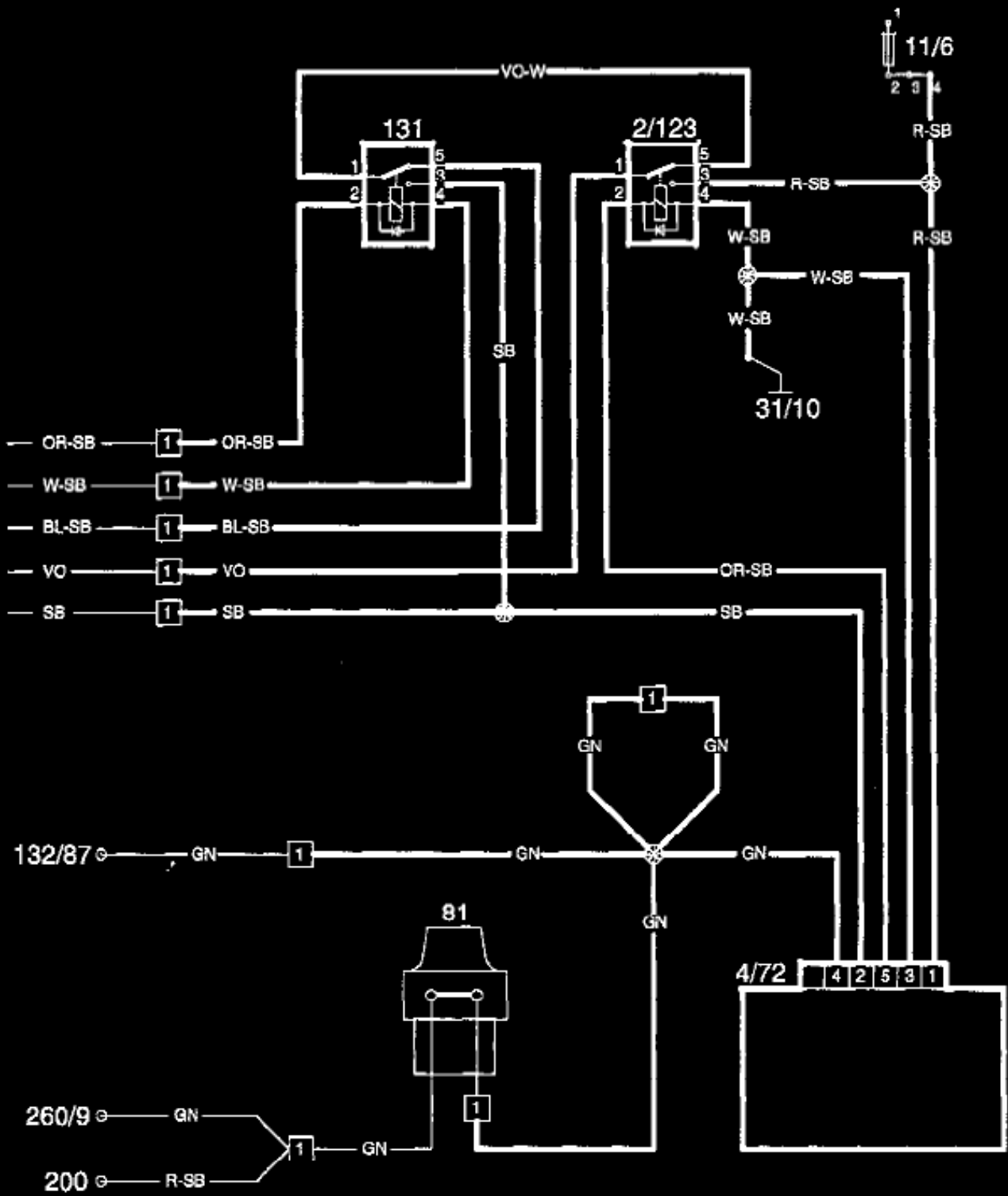


3701315A



740/940 MCC 1991

740 MCC 1988-1990



G9 Securing control module and cables Install relay -

Install clip 1277898 on relay.

- Secure relay on the metal bracket in front of the vacuum tank.

G10 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

G11 Information to Car Owner -

Carry out operations at the end of this service bulletin.

Diagram Wiring Images

740 MCC 1988-1990

B	Connector right A-post (780)
C3/D	Multi-connector under dashboard right-hand side
C8	4-pin accessories connector
C19	2-pin connector at dashboard
C160	6-pin connector at dashboard
C161	1-pin connector at firewall
D10	4-pin passenger compartment cable harness - accessories connector
E	2-pin connector at dashboard
K	1-pin connector at firewall
P	Connector at dashboard
J	Connector at dashboard

Wiring diagrams comments:

Bold lines indicate that the cable is included in the service kit cable harness.

Thin lines indicate that the cable belongs to the car's existing cable harness.

For further descriptions and positions in the carriage, see the car's ordinary wiring diagram.

Warranty Statement

WARRANTY STATEMENT: Claims may be submitted under the New Car Limited Warranty when a manufacturing defect is present using claim type: 01

Operation No. Labor Description Time Allowance

87942-2 Odor from evaporator, installation of blower fan control module

740/940 MCC 88- 1.8 hr

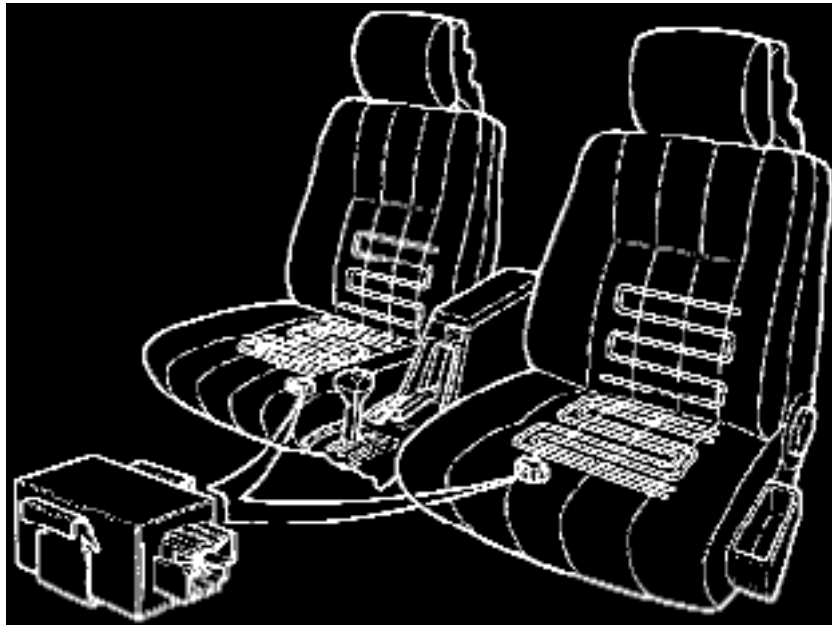
740/940 ECC 91-95 1.7 hr

9401995-ECC 96- 1.8 hr

760/960 88-94 1.8 hr

780 88-91 1.7 hr

960 95-97 1.6 hr



Seat Heater Control Module: Testing and Inspection

Leather or plush trim

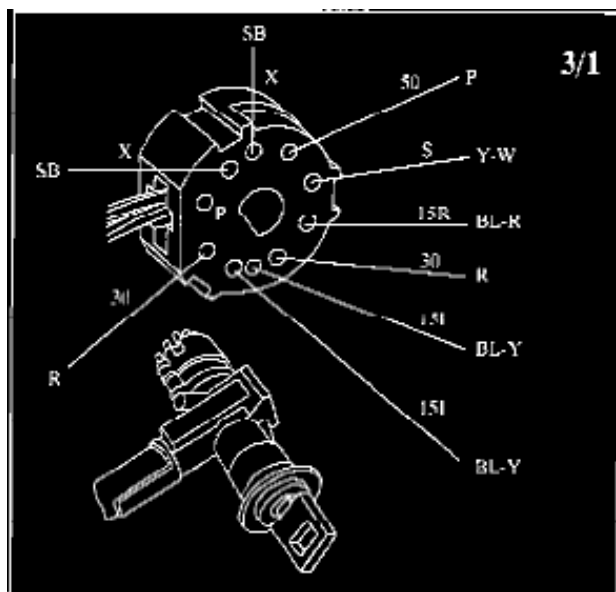
If a fault is suspected, e.g. short circuit in the heater element, bear in mind that:

- Heating will not switch on if the in-car temperature is above +18 °C (64 °F). Full heat output triggers on within 3 - 6 seconds after start of function check.
- When in-car temperature is between 10 - 18 °C (50 - 64 °F) the heater goes directly to low output. Full output only triggers on when temperature is below 10 °C (50 °F).
- The control module has two modes for either plush or leather trim, so that trim will not affect heating.

If the above conditions are not fulfilled, but both supply and ground are OK, the module should be replaced.

If supply is missing, check seat heating switch.

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



3/1

Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

Key position:	Voltage at connection:
- Key withdrawn	P
0 Off	S,P
I Radio	X,S,P
II Drive	X,15R,15LS
III Start	15R,50.S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

Locations

Fuse/Relay Identification and Location

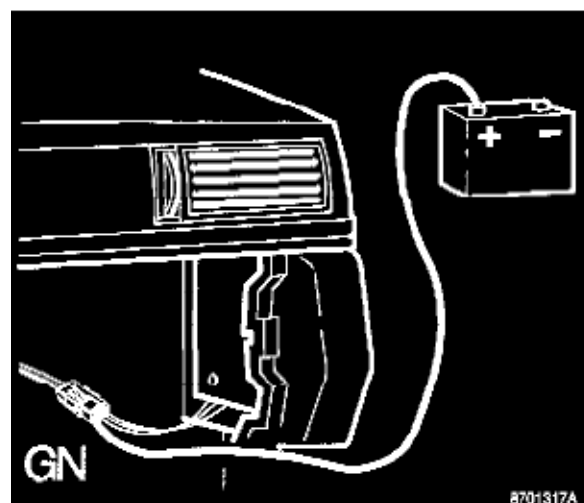
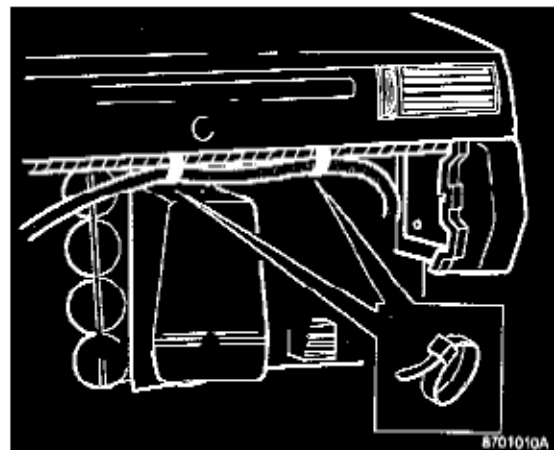
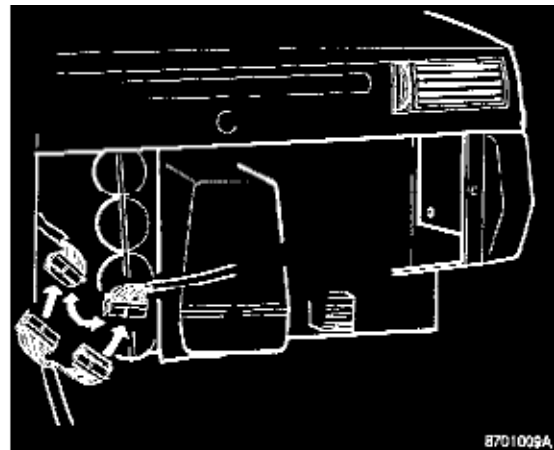
Electrical Distribution Unit

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

Refer to "Brakes and Traction Control : Antilock Brakes / Traction Control Systems : Diagrams : Electrical".



E8 Connection of 10-pin contact -

Separate the halves of the 10-pin connector at the centre console and install the 10-pin connectors from the new cables.

E9 Fastening cables -

Attach the cable harness to the defroster duct above the glove compartment using a cable tie.

Function verification and information

E10 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor.

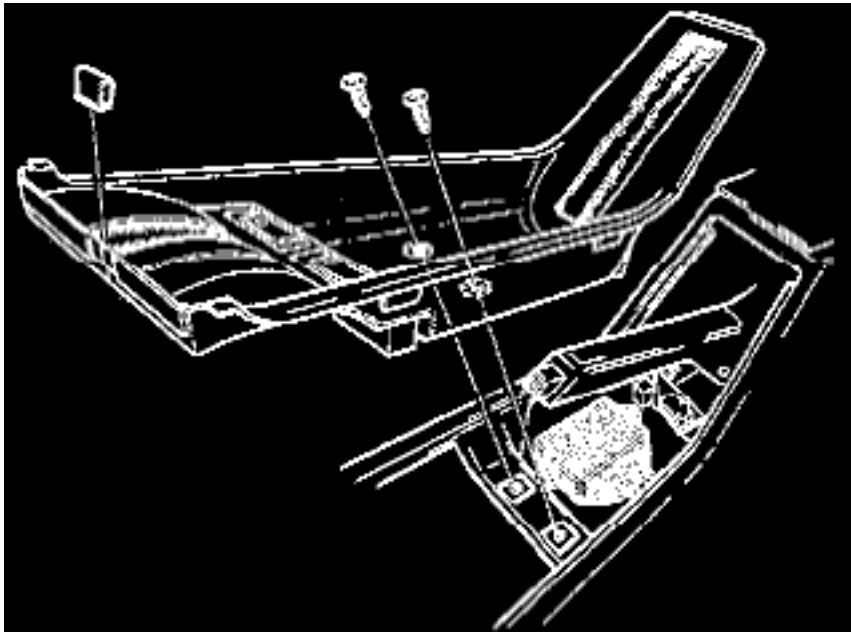
The A/C system starts if the temperature exceeds approx. 7°C (45°F). -

Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to control module connector. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

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17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
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		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
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31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Service and Repair

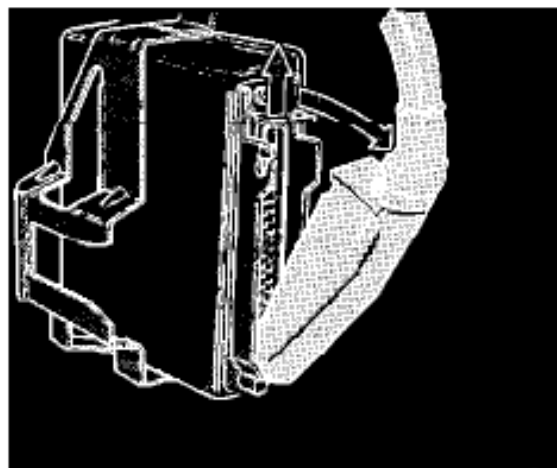
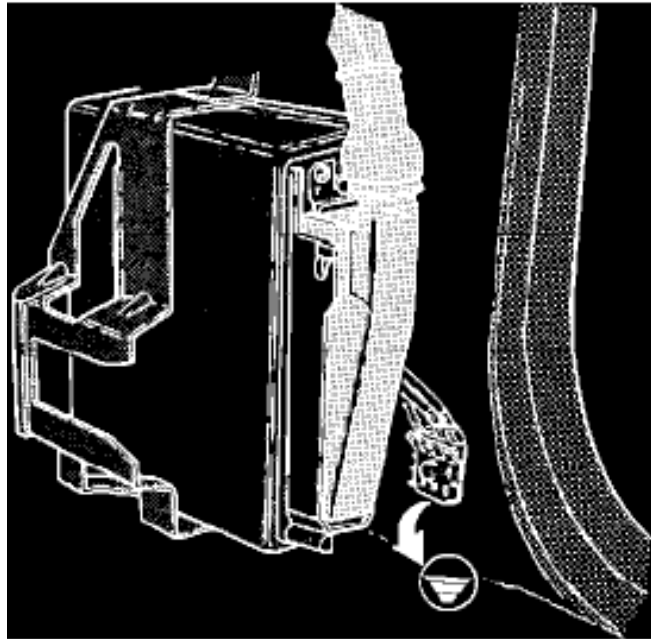


Oil Level Warning Indicator Control Module: Service and Repair

Oil level control module, replacement
..... T12

- Remove battery negative lead.
- Remove ashtray and holder.
- Remove clip from front of panel.
- Remove panel screws.
- Lift away panel.
- Remove control module. Control module held by butyl tape.
- Fit new unit.
- Reassemble in reverse order.
- Test.

COLOR CODES		
SB = Black	BN = Brown	GN = Green
GR = Grey	Y = Yellow	OR = Orange
W = White	P = Pink	VO = Violet
R = Red	BL = Blue	CU = Copper



Compressor Clutch Relay: Testing and Inspection

Compressor Cut-Off Relay

Color Code Legend

Checking ECU Ground Connections

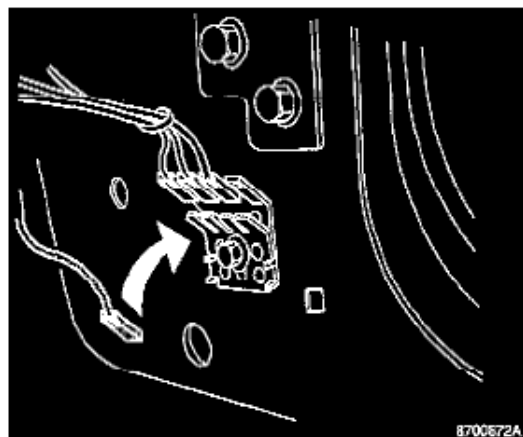
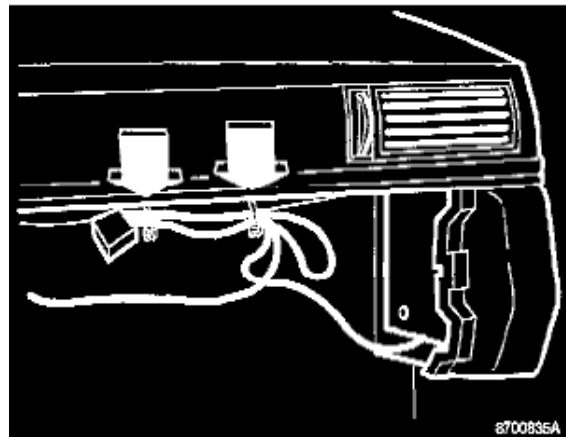
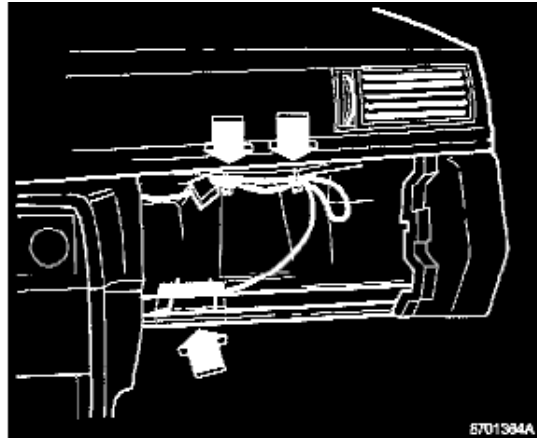
1. Turn ignition OFF.
2. Access fuel injection ECU by removing the passenger side kick panel and glove compartment.
3. Check fuel injection ECU ground connections. They should make good contact and fit tight.

Removing ECU Connector

4. Remove fuse #1 (located in central electric unit behind ash tray) to interrupt the power supply. Then remove the ECU connector by pressing up the latch and folding out the wire cluster.

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17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
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C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



D9 Connecting and mounting control module In cars with SRS (Airbag) and knee bolster -

Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.

- Attach cable harness to existing cable harness at side of SRS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

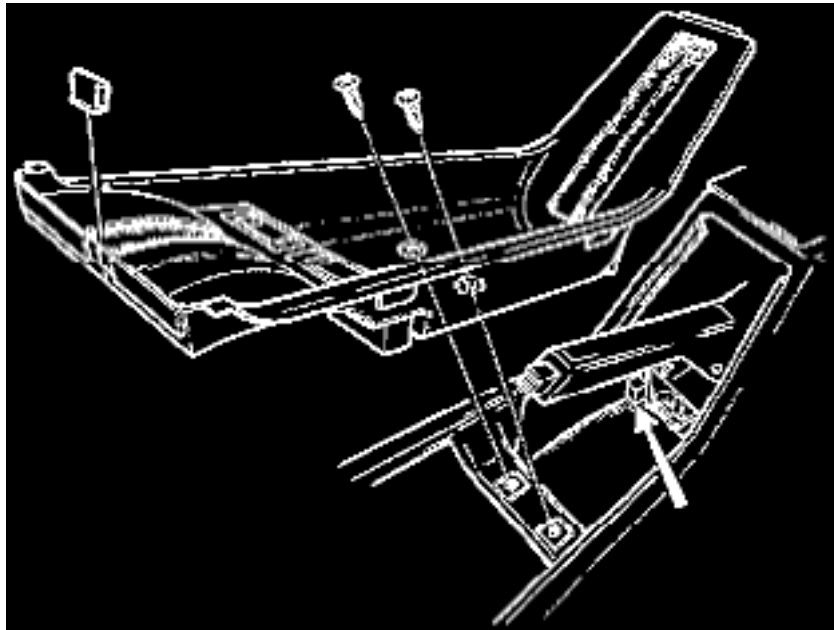
D10 Fastening cables in cars without SRS (Airbag) and knee bolster -

Attach cable harness and the relay in the foam rubber covered hose which passes over the glove compartment to the side defroster with 2 cable ties, one as close to the connector as possible to prevent vibration caused by uneven road surfaces.

D11 Connection to ground plate -

Connect the black-white cable included in the cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.



Seat Heater Relay: Service and Repair

Heated Seat Relay Replacement

Only normal rating, one setting

- Remove battery negative lead.
- Remove ashtray and holder.
- Remove clip at front of panel.
- Remove screws.
- Lift away panel.
- Remove relay.
- Fit new relay.
- Reassemble in reverse order.

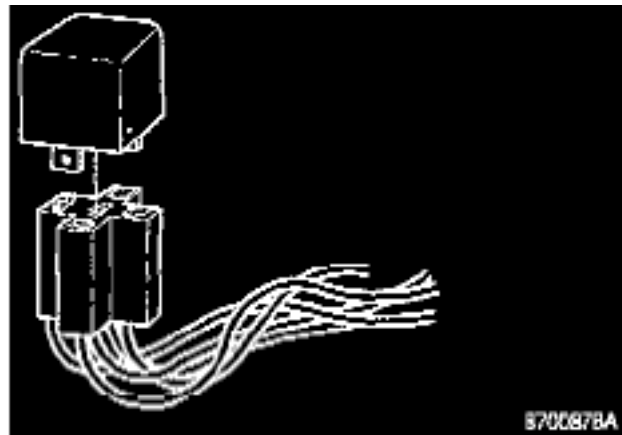
Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.

- Glove compartment.

- Cowl on passenger side.

- Ashtray.
- Cigarette lighter.
- Storage compartment.
- Detach, pull out and turn central electronics module.

See section 37 in Service Manuals:

Section 3(35-39) Lighting, instrumentation and other electrical equipment 700/900 1982-

Section 8(82-86,88) Interior, exterior 700/900 1982-

Cable connections A2 Installing new relay on cable harness -

Take out cable harness (P/N 9148755) supplied with kit.

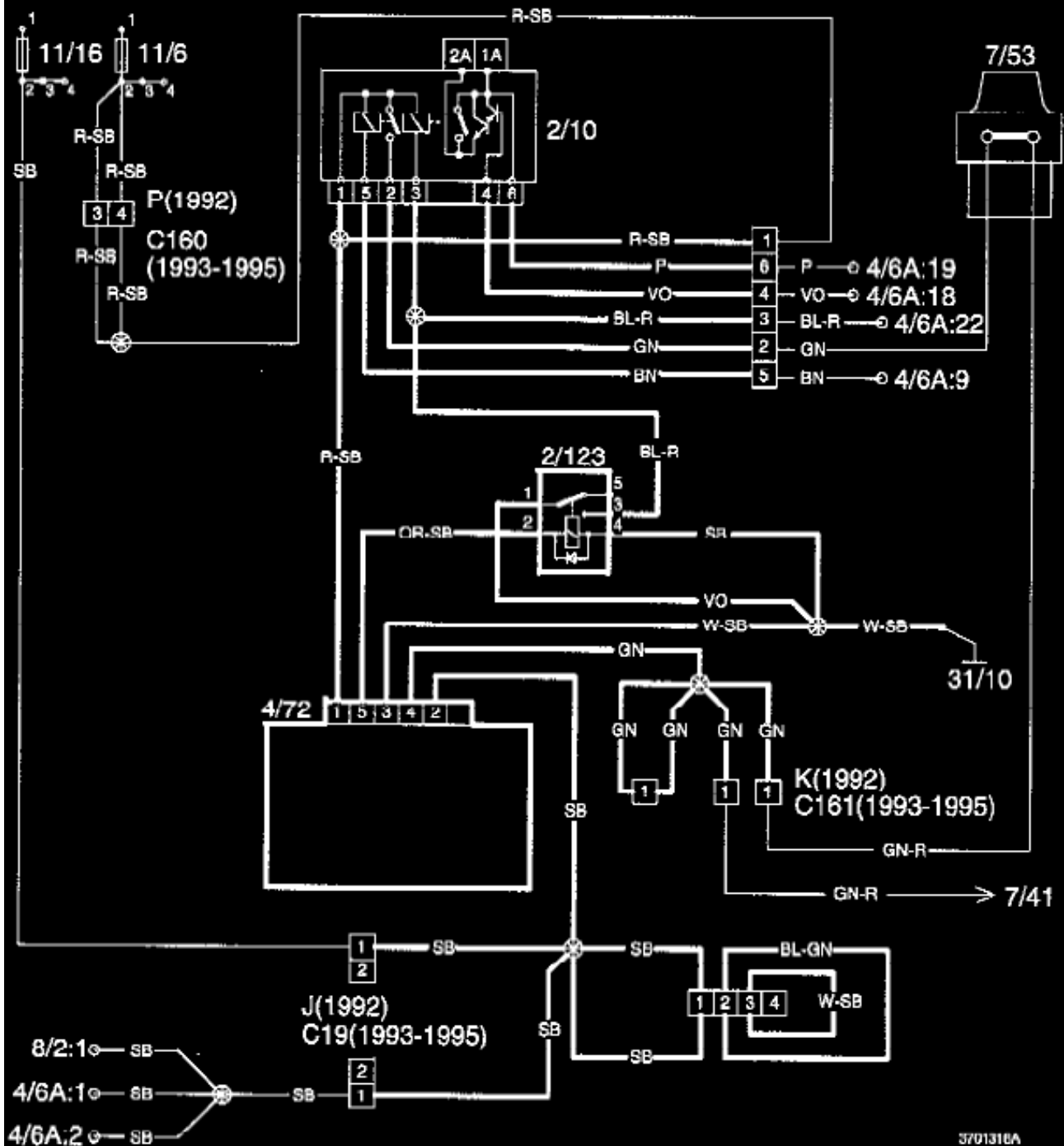
- Connect the relay in the kit to the 5-pin connector which is attached to the same end of the cable harness as the black-red cable.

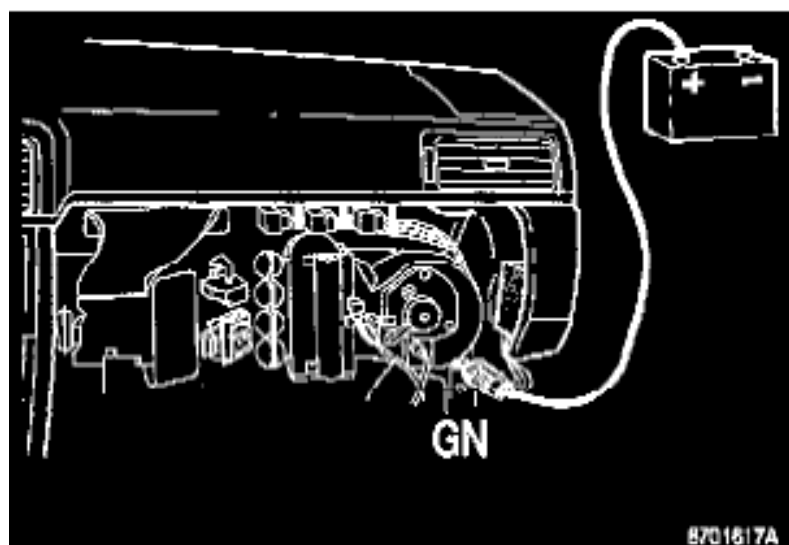
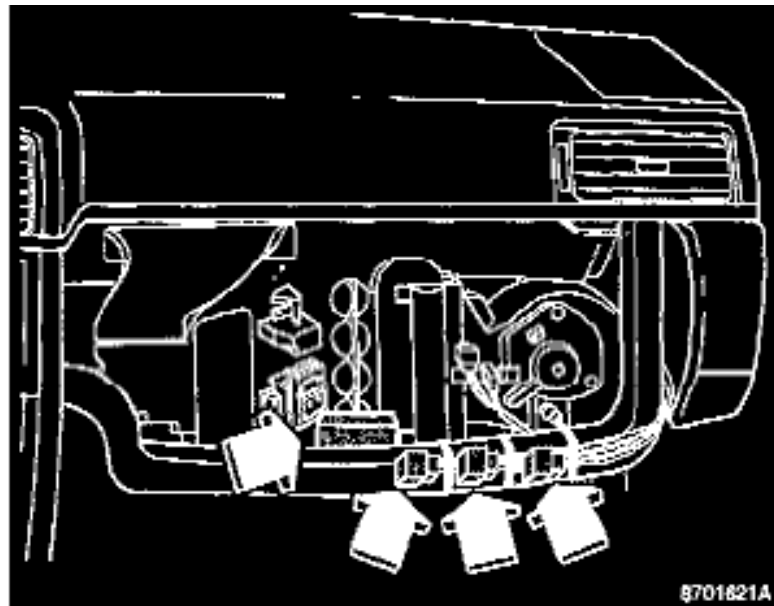
A3 Attaching new cable harness with relay -

Connect relay and cable harness above the heater vacuum reservoir, using a cable tie.

- Route the red-black cable inside the centre console right side panel to the central electronics module.
- Connect cable to central electronics module fuse 6 and terminal 4.
- Use cable tie to attach to existing cable harness.

740/940 ECC 1992-1995





F11 Connecting and mounting control module in cars with SRS (Airbag) and knee bolster -

Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.

- Locate cable harness with relays between air hose and knee bolster.

NOTE:

Prevent condensation dropping onto relays by ensuring that they are not placed beneath the air hose.

- Fasten to air hose with cable ties.

Installing control module from kit.

F12 Function verification and information Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor. The A/C system starts if the temperature exceeds approx. 7°C (45°F).

- Make up a cable (about 2 meters in length) to connect battery positive terminal to the connector on the control module. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is running.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

F13 Finishing off -

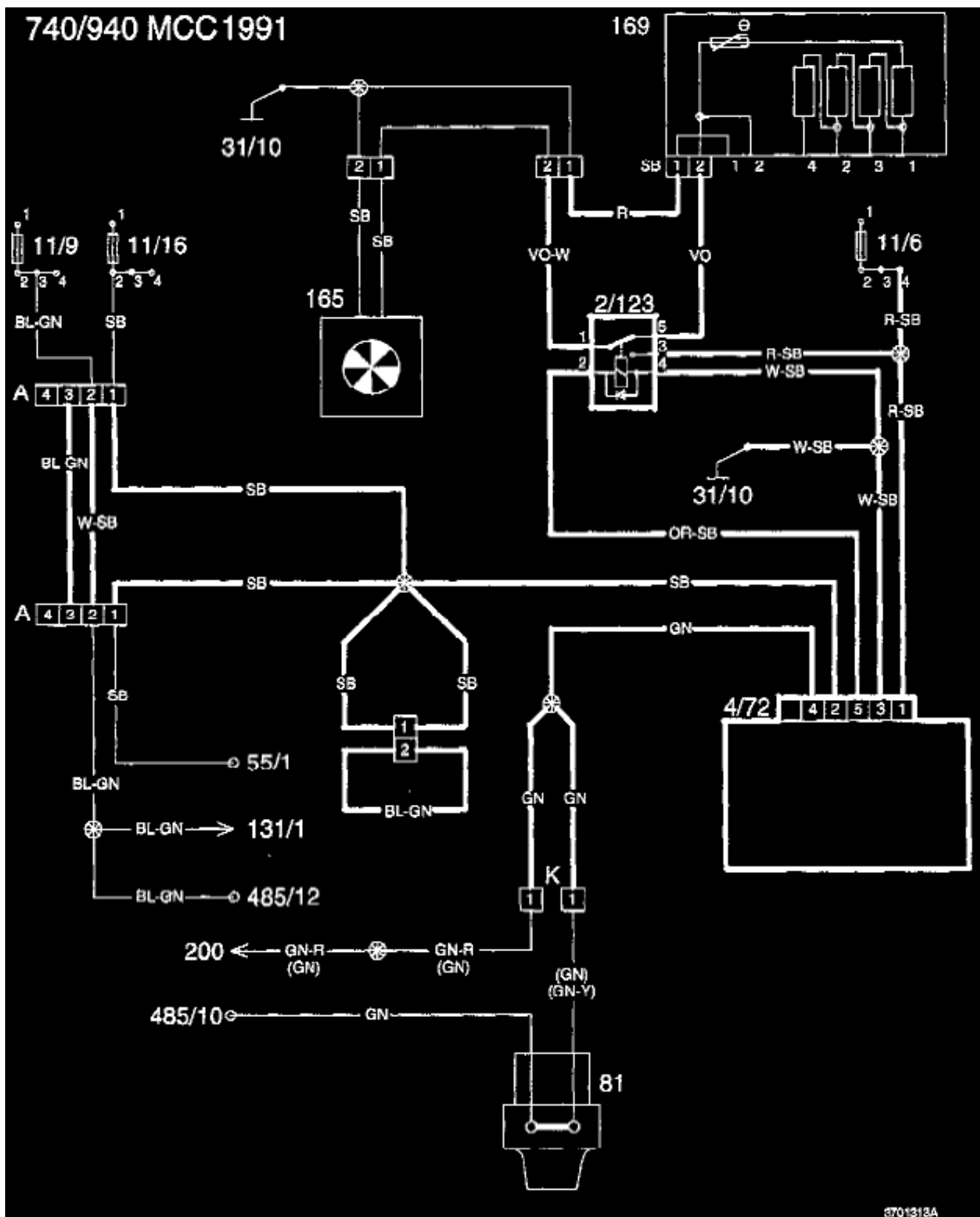
Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

F14 Information to Car Owner Carry out operations at the end of this service bulletin.

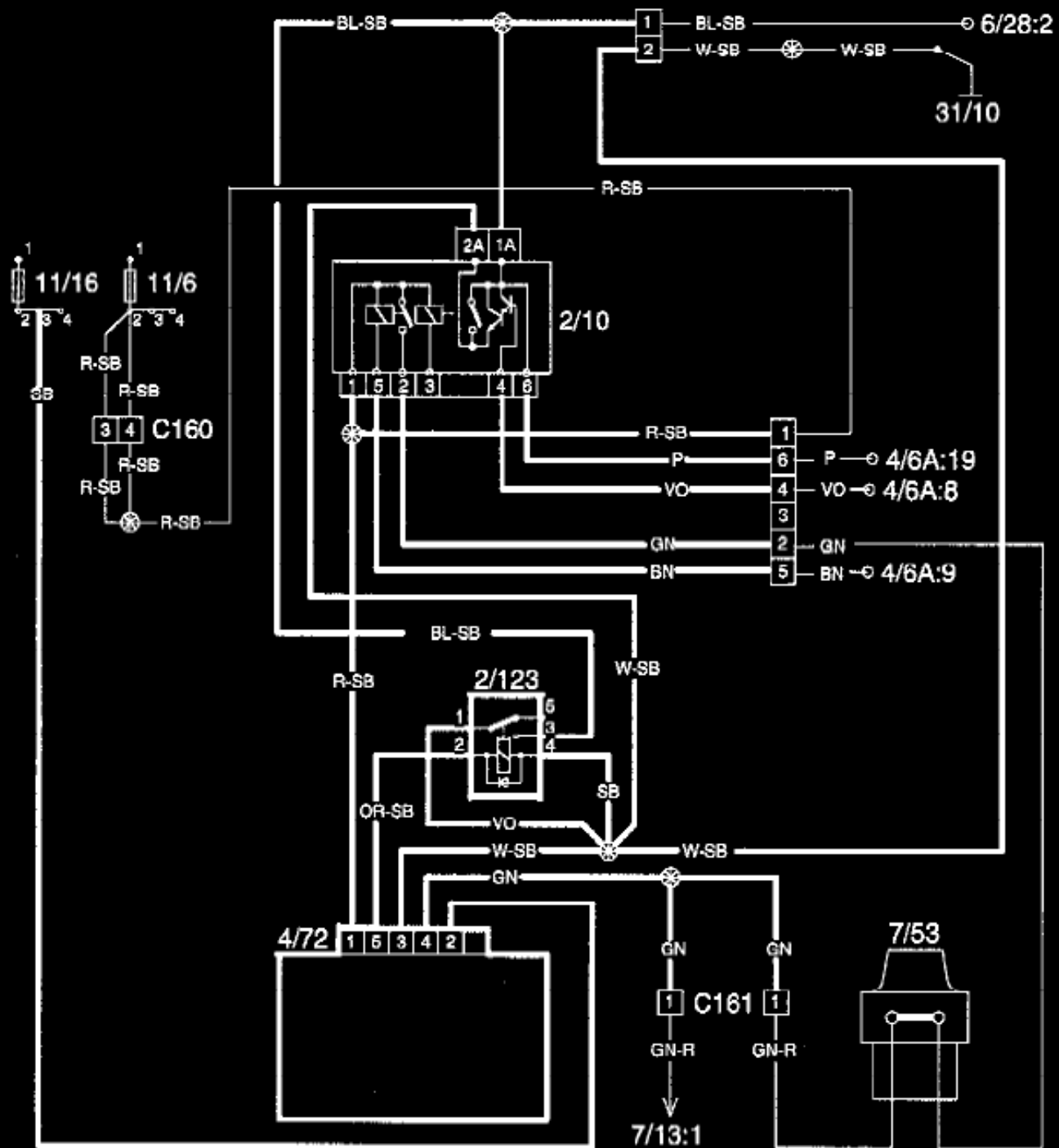
Installing Control Module/Cable 940 W/ECC 1996-

Installing control module and cables 940 with ECC model year 1996-



740/940 MCC 1991

940 ECC 1996-



960 ECC 1996-

A/C - Unpleasant Odor On Startup

Type	Model year	Materials kit P/N	Working method page / section	Wiring diagrams page
740 MCC	1988 - 90	9148852-2	2 / A	33
740/940 MCC	1991 -	9148853-0	7 / B	34, 35, 36
740/940 ECC	1991 - 95	9148854-8	12 / C	37, 38
760/960 MCC/ECC	1988 - 94	9148855-5	16 / D	39, 40
780 ECC	1988 - 91	9162435-3	20 / E	41
960 MCC/ECC	1995 -	9171003-8	24 / F	42
S90/V90 MCC/ECC	1997 -	9171003-8	24 / F	43
940 ECC	1996 -	9447728-8	29 / G	44
List of Components			45	
Information for the driver			47	

MCC = Manual climate control,
ECC = Electronic climate control.

Technical Service Bulletin # 887955 Date: 970901

A/C - Unpleasant Odor On Startup

SECTION

8

GROUP

87

NO. 955

DATE Sept. 1997

RE: Odor from evaporator 700/900/S90/V90 1988-

REFERENCE: TP 8701201, SECTION 8(87) CLIMATE UNITS: 700/900 1992- TP 3701201, SECTION 3(37) WIRING REPAIRS, AND REPLACEMENT OF CABLE TERMINALS; 850900 TP 3502201, SECTION 3(35-39) LIGHTING, INSTRUMENTATION AND OTHER ELECTRICAL EQUIPMENT; 700/900 1982-

SERVICE BULLETIN 87-948, EVAPORATOR ODOR TREATMENT

This Service Bulletin replaces earlier Service Bulletin 87-955 from September 1996, which should be discarded.

Odor from evaporator, installation of blower fan control module

Under humid conditions the ECC unit can cause an unpleasant odor on start-up, especially when the temperature outside is high. This Odor often disappears when humidity levels drops. The Odor can be caused by dirt or micro-organisms in the evaporator.

A control module can be installed to eliminate the recurrence of the Odor. This starts the blower fan and airs residual dampness out of the evaporator.

If the compressor has been running more than 4 minutes and the ignition is then turned off for 50 minutes, the control module starts the blower fan automatically and runs an airing out cycle at max. Blower speed for approximately 5 minutes.

Special tools needed: Wiring repair kit, P/N 9814235-9

NOTE:

After installing the airing cycle unit, copy and attach the last page.

Installing Control Module and Cables/740 MCC 1988-90

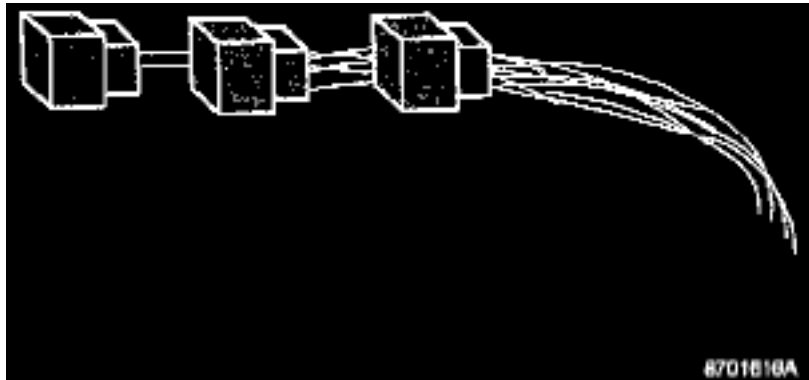
Installing control module and cables 740 MCC model year 1988-90

A1 Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

E11 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

E12 Information to Car Owner -

Carry out operations at the end of this service bulletin.

Install. Control Module/Cable 960-S90-V90 MCC/ECC 95-97

Installing control module and cables 960 MCC/ECC model year 1995- S90/V90 MCC/ECC model year 1997-

F1 Preparations -

Clean evaporator according to Service Manual: Section 8(87)

Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.

- Glove compartment.

Refer to Service Manual:

Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections

F2 Installing new relay on cable harness Take out cable harness, P/N 9171004-6, included in kit. -
Install 3 relays included in the 5-pin connector.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Diagram Information and Instructions

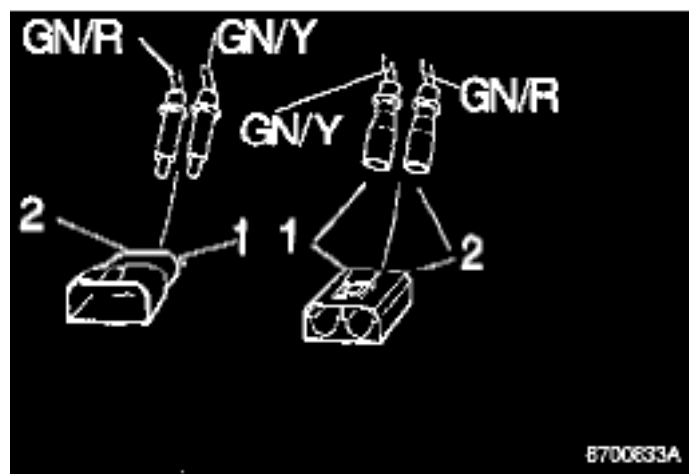
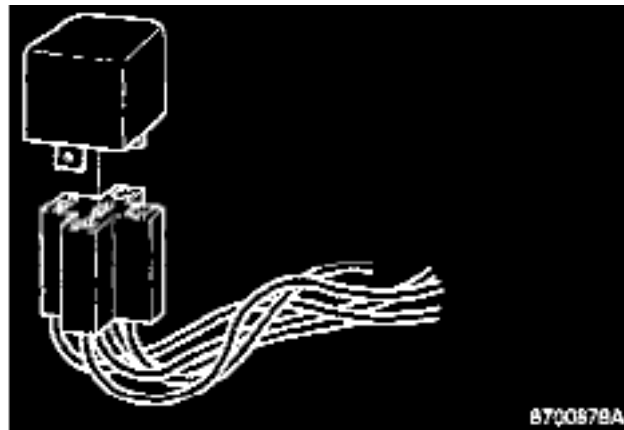
List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



C13 Information to Car Owner -

Carry out operations at the end of this service bulletin.

Install. Control Module/Cables 760/960 W/MCC-ECC 1988-94

Installing control module and cables 760/960 MCC/ECC model year 1988-94

D1 Preparations -

Clean evaporator according to Service Manual: Section 8(87)

Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on left and right sides.

- Glove compartment.

- Cowl on passenger side.

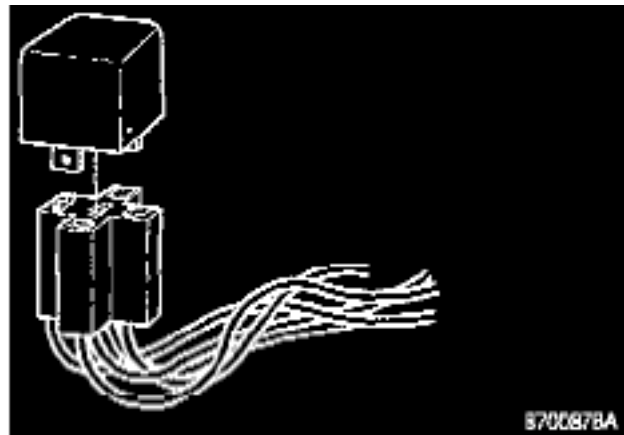
Refer to Service Manual: Section 8(82-86, 88) Interior, exterior 700/900 1982- Cable connections

D2 Installing new relay on cable harness -

Take out cable harness (P/N 9148758) supplied with kit.

- Install relay supplied in the 5-pin connector.

Refer to "Body and Frame : Locks : Diagrams : Electrical".



700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.

- Glove compartment.

- Cowl on passenger side.

- Ashtray.
- Cigarette lighter.
- Storage compartment.
- Detach, pull out and turn central electronics module.

See section 37 in Service Manuals:

Section 3(35-39) Lighting, instrumentation and other electrical equipment 700/900 1982-

Section 8(82-86,88) Interior, exterior 700/900 1982-

Cable connections A2 Installing new relay on cable harness -

Take out cable harness (P/N 9148755) supplied with kit.

- Connect the relay in the kit to the 5-pin connector which is attached to the same end of the cable harness as the black-red cable.

A3 Attaching new cable harness with relay -

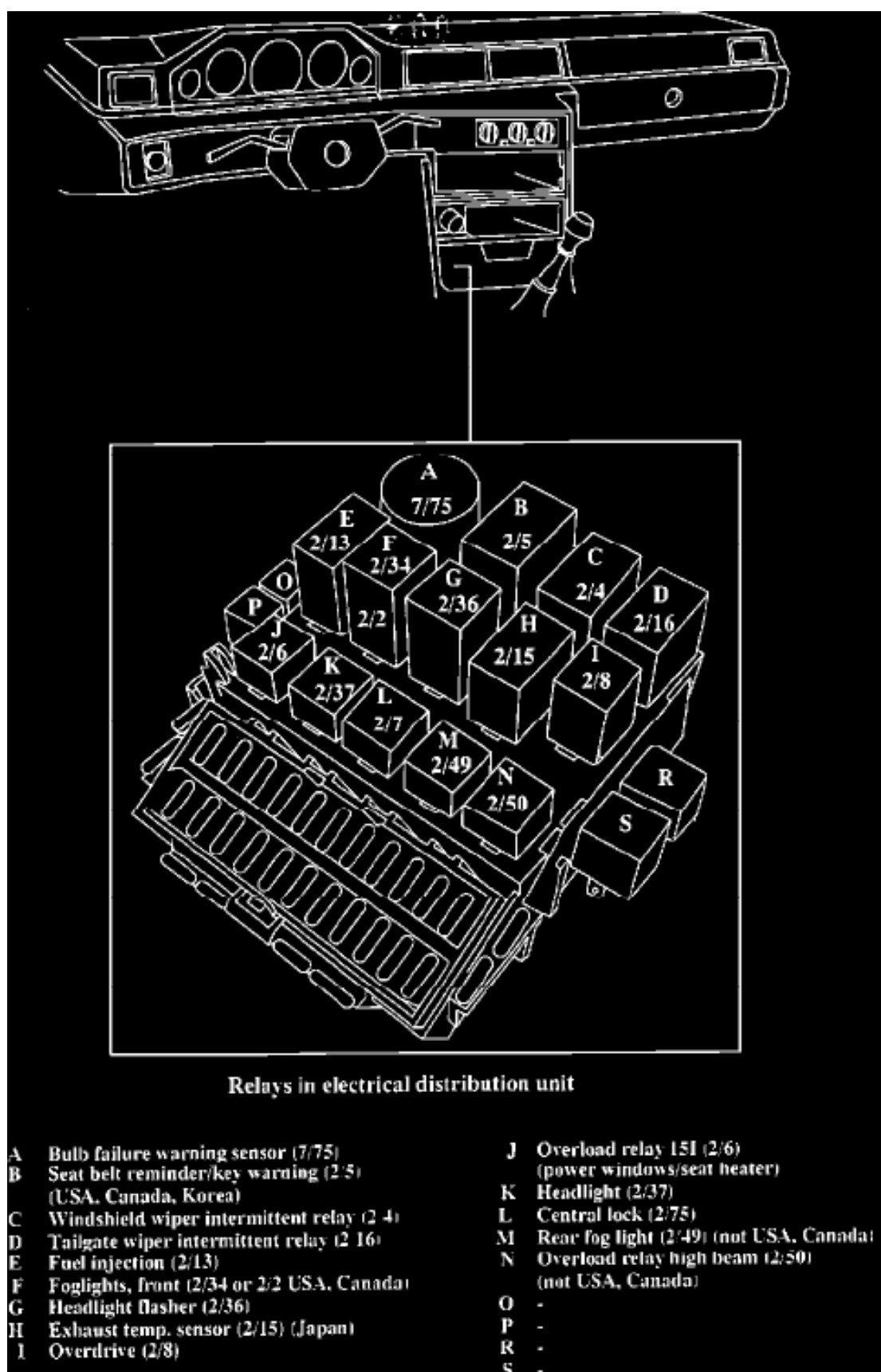
Connect relay and cable harness above the heater vacuum reservoir, using a cable tie.

- Route the red-black cable inside the centre console right side panel to the central electronics module.
- Connect cable to central electronics module fuse 6 and terminal 4.
- Use cable tie to attach to existing cable harness.

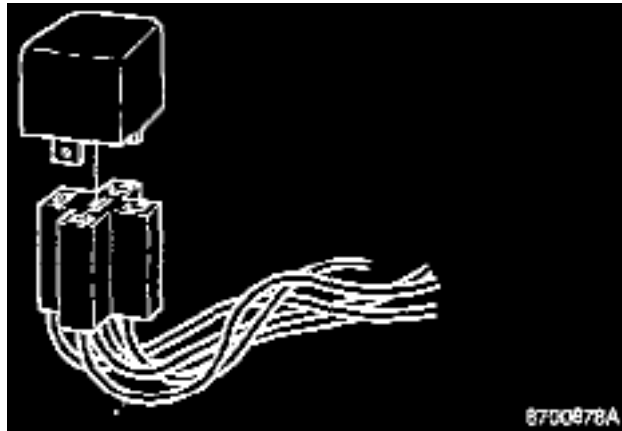
17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



Relay Locations



terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

- Remove cable between connector and battery.

B14 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

B15 Information to car owner -

Carry out operations at the end of this service bulletin.

Installing Control Module/Cables/740/940 W/MCC 1991-95

Installing control module and cables

C1 740/940 with ECC model year 1991-95

Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Disconnect negative battery lead.

- Sound insulation on passenger side.
- Glove compartment.
- Cowl on passenger side.

Refer to Service Manual:

Section 3(35-39) Lighting, (see group 37) Instrumentation and other electrical equipment 700/900 1982- Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections

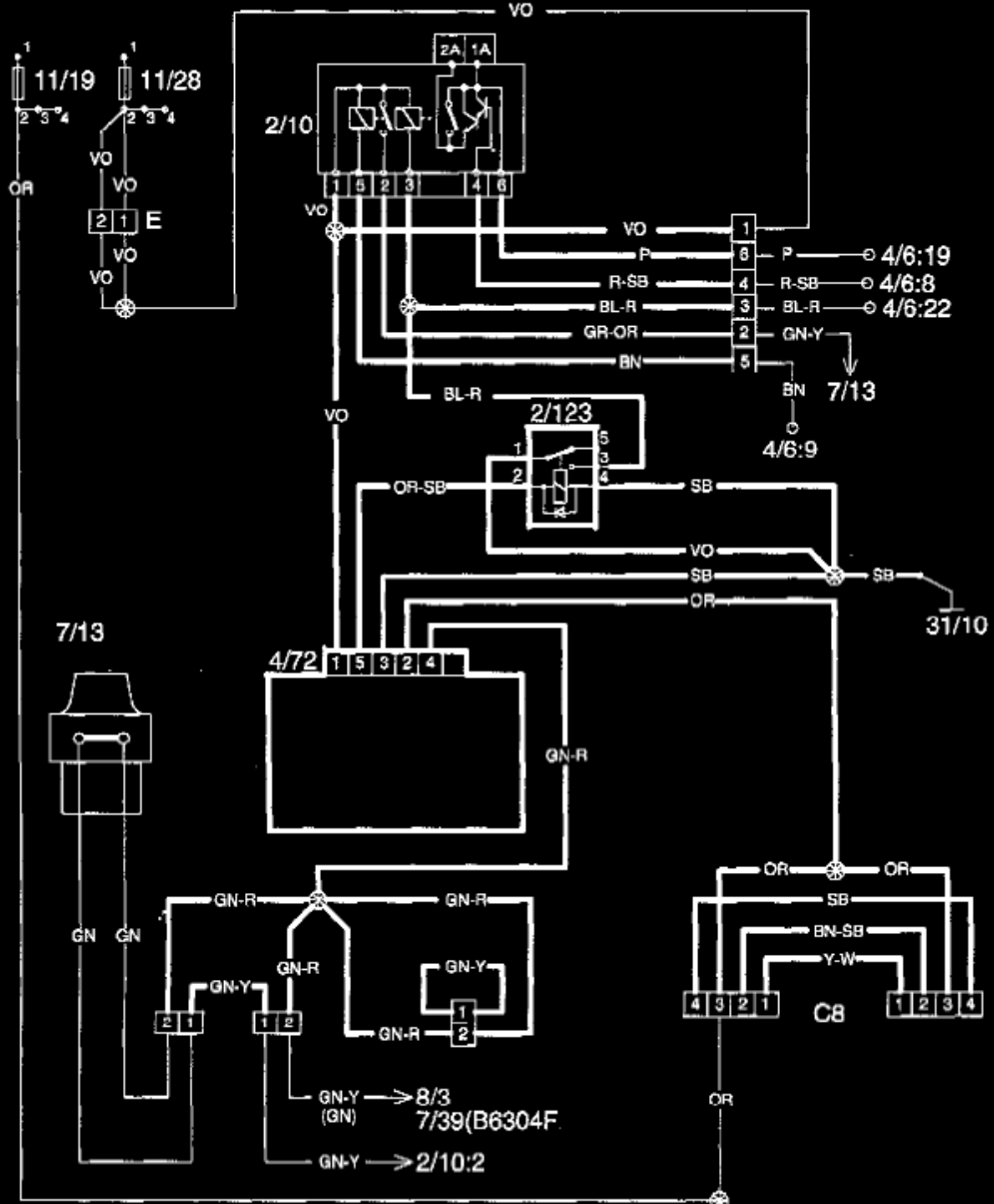
C2 Installing new relay on cable harness -

Take out cable harness (P/N 9148757) supplied with kit.

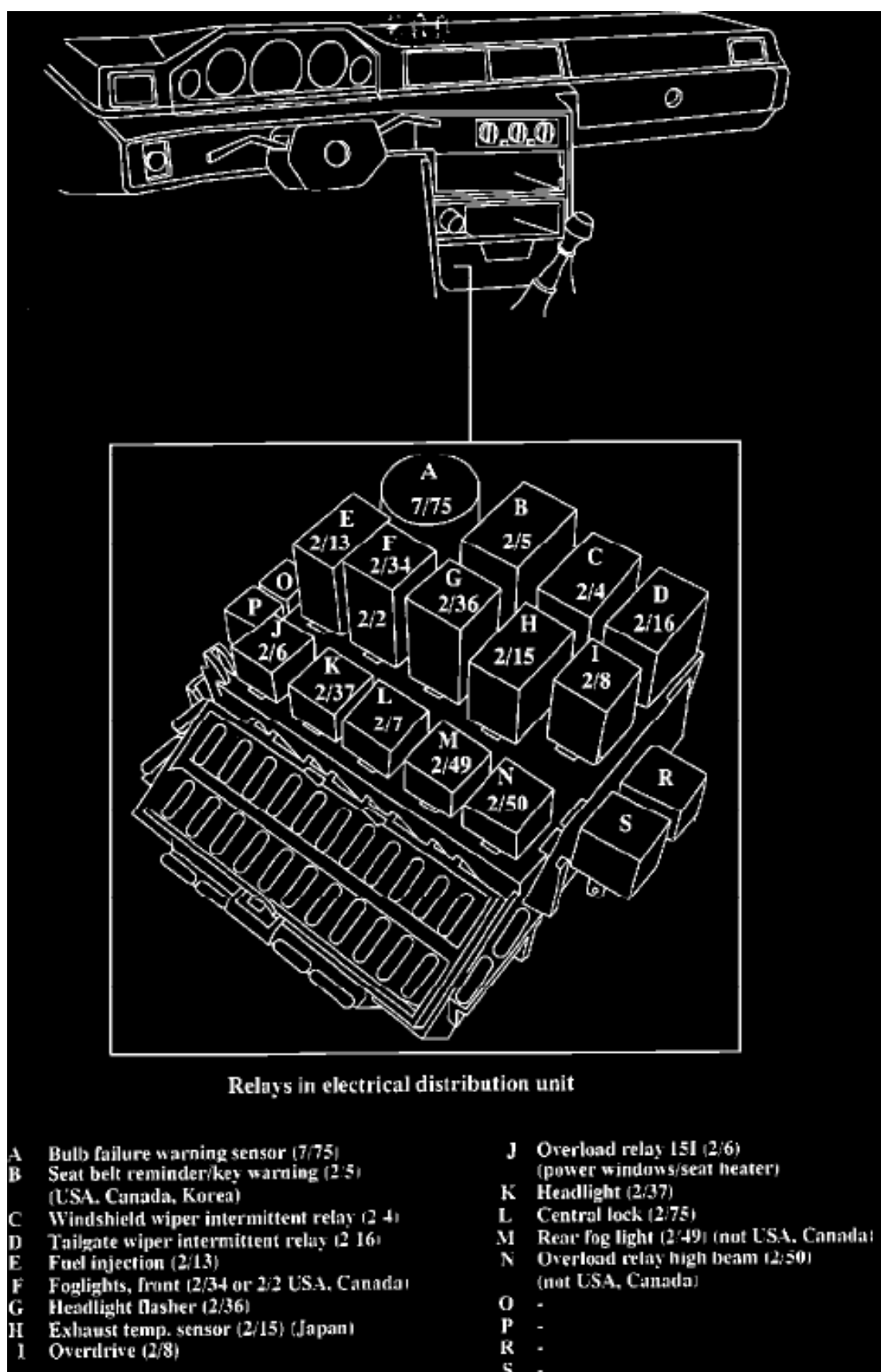
- Install relay supplied in the 5-pin connector.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

760/960 MCC/ECC 1988-1991



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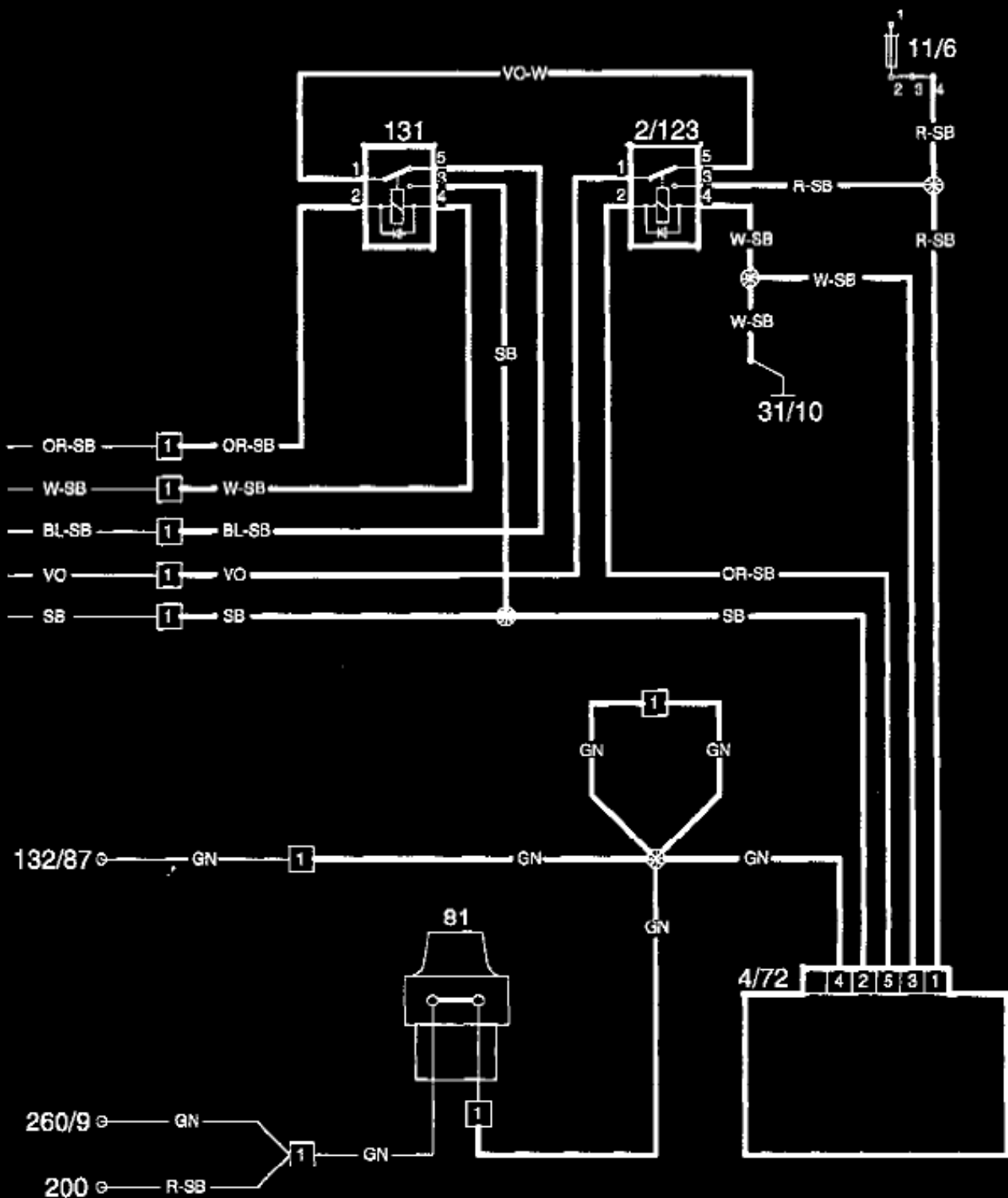


Relay Locations

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

740 MCC 1988-1990



G9 Securing control module and cables Install relay -

Install clip 1277898 on relay.

- Secure relay on the metal bracket in front of the vacuum tank.

G10 Finishing off -

Reinstall all components removed.

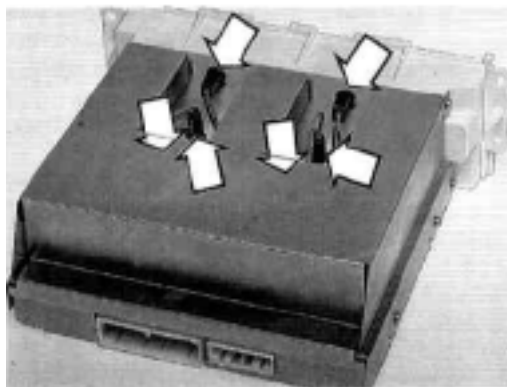
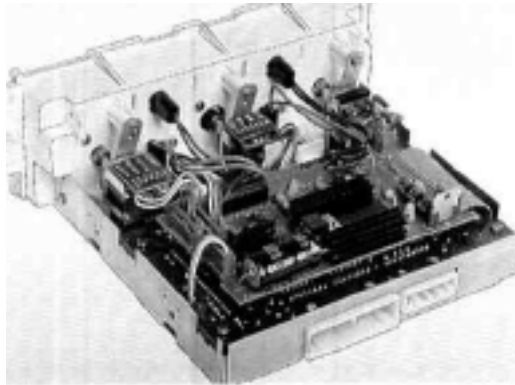
- Reset the clock and enter the anti-theft radio code if required.

G11 Information to Car Owner -

Carry out operations at the end of this service bulletin.

Diagram Wiring Images

740 MCC 1988-1990

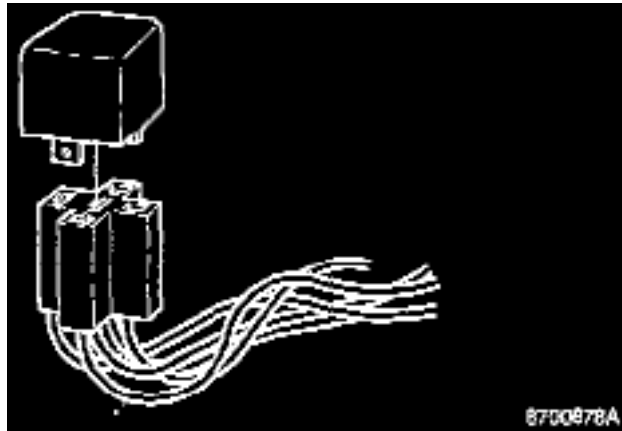


Control Module HVAC: Description and Operation Electronic Climate Control Module

The control module is located behind the control panel. Under normal circumstances, the cover need never be removed.

Lamps

The six lamps on the control module can be replaced without removing the cover.



terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

- Remove cable between connector and battery.

B14 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

B15 Information to car owner -

Carry out operations at the end of this service bulletin.

Installing Control Module/Cables/740/940 W/MCC 1991-95

Installing control module and cables

C1 740/940 with ECC model year 1991-95

Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Disconnect negative battery lead.

- Sound insulation on passenger side.
- Glove compartment.
- Cowl on passenger side.

Refer to Service Manual:

Section 3(35-39) Lighting, (see group 37) Instrumentation and other electrical equipment 700/900 1982- Section 8(82-86, 88) Interior, exterior 700/900 1982-

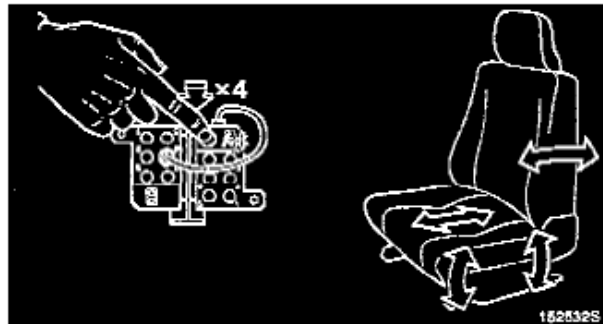
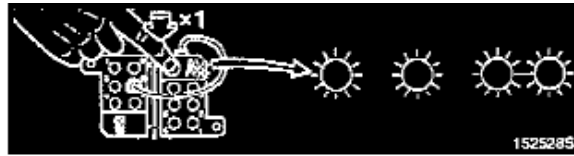
Cable connections

C2 Installing new relay on cable harness -

Take out cable harness (P/N 9148757) supplied with kit.

- Install relay supplied in the 5-pin connector.

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



Oper. No.	Labor Description	Time Allowance
852003	Power seat, diagnostic check	0.2 hr

E3

- Press and hold any button on control panel of seat to be tested while switching ignition on. Keep button depressed for at least 1 second after turning on ignition.

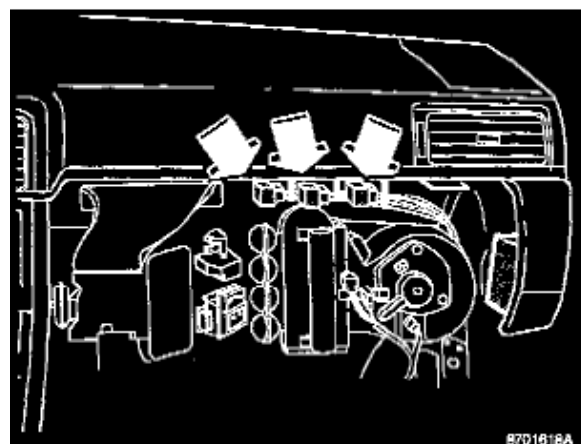
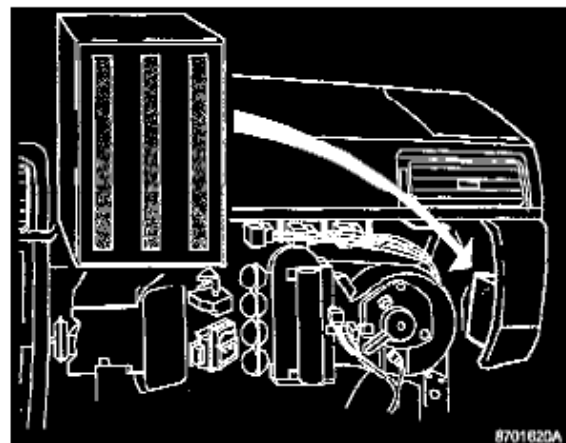
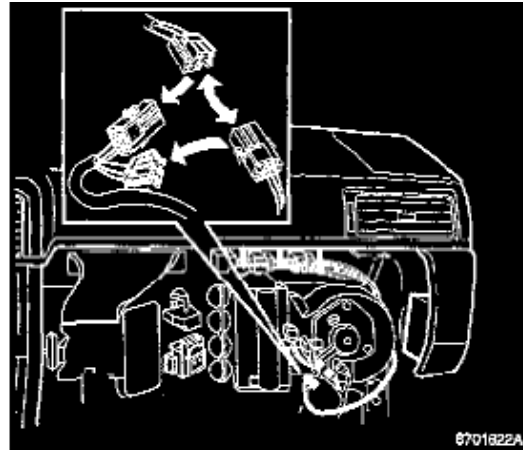
E4

- Diagnostic system must now be activated within 2 minutes, i.e., test button must be pressed once to select DTM 1 (self-diagnostics) or four times to select DTM 4 (calibration).

Control module will exit diagnostic function after approx. 2 minutes if no activity takes place between module and DLC. Module will also exit diagnostic function if ignition is switched off. Seat cannot be operated either with control buttons or memory buttons while using diagnostic system.

Codes for DTM 1 are listed and explained in the table on page 9 of the SM; use of DTM 4 (calibration) is described on SM page 7.

The illustrated operation number may only be added to a claim in conjunction with a warrantable repair within the respective area.



If there are accessories connected to the accessory cabling, the new cable harness connectors should be connected between the existing ones.

Installing control module from kit

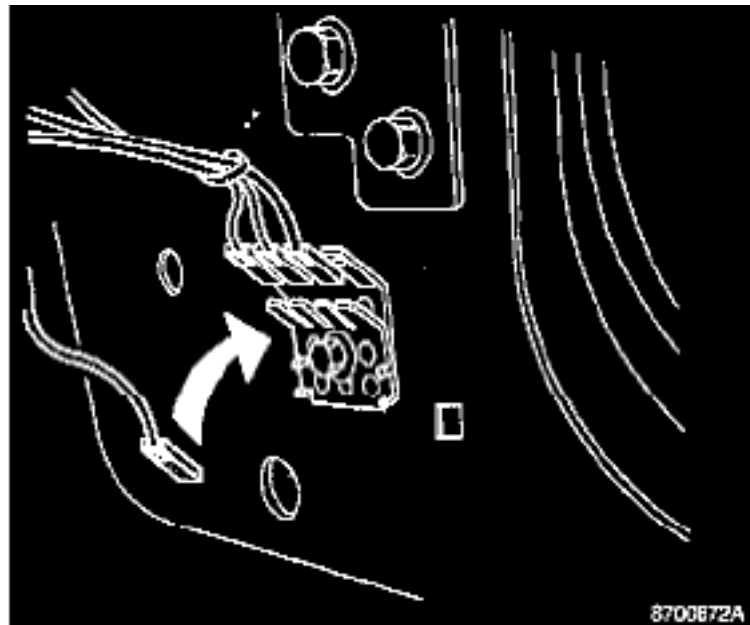
F9 Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

F10 Fastening cables In cars without SRS (Airbag) and knee bolster -

Fasten cable harness and relay to the air hose that runs above the glove compartment to the side defroster with cable ties.



C9 Connection to ground plate -

Connect the black-white cable included in the new cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.

C10 Cable harness connections -

Locate connector on cable harness between heater and dashboard (on side of centre console).
Separate connector and connect new and old connectors for each model year:

1991 model year: -

Connect 4-pin connectors, which have 3 cables and are included in the kit cable harness, to existing connectors.

92-94 model year (shown here): -

Connect 2-pin connectors, with 1 cable included in the kit cable harness, to existing connectors.

- Connect connectors not connected to existing cable harness, to each other.

Function verification and information

C11 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor.

The A/C system starts if the temperature exceeds approx. 7°C (45°F). -

Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to control module connector. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

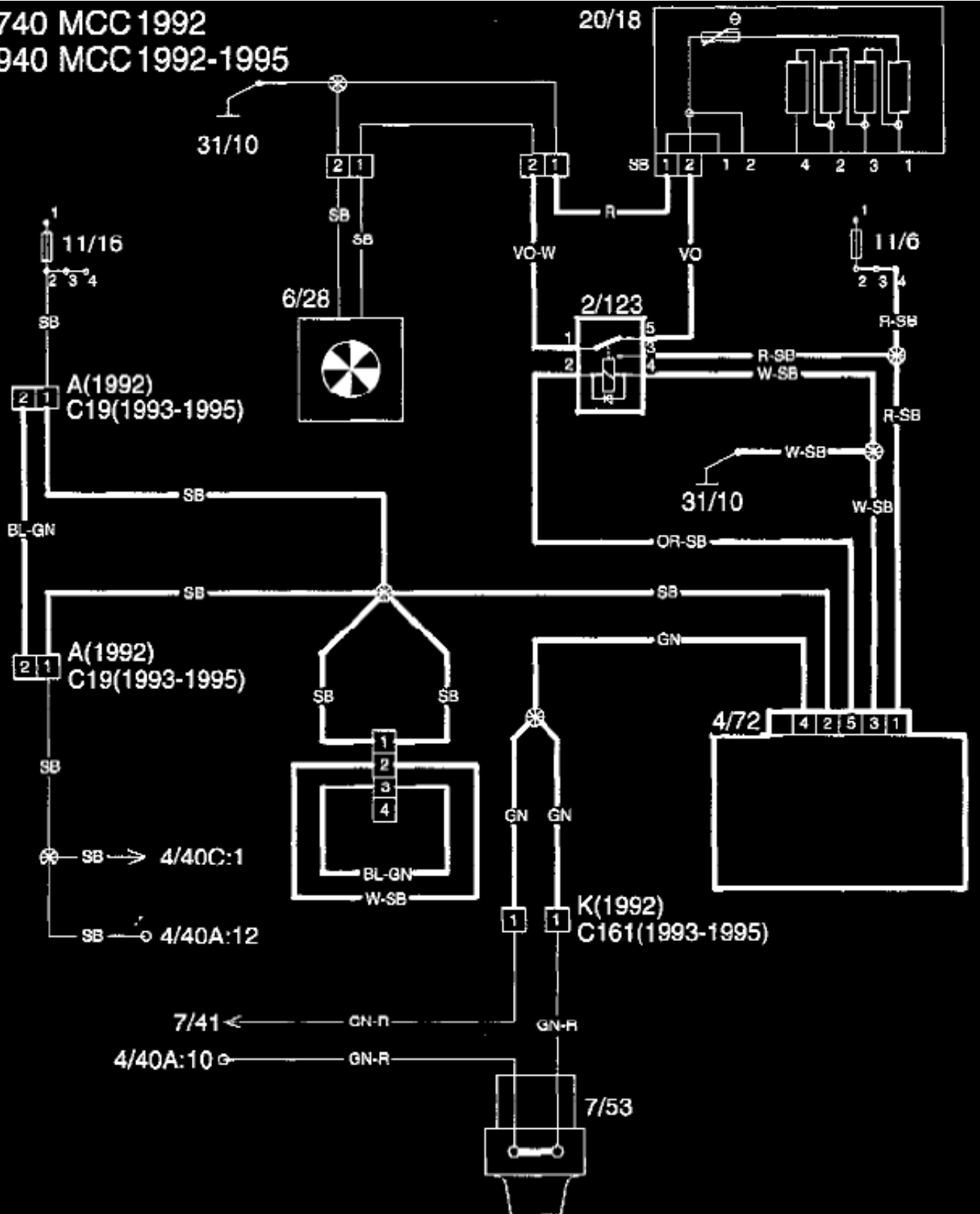
Remove cable between connector and battery.

C12 Finishing off

- Replace all parts removed.

- Reset the clock and enter the anti-theft radio code if required.

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Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/34	Relay, front foglights	4/25	Control module Regina (MFI) system
2/36	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/37	Headlight relay	4/29	Control module driver's seat
2/38	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

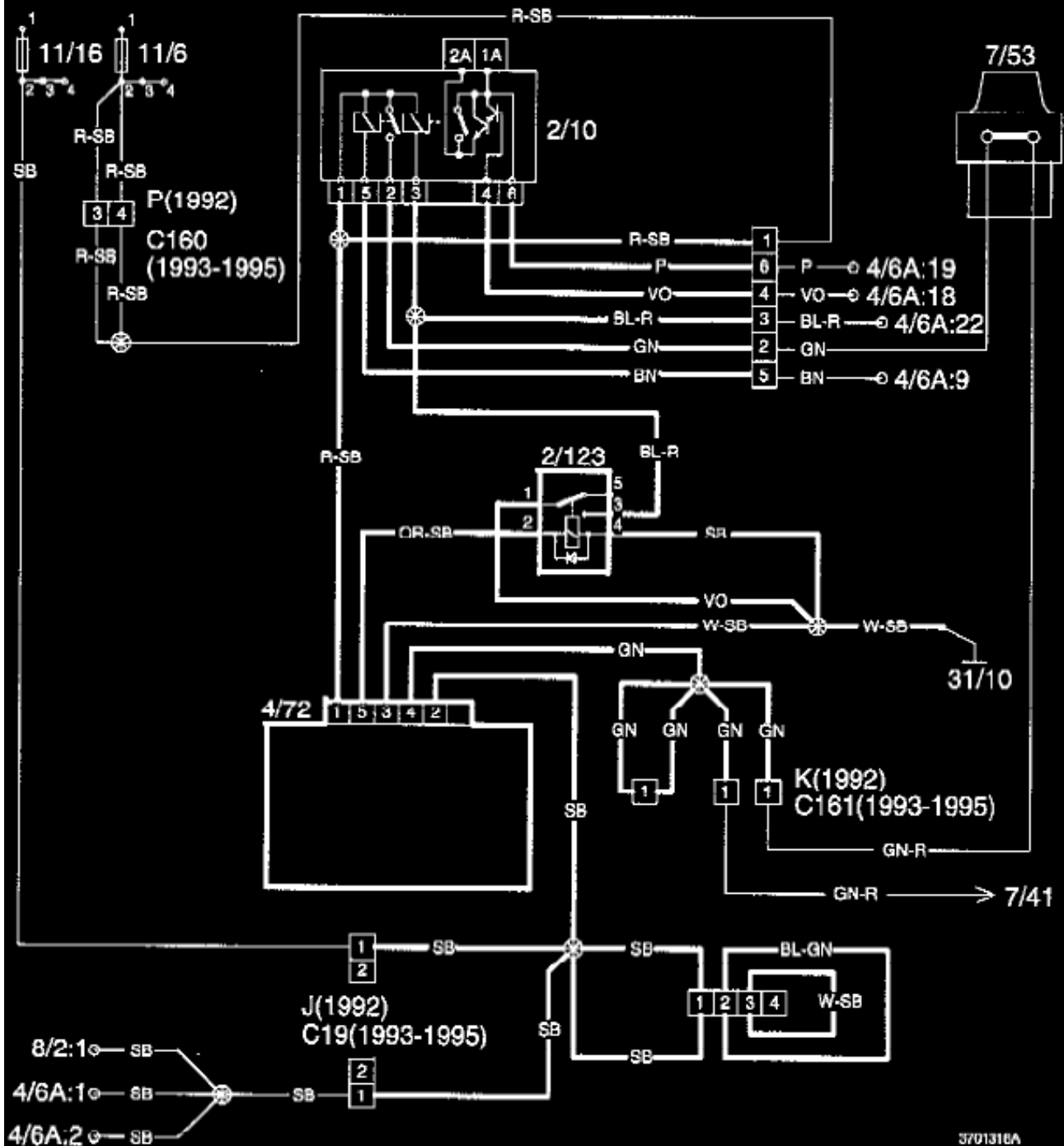
Component Index And Identification

Locations

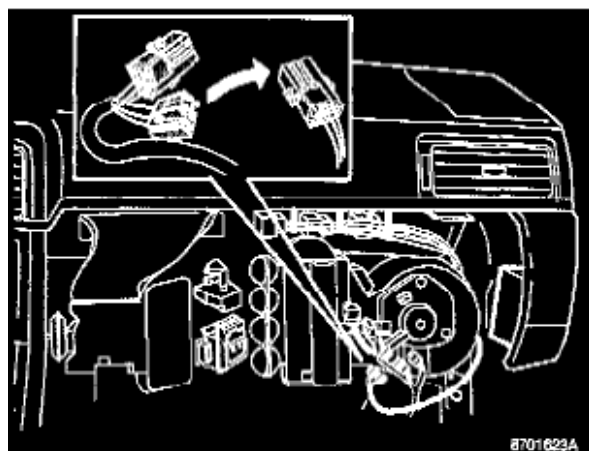
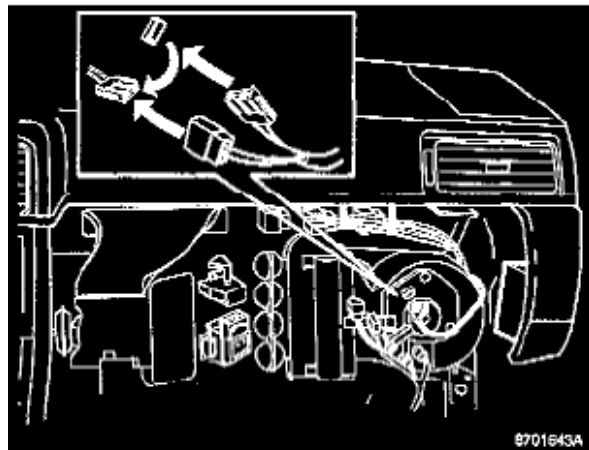
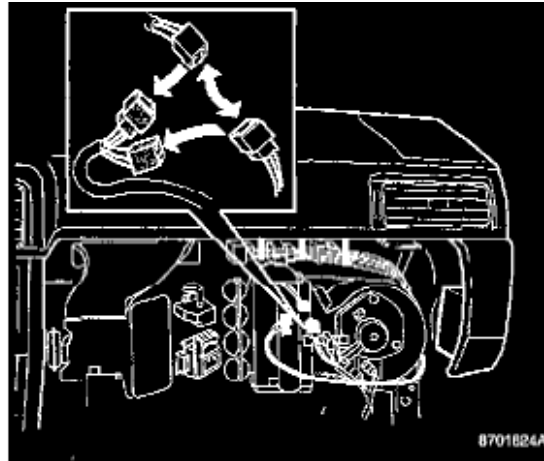
Seat Heater Control Module: Locations

Refer to "Body and Frame : Seats : Locations : Components".

740/940 ECC 1992-1995



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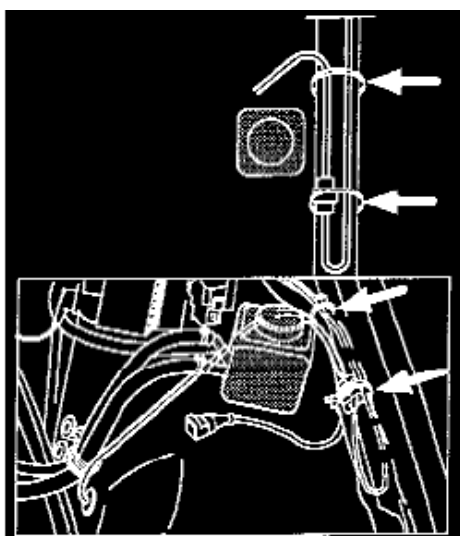


F6 Connect white 6-pin cable harness connectors The new cable harness should be connected between the existing connectors on the climate unit - passenger compartment cable harnesses, (All

in wiring diagram).

F7 Connect 2-pin cable harness connectors The new 2-pin cable harness connectors should be connected between the blower motor and the existing cable harness, (6128 in wiring diagram).

F8 Connect 4-pin cable harness connectors The new 4-pin cable harness connectors should be connected to the accessory connectors (D10 in wiring diagram).



Oper. No.	Labor Description	Time Allowance
593113	Control module, replace	0.1 hr
593213	Sensor lead, re-routing	0.1

944 - 125305 945 - 075946

With the introduction of control module, p/n 9128853 in April '93, the risk of interference was eliminated. The sensor lead is now routed (in production) to the left front wheel as before, see illustration.

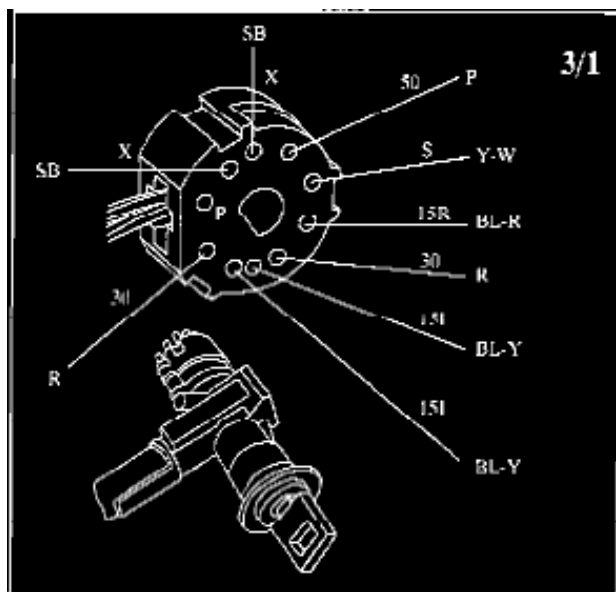
If fault symptoms occur:

Check that the sensor lead is routed in accordance with figure below.

New position of sensor lead

When re-routing the lead, ensure that the sensor lead is pulled towards the wheel housing plate. Secure the lead with wiring ties (p/n 945611-2) and flange screws M8x12 (p/n 947107-9) in the holes that already exist in the wheel housing. Put the rear cable grip over the connector.

WARRANTY STATEMENT: Claims may be submitted under the New Car Limited Warranty when a manufacturing defect is present using claim type: 01.



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

-	Key withdrawn
0	Off
I	Radio
II	Drive
III	Start

Voltage at connection:

P
S,P
X,S,P
X,15R,15LS
15R,50,S

Relay location in engine compartment



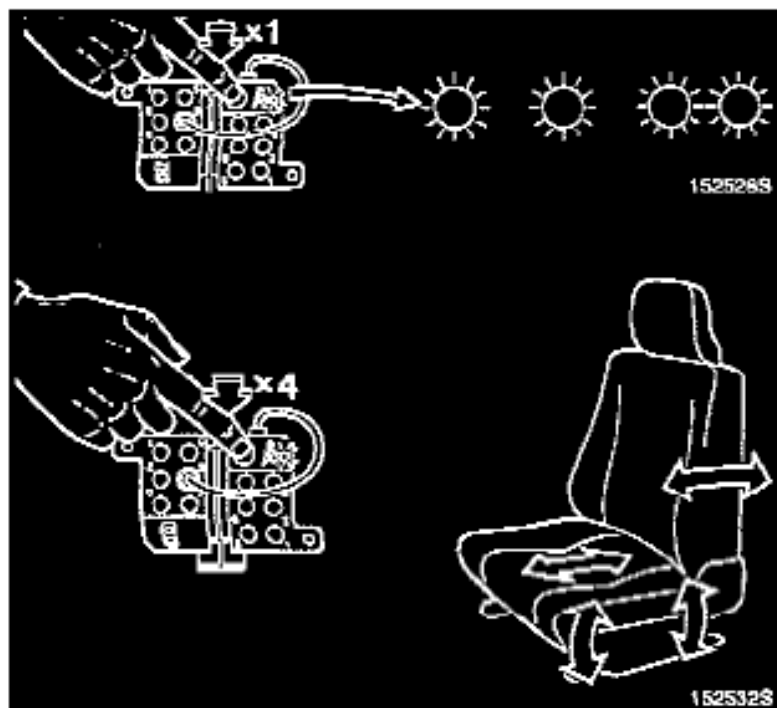
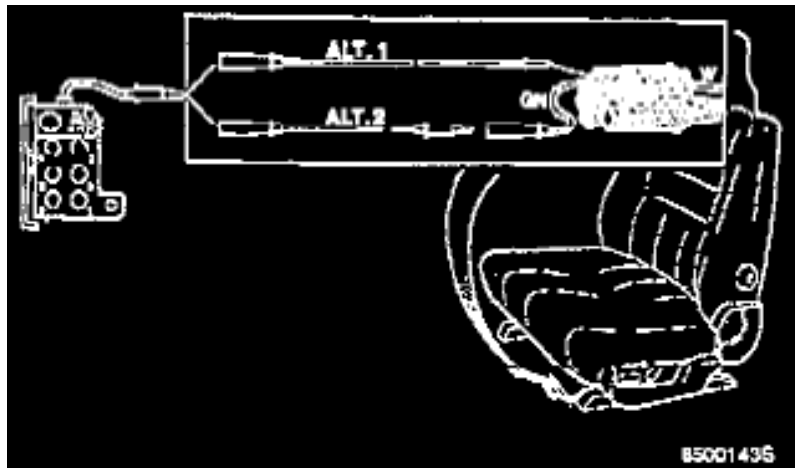
- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
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31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Power seats in the above models can be operated only with the ignition on.

A1

- Switch off ignition.

A2

- Manual fault tracing/calibration: Connect auxiliary lead between green lead (alternative 2, later version) in connector at front of driver's seat and test lead on DLC (diagnostic unit) A.

On 940 without a green lead (alternative 1, earlier version), connect auxiliary lead to connector terminal 4.

- Fault tracing/calibration using Volvo Scan Tool (VST) with On-Board Diagnostic (OBD) System Memory Cassette: Connect auxiliary lead to terminal 6 on the VST adapter cable.

A3

Ignition must be off for at least 5 seconds before performing this step.

- Press and hold any button on control panel of seat to be tested while switching ignition on. Keep button depressed for at least 1 second after turning on ignition.

A4

Diagnostic system must now be activated within 1 minute, i.e., test button must be pressed once to select diagnostic test mode (DTM) 1 (self-diagnostics) or four times to select test mode 4 (calibration).

Control module will exit diagnostic function after approx. 1 minute if no activity takes place between module and DLC. Module will also exit diagnostic function if ignition is switched off for at least 5 seconds. Seat cannot be operated either with control buttons or memory buttons while using diagnostic system.

Codes for DTM 1 are listed and explained in the table on page 9 of service manual (SM) TP 32015/1; use of DTM 4 (calibration) is described on SM page 7.

Method For Version 2 (B)

Refer to "Body and Frame : Seats : Diagrams : Electrical".

Locations

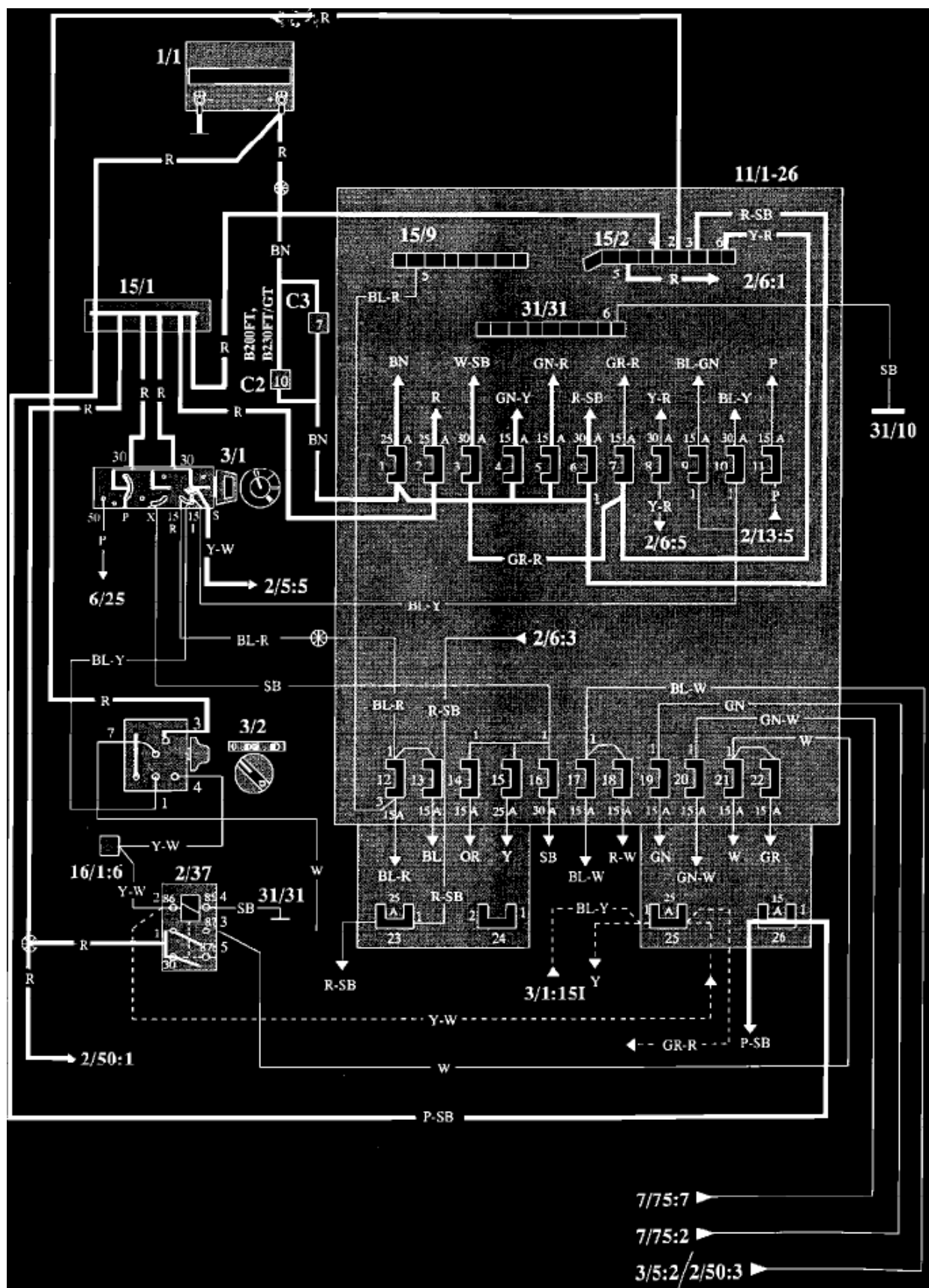
Turn Signal Relay: Locations

Refer to "Lighting and Horns : Turn Signals : Locations : Components".

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
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		C50	Connector, 8-pin
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19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
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31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
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31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
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31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
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C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Locations

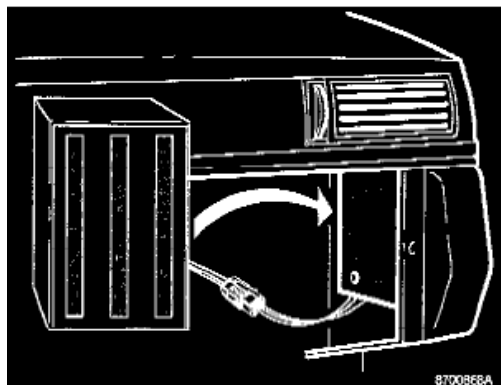
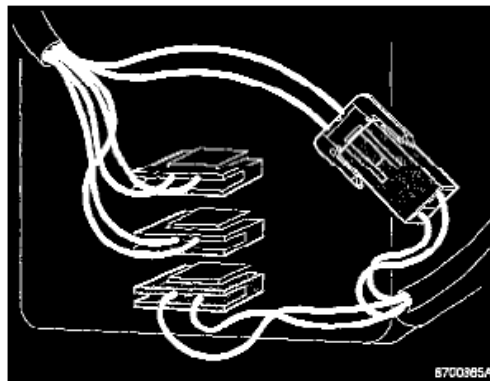
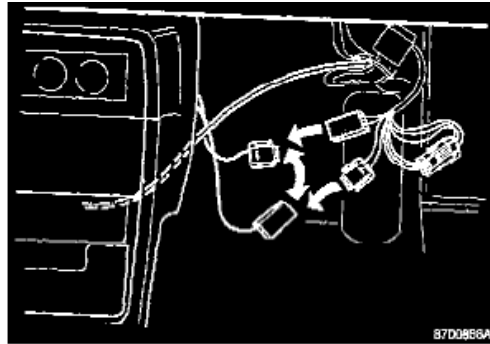


Lamp Out Relay: Locations

Fuse/Relay Identification and Location

Electrical Distribution Unit

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
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C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
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C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



B4 Install cables from relay to connector -

Locate connector on cable between heater and dashboard (on side of centre console).

- Separate connector and connect connector halves, from the new cable harness to the existing for each model year:

1991 model year: -

Connect 4-pin connectors with 3 cables included in the kit cable harness, to existing connectors.

1992-94 model year (shown here): -

Connect 2-pin connectors, included in the cable harness kit to existing connectors.

- Connect the two open connectors to each other.

B5 Removal of connectors from blower motor resistor -

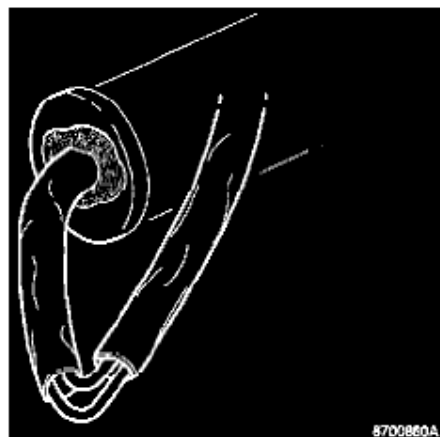
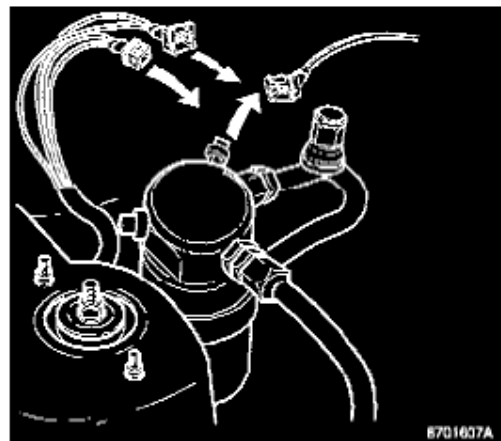
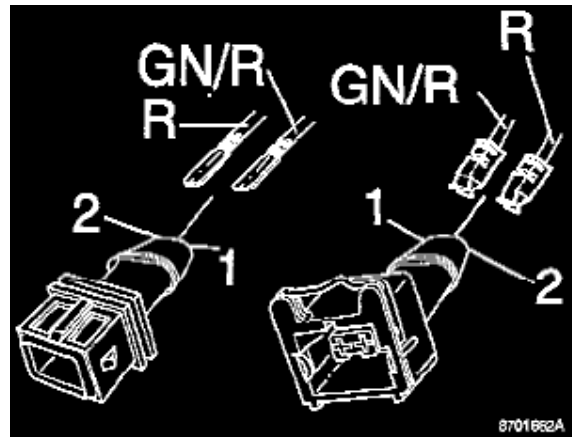
Remove the bottom connector from the blower resistor.

B6 Connection of new connector in blower motor resistor and cable harness -

Connect 2-pin cable harness connectors between the detached connector and the bottom terminal on the blower resistor.

Installing control module from kit

B7



F3 Route cables to engine compartment -

Route the cables which do not have connectors to the engine compartment through an unused hole in the grommet under the brace to the suspension strut.

- Connect green-red cable to connector terminal 1.
- Connect green cable to connector terminal 2.

F4

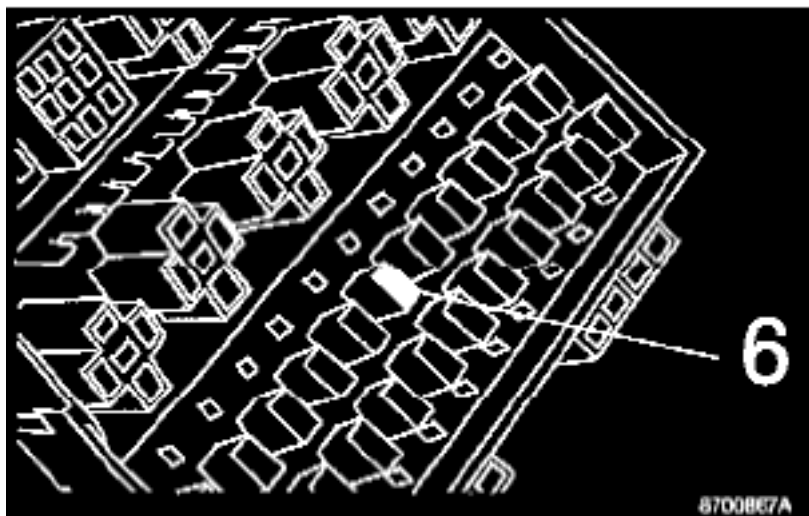
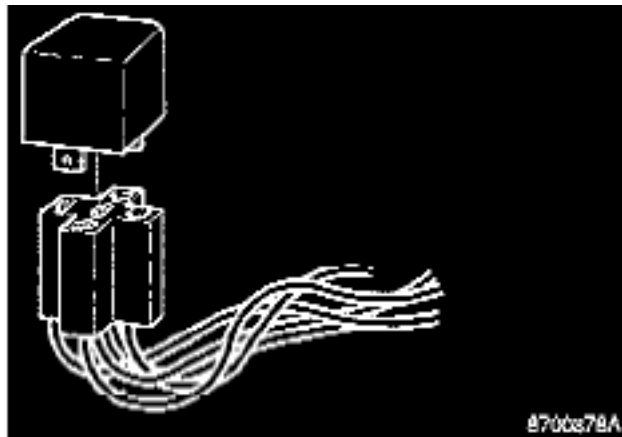
- Separate existing connectors at the boost pressure switch and connect connector from the new cable harness.

F5 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

Connecting cable harness in passenger compartment



Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control 700/900 1982- section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.
- Glove compartment.
- Cowl on passenger side.
- Ashtray.
- Cigarette lighter.
- Storage compartment.
- Detach and pull out central electronics module.

Refer to Service Manual: Section 3(35-39) Lighting, instrumentation (see group 37) and other electrical equipment 700/900 1982- Section 8(82-86, 88) Interior, exterior 700/900 1982-

B2 Cable connections Installing new relay on cable harness -

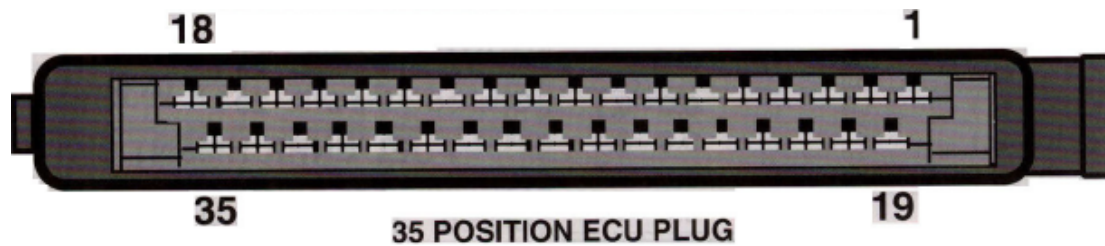
Take out cable harness (P/N 9148756) supplied with kit.

- Connect the relay in the kit to the 5-pin connector which is attached to the same end of the cable harness as the black-red cable.

B3 Attaching cable harness with relay -

Attach relay and cable harness above the heater vacuum reservoir, using a cable tie.

- Route the red-black cable inside the centre console side panel to the central electronics module.
- Connect cable to fuse 6 in terminal 4.
- Use cable tie to attach to existing cable harness.



GROUNDS			
Key	OFF	ON	Volts
(Pin10 to G1)	√		0.0 - 0.2
(Pin20 to G1)	√		0.0 - 0.2
(Pin34 to G1)	√		0.0 - 0.2
(Pin10 to G1)		√	0.0 - 0.2
(Pin20 to G1)		√	0.0 - 0.2
(Pin34 to G1)		√	0.0 - 0.2

IGNITION SWITCH			
Key	OFF	ON	Volts
(Pin 10 to 1)*	√		0.0
(Pin 10 to 1)		√	11 - 14

OVER VOLTAGE PROTECTION RELAY			
Key	OFF	ON	Volts
(Pin 10 to 1)	√		0.0
(Pin 10 to 1)		√	11 - 14

ALTERNATOR MONITOR INPUT	
Engine Idling	Volts
(Pin 10 to 15)	13 - 14.5

PUMP MOTOR RELAY			
Key	OFF	ON	Volts
(Pin 10 to 28)		√	11 - 14
Jump (Pin 10 to 28)		√	
(Pin 10 to 14) Pump ON		√	11 - 13

Bosch - ABS2

35 Position ECU Plug

For Terminal ID refer to "Brakes and Traction Control : Relays and Modules - Brakes and Traction Control : Electronic Brake Control Module : Diagrams".

Voltage Measurements

Grounds

Ignition Switch

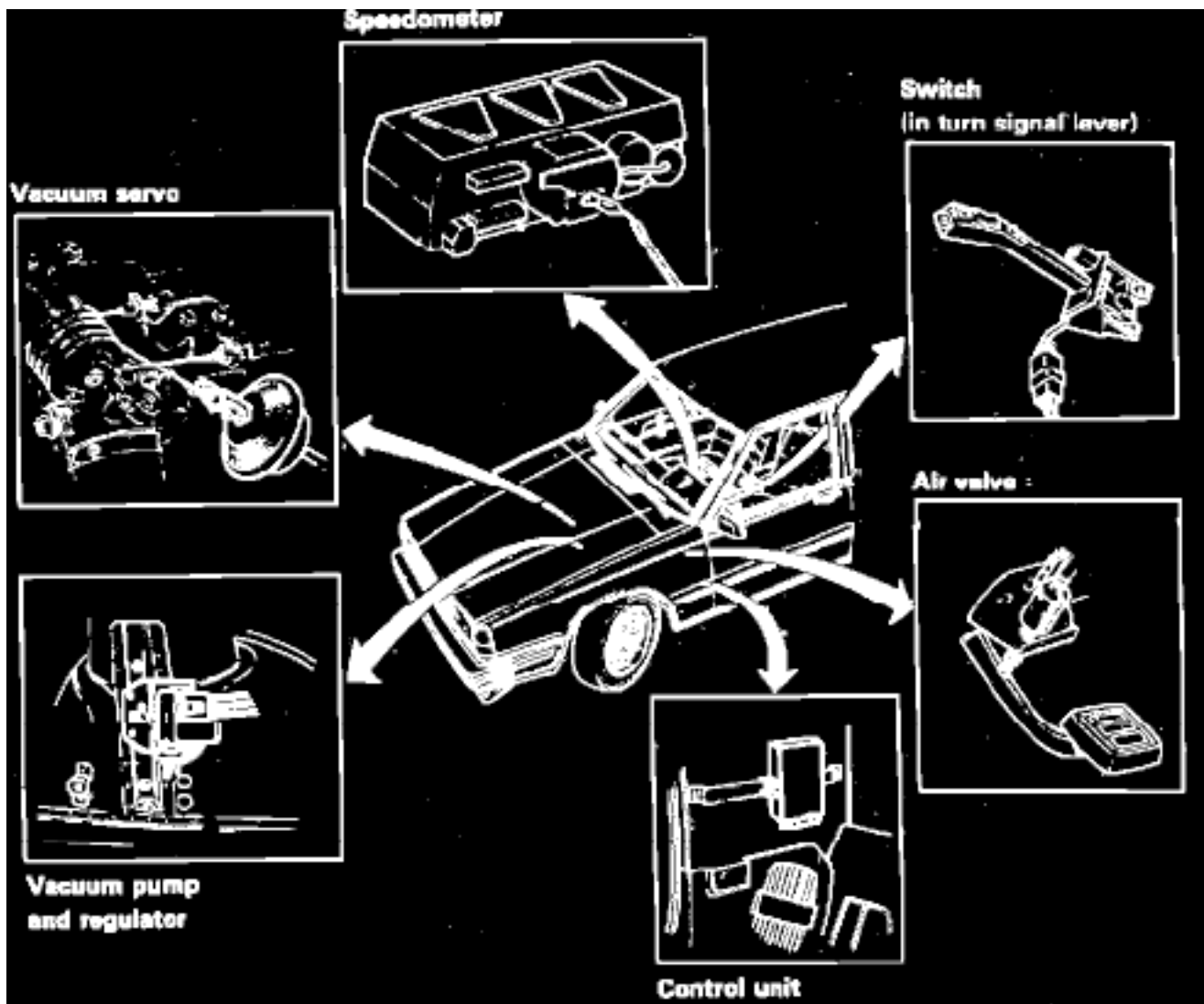
Overvoltage Protection Relay

Alternator Monitor Input

Pump Motor Relay

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
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C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
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C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
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C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Locations



Cruise Control Module: Locations

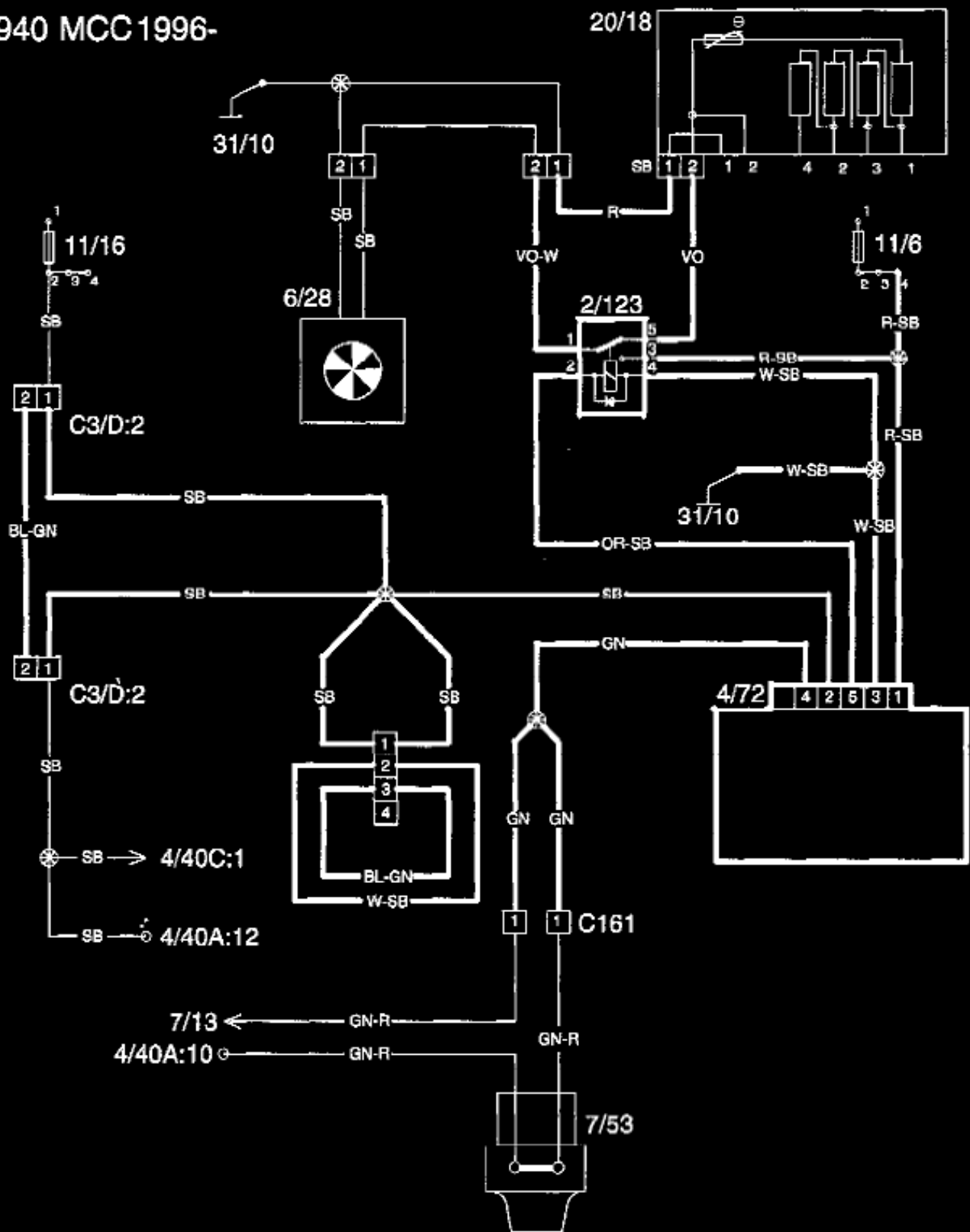
Cruise Control System Component Locations.

Cruise Control Module

The control module of the cruise control is located behind the panel on the left cowl (A-post).

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
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C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

940 MCC1996-



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940 MCC 1996-

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Reading and Clearing Diagnostic Trouble Codes

Chassis Number Table

In older models (1992-93), with chassis numbers as shown in the table, a control module with built-in diagnostic function can be used as a 'special tool' for reading off DTCs via the DLC. The control module part numbers are 913 0197-8 or 912 8853-0.

- Replace the existing control module with the unit with the built-in diagnostic function.
- Drive the car at over 4 miles/h (6 km/h). The control module will record any faults and post DTCs. These can then be read out via the DLC in DTM 1.

With pre-92 models (1989-91), the new control module cannot be used for fault-tracing or diagnosis, as the DLC is not wired up.

Diagnostic system

The control module has a self-test function in DTMs 1 and 4. This is connected to DLC A position 3. If the control module detects a fault, it switches the ABS warning light on and posts the DTC. DTCs can be read out via the DLC during fault-tracing. If any fault occurs, apart from a fault with the brake light workings, the control module disables the ABS system completely. To restore the ABS system once a temporary (intermittent) fault is discovered, the ignition must be switched off first. The diagnostic system monitors the wheel sensors, brake light contact, hydraulic valves, valve relay, pump motor and pump motor relay. DTMs In DTM 1, the diagnostic system can identify 14 different types of fault. Faults are displayed as flashing codes. Up to three DTCs can be stored simultaneously. DTM 4 is used to alter the code transmission rate. Once the diagnostic system is activated, the ABS system cuts out and the ABS warning light comes on to indicate that you need to exit from the diagnostic system before driving the car. To exit from a DTM and turn the ABS warning light off once a fault has been erased, you must switch the ignition off first. Diagnosis in older models Older models (1992-1993) with chassis numbers as shown in special notes for reading DTC's, can use a control module and diagnostic system as a 'special tool' to read off DTCs via the DLC. Models before 1992 (1989-1991), cannot use the new control module for fault-tracing and diagnosis, as there is no wire between the control module and the DLC.

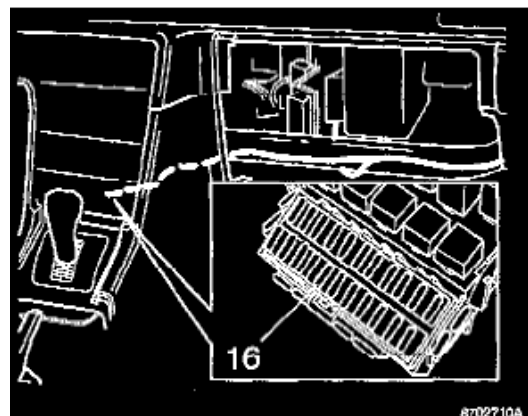
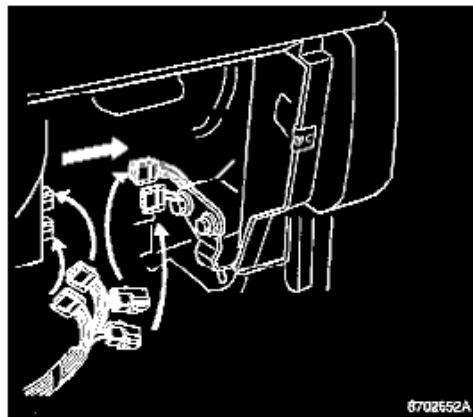
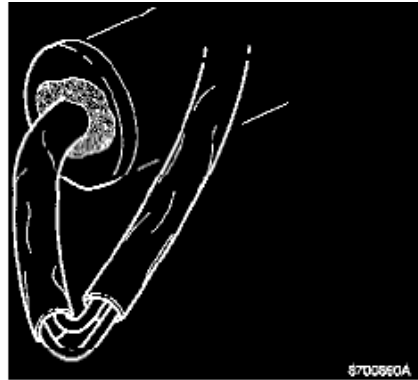
For testing refer to "OBD with control module 913 0197-8 or 912 8853-0 (only)". See: Brakes and Traction Control/Antilock Brakes / Traction Control Systems/Testing and Inspection/Initial Inspection and Diagnostic Overview

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, BGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification



Connect cables from the new cable harness to the separated connectors.

G4 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

G5 Connecting cable harness to heater -

Disconnect the yellow and black connector from the power unit and attach the connectors from the cable harness.

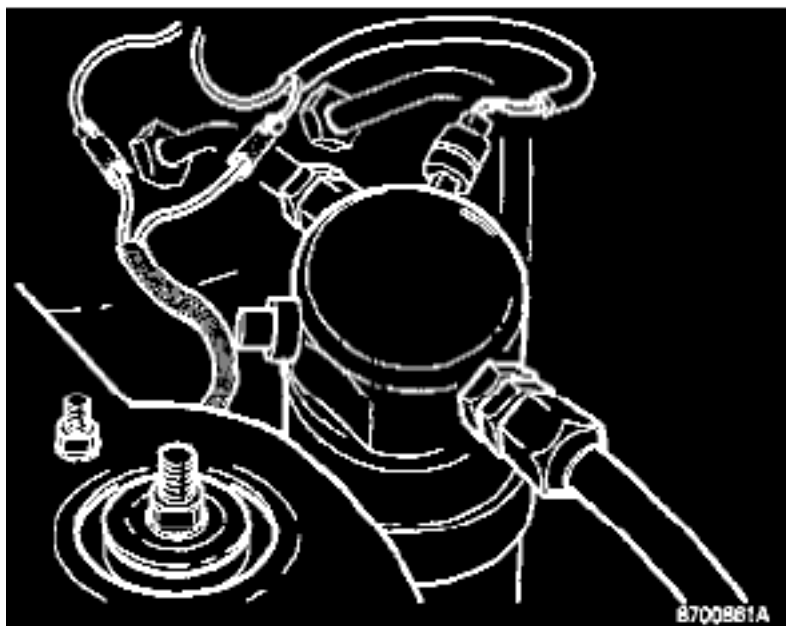
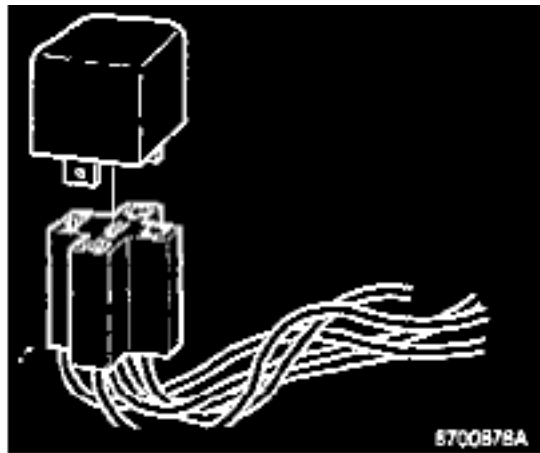
- Install the detached connectors in the other cable harness connectors.
- Connect control module and cable harness connectors.

Connecting and installing the control module

G6 Connect to central electronics module -

Route the black cable inside the centre console side panel to the central electrical unit.

- Connect cable to central electronics module fuse 16 and terminal 3.



G1 Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control 700/900 1982- Section V

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.
- Glove compartment
- Ashtray.
- Cigarette lighter.
- Storage compartment.
- Detach, pull out and turn central electronics module.

Refer to Service Manual:

Section 3(35-39) (see group 37) Lighting, instrumentation and other electrical equipment 700/900
1982- Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections

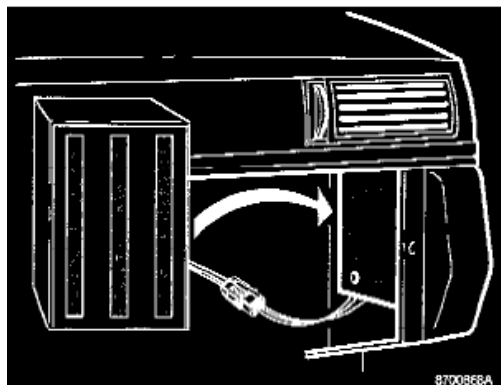
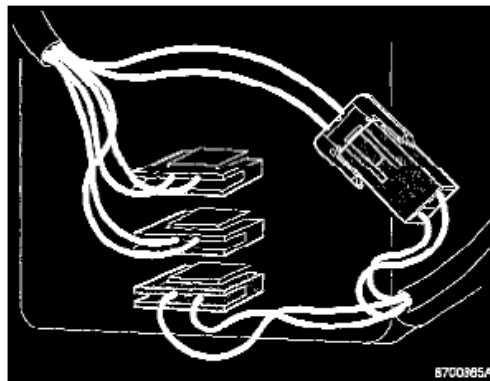
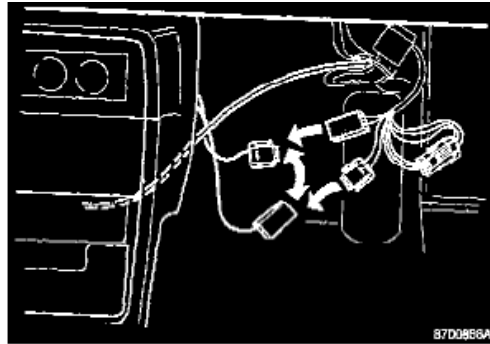
G2 Installing new relay on cable harness

- Take out cable harness (P/N 9447729) supplied with kit.
- Install relay supplied in the 5-pin connector.

G3 Route cables to engine compartment -

Route cables without housing receptacles to engine compartment through unused cutout in grommet below suspension strut brace.

- Install round housing receptacles supplied with cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.



B4 Install cables from relay to connector -

Locate connector on cable between heater and dashboard (on side of centre console).

- Separate connector and connect connector halves, from the new cable harness to the existing for each model year:

1991 model year: -

Connect 4-pin connectors with 3 cables included in the kit cable harness, to existing connectors.

1992-94 model year (shown here): -

Connect 2-pin connectors, included in the cable harness kit to existing connectors.

- Connect the two open connectors to each other.

B5 Removal of connectors from blower motor resistor -

Remove the bottom connector from the blower resistor.

B6 Connection of new connector in blower motor resistor and cable harness -

Connect 2-pin cable harness connectors between the detached connector and the bottom terminal on the blower resistor.

Installing control module from kit

B7

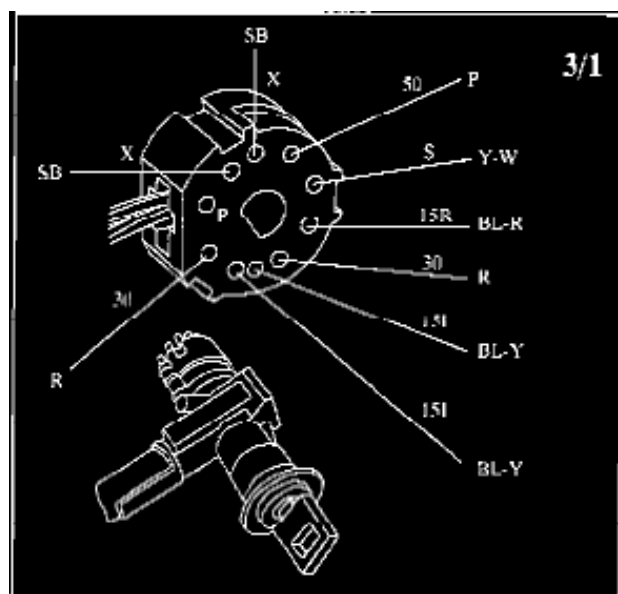
17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification



Ignition lock

Inputs

30: two leads from battery

Outputs

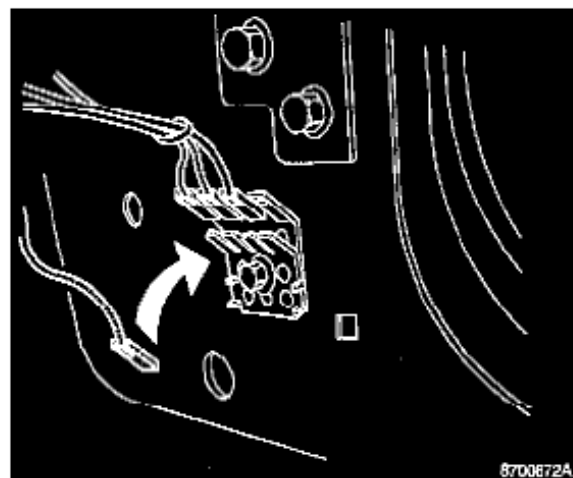
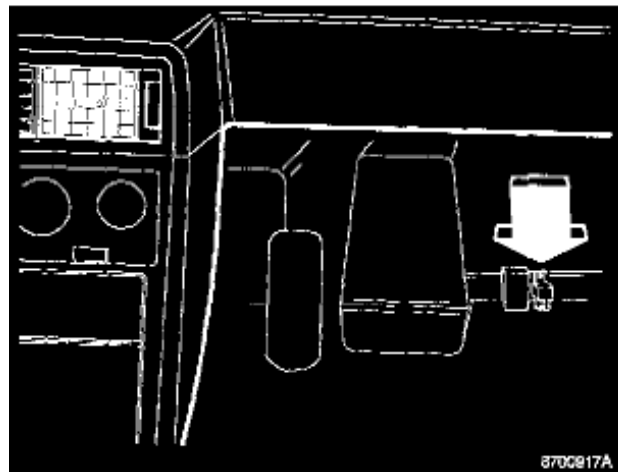
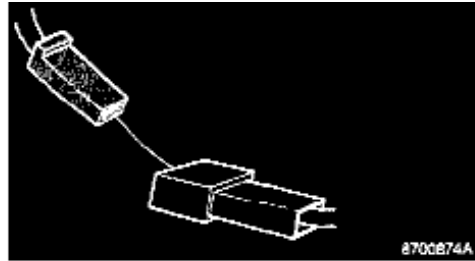
Key position:

Key position:	Voltage at connection:
- Key withdrawn	P
0 Off	S,P
I Radio	X,S,P
II Drive	X,15R,15LS
III Start	15R,50.S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)



A7 Connecting the new cable harness to the 5 housing receptacles -

Attach housing receptacles to the cable harness tab terminals according to cable colour coding (colour-to-colour match)

A8 Connecting new cable harness to blower relay -

Connect the 5-pin cable harness connector to the blower relay.

See Service Manual: Section 3 (39) Wiring diagrams 740 1990

A9 Connection of cable to ground plate -

Connect the black-white cable included in the new cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.

WHEEL SPEED SENSORS	
Key On (Rotate Wheel 1 rev/sec)	AC Volts
Left Front (Pin 5 to 23)	V >.075
Right Front (Pin 7 to 25)	V >.075
Left Rear (Pin 6 to 24)	V >.075
Right Rear (Pin 4 to 22)	V >.075

MAIN HYDRAULIC VALVE	
Key OFF (ECU Disconnected)	Ohms
(Pin 1 to 18)	2 - 5

INLET SOLENOID VALVES	
Key Off (Disconnect ECU)	Ohms
Left Front (Pin 11 to 35)	5 - 7
Right Front (Pin 11 to 15)	5 - 7
Rear (Pin 11 to 17)	5 - 7

OUTLET SOLENOID VALVES	
Key Off (Disconnect ECU)	Ohms
Left Front (Pin 11 to 16)	3 - 5
Right Front (Pin 11 to 34)	3 - 5
Rear (Pin 11 to 33)	3 - 5

ABS MAIN RELAY COIL	
Key OFF (ECU Disconnected)	Ohms
(Pin 1 to 8)	50 - 100

ABS MAIN RELAY COIL	
Key OFF (ECU Disconnected)	Ohms
(Pin 2 to 14)	50 -100

GROUND S	
Key Off Disconnect ECU)	Ohms
(Pin 1 to G1)	0.0 - 0.1
(Pin 11 to G1)	0.0 - 0.1

WHEEL SPEED SENSORS	
Key Off (Disconnect ECU)	Ohms
Left Front (Pin 5 to 23)	800 - 1400
Right Front (Pin 7 to 25)	800 - 1400
Left Rear (Pin 6 to 24)	800 - 1400
Right Rear (Pin 4 to 22)	800 - 1400

Wheel Speed Sensors

Ohms Measurements

Main Hydraulic Valve

Inlet Solenoid Valves

Outlet Solenoid Valves

ABS Main Relay Coil

ABS Main Relay Coil

Grounds

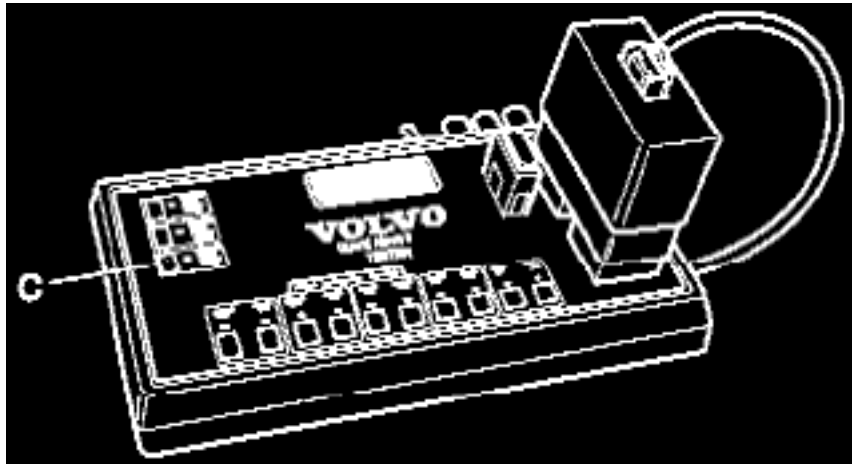
17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification



Alarm Module: Testing and Inspection

Button "Run self test"

- Press button C Run self test".

The lower row on the display shows the caption "TESTING..."

If the module is OK: If the control module is free of faults, the caption "TEST OK!" appears on the lower row of the display.

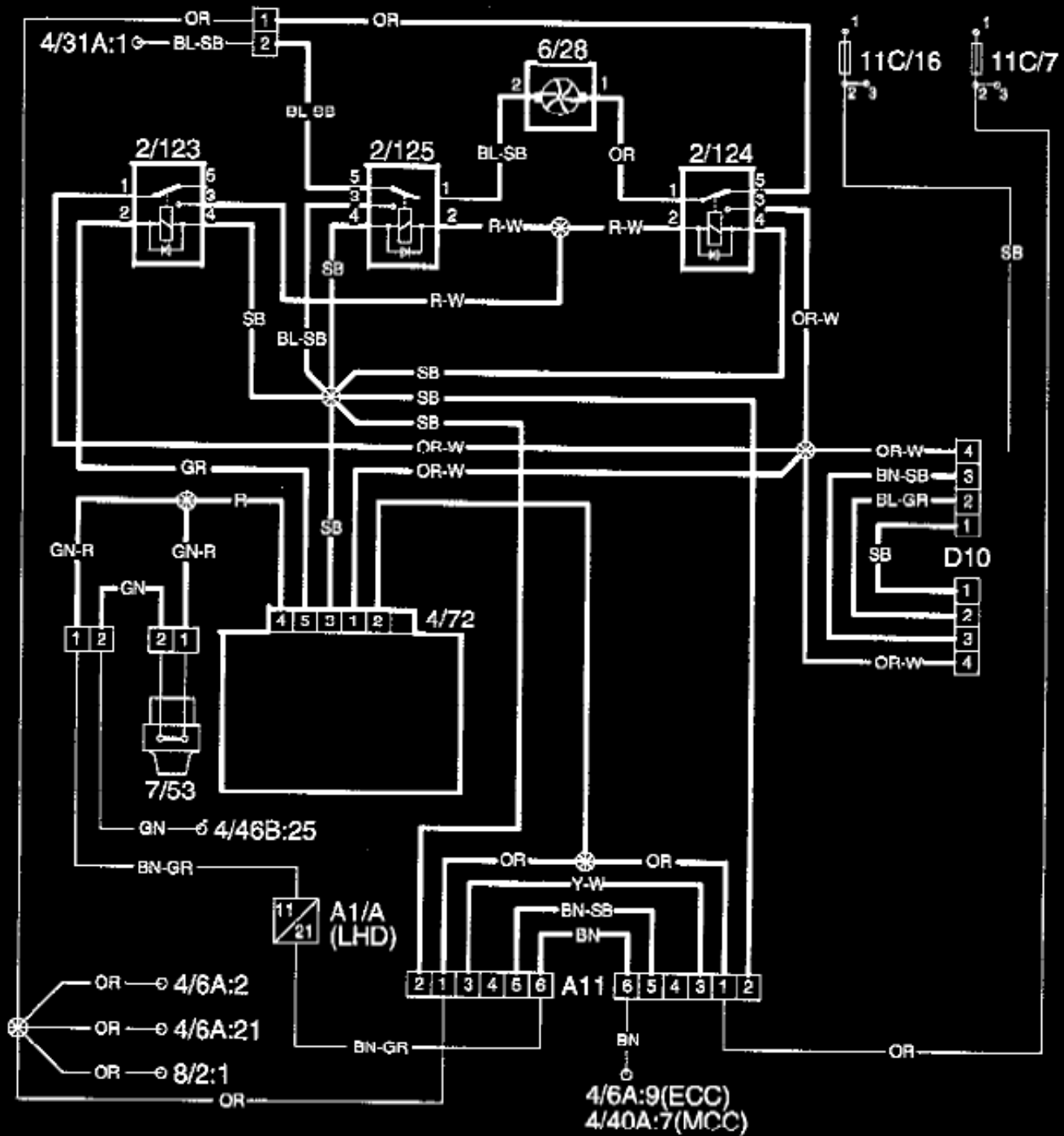
If the control module is faulty:

If the control module is faulty the caption "ERRCODE XXX" is shown ("XXX" is a 3-digit DTC).

The DTC (ERRCODE) should always be quoted when making claims for a faulty module.

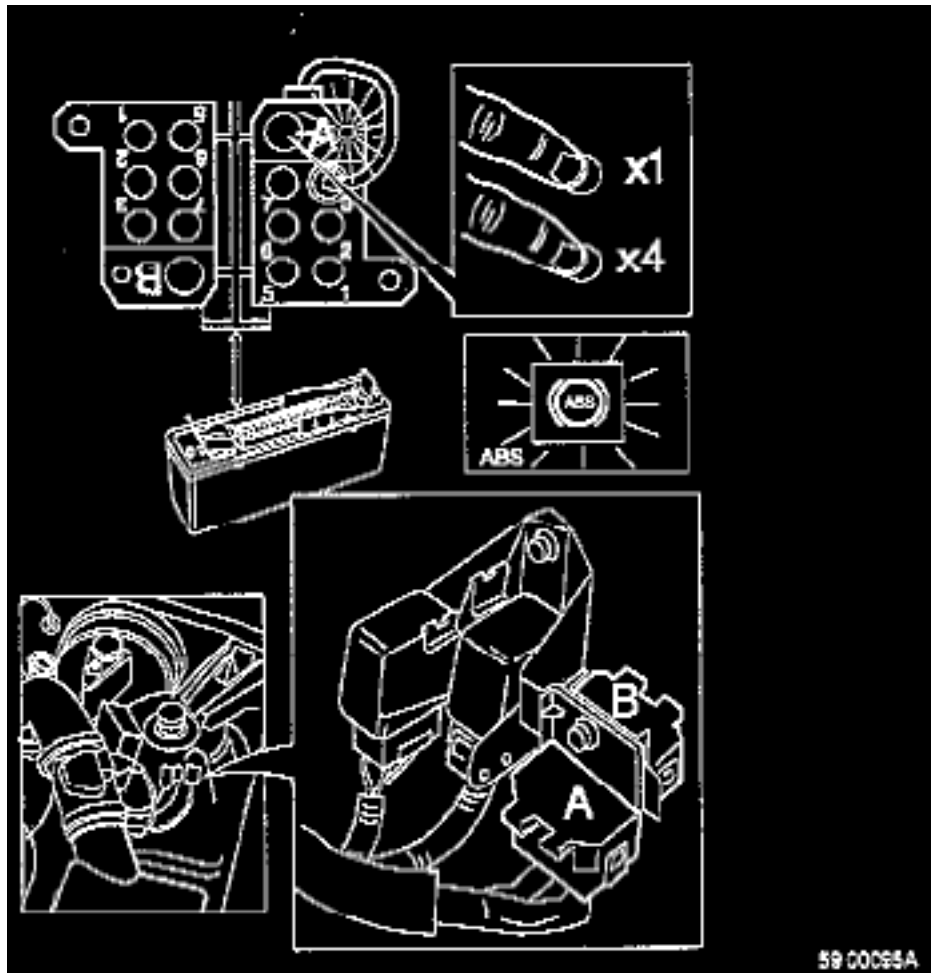
17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

960 MCC 1996-
S90/V90 MCC/ECC 1997-



Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

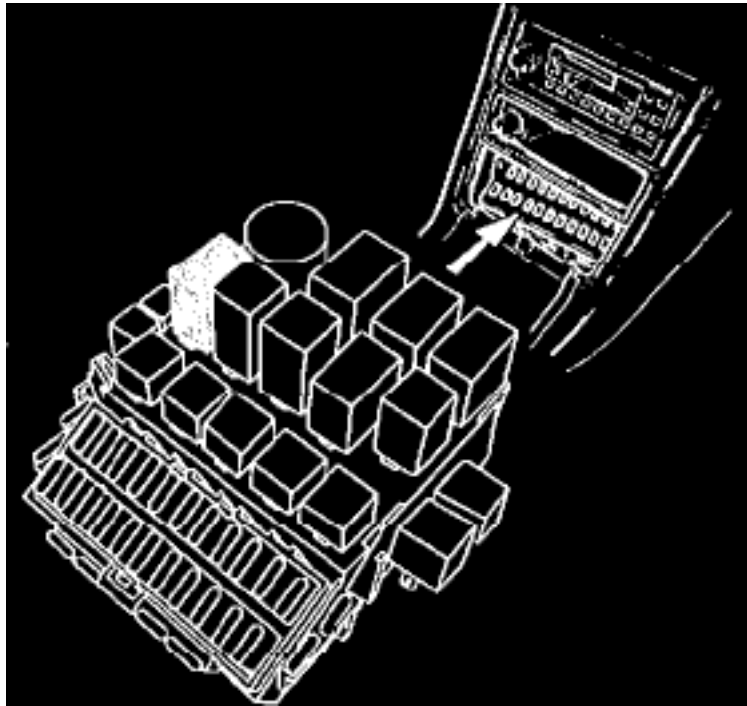


Electronic Brake Control Module: Description and Operation Diagnostic System

Diagnostic system

The control module has a self-test function in DTMs 1 and 4. This is connected to DLC A position 3. If the control module detects a fault, it switches the ABS warning light on and posts the DTC. DTCs can be read out via the DLC during fault-tracing. If any fault occurs, apart from a fault with the brake light workings, the control module disables the ABS system completely. To restore the ABS system once a temporary (intermittent) fault is discovered, the ignition must be switched off first. The diagnostic system monitors the wheel sensors, brake light contact, hydraulic valves, valve relay, pump motor and pump motor relay. DTMs In DTM 1, the diagnostic system can identify 14 different types of fault. Faults are displayed as flashing codes. Up to three DTCs can be stored simultaneously. DTM 4 is used to alter the code transmission rate. Once the diagnostic system is activated, the ABS system cuts out and the ABS warning light comes on to indicate that you need to exit from the diagnostic system before driving the car. To exit from a DTM and turn the ABS warning light off once a fault has been erased, you must switch the ignition off first. Diagnosis in older models Older models (1992-1993) with chassis numbers as shown in special notes for reading DTC's, can use a control module and diagnostic system as a 'special tool' to read off DTCs via the DLC. Models before 1992 (1989-1991), cannot use the new control module for fault-tracing and diagnosis, as there is no wire between the control module and the DLC.

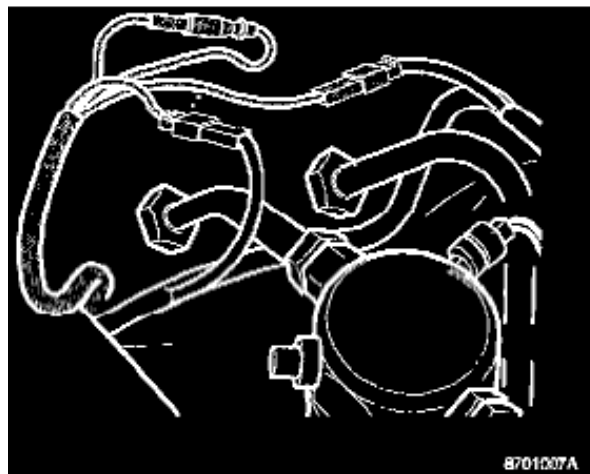
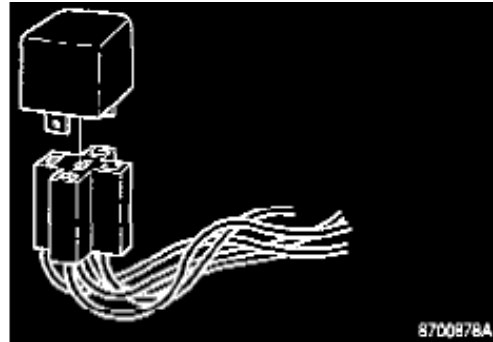
Relay Panel



Relay Box: Locations Relay Panel

Fuse And Relay Box

The fuse box is located behind the ash tray in center console.



Installing new relay on cable harness -

Take out cable harness (P/N 9162426) supplied with kit

- Install relay supplied in the 5-pin connector.

E3 Route cables to engine compartment

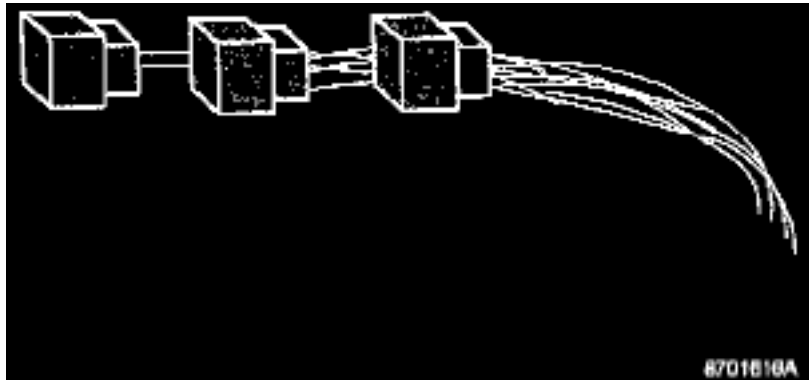
- Route green cables with single round or flat terminals to engine compartment through unused outlet in grommet under brace to suspension strut.
- Connect round or flat connectors to corresponding existing connectors.
- Connect unconnected connectors.

E4 Location of opening in cable sheath The cable sheath is cut to drain off condensation.

- The cut conduit section should be placed at the lowest point along the route of the cable.
- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
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3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
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		26	Amplifier, radio

Fuse Functions



Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

E11 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

E12 Information to Car Owner -

Carry out operations at the end of this service bulletin.

Install. Control Module/Cable 960-S90-V90 MCC/ECC 95-97

Installing control module and cables 960 MCC/ECC model year 1995- S90/V90 MCC/ECC model year 1997-

F1 Preparations -

Clean evaporator according to Service Manual: Section 8(87)

Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.

- Glove compartment.

Refer to Service Manual:

Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections

F2 Installing new relay on cable harness Take out cable harness, P/N 9171004-6, included in kit. -
Install 3 relays included in the 5-pin connector.

Locations

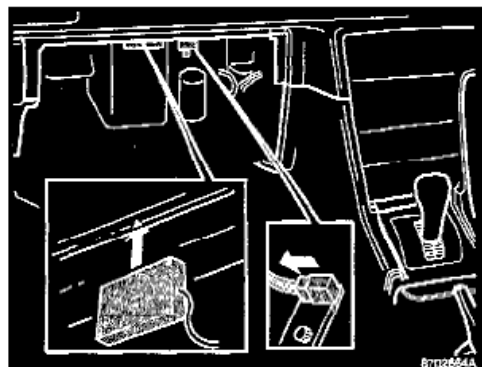
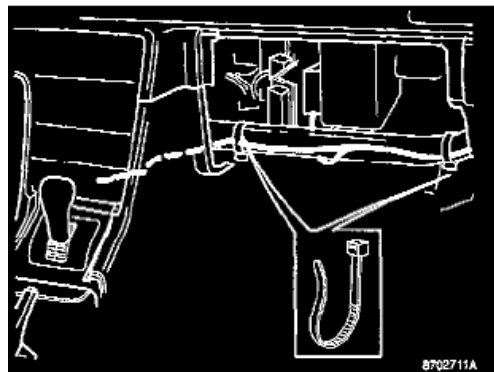
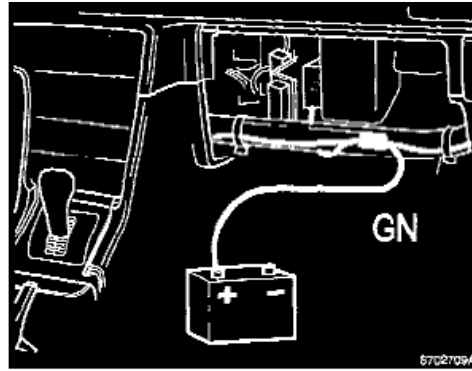
Fuse/Relay Identification and Location

Electrical Distribution Unit

Locations

Fuse/Relay Identification and Location

Electrical Distribution Unit



G7 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor.

The A/C system starts if the temperature exceeds approx. 7°C (45°F). -

Make up a cable (about 2 meters in length) to connect battery positive terminal to control module connector.

Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating. -

Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

G8 Fastening cables -

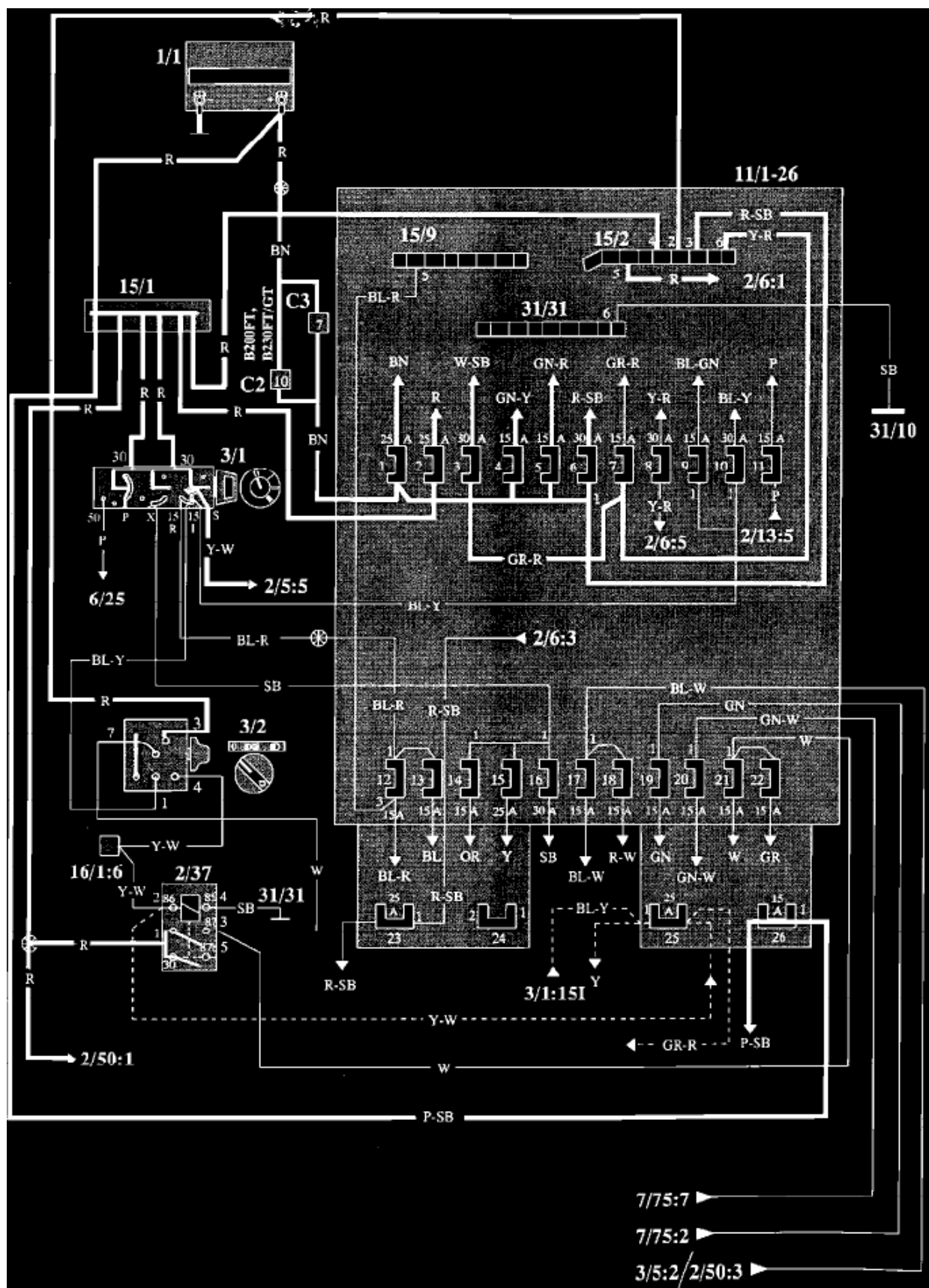
Clamp cable harness in position using tie straps on the front of the air duct below glove compartment.

- Use the eyelet on the connector to fasten the tie straps.

- Clamp cable harness in position using the straps on the front of the air duct above glove compartment (not shown in illustration).

- Use the eyelet on the connector to fasten the tie straps.

Locations



Fog/Driving Lamp Relay: Locations

Fuse/Relay Identification and Location

Electrical Distribution Unit

B	Connector right A-post (780)
C3/D	Multi-connector under dashboard right-hand side
C8	4-pin accessories connector
C19	2-pin connector at dashboard
C160	6-pin connector at dashboard
C161	1-pin connector at firewall
D10	4-pin passenger compartment cable harness - accessories connector
E	2-pin connector at dashboard
K	1-pin connector at firewall
P	Connector at dashboard
J	Connector at dashboard

Wiring diagrams comments:

Bold lines indicate that the cable is included in the service kit cable harness.

Thin lines indicate that the cable belongs to the car's existing cable harness.

For further descriptions and positions in the carriage, see the car's ordinary wiring diagram.

Warranty Statement

WARRANTY STATEMENT: Claims may be submitted under the New Car Limited Warranty when a manufacturing defect is present using claim type: 01

Operation No. Labor Description Time Allowance

87942-2 Odor from evaporator, installation of blower fan control module

740/940 MCC 88- 1.8 hr

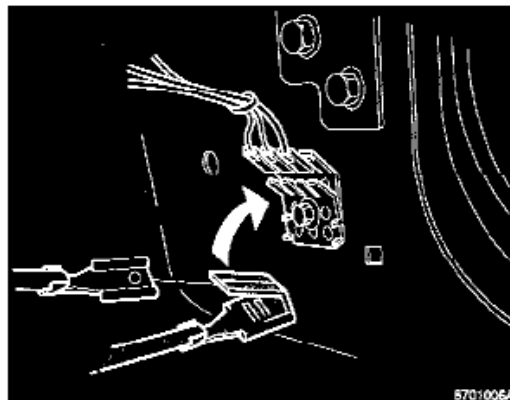
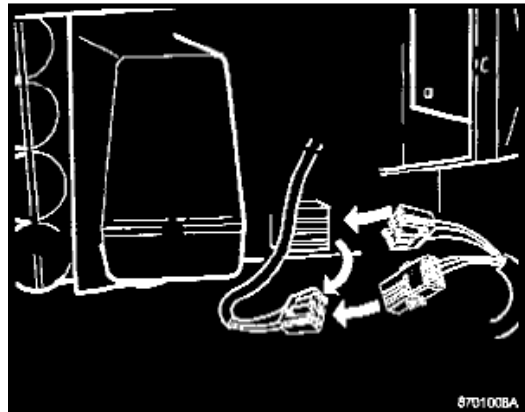
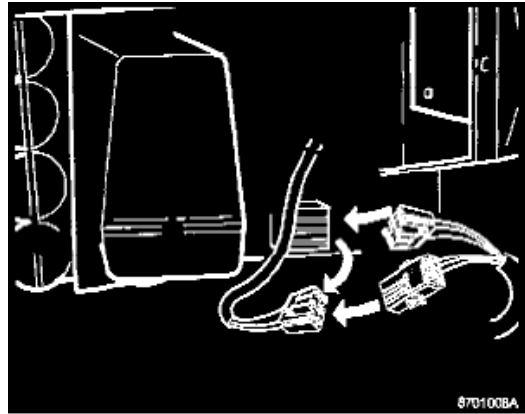
740/940 ECC 91-95 1.7 hr

9401995-ECC 96- 1.8 hr

760/960 88-94 1.8 hr

780 88-91 1.7 hr

960 95-97 1.6 hr



E5 Connection of yellow connector

- Disconnect the yellow connector from the heater and connect the yellow connector from the new cable harness.
- Connect the detached yellow connector to the yellow connector on the cable harness.

Installing control module from kit

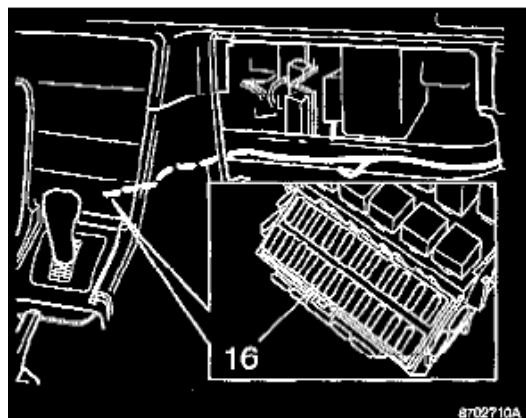
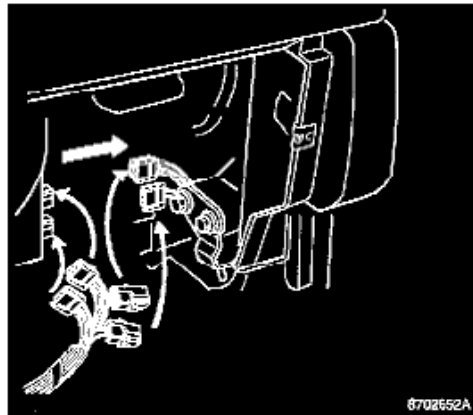
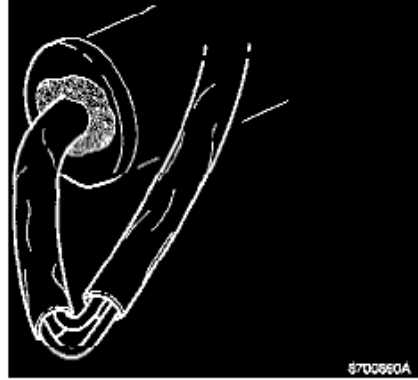
E6 Connection and mounting of control module

- Connect control module and cable harness connectors together.
- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

E7 Connection to ground plate -

Connect the black-white cable included in the cable harness to the ground plate on the right side of the cowl

The ground plate is located behind the fuel control module. The ground lead has a twin tab terminal for when there are no vacant spaces on the ground plate.



Connect cables from the new cable harness to the separated connectors.

G4 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

G5 Connecting cable harness to heater -

Disconnect the yellow and black connector from the power unit and attach the connectors from the cable harness.

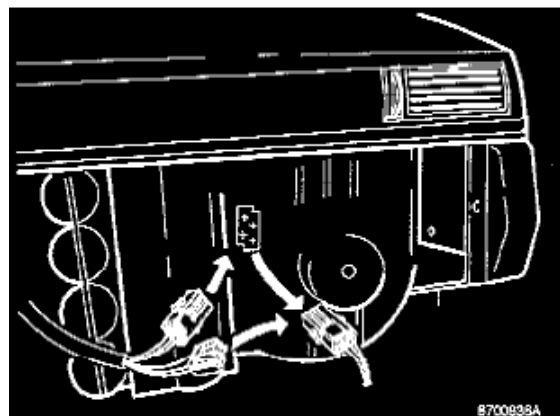
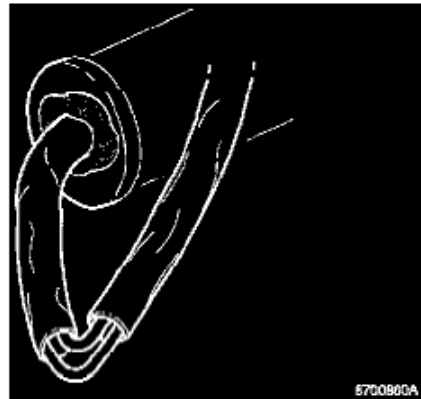
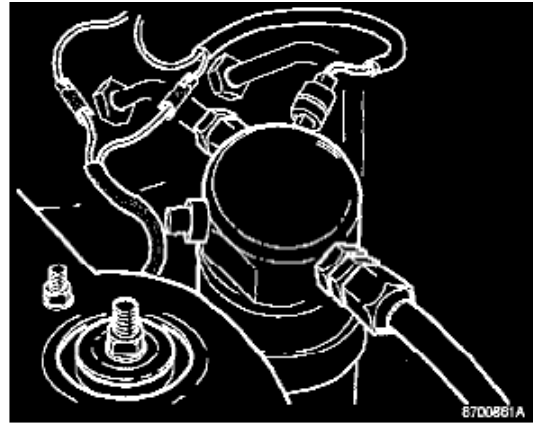
- Install the detached connectors in the other cable harness connectors.
- Connect control module and cable harness connectors.

Connecting and installing the control module

G6 Connect to central electronics module -

Route the black cable inside the centre console side panel to the central electrical unit.

- Connect cable to central electronics module fuse 16 and terminal 3.



C3 Route cables to engine compartment -

Route cables without housing receptacles to engine compartment through unused cutout in grommet below suspension strut brace.

- Install round housing receptacles supplied with cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.
- Connect cables from the new cable harness to the separated connectors.

C4 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

C5 Connecting cable harness to heater -

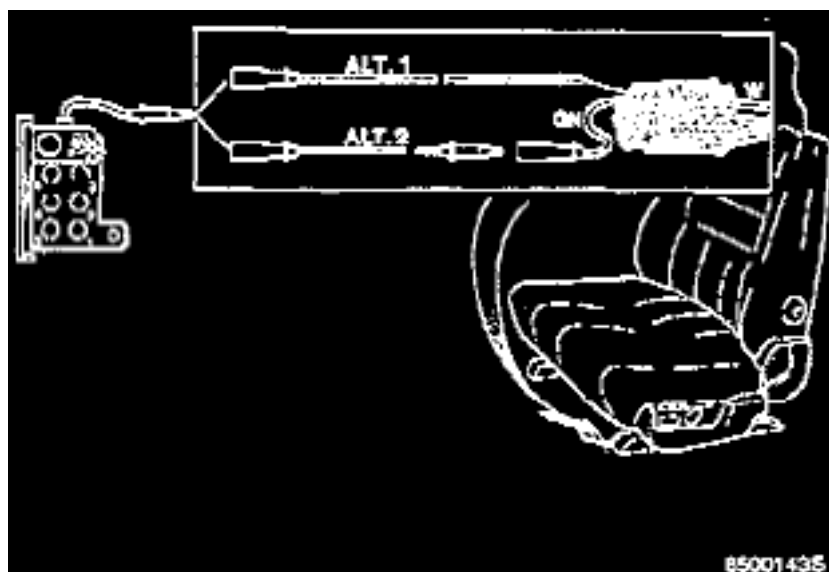
Disconnect the yellow connector from the heater and attach the yellow connector from the cable harness.

- Install the detached connector in the other cable harness yellow connector.

Installing control module from kit

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

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31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
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31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
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C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Method For Version 3 (C)

Applies to: 940, 1993 4-door models as from chassis No. 114465 5-door models as from chassis No. 066167

Note:

Unlike earlier models, the power seats in the above models can be operated with the ignition off.

Procedures in Part I are valid for cars built up to chassis numbers listed below. Procedures for Part II are valid for cars after these chassis numbers:

4 door models:

124126 Factory Code 0 123549 Factory Code 1 123609 Factory Code 3 122175 Factory Code A

5 door models:

073706 Factory Code 0 074106 Factory Code 1 074202 Factory Code 3 072508 Factory Code A

C1 -

Switch off ignition.

C2

I. - Manual fault tracing/calibration: Connect auxiliary lead (alternative 1 or 2 as illustrated) between connector at front of seat to be tested and test lead on DLC A.

- Fault tracing/calibration using VST with OBD System Memory Cassette: Connect auxiliary lead to terminal 6 on the VST adapter cable.

II. - Manual fault tracing/calibration: Connect test lead from DLC A to socket 6 on DLC B.

- Fault tracing/calibration using VST with OBD System Memory Cassette: Connect instrument to DLC B.

C3

- Remove fuse No. 3

Fusebox is located behind ashtray in center console, in front of gear lever.

C4

Ignition must be off for at least 5 seconds before performing this step.

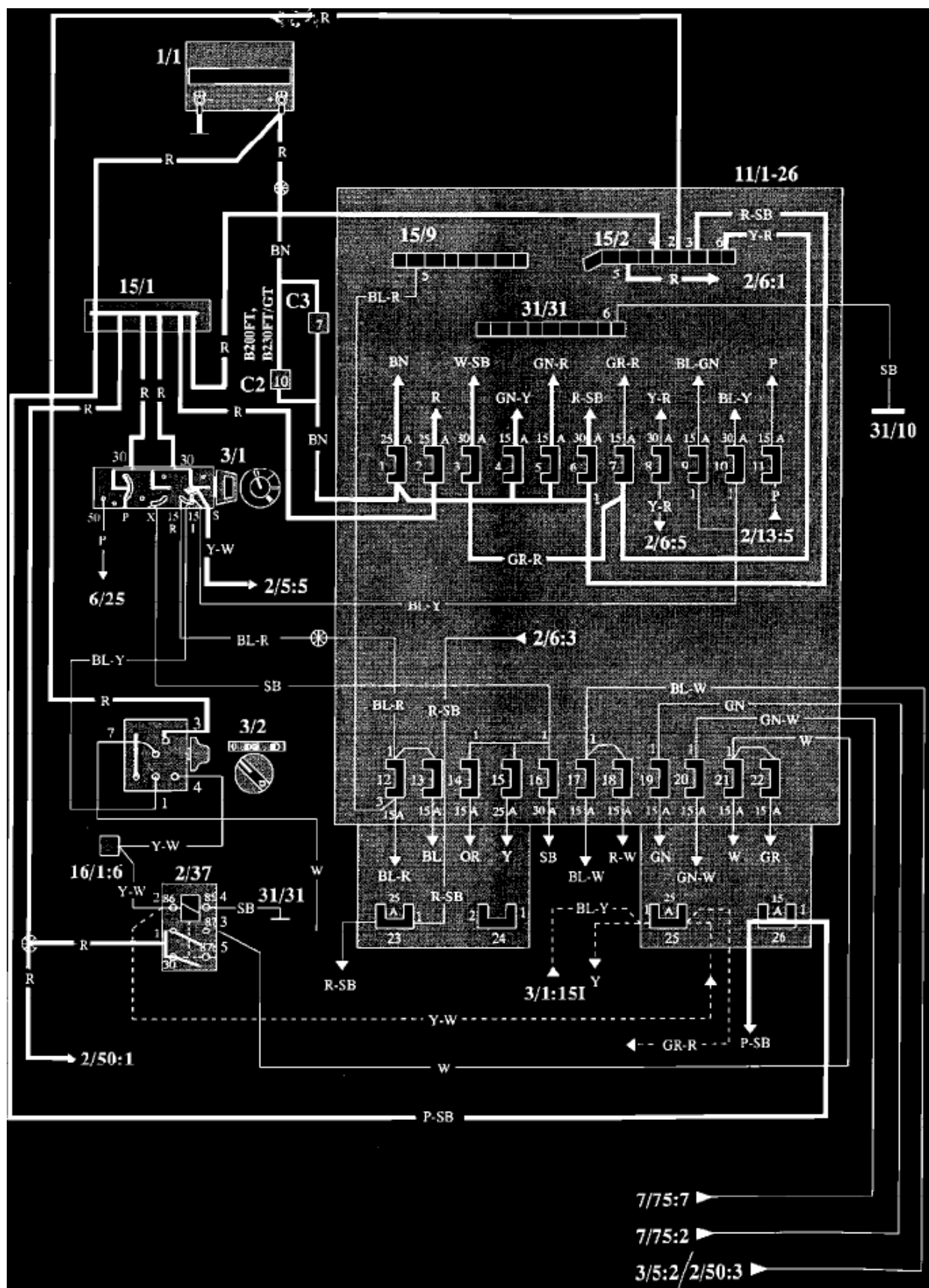
Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

Locations

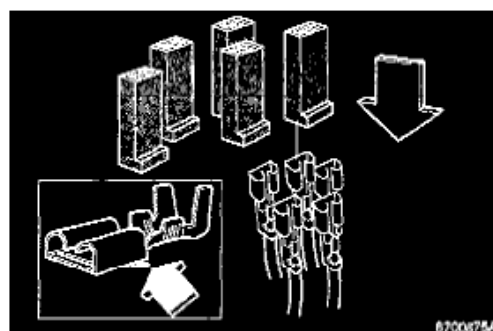
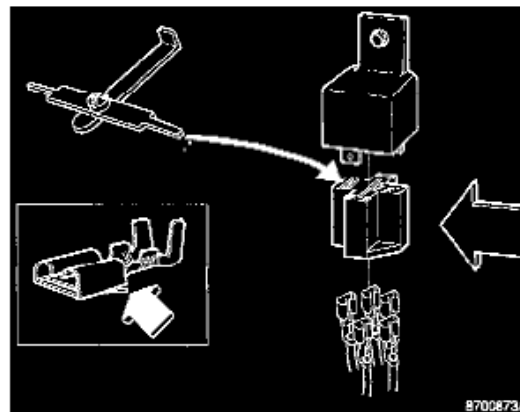
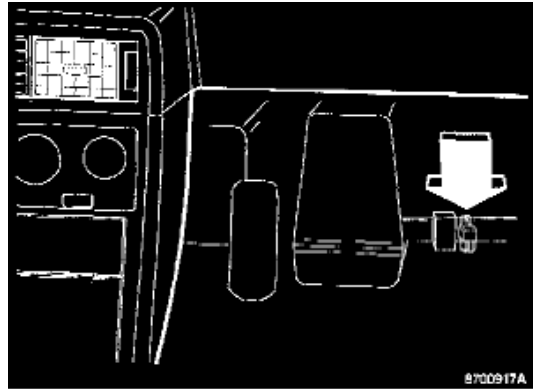


Audible Warning Device Control Module: Locations

Fuse/Relay Identification and Location

Electrical Distribution Unit

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



A4 Removing existing connector from existing cable harness -

Disconnect 5-pin connector from blower relay (relay 131 in the Service Manual).

See Service Manual: Section 3 (39) Wiring diagrams 740 1990

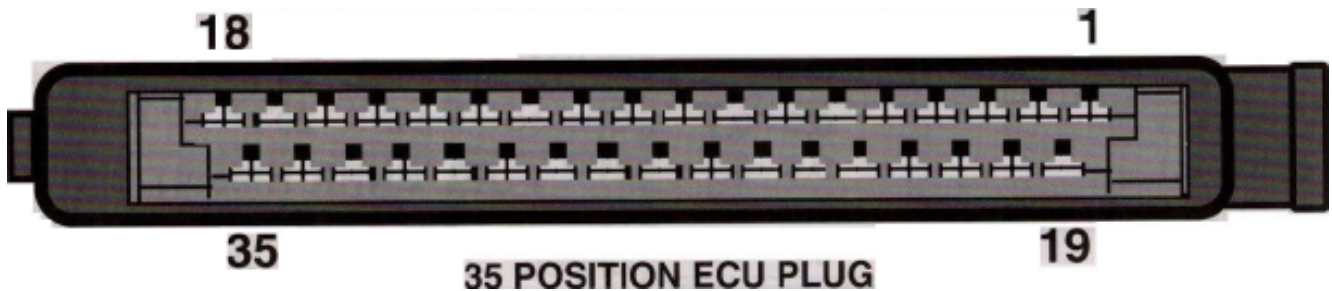
A5 Cable terminal, opening -

Detach the cables carefully from the connector's receptacle housing using tool 9814229-2, from repair kit 9814235.

See Service Manual: Section 3(37), Wiring repairs and replacing cable terminals 850, 900

A6 Installation of 5 housing receptacles -

Straighten the locking tongues carefully and attach the 5 white housing receptacles from the kit.



Electronic Brake Control Module: Connector Views

Bosch - ABS2

35 Position ECU Plug

Connector View

System

Bosch ABS 2

Location

Terminal ID

1 - Power Ignition SW. or over voltage relay* 2 - Solenoid valve (left front) 3 - N/C 4 - Wheel speed sensor (left front) (-) 5 - Wheel speed sensor (left front) (-)** 6 - Wheel speed sensor (left front) (+)** 7 - Wheel speed sensor (left rear) (+)** 8 - Wheel speed sensor (left front) (+)** 9 - Wheel speed sensor (left front) (-)

10 - Ground 11 - Wheel speed sensor (Right front) (+)** 12 - N/C 13 - Lateral accel. switch or sensor (GM) 14 - Pump motor monitor voltage 15 - Alternator monitor 16 - N/C 17 - Pump & Solenoid rel. coil feed (GM, Nissan) 18 - Solenoid valve (left rear or rear) 19 - Solenoid valve (right rear)*** 20 - Solenoid valve ground 21 - Wheel speed sensor (Right front) (-) 22 - Wheel speed sensor (left front) (+)** 23 - Wheel speed sensor (Right front) (+) 24 - Wheel speed sensor (Right rear) (+)**** 25 - Brake light switch 26 - Wheel speed sensor (Right rear) (-)**** 27 - Solenoid valve relay control 28 - Pump motor relay control 29 - ABS Indicator lamp 30 - N/C 31 - N/C 32 - Solenoid power monitor input 33 - N/C 34 - Solenoid valve ground 35 - Solenoid valve (Right front)

NC = No connection

* Power is furnished either through the ignition switch Pin 15 directly or through an over voltage protection relay. If a relay is used in the system then Pin 15 will supply the energizing signal to the relay and the relay contacts closing provides the supply voltage to Pin 1 of the ECU. Usually the over voltage protection relay is mounted close to the ECU.

Power Seat - Fault Tracing/Calibration

Contents	Procedure
Method for: 940, 1992-1993, Version 1 4-door models to chassis No. 114464 incl. 5-door models to chassis No. 066166 incl.	A1 - A4
960, 1992-1993, Version 2 4-door models to chassis No. 018366 incl. 5-door models to chassis No. 012112 incl.	B1 - B4
Method for: 940, 1993, Version 3 4-door models from chassis No. 114465 5-door models from chassis No. 066167	C1 - C5
960, 1993, Version 4 4-door models from chassis No. 018367 5-door models from chassis No. 012113	D1 - D5
Method for: 940/960 from 1994 on, Version 5	E1 - E4

Technical Service Bulletin # 85916 Date: 931001

Power Seat - Fault Tracing/Calibration

Model 900

Group 85

Number 916

Title: Modified Method for Fault tracing/calibrating power seats with memory function.

940/960 1992 -->

Market US and Canada

Date October 1993

THIS BULLETIN SUPERSEDES SB 85-912; DATED FEBRUARY, 1993

REFERENCE: TP 32015/1 (ENGLISH); 11/91; POWER SEAT WITH MEMORY FUNCTION

Modified method for fault tracing/calibrating power seats with memory function

The method for fault tracing/calibrating power seats in different series has been modified since power seats with memory were introduced. This bulletin provides a summary of the methods which should be used on various models.

Method for fault tracing/calibrating power seats with memory function

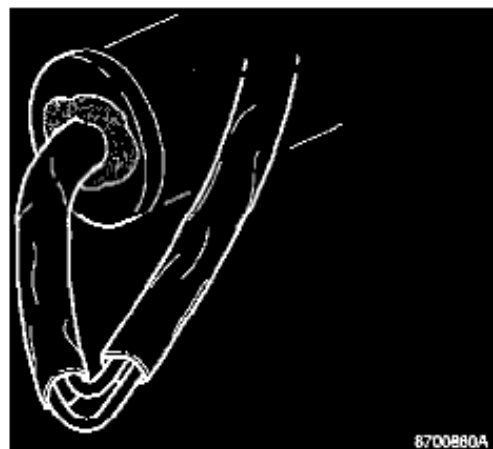
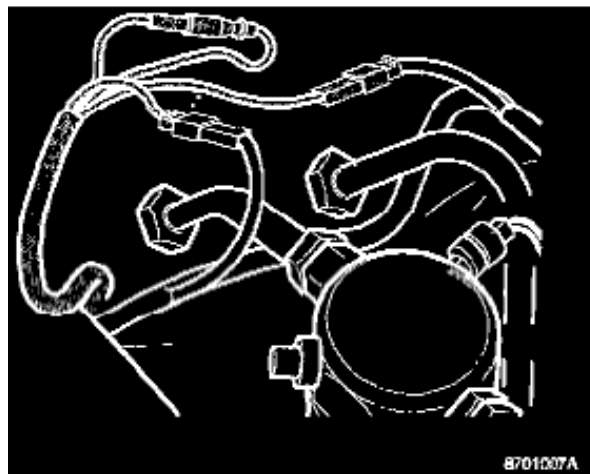
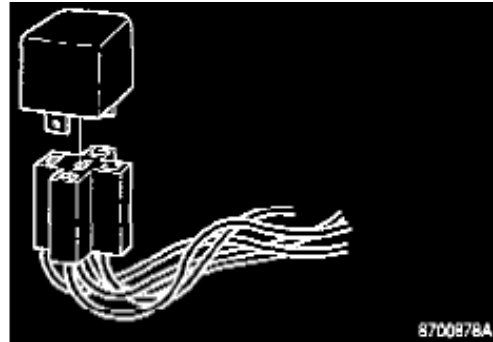
Method For Version 1 (A)

Applies to: 940, 1992-1993 4-door models to chassis No. 114464 incl. 5-door models to chassis No. 066166 incl.

Note:

Power Seat Control Module: Locations

Refer to "Body and Frame : Seats : Locations : Components".



Installing new relay on cable harness -

Take out cable harness (P/N 9162426) supplied with kit

- Install relay supplied in the 5-pin connector.

E3 Route cables to engine compartment

- Route green cables with single round or flat terminals to engine compartment through unused outlet in grommet under brace to suspension strut.
- Connect round or flat connectors to corresponding existing connectors.
- Connect unconnected connectors.

E4 Location of opening in cable sheath The cable sheath is cut to drain off condensation.

- The cut conduit section should be placed at the lowest point along the route of the cable.
- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

Diagram Information and Instructions

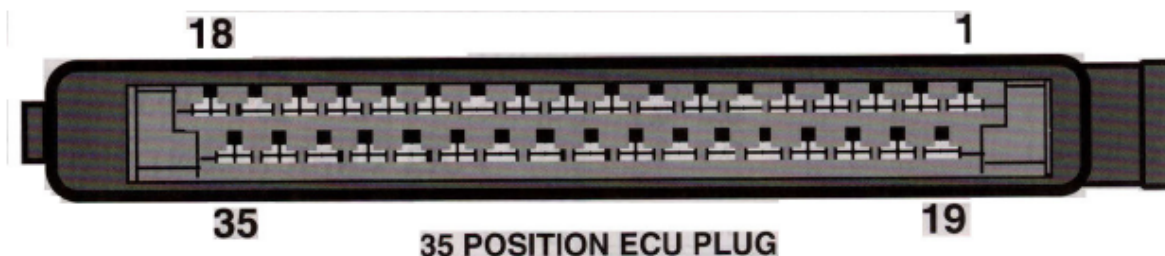
List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

Wheel Speed Sensors

Volvo	LF	RF	LR	RR	Rear	Sol. Val.
1987 - 1993 All Models	4(-), 6(+)	21(-), 11(+)	none	none	9(-), 7(+)	3



GROUNDS			
Key	OFF	ON	Volts
(Pin 1 to G1)	√		0.0 - 0.2
(Pin 11 to G1)	√		0.0 - 0.2
(Pin 1 to G1)		√	0.0 - 0.2
(Pin 11 to G1)		√	0.0 - 0.2

IGNITION SWITCH			
Key	OFF	ON	Volts
(Pin 1 to 2)	√		00.00
(Pin 1 to 2)		√	11 - 14

STOP LIGHT SWITCH	
Brakes	Volts
Not Applied (Pin 1 to 12)	00.00
Applied (Pin 1 to 12)	11 - 14

ABS INDICATOR LAMP	
Key ON	Volts
(Pin 1 to 27) ABS lamp ON	Less than 1
Engine Idling	
(Pin 1 to 27) ABS lamp OFF	13 - 14.5

* Only if the system does not use an over voltage protection relay.

** Vehicle specific see chart for details.

Teves - ABS

35 Position ECU Plug

For Terminal ID refer to "Brakes and Traction Control : Relays and Modules - Brakes and Traction Control : Electronic Brake Control Module : Diagrams".

Voltage Measurements

Grounds

Ignition Switch

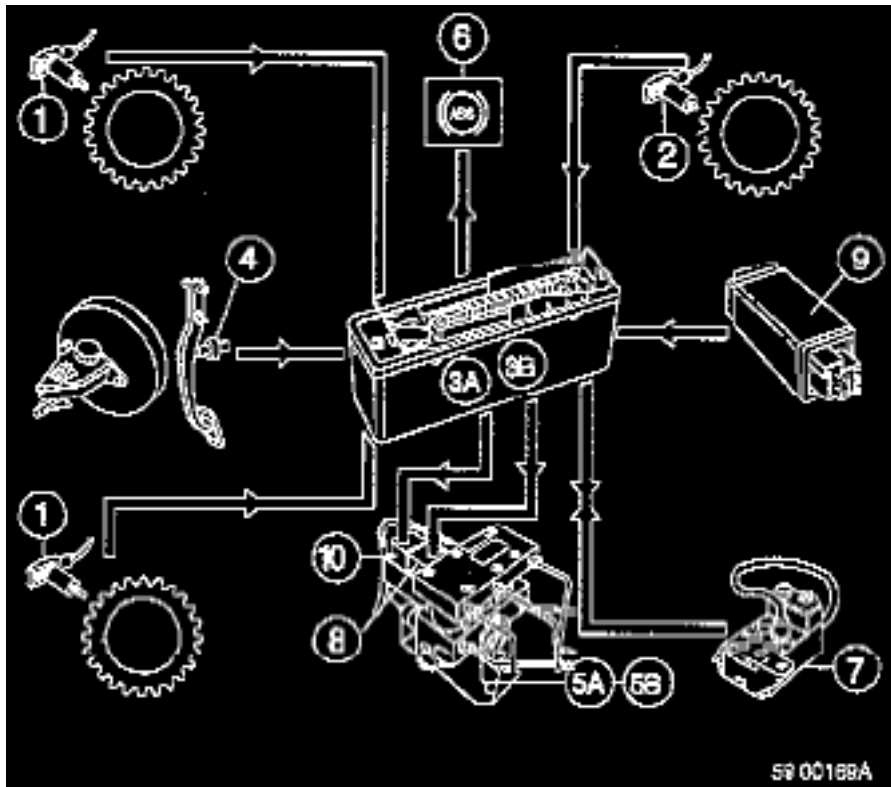
Stop Light Switch

ABS Indicator Lamp

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

General



Electronic Brake Control Module: Description and Operation General

DESCRIPTION

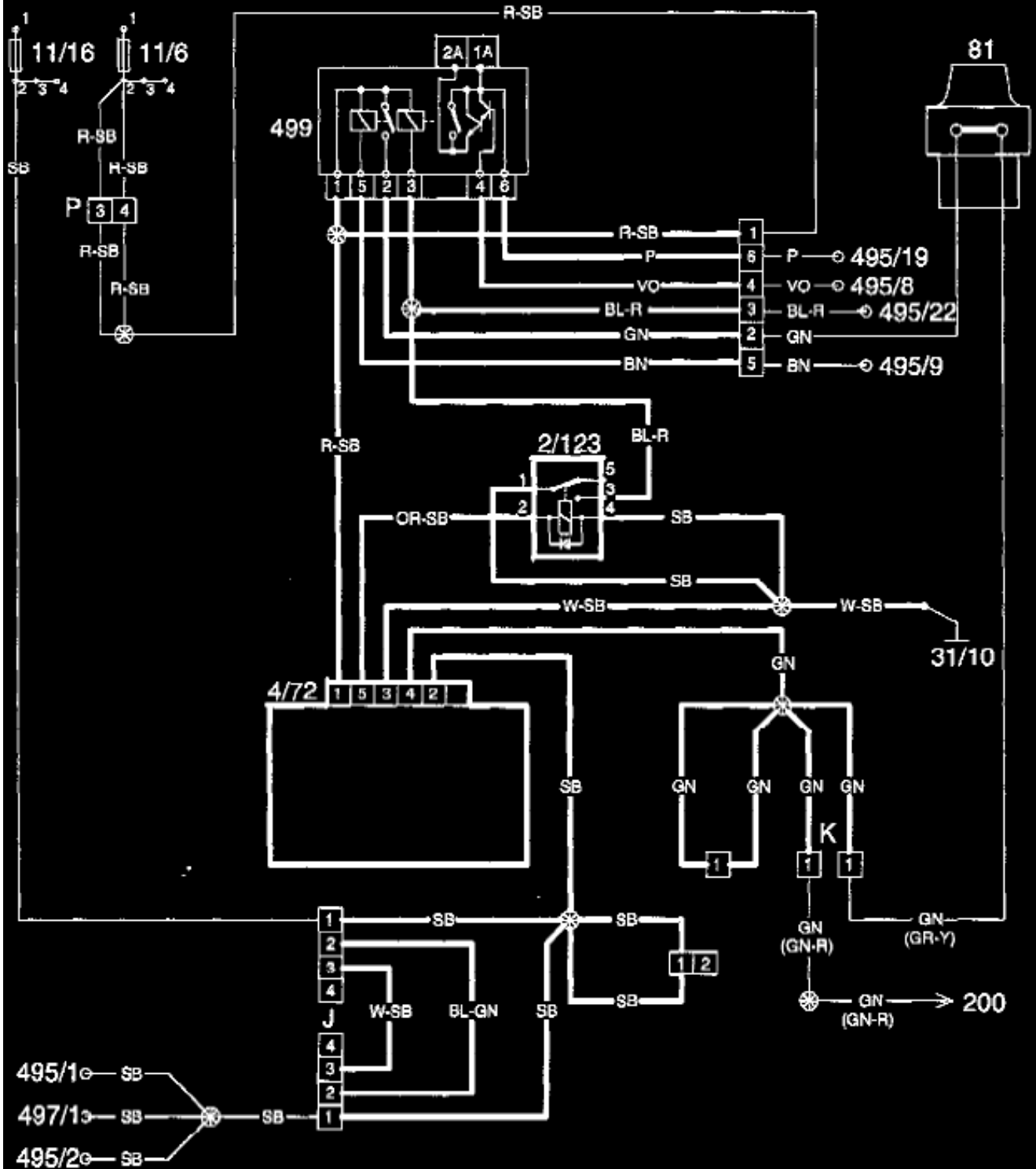
The control module (3A/3B) measures and controls the speed of the wheels during braking in response to signals from the wheel sensors (1, 2). This is designed to prevent the wheels locking.

OPERATION

Input signals come from inductive sensors which detect the speed of the wheels. The output signals from the control module control the three solenoid hydraulic valves and the pump motor. During braking, the control module processes the sensor signals, calculates the speed of the wheels, retardation, road speed and wheel slip. If any of the wheels threatens to lock during braking, the control module sends a command to the valves in the hydraulic modulator which immediately adjust the pressure in the brake circuit to that wheel (or both rear wheels) to maintain maximum braking power while giving the driver maximum control of the car. Increasing or decreasing the brake pressure keeps the wheels just short of locking point to give the tires the maximum grip on the road. This working cycle is continuous and repeated many times a second. The control module is connected to the rest of the system via a 35-pin connector. When the ignition is switched on, the control module switches the ABS warning light (6) on and makes an initial check to see that there are no internal faults in the system and that the signals from the sensors are correct. At the same time, it triggers the valve relay (8) to provide power to the hydraulic modulator valves. If no faults are found, the warning light goes out about 2 seconds after starting the engine. When the car moves off and reaches a speed of over 6 km/h for the first time, the control module makes a brief check (approx. 20 milliseconds) to see that the hydraulic pump is working by triggering the pump relay (10) and starting the pump. The control module then checks the valves by activating each one in turn. As well as this initial check, the control module makes constant checks

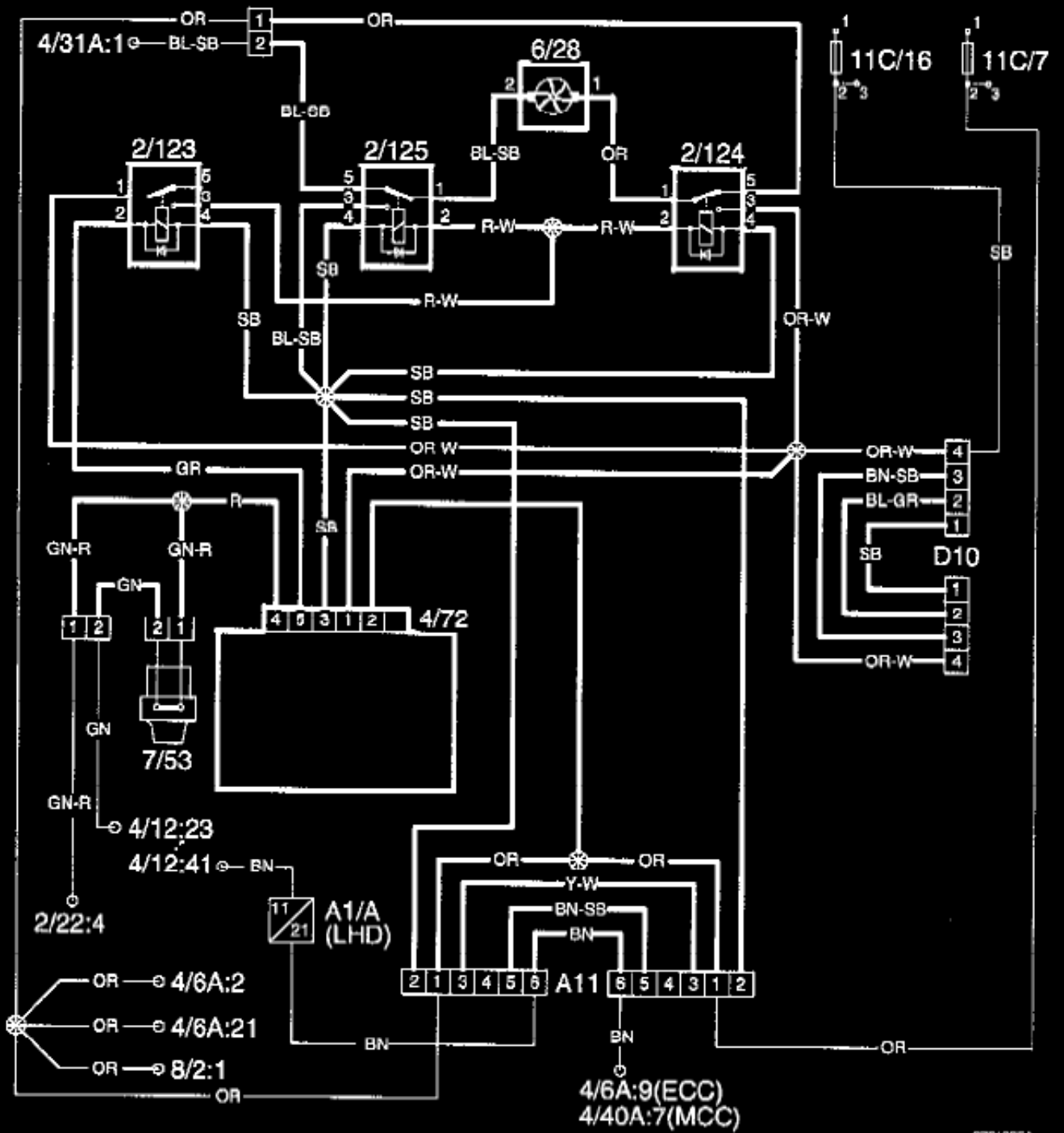
to see that all input and output signals and components are working properly and that there are no internal faults in the control module itself. If it finds a fault, it switches the ABS warning light on and disables the ABS system. The system then works like any conventional braking system. The control module stores details of faults in the form of DTCs.

740/940 ECC 1991

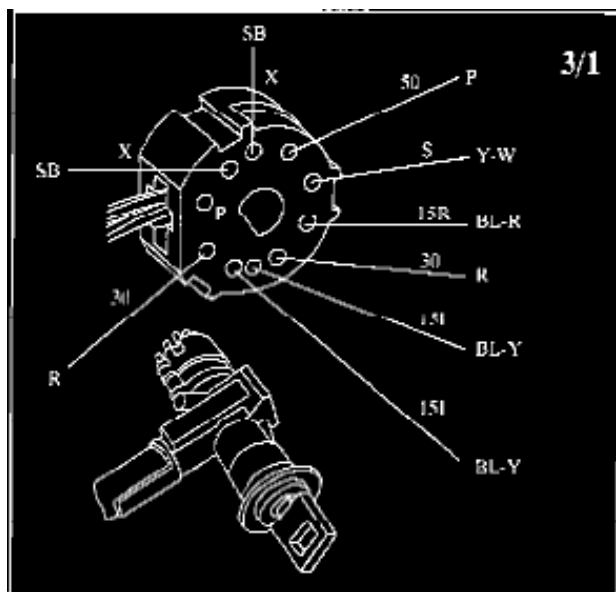


740/940 ECC 1991

960 MCC/ECC 1995



3701325A



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

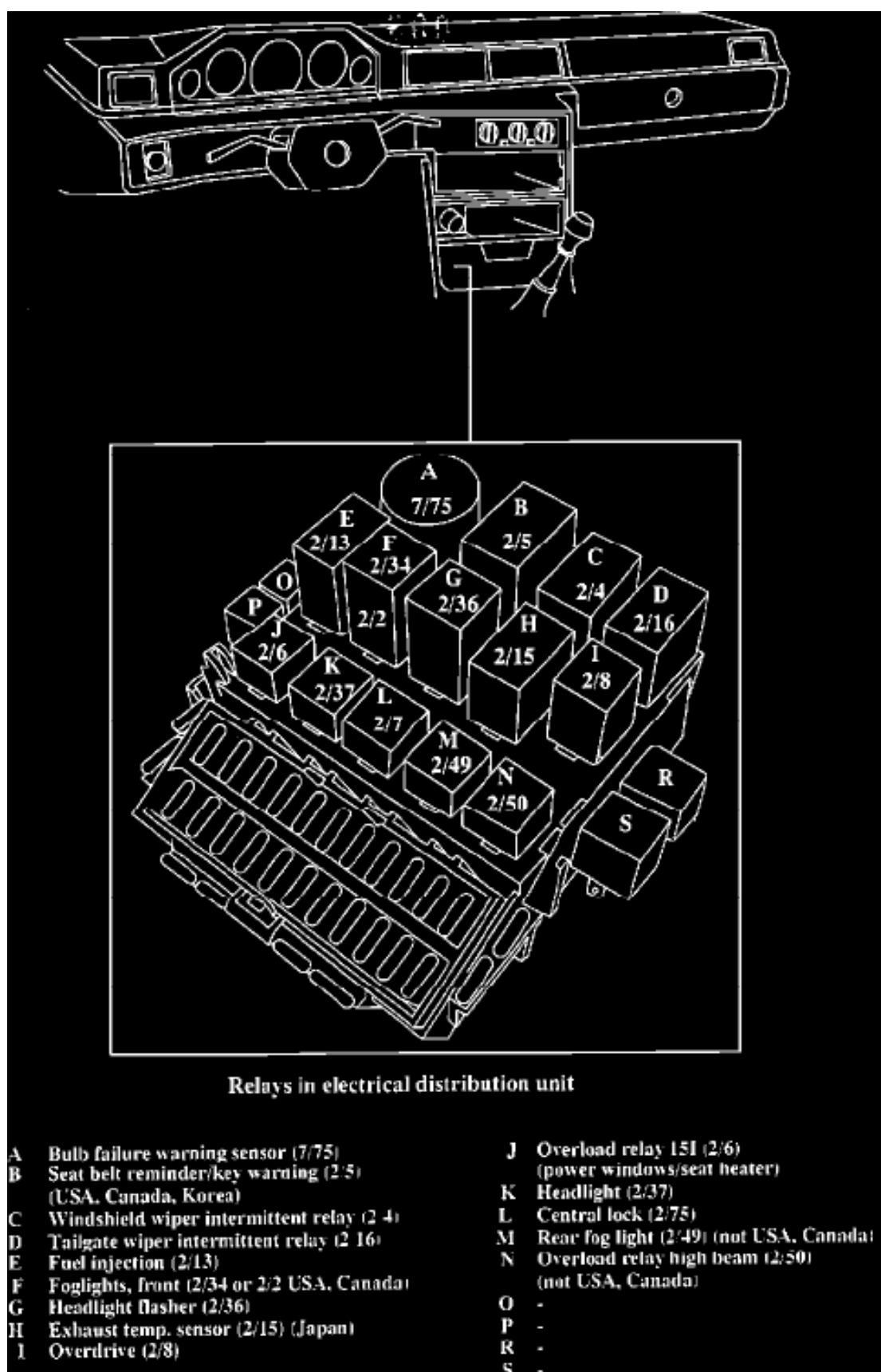
Key position:	Voltage at connection:
- Key withdrawn	P
0 Off	S,P
I Radio	X,S,P
II Drive	X,15R,15LS
III Start	15R,50.S

Relay location in engine compartment

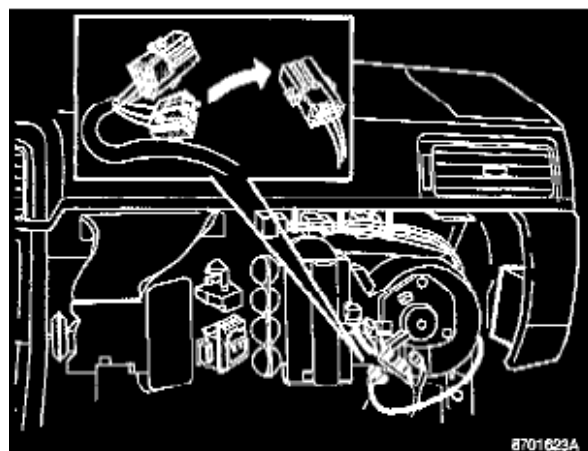
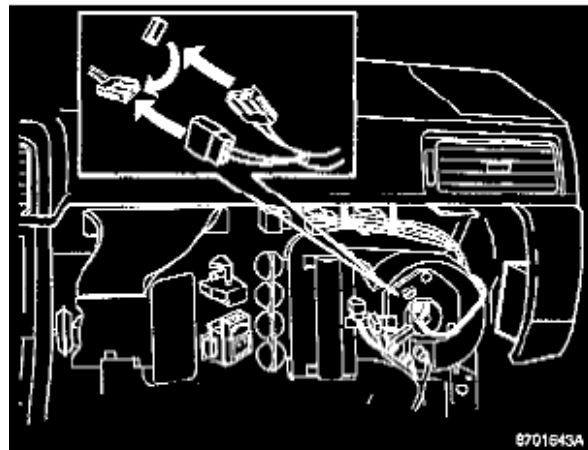
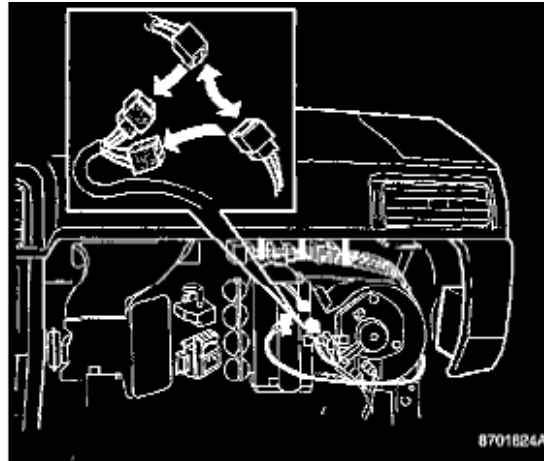


- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Relay Locations

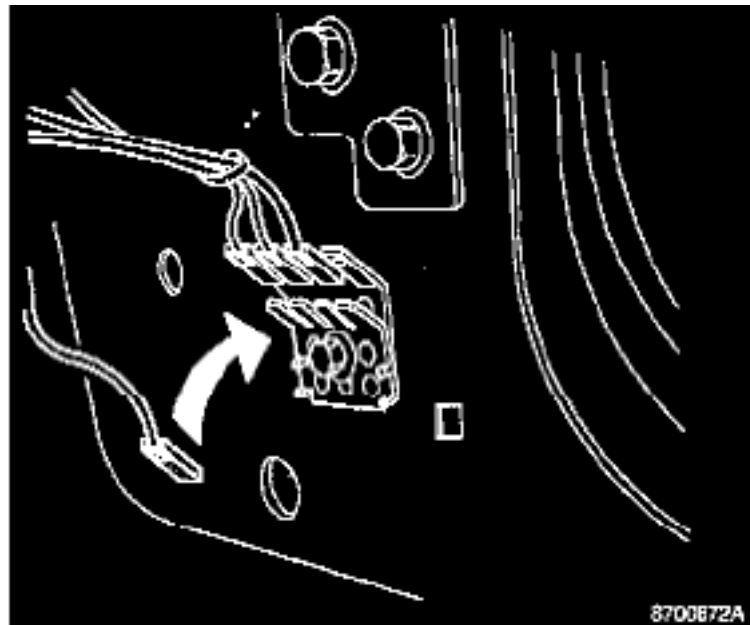


F6 Connect white 6-pin cable harness connectors The new cable harness should be connected between the existing connectors on the climate unit - passenger compartment cable harnesses, (All

in wiring diagram).

F7 Connect 2-pin cable harness connectors The new 2-pin cable harness connectors should be connected between the blower motor and the existing cable harness, (6128 in wiring diagram).

F8 Connect 4-pin cable harness connectors The new 4-pin cable harness connectors should be connected to the accessory connectors (D10 in wiring diagram).



C9 Connection to ground plate -

Connect the black-white cable included in the new cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.

C10 Cable harness connections -

Locate connector on cable harness between heater and dashboard (on side of centre console).
Separate connector and connect new and old connectors for each model year:

1991 model year: -

Connect 4-pin connectors, which have 3 cables and are included in the kit cable harness, to existing connectors.

92-94 model year (shown here): -

Connect 2-pin connectors, with 1 cable included in the kit cable harness, to existing connectors.

- Connect connectors not connected to existing cable harness, to each other.

Function verification and information

C11 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor.

The A/C system starts if the temperature exceeds approx. 7°C (45°F). -

Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to control module connector. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

C12 Finishing off

- Replace all parts removed.

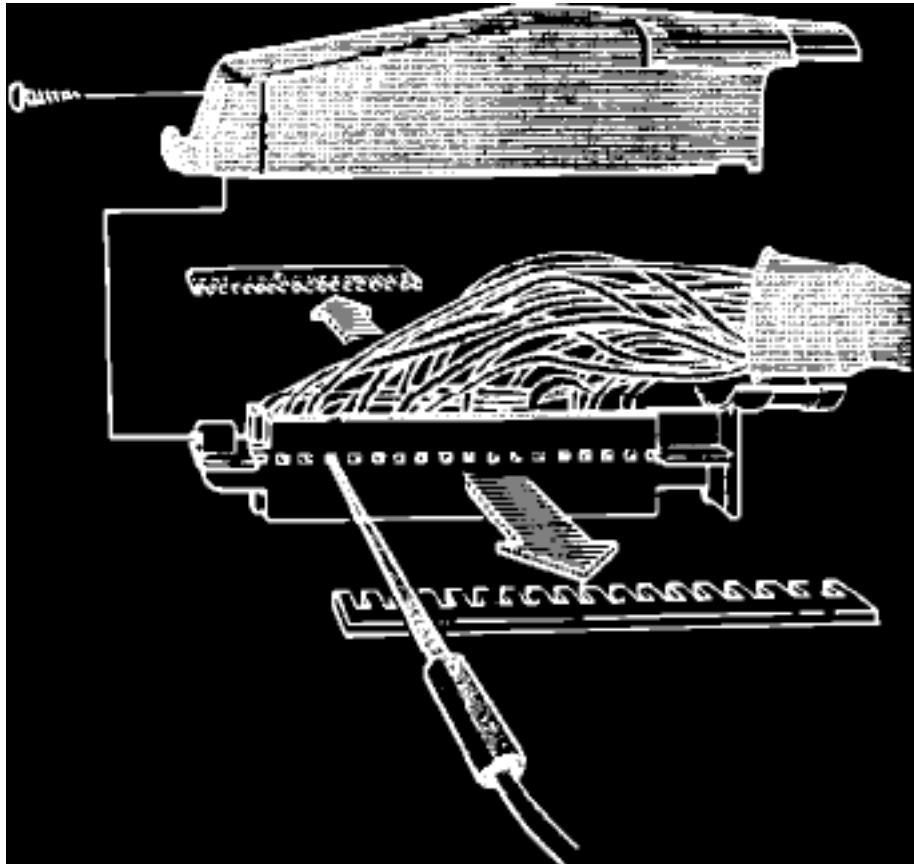
- Reset the clock and enter the anti-theft radio code if required.

Refer to "Body and Frame : Sunroof/Moonroof : Diagrams : Electrical".

Locations

Power Seat Relay: Locations

Refer to "Body and Frame : Seats : Locations : Components".



Removing Protective Sleeve

5. Remove connector protective sleeve and reinstall fuse #1 for testing. CAUTION: ^ Never check connections from the front. Connectors can get damaged and worsen the problem.

^ Check connections through the holes in the connector. ^ Connection pin numbers are printed on the connector side.

6. Disconnect A/C cut-out relay.

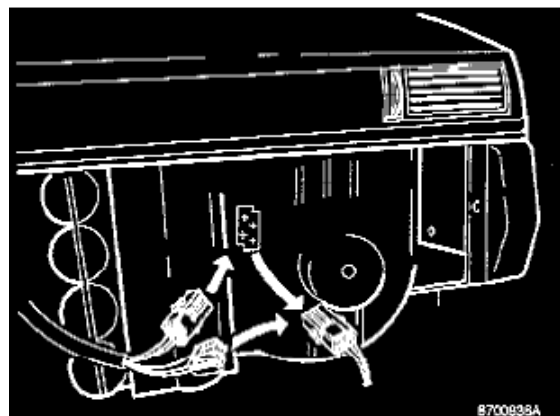
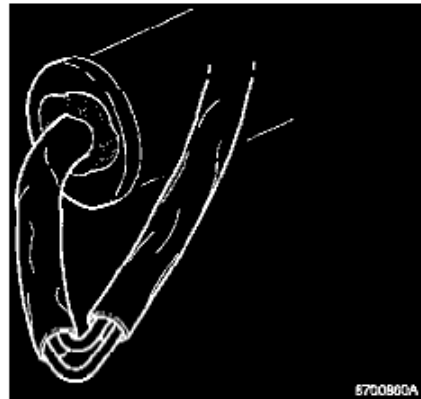
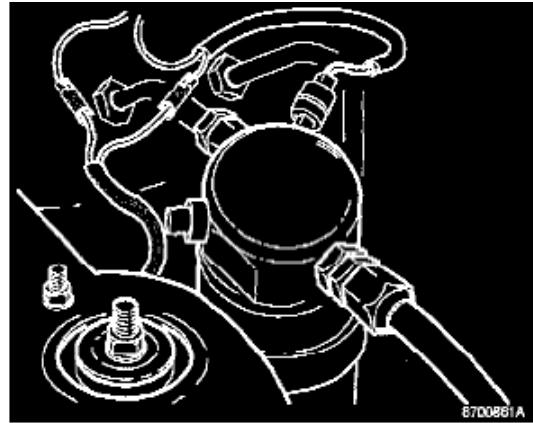
7. Measure resistance between ECU connector pin 14 and A/C cut-out relay terminal connector #2.

Reading: 0 ohm

If resistance is different, repair wire from ECU to relay. If wire is O.K. and an A/C system fault is suspected, see HEATING VENTILATION AND AIR CONDITIONING for testing of A/C system.

8. Disconnect the test equipment. Remove the #1 fuse and reconnect the ECU and all other connectors, install the kick panel and glove compartment. Ensure that the rubber seal in the ECU connector is installed before it is connected to the unit.

9. Reinstall the #1 fuse.



C3 Route cables to engine compartment -

Route cables without housing receptacles to engine compartment through unused cutout in grommet below suspension strut brace.

- Install round housing receptacles supplied with cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.
- Connect cables from the new cable harness to the separated connectors.

C4 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

C5 Connecting cable harness to heater -

Disconnect the yellow connector from the heater and attach the yellow connector from the cable harness.

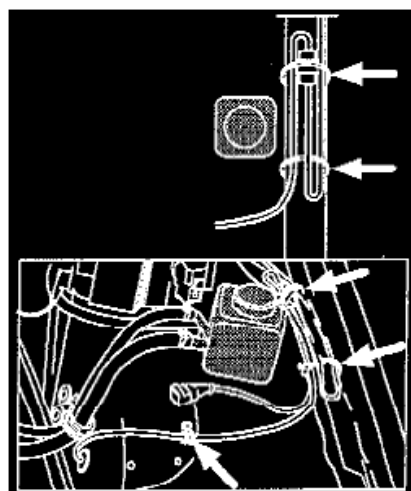
- Install the detached connector in the other cable harness yellow connector.

Installing control module from kit

Locations

Refer to "Accessories and Optional Equipment : Antitheft and Alarm Systems : Locations : Components".

DTC	Fault posted	ABS Lamp	ABS function
(1-1-1)	No faults found by the OBD system	-	-
1-2-5	Faulty signal, over a prolonged period, from at least one wheel sensor	on	off
1-3-5	Fault in control module	on	off
1-4-2	Faulty brake light switch, open-circuit	off	on
1-5-1	Left front wheel sensor, open-circuit or short circuit to +	on	off
1-5-2	Right front wheel sensor, open-circuit or short circuit to +	on	off
1-5-5	Rear axle sensor, open-circuit or short circuit to +	on	off
2-1-5	Valve relay, open-circuit or short circuit	on	off
2-3-1	Left front wheel sensor, signal absent	on	off
2-3-2	Right front wheel sensor, signal absent	on	off
2-3-5	Rear axle sensor, signal absent	on	off
4-1-1	Left front wheel valve, open-circuit or short circuit	on	off
4-1-3	Right front wheel valve, open-circuit or short circuit	on	off
4-1-5	Rear valve, open-circuit or short circuit	on	off
4-4-3	Pump motor/relay, electrical or mechanical fault	on	off



The DTCs in the table are listed numerically

When fault tracing, also see wiring diagram.

OBD ON OLDER MODELS

The new control module can be used to fault trace ABS on vehicles from 1992 up to the chassis numbers given at the beginning of this bulletin, to read off DTCs via the diagnostic unit.

Replace the existing control module with a new control module with an OBD function. Drive the car. Speed must exceed 4 mph (6 km/h). Faults will be posted by the control module which stores DTCs. These can then be read off via the diagnostic unit and test function 1. See DTC table above.

On M/Y '89-'91 fault tracing and diagnosis cannot be carried out using the new control module, as there is no diagnostic lead to the diagnostic unit.

Change location of sensor lead, M/Y '93 (Jan. - March) 940 with Rex/Regina ignition and fuel system

On cars with the Rex/Regina ignition/fuel system and an ABS control module, p/n 9130197-8, with OBD system, interference can occur in the sensor lead to the left front wheel. Interference can cause symptoms such as pulsing in the brake pedal when the car is stationary and the engine RPM is above idle. Normal braking function is not affected. If symptoms occur, modify sensor lead as per figure (see new position of sensor lead).

The routing of the sensor lead was changed from the hole in the wheel housing to the connector in the engine compartment. The lead was moved forward and pulled down towards the wheel housing plate. (See illustration). This measure was introduced into production from chassis number:

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions

Diagram Information and Instructions

List of components

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2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

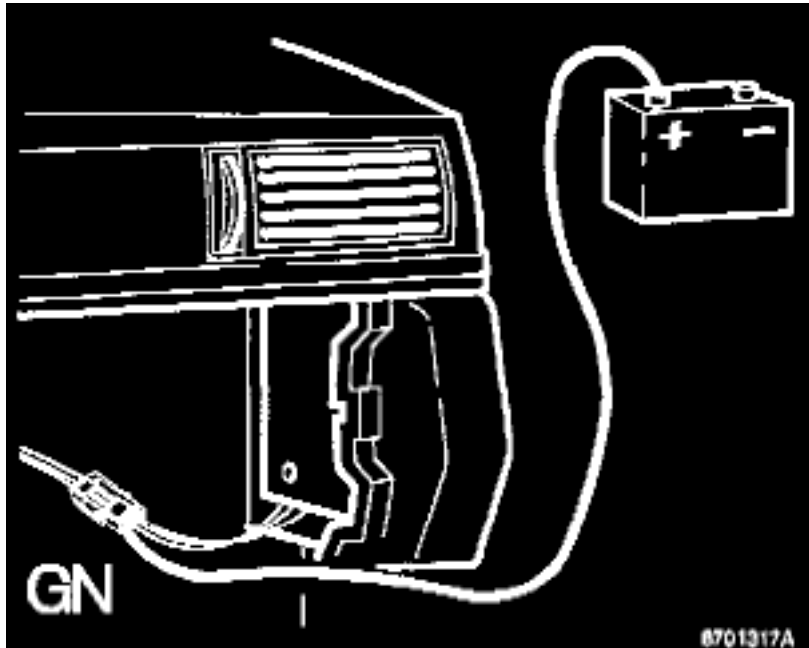
Diagram Information and Instructions

List of components

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2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
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2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
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2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
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2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
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3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
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		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Function verification and Information

D12 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor. The A/C system starts if the temperature exceeds approx. 7°C (45°F).

- Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to the connector on the control module. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

- Remove cable between connector and battery.

D13 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

D14 Information to Car Owner Carry out operations at the end this service bulletin.

Installing Control Module/Cables 780 ECC 1988

Installing control module and cables 780 ECC model year 1988-

E1 Preparations -

Clean evaporator according to Service Manual: Section 8(87)

Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.

- Glove compartment.

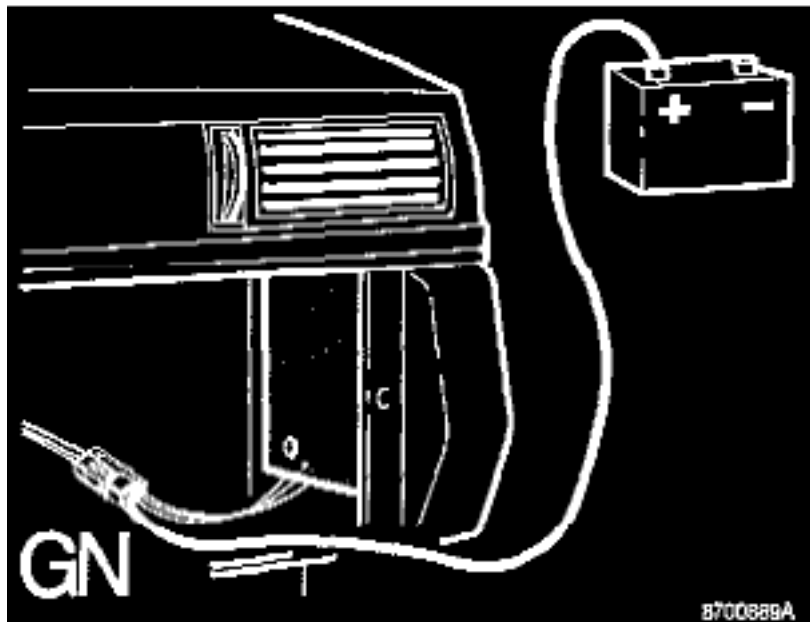
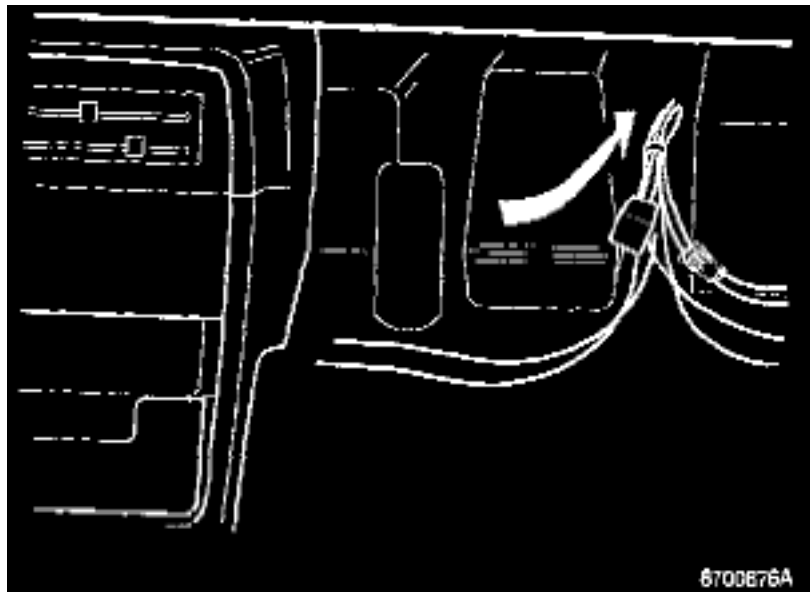
- Cowl on passenger side.

See Service Manual:

Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections E2

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Connection and mounting of control module -

Connect cable harness connector to control module connector.

- Apply three sections of butyl tape to the control module.
- Install control module on dashboard side section with butyl tape.

A13 Installation of cable harness -

Arrange cable harness as shown.

- Fasten the new cable harness using cable tie on the existing cable harness ensuring that the harness cannot come into contact with the heater shutter spindle.

Function verification and information

A14 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system so that the compressor starts. The A/C system starts if the temperature exceeds approx. 7°C (45°F).

- Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to the connector on the control module. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

- Remove cable between connector and battery.

A15 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

A16 Information to car owner -

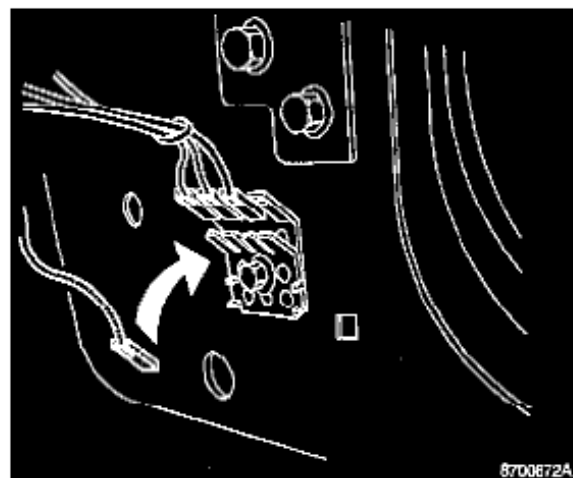
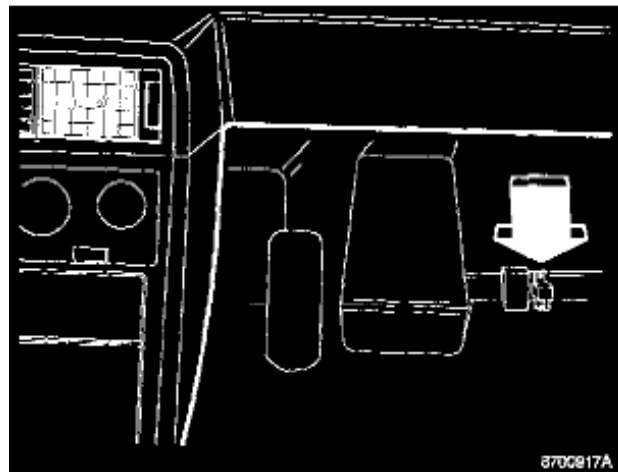
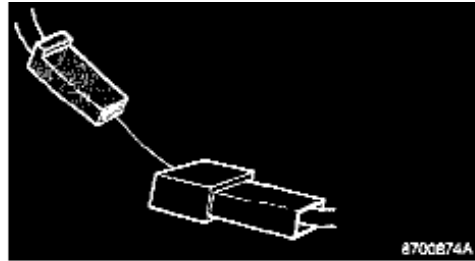
Carry out operations at the end of this service bulletin.

Installing Control Module/Cables/740/940 w/MCC year 1991

Installing control module and cables 740/940 with MCC model year 1991-

B1

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



A7 Connecting the new cable harness to the 5 housing receptacles -

Attach housing receptacles to the cable harness tab terminals according to cable colour coding (colour-to-colour match)

A8 Connecting new cable harness to blower relay -

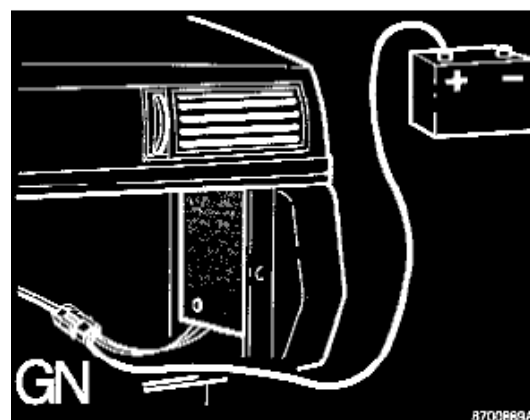
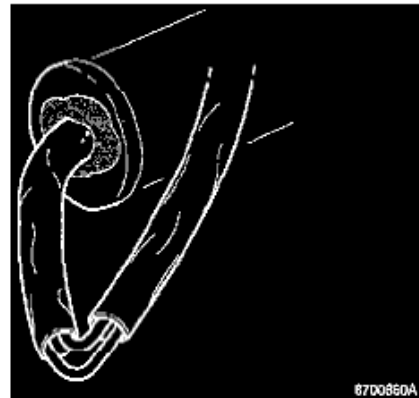
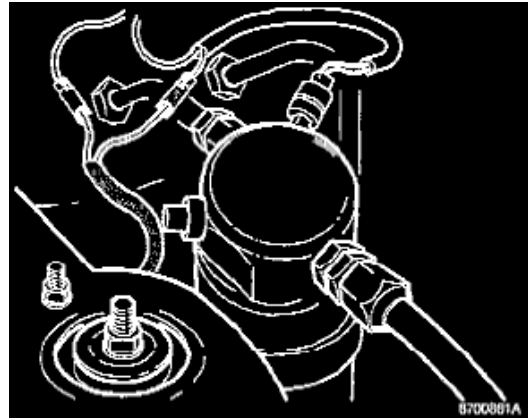
Connect the 5-pin cable harness connector to the blower relay.

See Service Manual: Section 3 (39) Wiring diagrams 740 1990

A9 Connection of cable to ground plate -

Connect the black-white cable included in the new cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.



B11 Route cables to engine compartment -

Route cables without housing receptacles to engine compartment through unused cutout in grommet under suspension strut brace.

- Attach the round housing receptacles included in the new cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.
- Connect cables from the new cable harness to the separated connectors.

B12 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

Function verification and information

B13 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor. The A/C system starts if the temperature exceeds approx. 7°C (45°F).
- Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to control module connector. Connect to green cable, connector

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

A/C - Unpleasant Odor On Startup

Type	Model year	Materials kit P/N	Working method page / section	Wiring diagrams page
740 MCC	1988 - 90	9148852-2	2 / A	33
740/940 MCC	1991 -	9148853-0	7 / B	34, 35, 36
740/940 ECC	1991 - 95	9148854-8	12 / C	37, 38
760/960 MCC/ECC	1988 - 94	9148855-5	16 / D	39, 40
780 ECC	1988 - 91	9162435-3	20 / E	41
960 MCC/ECC	1995 -	9171003-8	24 / F	42
S90/V90 MCC/ECC	1997 -	9171003-8	24 / F	43
940 ECC	1996 -	9447728-8	29 / G	44
List of Components			45	
Information for the driver			47	

MCC= Manual climate control,
ECC= Electronic climate control.

Technical Service Bulletin # 887955 Date: 970901

A/C - Unpleasant Odor On Startup

SECTION

8

GROUP

87

NO. 955

DATE Sept. 1997

RE: Odor from evaporator 700/900/S90/V90 1988-

REFERENCE: TP 8701201, SECTION 8(87) CLIMATE UNITS: 700/900 1992- TP 3701201, SECTION 3(37) WIRING REPAIRS, AND REPLACEMENT OF CABLE TERMINALS; 850900 TP 3502201, SECTION 3(35-39) LIGHTING, INSTRUMENTATION AND OTHER ELECTRICAL EQUIPMENT; 700/900 1982-

SERVICE BULLETIN 87-948, EVAPORATOR ODOR TREATMENT

This Service Bulletin replaces earlier Service Bulletin 87-955 from September 1996, which should be discarded.

Odor from evaporator, installation of blower fan control module

Under humid conditions the ECC unit can cause an unpleasant odor on start-up, especially when the temperature outside is high. This Odor often disappears when humidity levels drops. The Odor can be caused by dirt or micro-organisms in the evaporator.

A control module can be installed to eliminate the recurrence of the Odor. This starts the blower fan and airs residual dampness out of the evaporator.

If the compressor has been running more than 4 minutes and the ignition is then turned off for 50 minutes, the control module starts the blower fan automatically and runs an airing out cycle at max. Blower speed for approximately 5 minutes.

Special tools needed: Wiring repair kit, P/N 9814235-9

NOTE:

After installing the airing cycle unit, copy and attach the last page.

Installing Control Module and Cables/740 MCC 1988-90

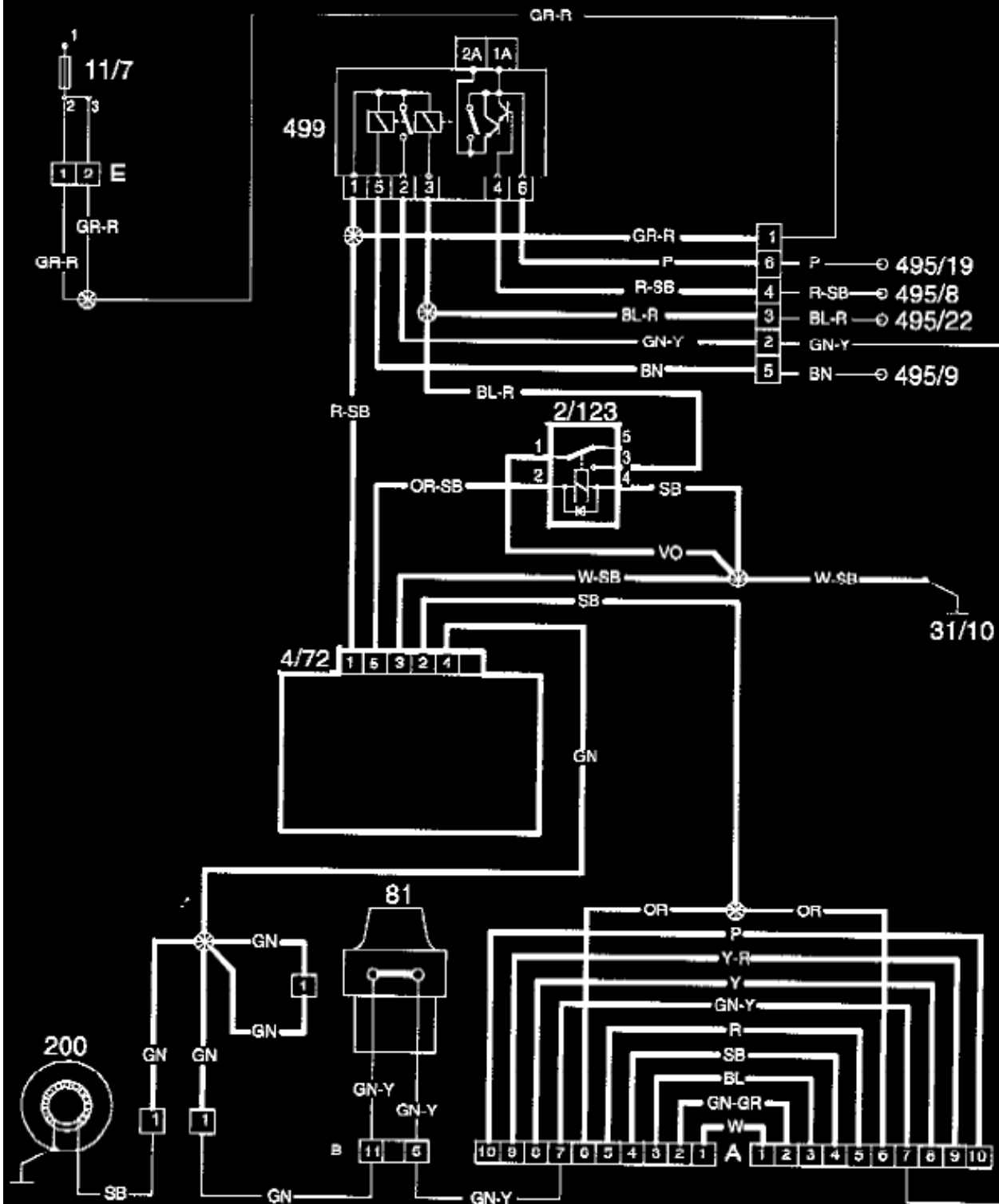
Installing control module and cables 740 MCC model year 1988-90

A1 Preparations -

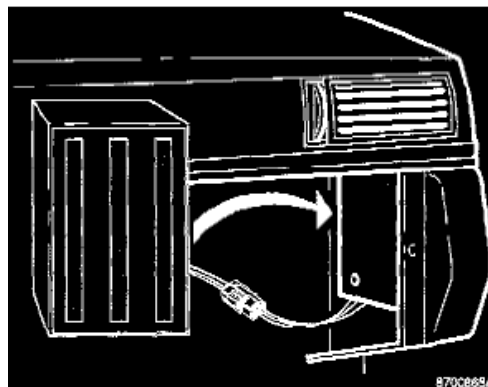
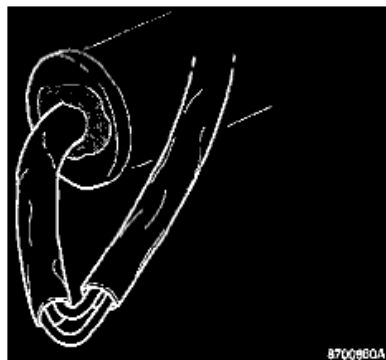
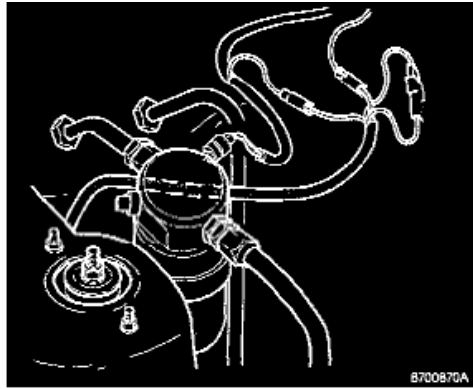
Clean evaporator according to Service Manual:

Section 8(87) Climate control

780 ECC 1988-1991



960 MCC/ECC 1995



A10 Route cables to engine compartment -

Route the green cables on the cable harness to the engine compartment through the vacant hole in the grommet under the brace to the suspension tower.

1988 and 1989 model years: -

Connect the flat connectors.

Year model 1990 cars (shown here): -

Connect the round connectors.

- Connect all unconnected connectors to each other.

A11 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

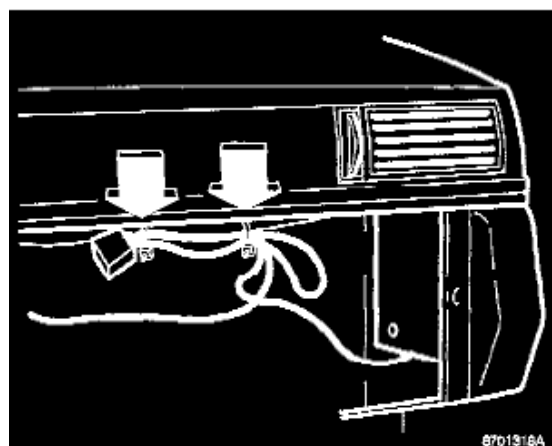
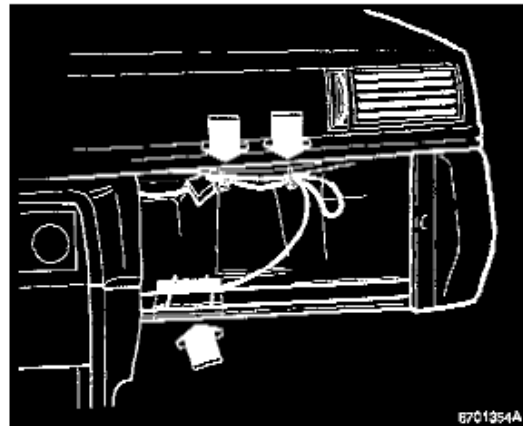
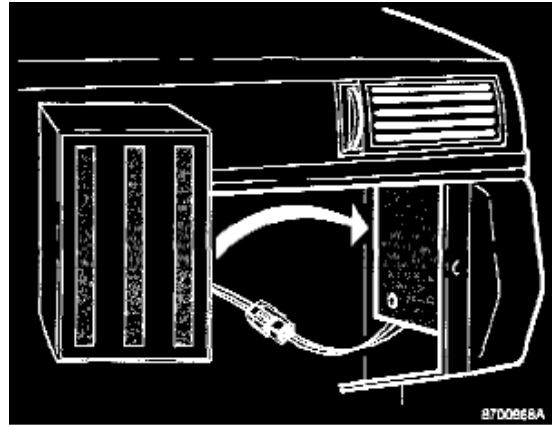
- Use butyl tape to seal the grommet.

- Use existing cable tie to clamp cables to firewall.

Installing control module from kit

A12

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



C6 Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three strips of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

C7 Connecting and mounting control module in cars with SRS (Airbag) and knee bolster -

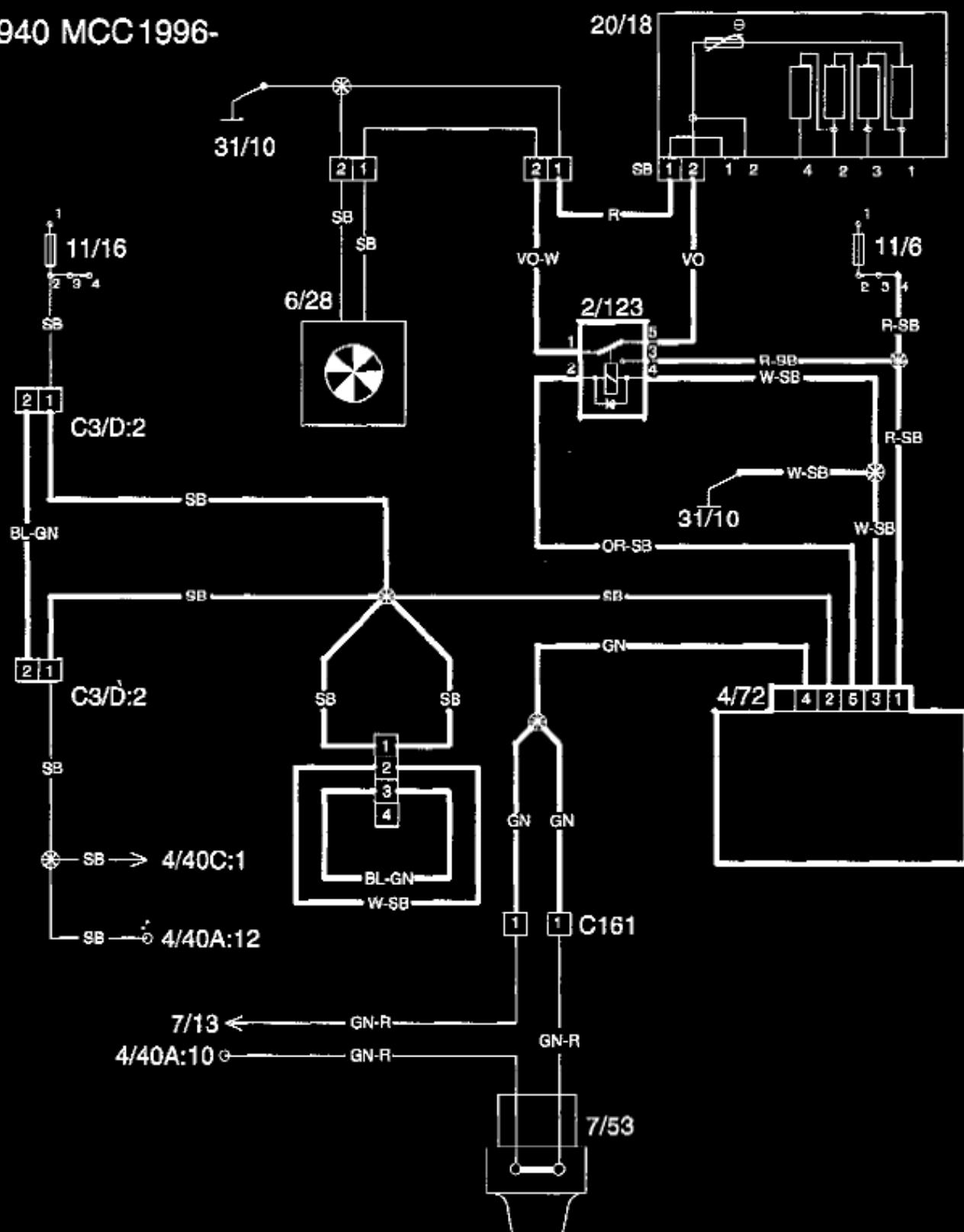
Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.

- Attach cable harness to existing cable harness at side of SAS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

C8 Fastening cables In cars without SRS (Airbag) and knee bolster -

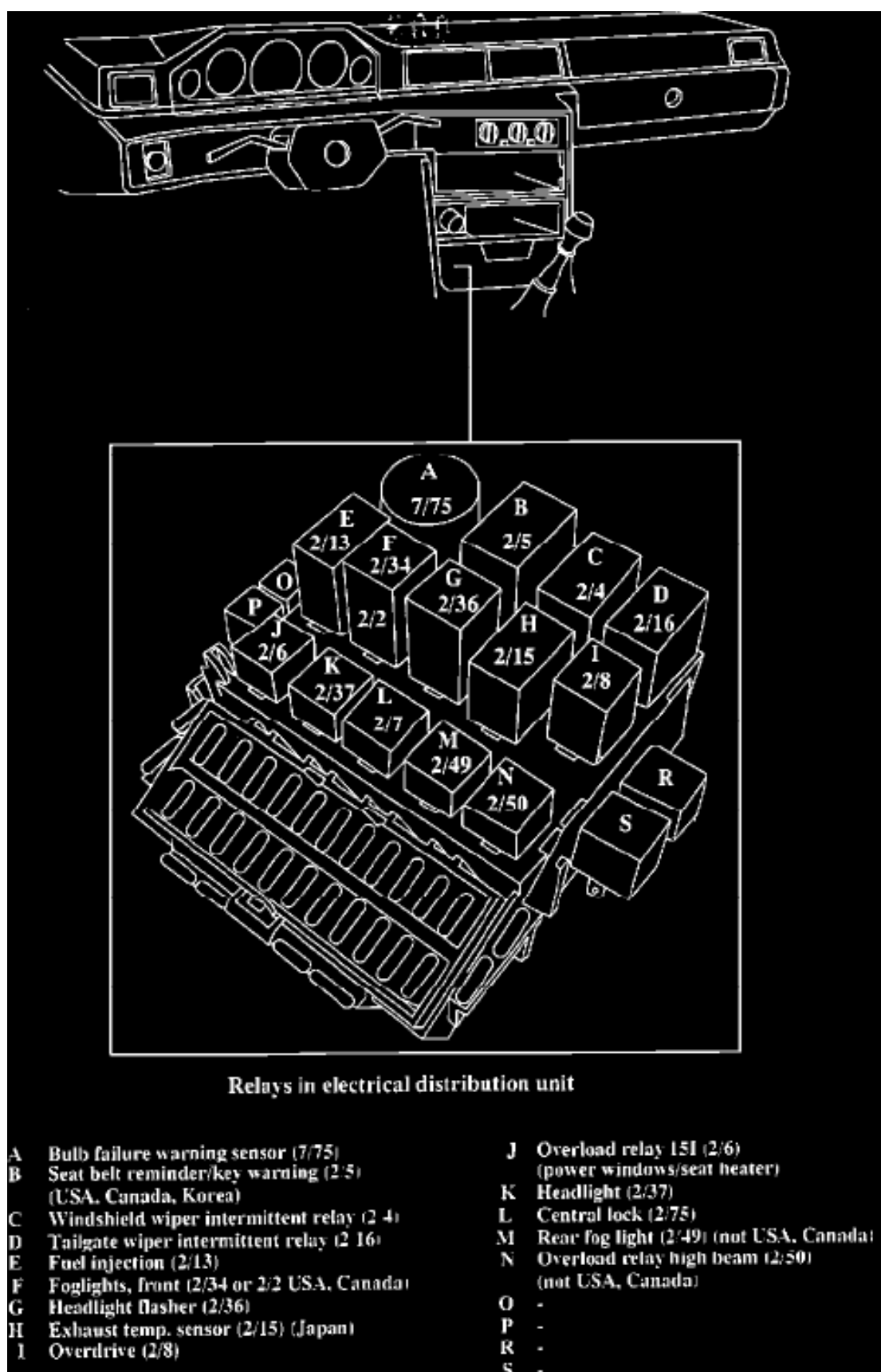
Attach cable harness to existing cable harness with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

940 MCC1996-



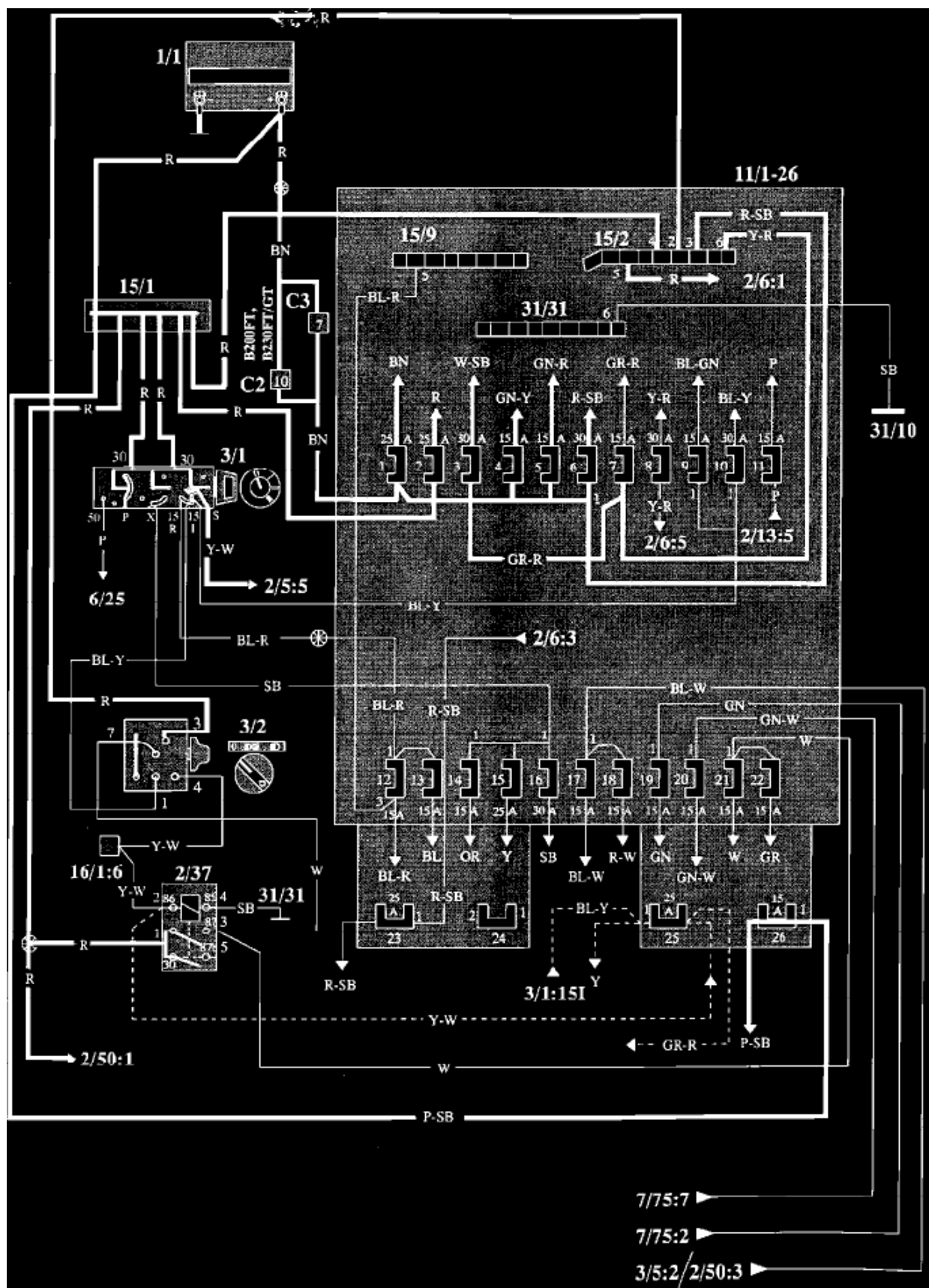
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940 MCC 1996-



Relay Locations

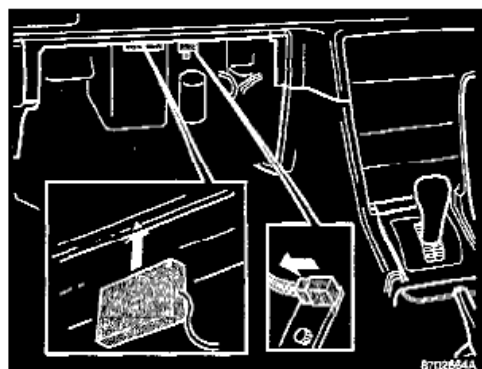
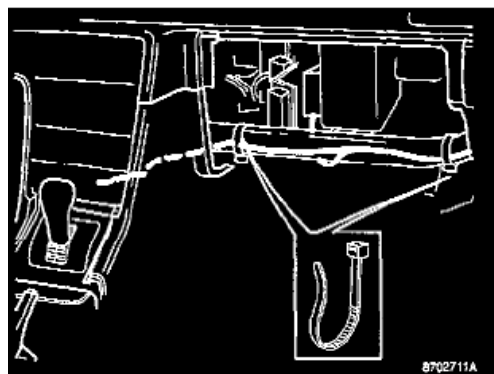
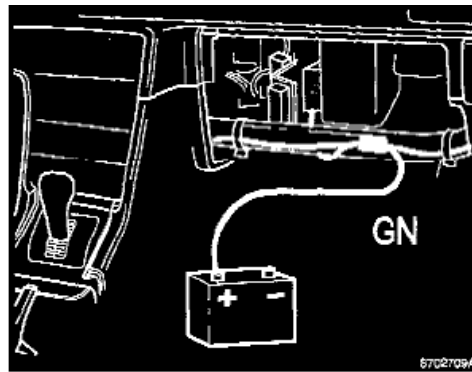
Locations



Power Distribution Relay: Locations

Fuse/Relay Identification and Location

Electrical Distribution Unit



G7 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor.

The A/C system starts if the temperature exceeds approx. 7°C (45°F). -

Make up a cable (about 2 meters in length) to connect battery positive terminal to control module connector.

Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating. -

Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

G8 Fastening cables -

Clamp cable harness in position using tie straps on the front of the air duct below glove compartment.

- Use the eyelet on the connector to fasten the tie straps.

- Clamp cable harness in position using the straps on the front of the air duct above glove compartment (not shown in illustration).

- Use the eyelet on the connector to fasten the tie straps.

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, BGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

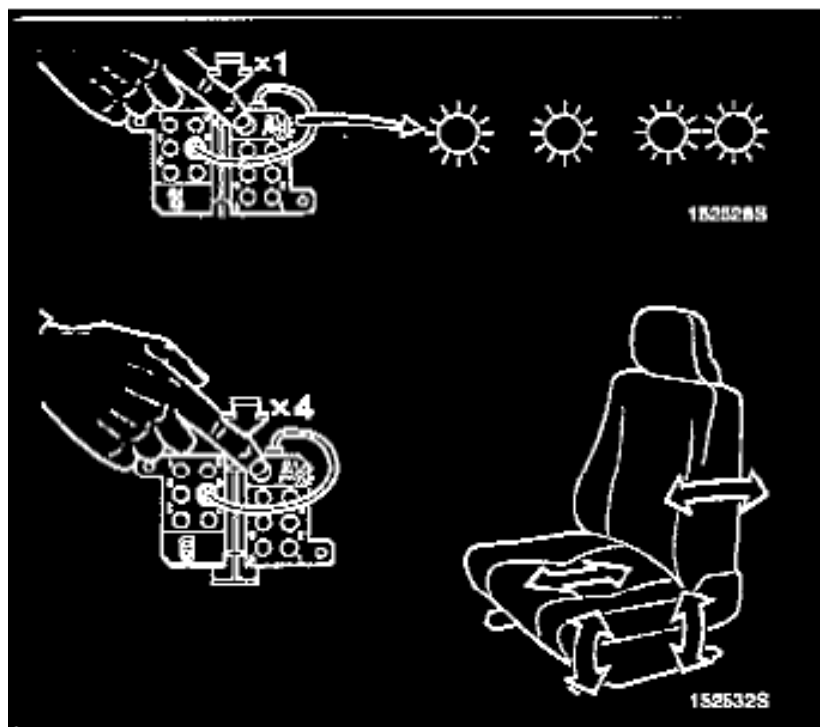
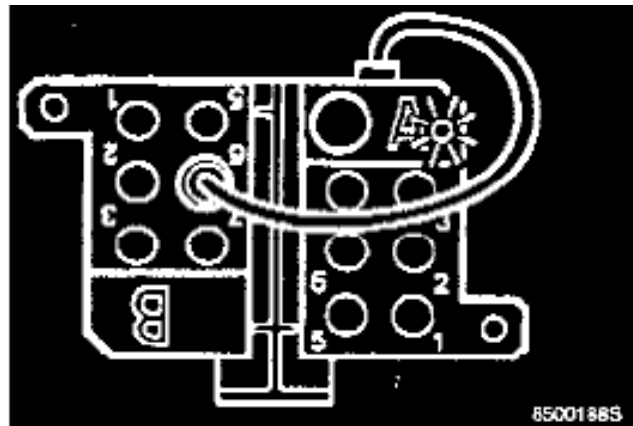
Component Index And Identification

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Applies to: 960, 1992-1993 4-door models to chassis No. 018366 incl. 5-door models to chassis No. 012112 incl.

Note:

Power seats in the above models can be operated only with the ignition on.

B1

- Switch off ignition

B2

- Manual fault tracing/calibration: Connect test lead from DLC A to socket No. 6 on DLC B.
- Fault tracing/calibration using VST with OBD System Memory Cassette: Connect instrument to DLC B.

B3

Ignition must be off for at least 5 seconds before performing this step.

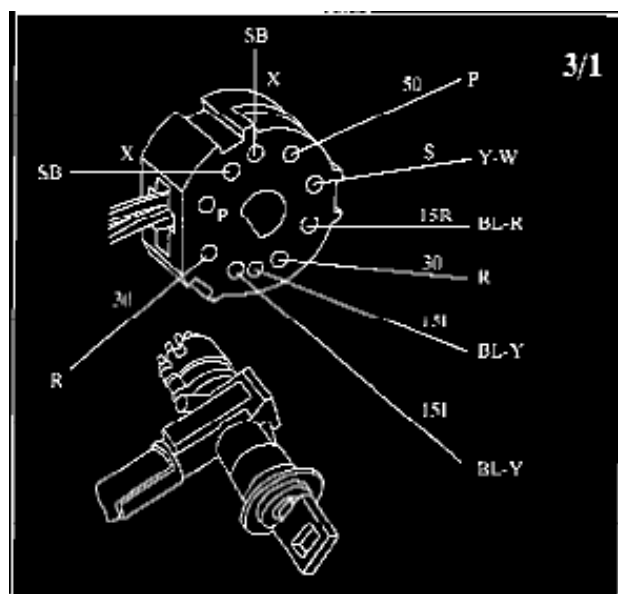
- Press and hold any button on control panel of seat to be tested while switching ignition on. Keep button depressed for at least 1 second after turning on ignition.

B4

- Diagnostic system must now be activated within one minute, i.e., test button must be pressed once to select DTM 1 (self-diagnostics) or four times to select DTM 4 (calibration).

Control module will exit diagnostic function after approx. 1 minute if no activity takes place between module and DLC. Module will also exit diagnostic function if ignition is switched off for at least 5 seconds. Seat cannot be operated either with control buttons or memory buttons while using diagnostic system.

Codes for DTM 1 are listed and explained in the table on page 9 of the SM; use of DTM 4 (calibration) is described on SM page 7.



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

- Key withdrawn
 0 Off
 I Radio
 II Drive
 III Start

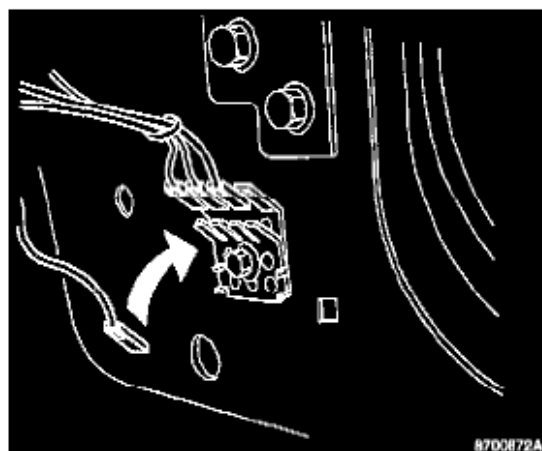
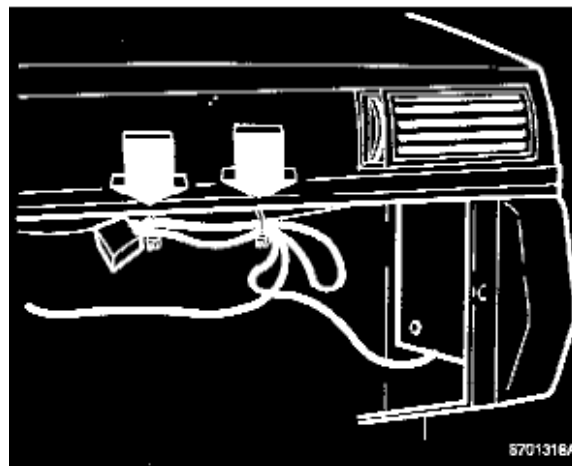
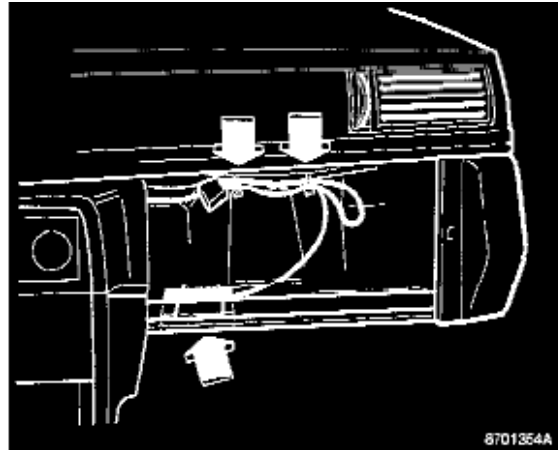
Voltage at connection:

P
 S,P
 X,S,P
 X,15R,15LS
 15R,50,S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)



Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

B8 Connecting and mounting control module in cars with SRS (Airbag) and knee bolster

- Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.
- Attach cable harness to existing cable harness at side of SRS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

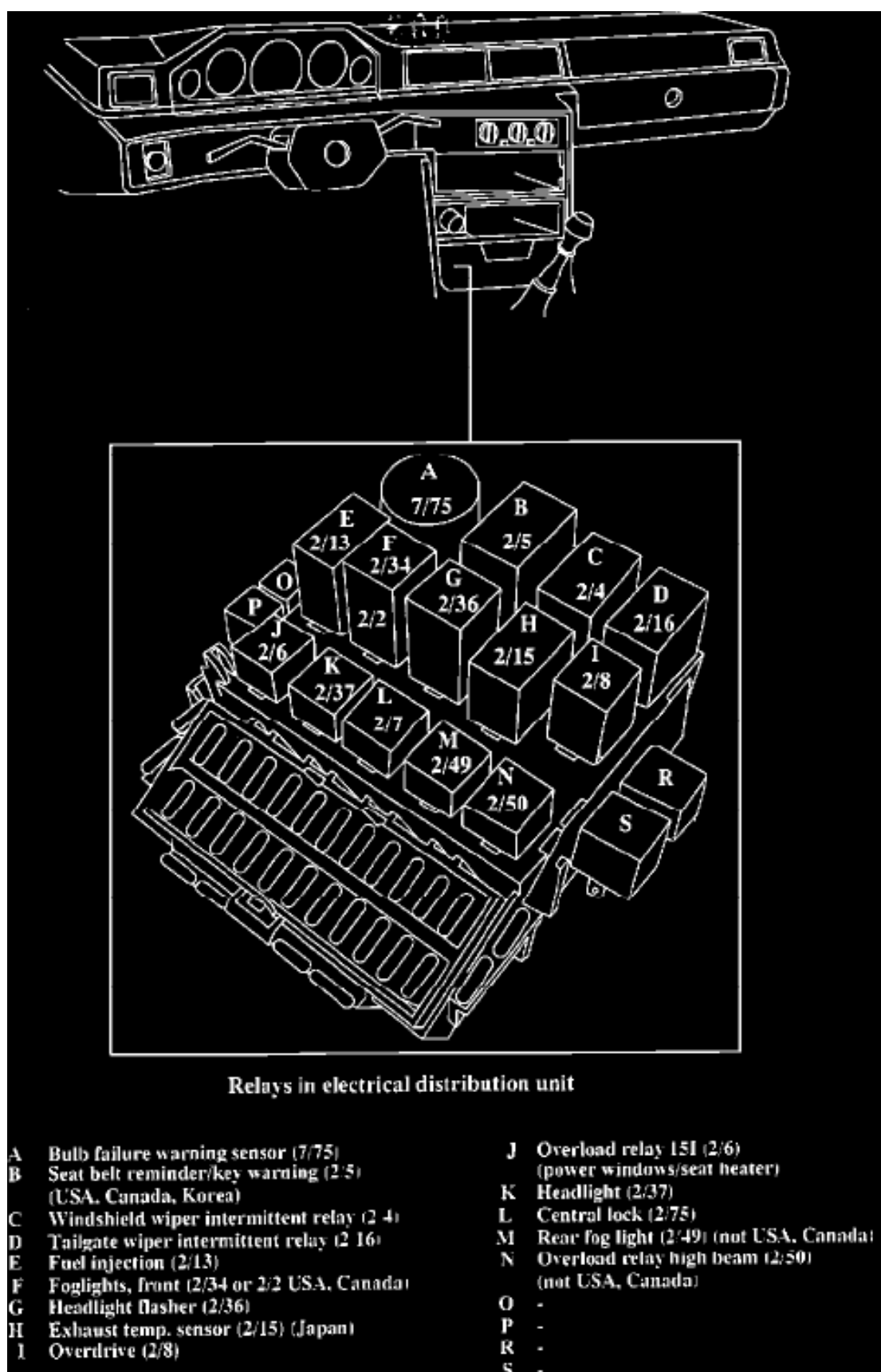
B9 Fastening cables in cars without SRS (Airbag) and knee bolster -

Attach cable harness to existing cable harness module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

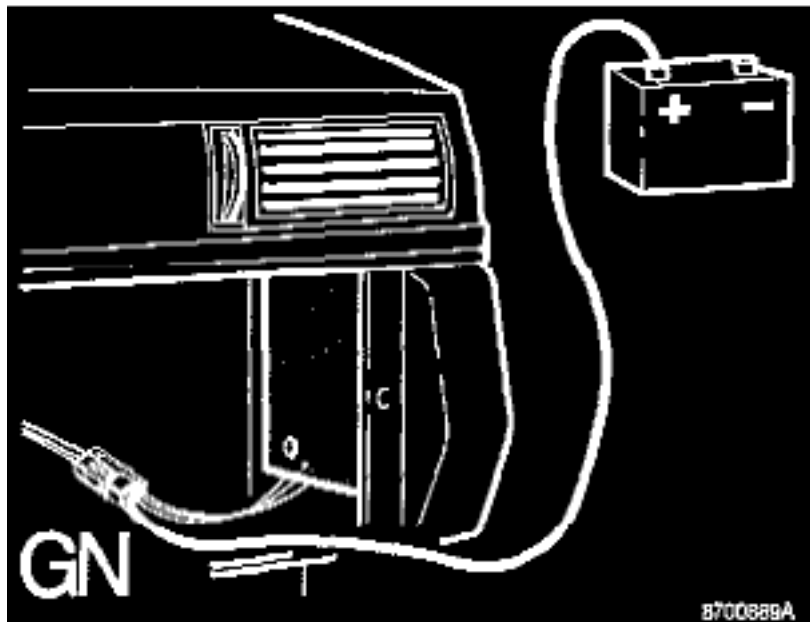
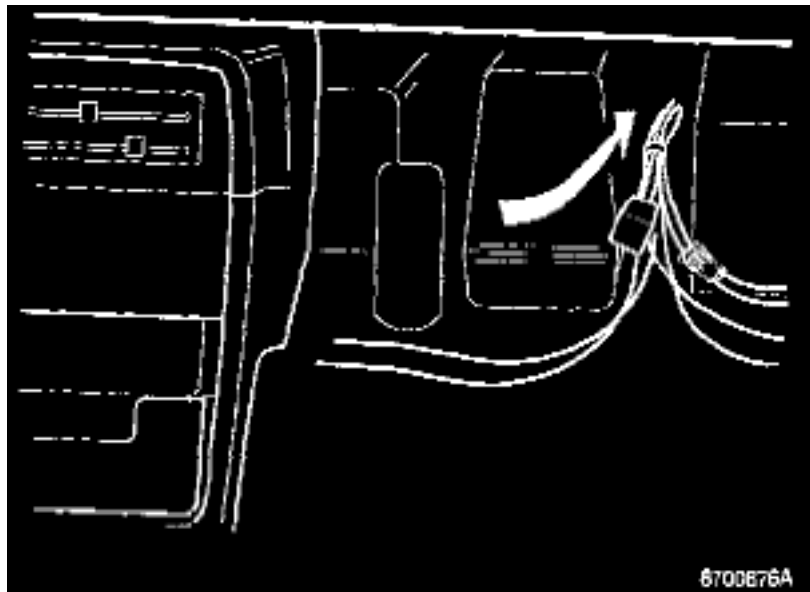
B10 Connection of cable to ground plate -

Connect the black-white cable included in the new cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.



Relay Locations



Connection and mounting of control module -

Connect cable harness connector to control module connector.

- Apply three sections of butyl tape to the control module.
- Install control module on dashboard side section with butyl tape.

A13 Installation of cable harness -

Arrange cable harness as shown.

- Fasten the new cable harness using cable tie on the existing cable harness ensuring that the harness cannot come into contact with the heater shutter spindle.

Function verification and information

A14 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system so that the compressor starts. The A/C system starts if the temperature exceeds approx. 7°C (45°F).

- Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to the connector on the control module. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

- Remove cable between connector and battery.

A15 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

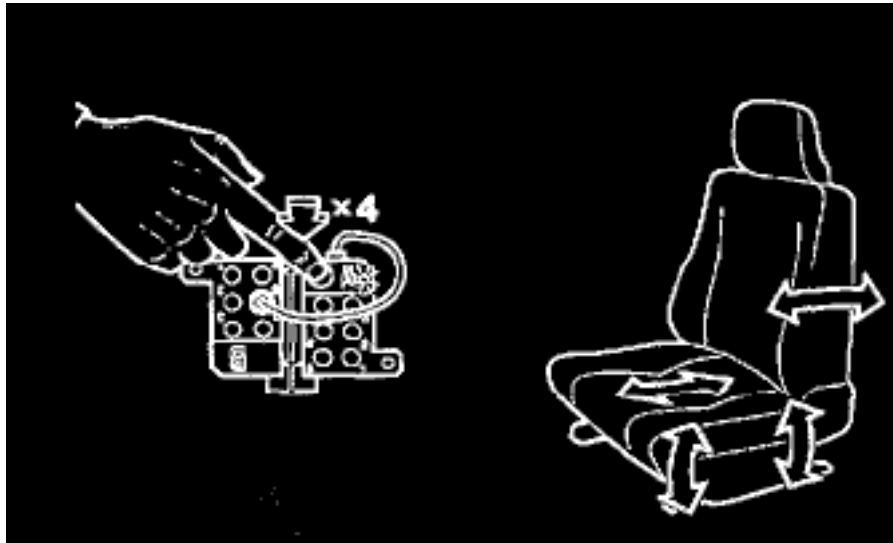
A16 Information to car owner -

Carry out operations at the end of this service bulletin.

Installing Control Module/Cables/740/940 w/MCC year 1991

Installing control module and cables 740/940 with MCC model year 1991-

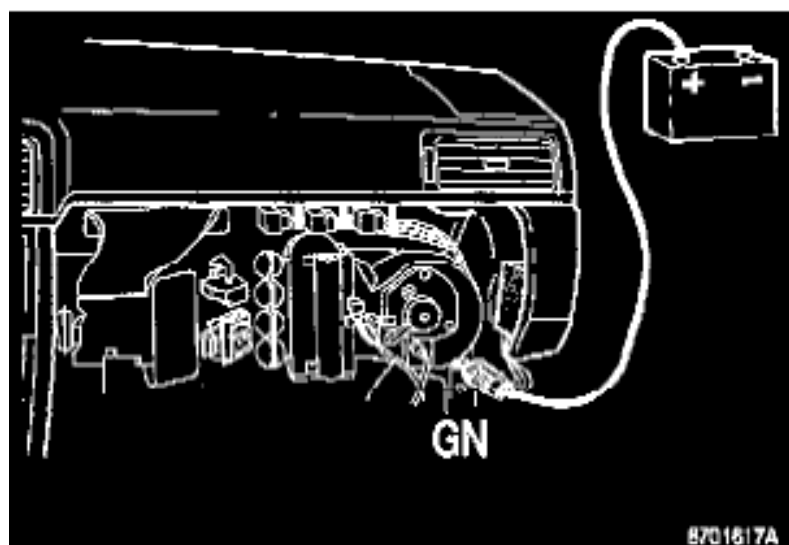
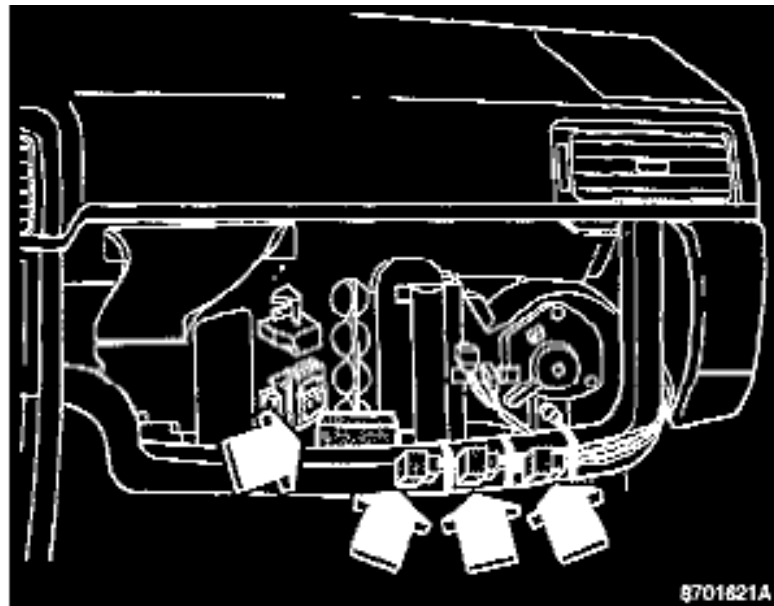
B1



Check

- Calibrate seat.
- Check function.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



F11 Connecting and mounting control module in cars with SRS (Airbag) and knee bolster -

Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.

- Locate cable harness with relays between air hose and knee bolster.

NOTE:

Prevent condensation dropping onto relays by ensuring that they are not placed beneath the air hose.

- Fasten to air hose with cable ties.

Installing control module from kit.

F12 Function verification and information Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor. The A/C system starts if the temperature exceeds approx. 7°C (45°F).

- Make up a cable (about 2 meters in length) to connect battery positive terminal to the connector on the control module. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is running.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

-

Remove cable between connector and battery.

F13 Finishing off -

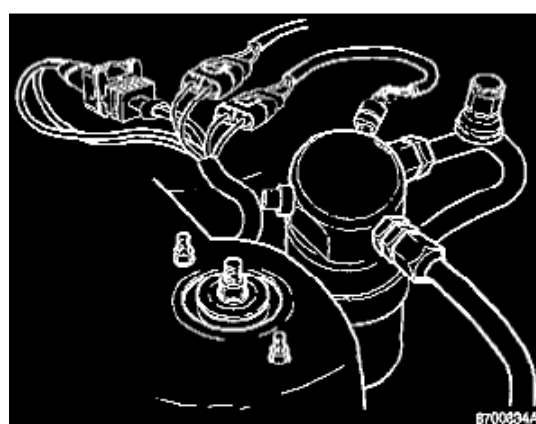
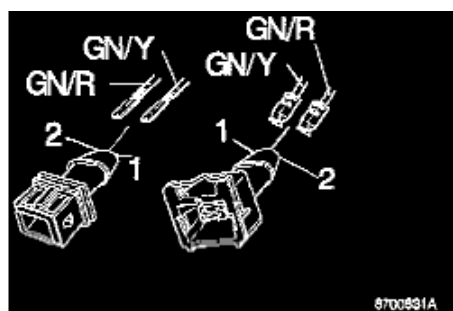
Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

F14 Information to Car Owner Carry out operations at the end of this service bulletin.

Installing Control Module/Cable 940 W/ECC 1996-

Installing control module and cables 940 with ECC model year 1996-



D3 Route cables to engine compartment -

Route the cables which do not have connectors to the engine compartment through an unused hole in the grommet under the brace to the suspension strut.

- Connect green-yellow cables to connector terminal 1.
- Connect green-red cables to connector terminal 2.

D4 Route cables to engine compartment (cont.) -

Separate the existing connector at the boost air overpressure switch and connect round or flat tab terminals with housing receptacles from the new cable harness for each model year:

1988-1991 model year (shown here): -

Connect round connector.

1992 model year: -

Connect flat connector.

- Connect all unconnected connectors to each other.
- Clamp cables to existing cables with a cable tie.

D5 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Locations

Radiator Cooling Fan Control Module: Locations

Refer to "Engine, Cooling and Exhaust : Cooling System : Locations : Components".

Locations

Sunroof / Moonroof Relay: Locations

Refer to "Body and Frame : Sunroof/Moonroof : Locations : Components".

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
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31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

SOLENOID VALVE RELAY			
Key	OFF	ON	Volts
(Pin 20 to 32)		√	0 - 10
Jump (Pin 10 to 27)		√	
(Pin 20 to 32)		√	11 - 14

BRAKE SWITCH	
Brakes	Volts
Not Applied (Pin 10 to 25)	0.0 - 0.5
Applied (Pin 10 to 25)	11 - 14

ABS INDICATOR LAMP	
Key ON	Volts
(Pin 10 to 29) ABS lamp ON	Less than 1
Engine Idling	
(Pin 10 to 29) ABS lamp OFF	13 - 14.5

WHEEL SPEED SENSORS	
Key On (Rotate Wheel 1 rev/sec)	AC Volts
Left Front (Pin 4 to 5-6-22)**	V > .075
Right Front (Pin 21 to 11-23)**	V > .075
Left Rear/Rear (Pin 9 to 7-8)**	V > .075
Right Rear (Pin 26 to 24)**	V > .075

GROUNDS	
Key Off Disconnect ECU)	Ohms
(Pin 10 to G1)	0.0 - 0.1
(Pin 20 to G1)	0.0 - 0.1
(Pin 34 to G1)	0.0 - 0.1

WHEEL SPEED SENSORS	
Key Off (Disconnect ECU)	Ohms
Left Front (Pin 4 to 5-6-22)**	800 - 1400
Right Front (Pin 21 to 11-23)**	800 - 1400
Left Rear (Pin 9 to 7-8)**	800 - 1400
Rear (Pin 9 to 7)**	600 - 1100
Right Rear (Pin 26 to 24)**	800 - 1400

SOLENOID VALVES	
Key Off (Disconnect ECU)	Ohms
Left Front (Pin 2 to 32)	0.8 - 1.5
Right Front (Pin 35 to 32)	0.8 - 1.5
Left Rear/Rear (Pin 18 to 32)	0.8 - 1.5
Right Rear (Pin 19 to 32)**	0.8 - 1.5

Solenoid Valve Relay

Brake Switch

ABS Indicator Lamp

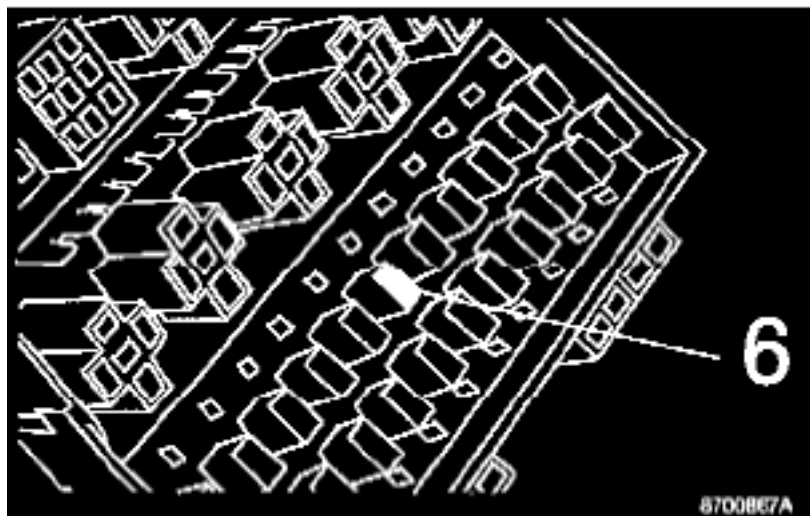
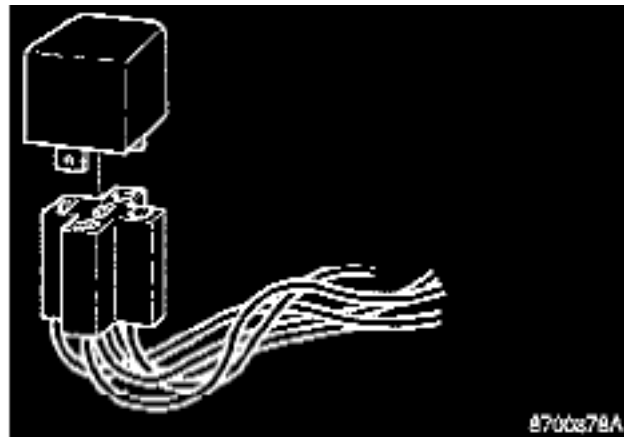
Wheel Speed Sensors

Ohms Measurements

Grounds

Wheel Speed Sensors

Solenoid Valves



Preparations -

Clean evaporator according to Service Manual:

Section 8(87) Climate control 700/900 1982- section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.
- Glove compartment.
- Cowl on passenger side.
- Ashtray.
- Cigarette lighter.
- Storage compartment.
- Detach and pull out central electronics module.

Refer to Service Manual: Section 3(35-39) Lighting, instrumentation (see group 37) and other electrical equipment 700/900 1982- Section 8(82-86, 88) Interior, exterior 700/900 1982-

B2 Cable connections Installing new relay on cable harness -

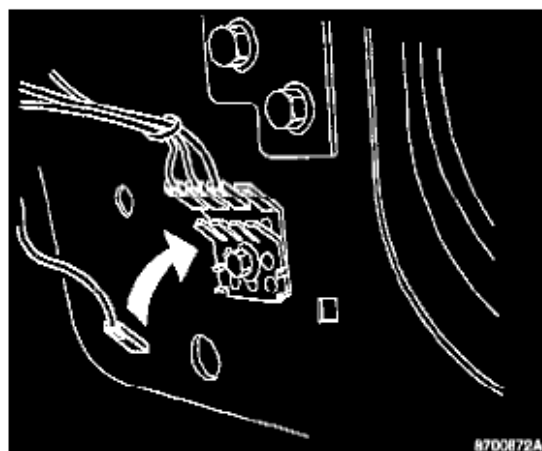
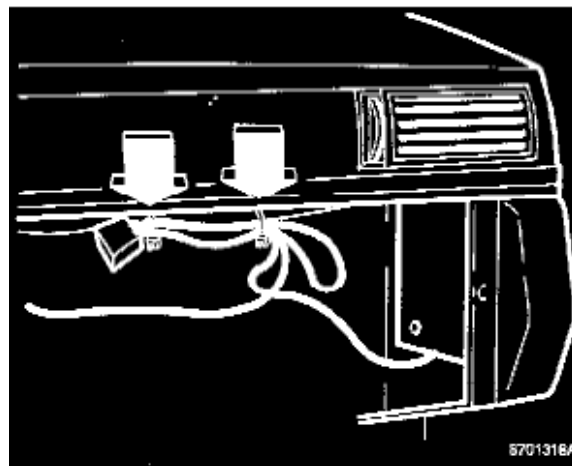
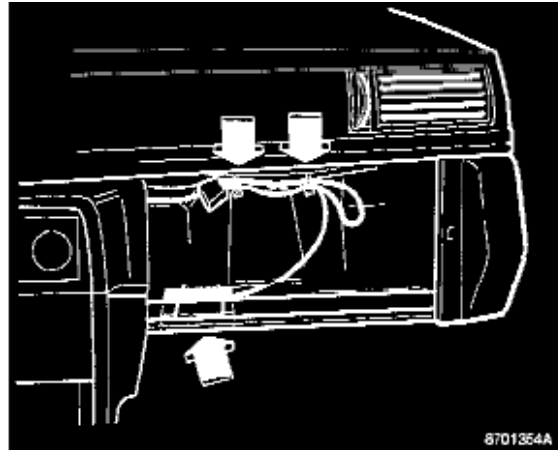
Take out cable harness (P/N 9148756) supplied with kit.

- Connect the relay in the kit to the 5-pin connector which is attached to the same end of the cable harness as the black-red cable.

B3 Attaching cable harness with relay -

Attach relay and cable harness above the heater vacuum reservoir, using a cable tie.

- Route the red-black cable inside the centre console side panel to the central electronics module.
- Connect cable to fuse 6 in terminal 4.
- Use cable tie to attach to existing cable harness.



Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

B8 Connecting and mounting control module in cars with SRS (Airbag) and knee bolster

- Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.
- Attach cable harness to existing cable harness at side of SRS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

B9 Fastening cables in cars without SRS (Airbag) and knee bolster -

Attach cable harness to existing cable harness module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

B10 Connection of cable to ground plate -

Connect the black-white cable included in the new cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

	Plant:			
	Kalmar:0	Torslanda:1	Uddevalla:A	Halifax:3
944:	124126	124323	122175	123789
945:	073706	074788	072508	074262
964:	032219	-	-	-
965:	012665	-	-	-

Electronic Brake Control Module: Description and Operation Special Notes For Reading DTC's

Chassis Number Table

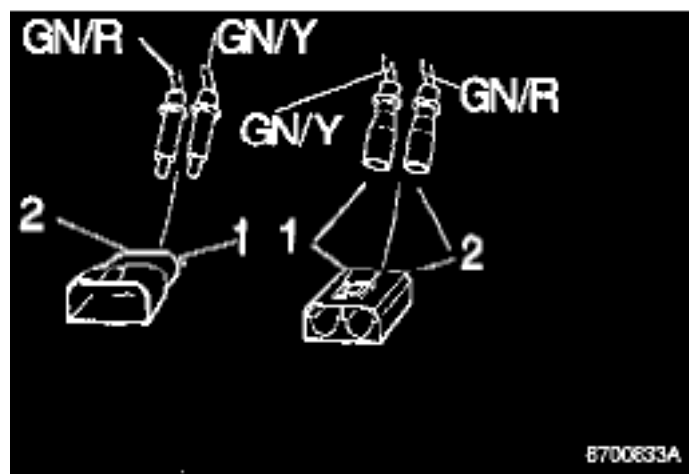
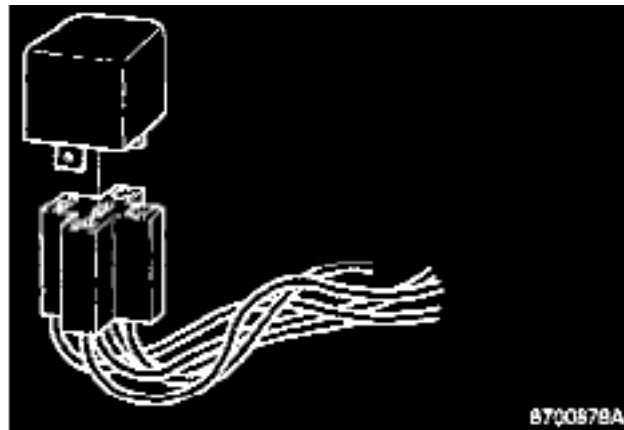
In older models (1992-93), with chassis numbers as shown in the table, a control module with built-in diagnostic function can be used as a 'special tool' for reading off DTCs via the DLC. The control module part numbers are 913 0197-8 or 912 8853-0.

- Replace the existing control module with the unit with the built-in diagnostic function.
- Drive the car at over 4 miles/h (6 km/h). The control module will record any faults and post DTCs. These can then be read out via the DLC in DTM 1.

With pre-92 models (1989-91), the new control module cannot be used for fault-tracing or diagnosis, as the DLC is not wired up.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		



C13 Information to Car Owner -

Carry out operations at the end of this service bulletin.

Install. Control Module/Cables 760/960 W/MCC-ECC 1988-94

Installing control module and cables 760/960 MCC/ECC model year 1988-94

D1 Preparations -

Clean evaporator according to Service Manual: Section 8(87)

Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on left and right sides.

- Glove compartment.

- Cowl on passenger side.

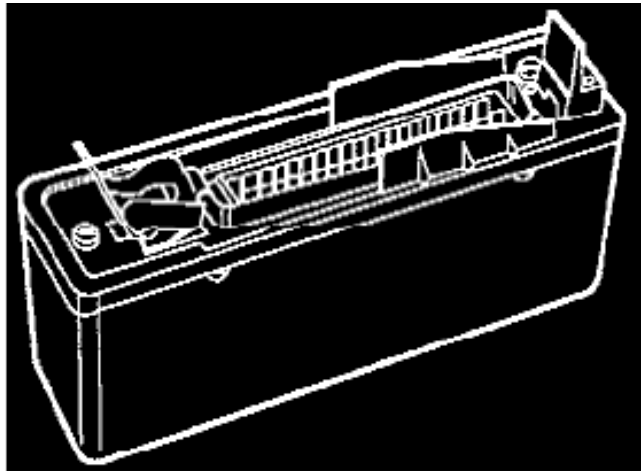
Refer to Service Manual: Section 8(82-86, 88) Interior, exterior 700/900 1982- Cable connections

D2 Installing new relay on cable harness -

Take out cable harness (P/N 9148758) supplied with kit.

- Install relay supplied in the 5-pin connector.

ABS & OBD Systems - Revised



	Factory/Code:		
	Kalmar: 0	Torslanda: 1	Halifax: 3
944:	124126	124323	123789
945:	073706	074788	074262
964:	032219	-	-
965:	012665	-	-

Electronic Brake Control Module: Technical Service Bulletins ABS & OBD Systems - Revised

MODEL 700-900

GROUP 59

NUMBER 904

MARKET US and Canada

DATE May 1993

TITLE ABS BRAKING SYSTEM AND ON-BOARD DIAGNOSTIC (OBD) SYSTEM

700/900 1992-->

REFERENCE: TP 31085/1 (ENGLISH); 05/89; ABS BRAKE SYSTEM WIRING DIAGRAM TP 32208/1 (ENGLISH); 12/92; WIRING DIAGRAMS 940 1993 TP 32200/1 (ENGLISH); 11/92; WIRING DIAGRAMS 960 1993

ABS braking system and on-board diagnostic (OBD) system

Replaced ABS control module, with an integral OBD function, p/n 9130197-8, was introduced into production from the illustrated chassis numbers.

From production month 4/93 the control module has a new p/n, 9128853-0. This control module is a replacement part and replaces older control modules on models from 1989 on.

The new control module OBD function is connected to position 3, diagnostic unit A in the engine compartment. When the control module discovers a fault, the ABS indicator lamp lights at the same time as it stores a DTC. During fault tracing/diagnosis the DTC can be read with the VST or by using the LED on the diagnostic unit by activating test function 1. See DTC table.

DTC TABLE

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

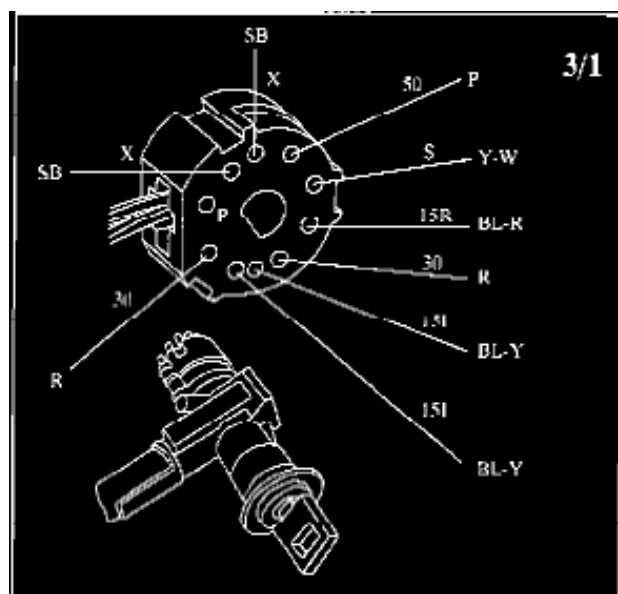
7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

Key position:	Voltage at connection:
- Key withdrawn	P
0 Off	S,P
I Radio	X,S,P
II Drive	X,15R,15LS
III Start	15R,50.S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)

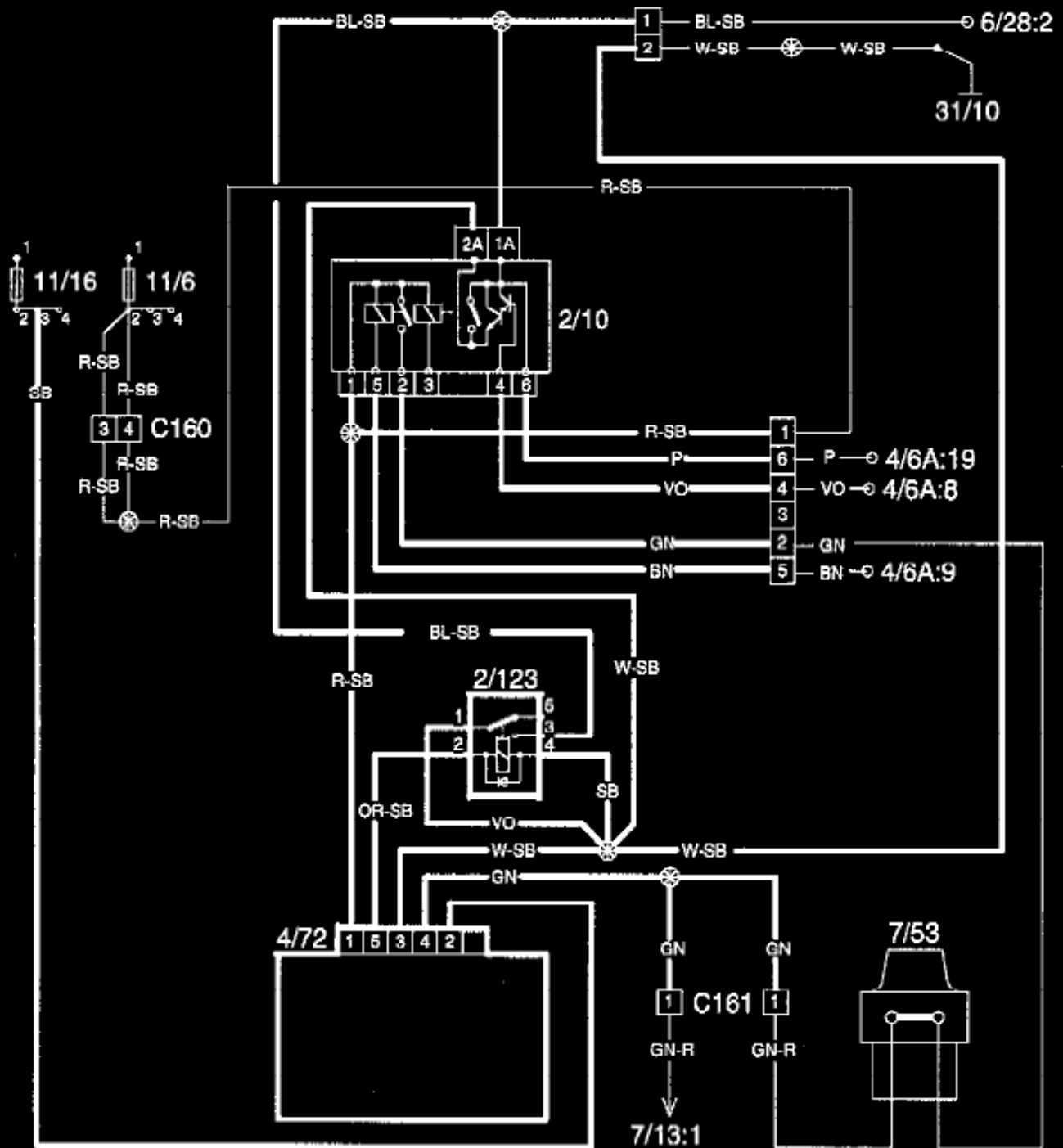
7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Locations

Power Door Lock Control Module: Locations

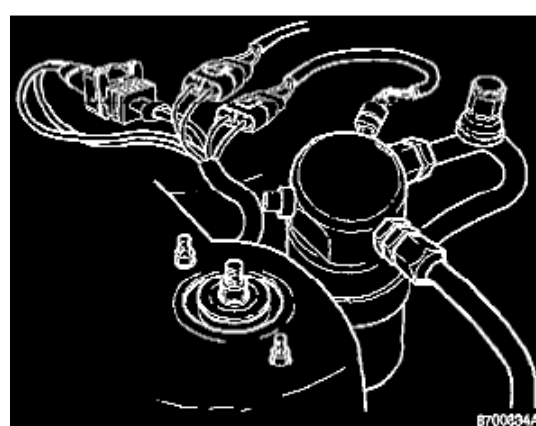
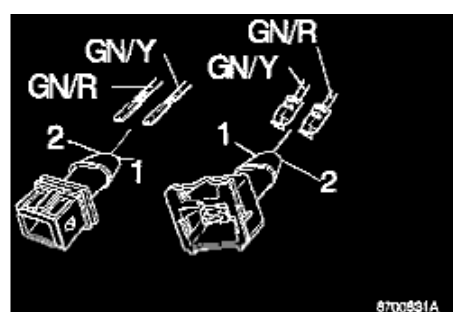
Refer to "Body and Frame : Locks : Locations : Components".

940 ECC 1996-



960 ECC 1996-

Refer to "Lighting and Horns : Fog/Driving Lamp : Diagrams : Electrical".



D3 Route cables to engine compartment -

Route the cables which do not have connectors to the engine compartment through an unused hole in the grommet under the brace to the suspension strut.

- Connect green-yellow cables to connector terminal 1.
- Connect green-red cables to connector terminal 2.

D4 Route cables to engine compartment (cont.) -

Separate the existing connector at the boost air overpressure switch and connect round or flat tab terminals with housing receptacles from the new cable harness for each model year:

1988-1991 model year (shown here): -

Connect round connector.

1992 model year: -

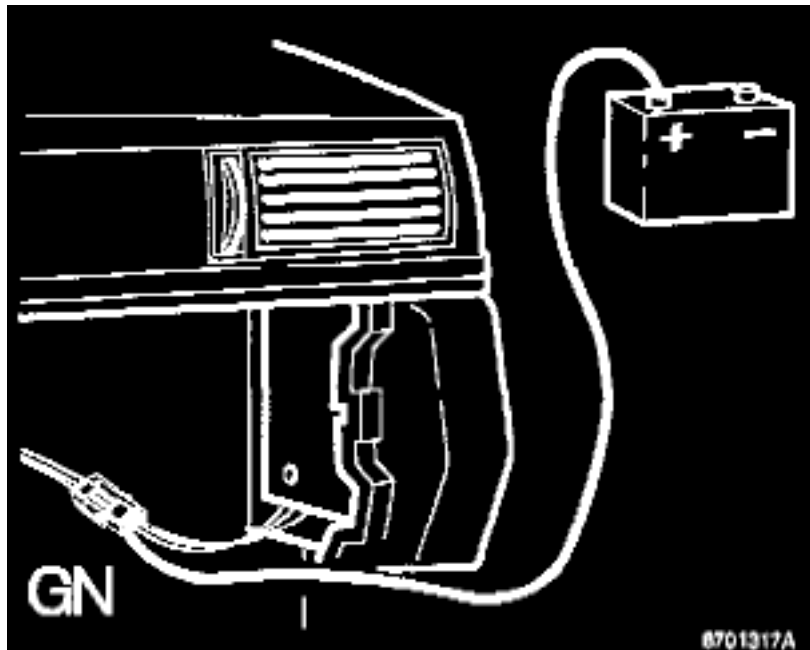
Connect flat connector.

- Connect all unconnected connectors to each other.
- Clamp cables to existing cables with a cable tie.

D5 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.



Function verification and Information

D12 Check airing cycle is working -

Connect battery lead and start car.

- Turn on A/C system to start compressor. The A/C system starts if the temperature exceeds approx. 7°C (45°F).

- Make up a cable (about 2 meters (6 ft.) in length) to connect battery positive terminal to the connector on the control module. Connect to green cable, connector terminal 6, for at least 30 seconds while compressor is operating.

- Turn off engine.

Airing cycle should begin after approximately 10 seconds and continue for approximately 1 second.

- Remove cable between connector and battery.

D13 Finishing off -

Reinstall all components removed.

- Reset the clock and enter the anti-theft radio code if required.

D14 Information to Car Owner Carry out operations at the end this service bulletin.

Installing Control Module/Cables 780 ECC 1988

Installing control module and cables 780 ECC model year 1988-

E1 Preparations -

Clean evaporator according to Service Manual: Section 8(87)

Climate control 700/900 1982- Section Y

- Make note of radio code if anti-theft coded radio installed.

Remove: -

Negative battery lead.

- Sound insulation on passenger side.

- Glove compartment.

- Cowl on passenger side.

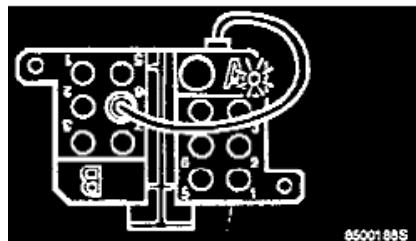
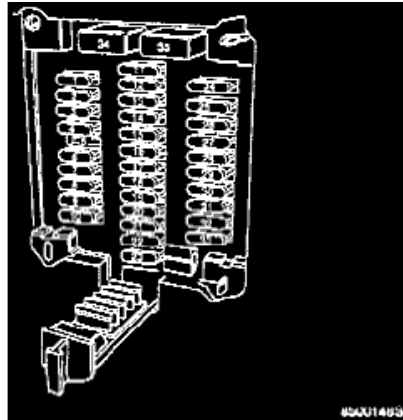
See Service Manual:

Section 8(82-86, 88) Interior, exterior 700/900 1982-

Cable connections E2

Fuse no.	Function	Fuse no.	Functions
1	Fuel pump (LH-2.4 MFI) Fuel system Direct Ignition (DI) system Oxygen sensor (HO2S) heating (B200/230FT)	13	Fuel valve, diesel Pre-heating mechanism, diesel EGR diesel Solenoid, pulsed secondary air injection (PAIR) (B230FD)
2	Hazard warning flashers Headlight flasher (via fuse 17 and 18) Central locking Anti-theft alarm	14	Power door mirrors Cigar lighter Radio Tailgate washer Tailgate wiper Ambient temperature sensor
3	Power seats (Towing hook)	15	Relays, power seats Horn Windshield wash/wipe Headlight wash/wipe
4	Brake lights Solenoid P-shift lock	16	Cabin fan, standard heater Cabin fan, Manual Climate Control (MCC) Electronic Climate Control (ECC)
5	Clock Vanity mirror Glove compartment lighting Trunk light Interior lighting Radio Power antenna Door-open warning lights CD-changer Anti-theft alarm	17	Left high beam Indicator light, high beam
6	Electronic Climate Control (ECC) Cabin fan, Electronic Climate Control (ECC)	18	Right high beam Relay, front foglights (not USA, Canada)
7	Front foglights Rear foglights (not USA, Canada)	19	Left low beam Beam width control Relay, front foglights
8	Power windows	20	Right low beam Beam width control
9	Turn signals Warning lights for seat belts Seat belt reminder Ignition key warning Bypass relay ISI (power windows/seat heating) Solenoid P-shift lock (Towing hook)	21	Left parking lights, front and rear Number plate lights Instrument and control panel lights Ambient temperature sensor
10	Heated rear window Power sunroof Heated door mirrors	22	Relay, front foglights Right parking lights, front and rear Ashtray light, rear Automatic transmission selector illumination Lighting, switches and storage compartment in centre console
11	Fuel primer pump in fuel tank (LH-2.4 MFI) Fuel pump in tank (Regina MFI) Oxygen sensor (HO2S) heating	23	Heated front seats
12	Backup (reversing) lights Overdrive relay Bulb failure sensor with brake monitor Exhaust temperature sensor (Japan) Cruise control Anti-theft alarm	24	Spare
		25	Rear foglights (not USA, Canada) Disconnectable low beam (Nordic market, Netherlands, Belgium)
		26	Amplifier, radio

Fuse Functions



- Remove circuit breaker 35. Fusebox is located at left-hand end of dashboard.

D4

Ignition must be off for at least 5 seconds before performing this step.

- Press and hold any button on control panel of seat to be tested while switching ignition on. Keep button depressed for at least 1 second after turning on ignition.

D5

- Reinstall circuit breaker 35.

Diagnostic system must now be activated within one minute, i.e., test button must be pressed once to select DTM 1 (self-diagnostics) or four times to select DTM 4 (calibration).

- Control module will exit diagnostic function after approx. 1 minute if no activity takes place between module and DLC. Module will also exit diagnostic function if ignition is switched off for at least 5 seconds. Seat cannot be operated either with control buttons or memory buttons while using diagnostic system.

Codes for DTM 1 are listed and explained in the table on page 9 of the SM; use of DTM 4 (calibration) is described on SM page 7.

Method For Version 5 (E)

Applies to: 940/960 from 1994 on

Unlike later 1993 variants, fault tracing or calibration of power seats in the above models can be carried out without removing the fuses.

Note:

The seat can be operated with the ignition switched off.

E1

- Switch off ignition.

E2

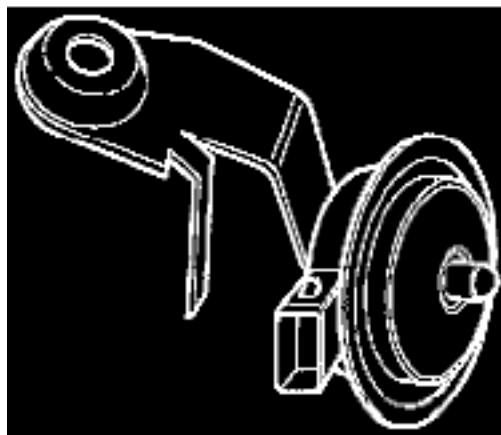
- Manual fault tracing/calibration: Connect test lead from DLC A to socket No. 6 on DLC B.
- Fault tracing/calibration using VST with OBD System Memory Cassette: Connect instrument to DLC B.

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification



Alarm Module: Description and Operation

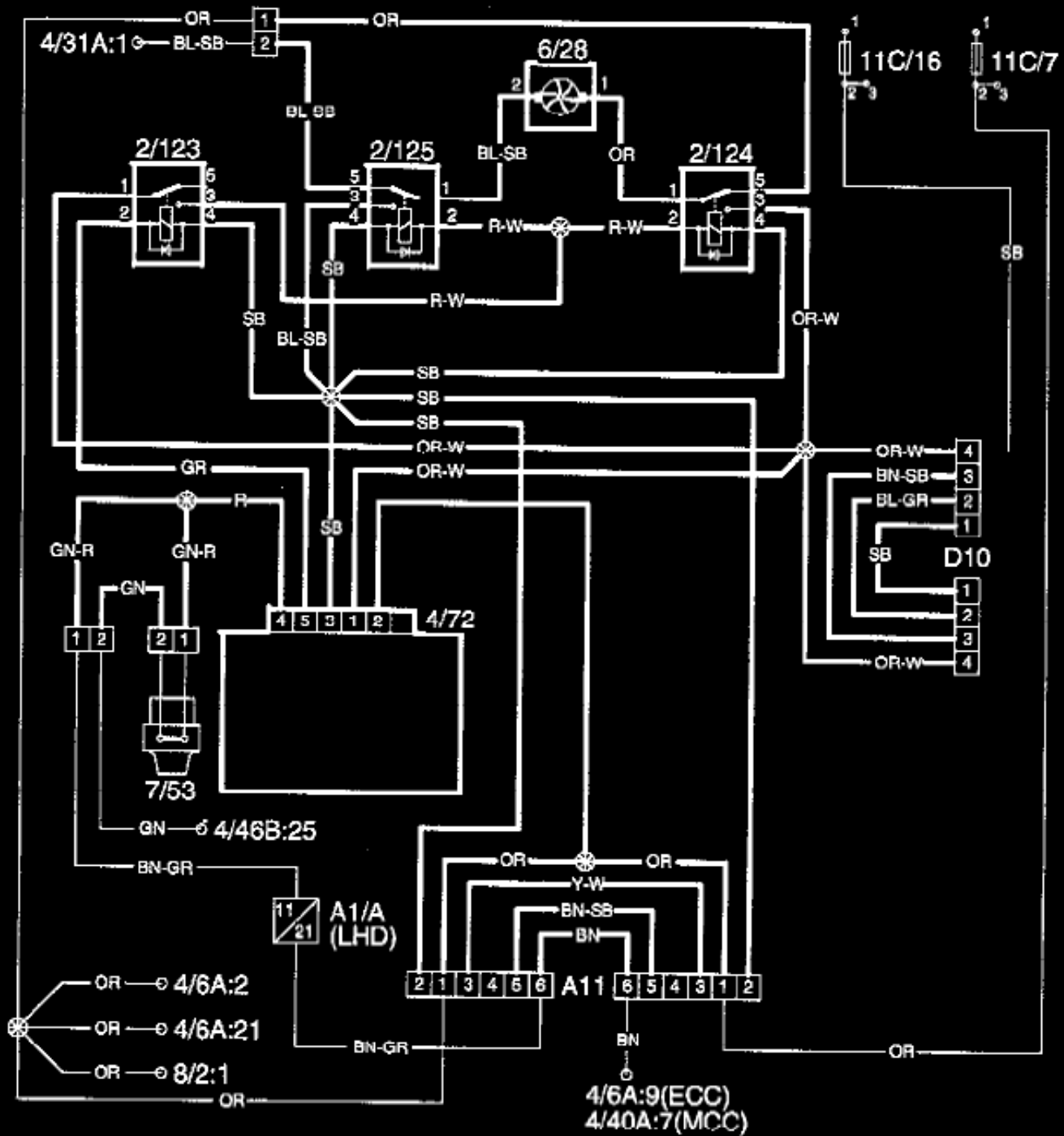
Guard Alarm II System Relay

The control module contains a pre-programmed microprocessor which can be reprogrammed for different functions. It is possible to store up to four different key codes for each remote in the micro-processor. There are three built-in relays for:

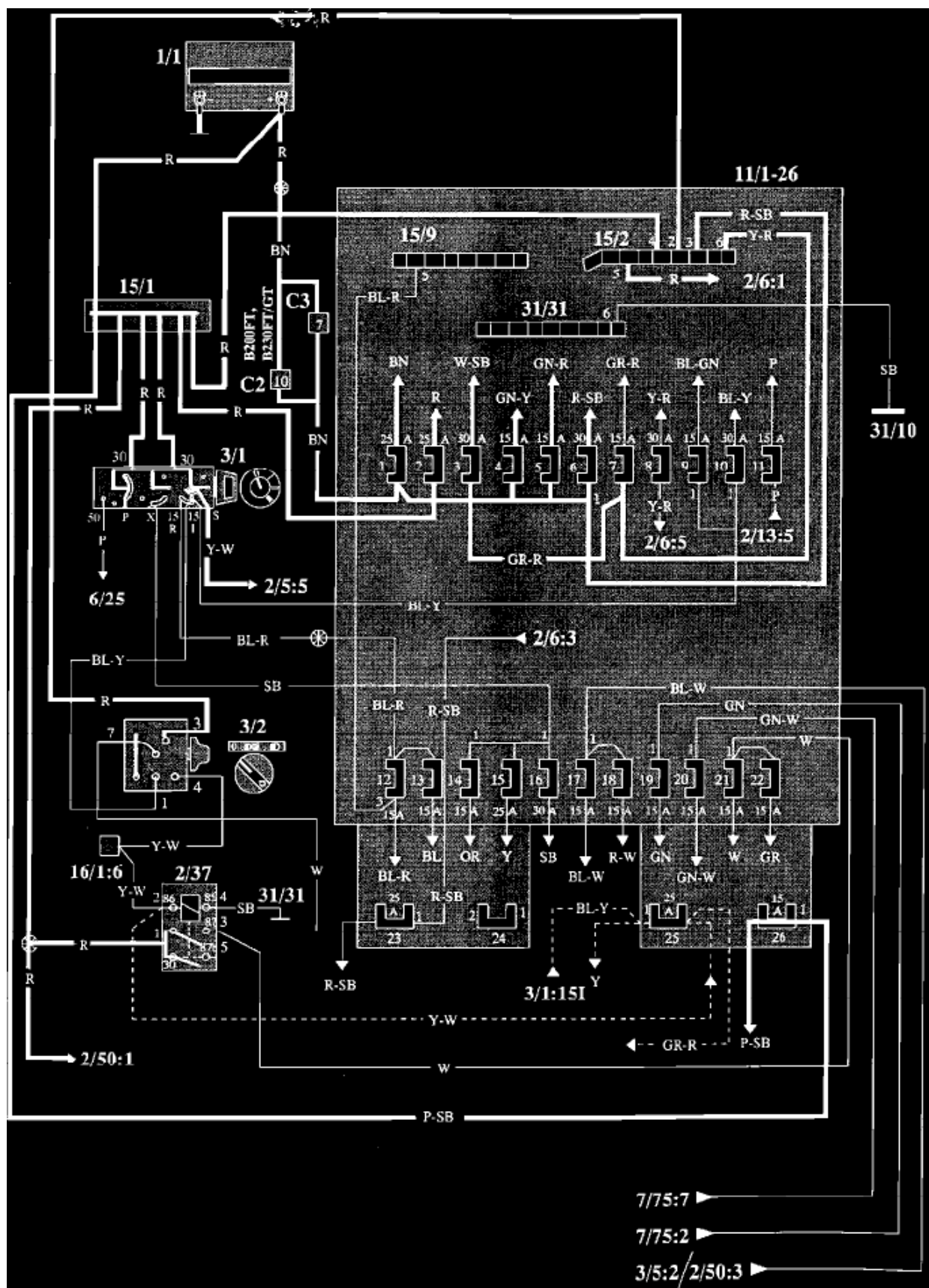
- Start inhibitor
- Visual signal
- Sound signal

Refer to "Body and Frame : Seats : Diagrams : Electrical".

960 MCC 1996-
S90/V90 MCC/ECC 1997-



Locations

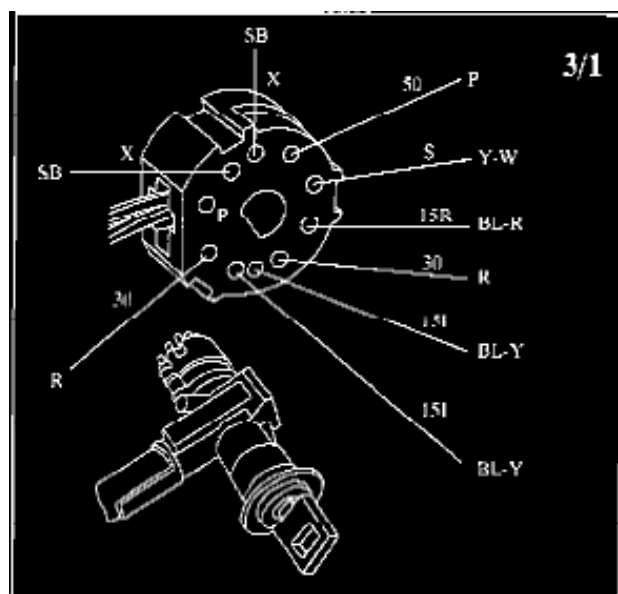


Headlamp Relay: Locations

Fuse/Relay Identification and Location

Electrical Distribution Unit

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin



Ignition lock

Inputs

30: two leads from battery

Outputs

Key position:

- Key withdrawn
- 0 Off
- I Radio
- II Drive
- III Start

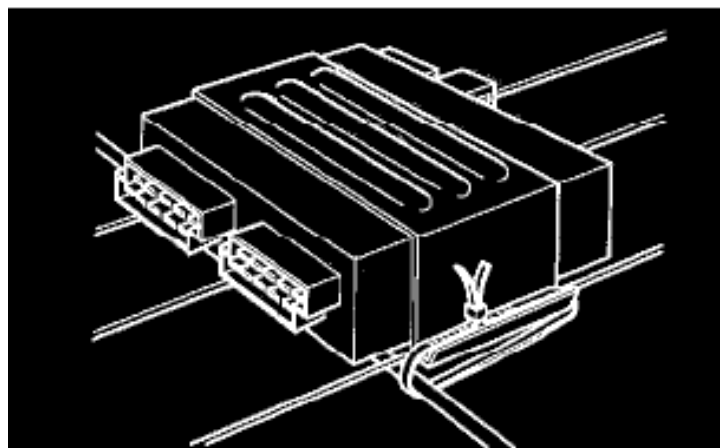
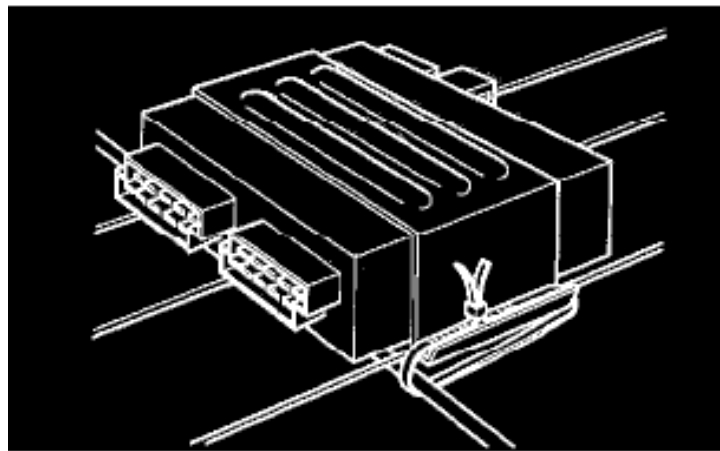
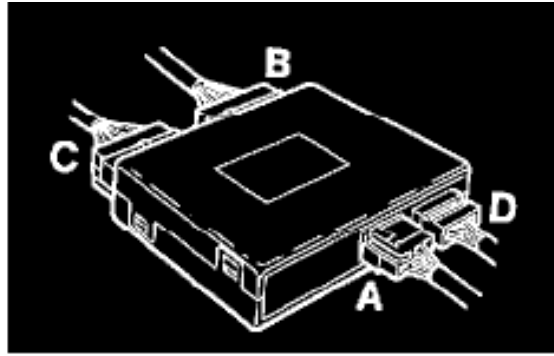
Voltage at connection:

- P
- S,P
- X,S,P
- X,15R,15LS
- 15R,50,S

Relay location in engine compartment



- 2/11* Relay, engine cooling fan (B 200 F/G, B 230 F/FB/FD/G)
- 2/11** Relay, engine cooling fan (B 200 FT, B 230 FT/GT)
- 2/12* Relay, interference suppression (B 200 F/G, B 230 F/FB/FD/G)
- 2/12** Relay, interference suppression (B 200 FT, B 230 FT/GT)
- 2/14 Relay, glow plug (D 24 TIC)
- 2/38 Timer relay, exhaust feedback EGR (D 24 TIC)



Power Seat Control Module: Service and Repair

Control module for power seat, change

Remove:

Preparations

- Remove battery negative lead and note any radio code.
- Remove seat from vehicle. See: Body and Frame/Seats/Service and Repair/Remove Seat From Vehicle

Connector

- Disconnect all 4 control module connectors.

Remove control module

- Unhook control module fixing plate at front edge.
- Lift fixing plate clear at front edge and remove control module.

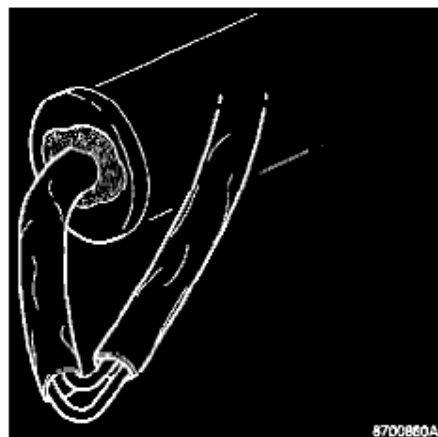
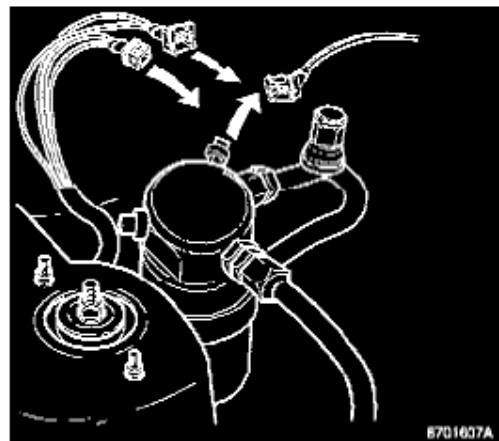
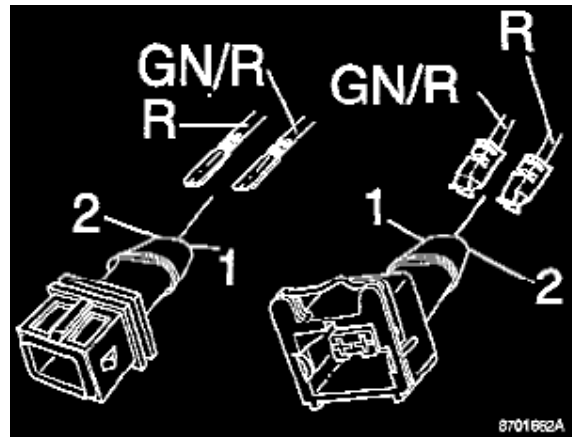
Replace:

Replacement of control module

- Replace control module.
- Replace fixing plate at front edge.
- Replace the 4 connectors. Check that connectors are properly connected.

Replacement

- Replace seat in vehicle. See: Body and Frame/Seats/Service and Repair/Remove Seat From Vehicle
- Replace battery negative lead.



F3 Route cables to engine compartment -

Route the cables which do not have connectors to the engine compartment through an unused hole in the grommet under the brace to the suspension strut.

- Connect green-red cable to connector terminal 1.
- Connect green cable to connector terminal 2.

F4

- Separate existing connectors at the boost pressure switch and connect connector from the new cable harness.

F5 Location of cable sheath opening The cable sheath is cut to drain off condensation. -

The cut conduit section should be placed at the lowest point along the route of the cable.

- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.

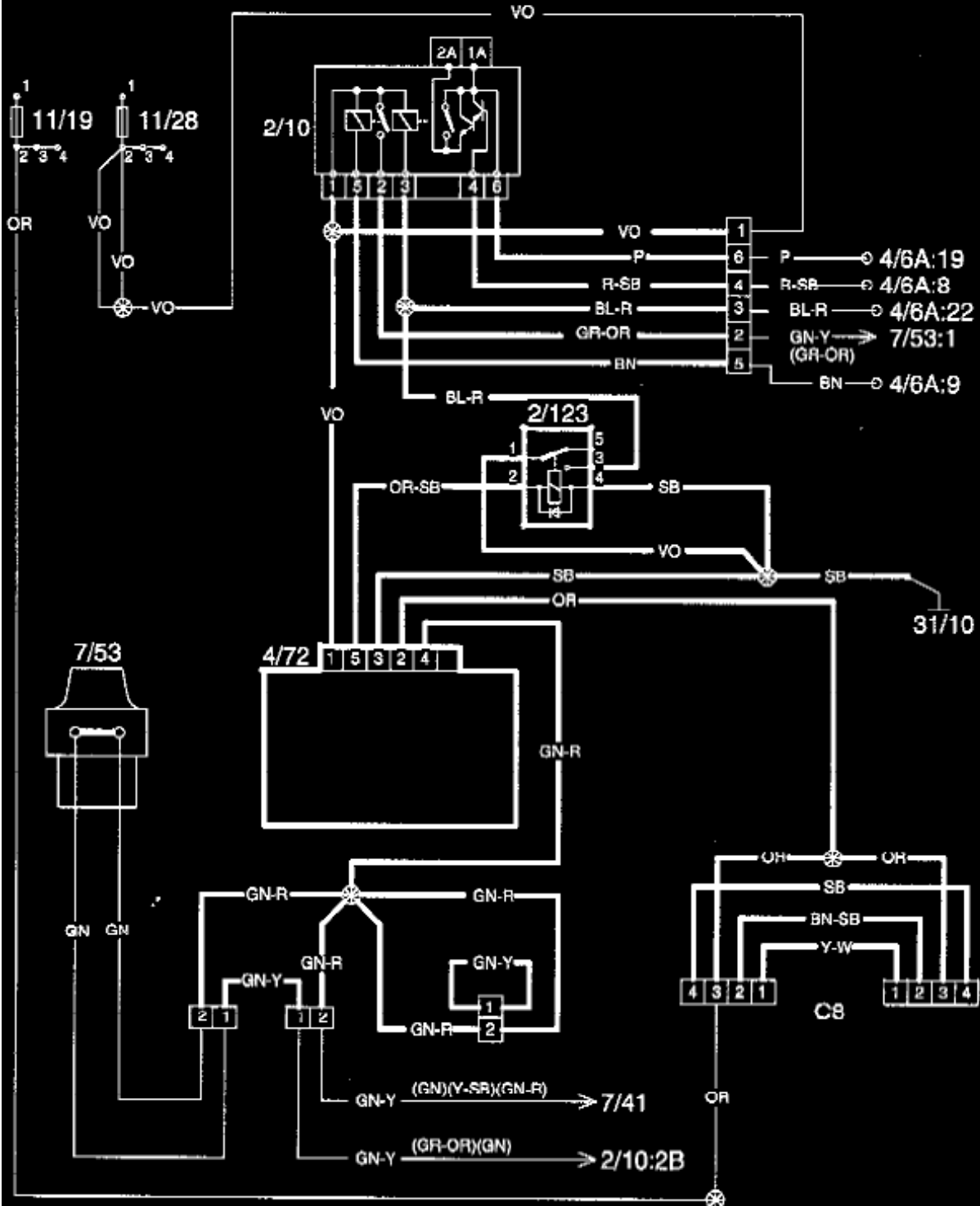
Connecting cable harness in passenger compartment

Fuse/Relay Identification and Location

Electrical Distribution Unit

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C54	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
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31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
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	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

760/960 MCC/ECC 1992-1994



3701315A

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

REMOVAL

1. Check ignition is switched off 2. Undo battery negative lead. 3. Remove sound insulation underneath dashboard. 4. Undo control module cable tie and remove. 5. Remove connector from control module.

INSTALLATION

1. Fit connector to new control module. 2. Install control module, sound insulation, and battery negative lead.

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
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31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

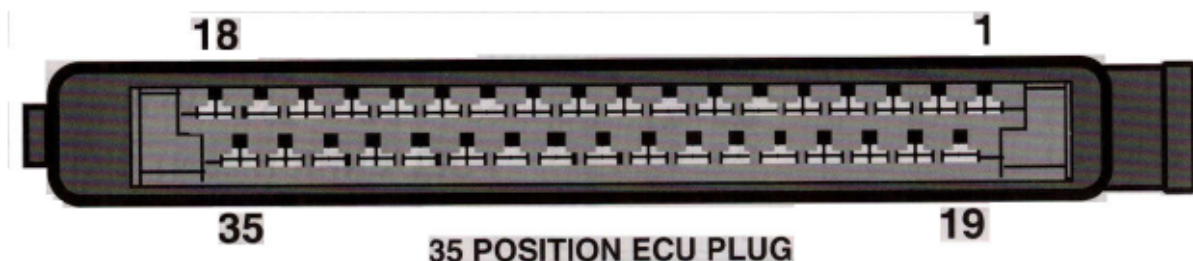
Compressor Clutch Relay: Description and Operation

Used by fuel injection ECU.

The A/C cut-off relay (located in front of the driver side strut tower) receives a signal from the throttle position sensor, when the throttle valve is in the full load position. The relay will then open and interrupt the A/C compressor operation. The A/C compressor will resume operation as soon as the throttle position sensor is no longer in the full load position. The fuel injection ECU monitors the A/C system via a connection to the A/C cut-off relay.

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Volvo	LF	RF	LR	RR	Rear	Sol. Val.
1987 - 1993 All Models	4(-), 6(+)	21(-), 11(+)	none	none	9(-) ,7(+)	3



** If there are only three valves listed it means there isn't a right rear valve and therefore no wire in Pin 19. If a wire exists in Pin 19 it will mean the system has four solenoid valves.

*** Not all Bosch ABS 2 have a Solenoid valve on the right rear wheel. This does not mean that if a system has only three solenoid valves that it will only have three wheel speed sensors. These differences are sorted out in the chart.

**** Not all Bosch ABS 2 have a wheel speed sensor on the right rear wheel. Systems that have only three wheel speed sensors have the rear sensor mounted in the differential housing. The easiest way to determine how the wheel speed sensors are wired is to inspect the 35 Pin plug and see what contacts are used for in system being tested.

Teves - ABS

35 Position ECU Plug

Connector View

System

Teves ABS

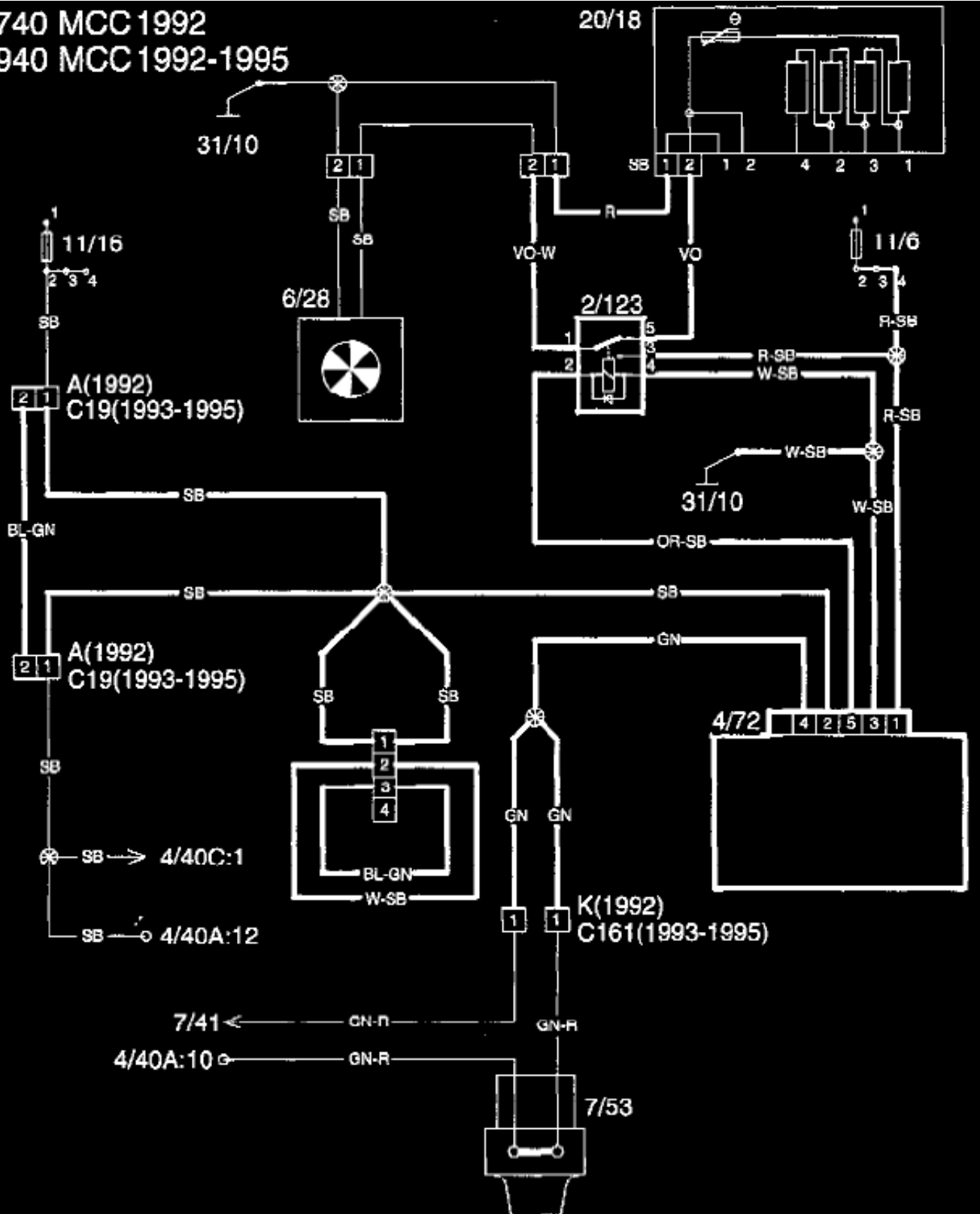
Location

Terminal ID

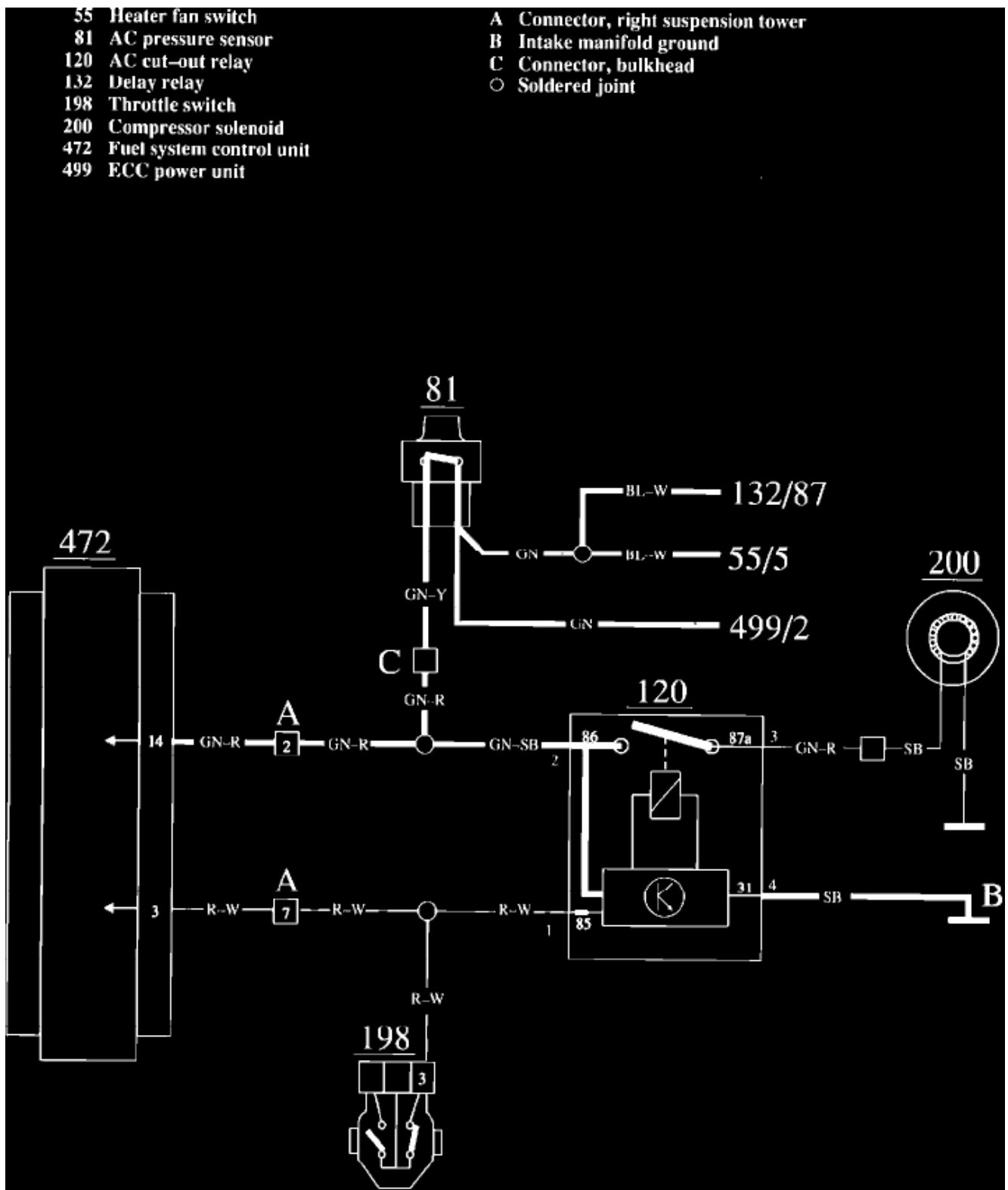
1 - Ground 2 - Ignition Switch 3 - Main Power Relay 4 - Wheel Speed Sensor Right Rear (-) 5 - Wheel Speed Sensor Left Front (-) 6 - Wheel Speed Sensor Left Rear (-) 7 - Wheel Speed Sensor Right Front (-) 8 - Main Power Relay Control 9 - Fluid Level Switch

10 - Fluid Pressure Switch 11 - Solenoid Valve Ground 12 - Brake Light (NC Scorpio) 13 - NC 14 - Pump Relay Monitor (NC Ford, GM) 15 - Inlet Solenoid Valve (Right Front) 16 - Outlet Solenoid Valve (Left Front) 17 - Inlet Solenoid Valve (Rear) 18 - Main Hydraulic Solenoid Valve 19 - Ignition Switch (Scorpio only) 20 - Main Power Relay 21 - NC 22 - Wheel Speed Sensor Right Rear (+) 23 - Wheel Speed Sensor Left Front (+) 24 - Wheel Speed Sensor Left Rear (+) 25 - Wheel Speed Sensor Right Front (+) 26 - NC 27 - ABS Warning Light 28 - NC 29 - NC 30 - NC 31 - NC

740 MCC 1992
940 MCC 1992-1995



740 MCC 1992 940 MCC 1992-1995



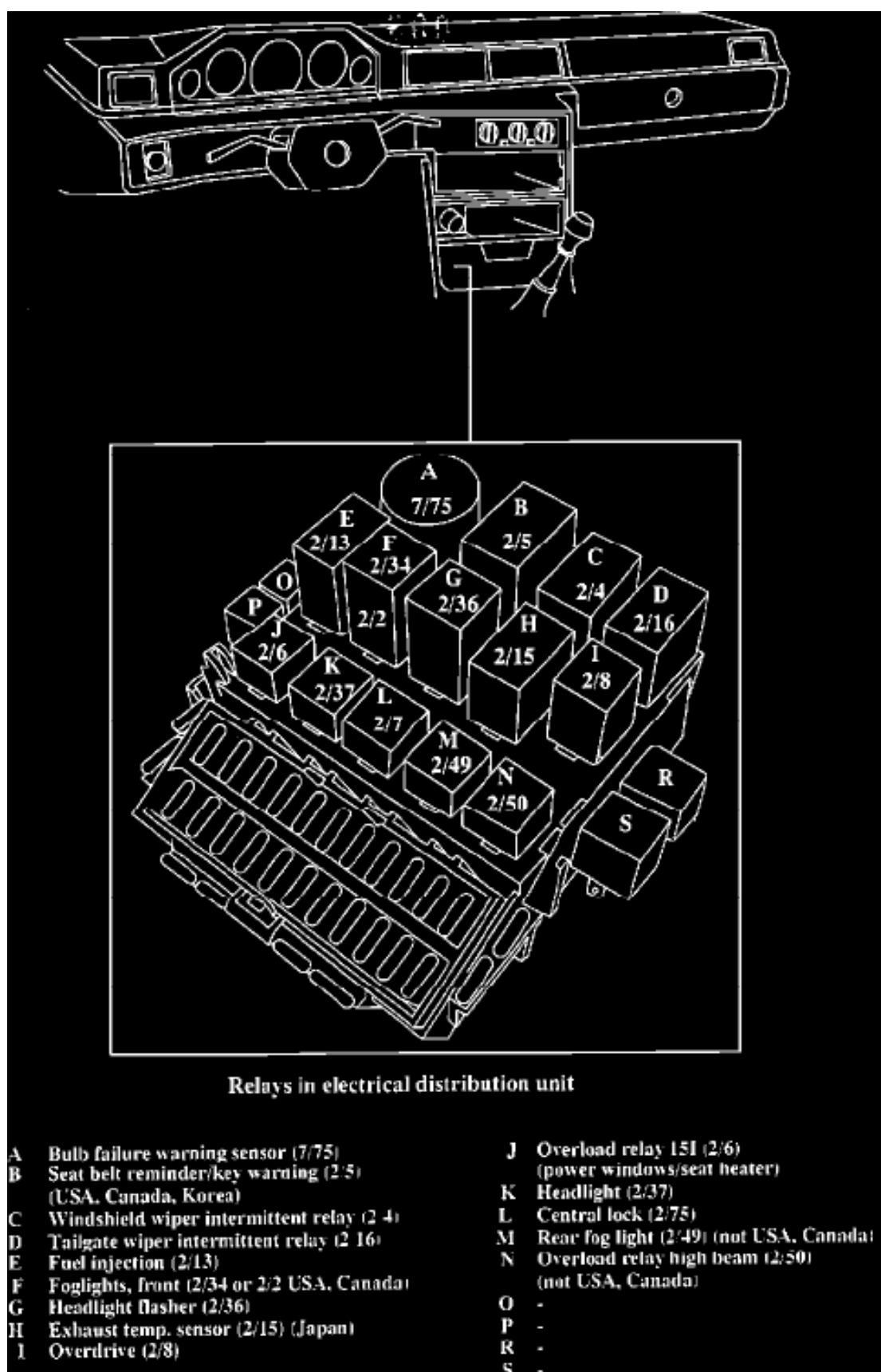
Air Conditioning Full Load Cut Off System

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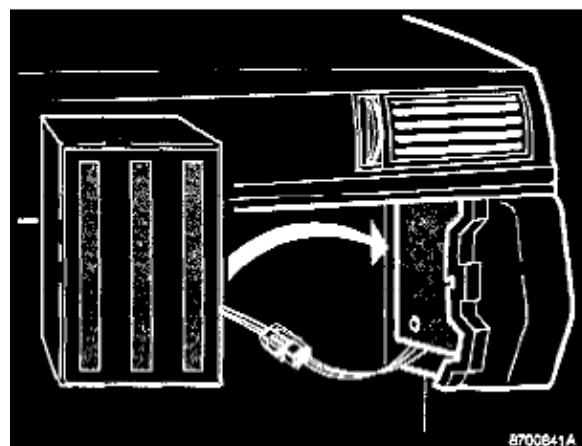
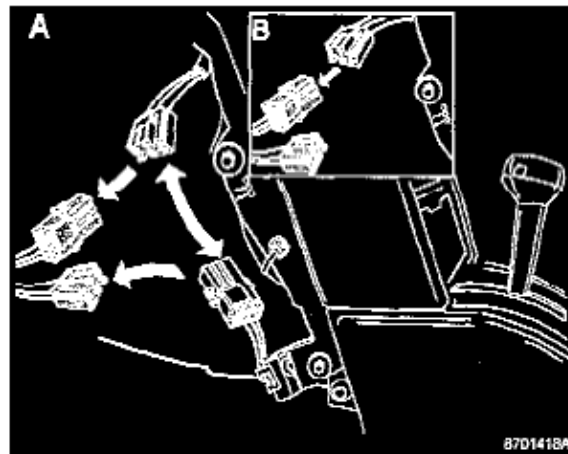
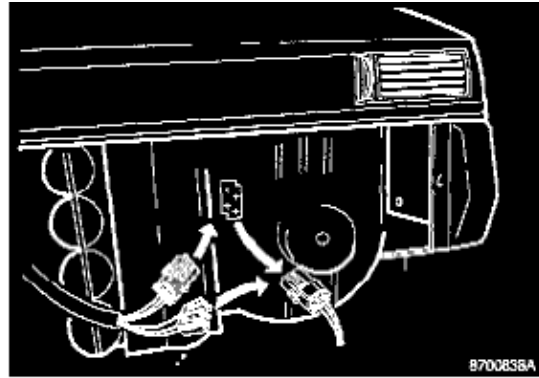
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This car is equipped with a new blower fan control system which reduces residual condensation in the air-conditioning system to a minimum.

In normal operation the blower fan will start operating automatically about 50 minutes after the ignition has been switched off and then operate for a period of approximately 5 minutes.



Relay Locations



D6 Connection of yellow connector -

Disconnect the yellow connector from the heater and attach the yellow connector from the cable harness.

- Install the detached connector in the other cable harness yellow connector.

D7 Connection of orange cable -

Route the orange cable with connector to driver's side of centre console.

- Locate the black 4-pin accessories connector. The connector can be connected to accessories (A) or unused (B).
- (A) If accessories are connected, separate connectors and connect them to both connectors on the new cable harness.
- (B) Connect the unused existing black 4-pin connector to one of the new harness connectors. Leave the other connector unused.

Installing control module from kit

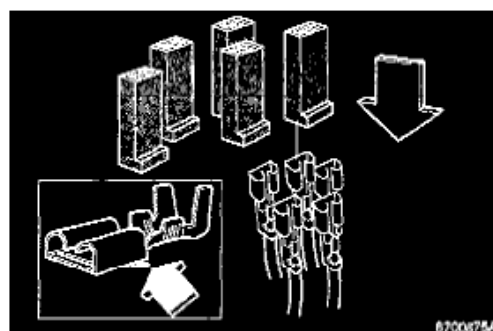
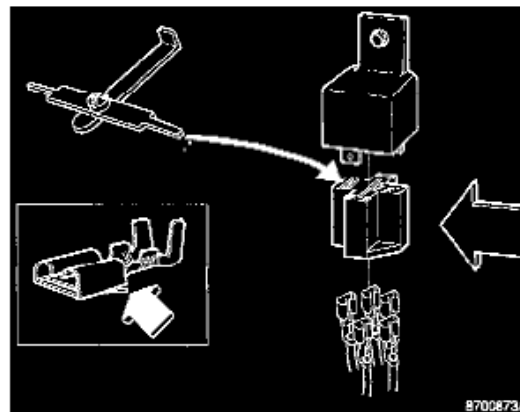
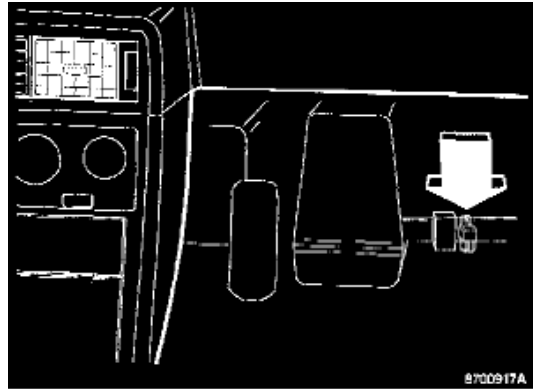
D8 Connecting and mounting control module in cars without SRS (Airbag) and knee bolster -

Connect control module and cable harness connectors.

- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

7/17	Mass air flow (MAF) sensor	10/43	Right brake light
7/24	Knock sensor (KS)	10/44	Right parking light, rear
7/25	Engine speed (RPM) sensor	10/45	Right parking/tail light
7/26	Pressure sensor, EGR	10/46	Right rear foglight
7/28	Engine coolant temperature (ECT) sensor, diesel	10/47	Bulb, right rear turn signal
7/30	Pressure sensor for charge pressure, turbodiesel	10/48	Right backup (reversing) light
7/31	Sensor, ABS left front	10/50	Left brake light
7/32	Sensor, ABS right front	10/51	Left parking light, rear
7/33	Sensor, vehicle speed and ABS	10/52	Left parking/tail light
7/34	Thermoelement, three-way catalytic converter (TWC)	10/53	Left rear foglight
7/37	Temperature sensor, EGR	10/54	Bulb, left rear turn signal
7/38	Low-speed pressure sensor, engine cooling fan	10/55	Left backup (reversing) light
7/40	High-speed pressure sensor, engine cooling fan	10/64	Right high beam
7/41	High-pressure, A/C	10/65	Right extra main beam
7/43	Thermostat, driver's seat	10/66	Right low beam
7/44	Thermostat, passenger's seat	10/68	Left high beam
7/47	PTC-resistor, air pre-heating	10/69	Left extra high beam
7/50	Pressure sensor, intake manifold	10/70	Left low beam
7/52	Temperature sensor, intake air	10/72	Ashtray lighting, front
7/53	Low-pressure sensor, A/C	10/74	Indicator light, exhaust gas temperature
7/69	Ambient temperature sensor	10/75	Indicator light, charge pressure, turbodiesel
7/75	Bulb failure sensor	10/76	Indicator light, diesel preheating
8/1	Operating solenoid, overdrive	10/77	Indicator light, SRS (airbag)
8/2	Solenoids, ECC	10/78	Indicator light, seat belt
8/3	Solenoid coupling, A/C	10/79	Indicator light, overdrive (auto.)/Gear selection indicator
8/5	Idle air control (IAC) valve	10/80	Indicator light, overdrive (man.)
8/6-9	Injection valves	10/82	Indicator light, ABS
8/13	Fuel valve, diesel	10/83	Indicator light, parking brake
8/15	Hydraulic unit, ABS	10/84	Indicator light, brake warning
8/17	Converter, EGR	10/85	Indicator light, high beam
8/24	3-way valve, EGR	10/86	Indicator light, oil pressure
8/30	Steering wheel module, SRS (airbag)	10/87	Indicator light, charge
8/33	Igniter for driver's side seat belt tensioner	10/88	Indicator light, bulb failure
8/34	Igniter for passenger's side seat belt tensioner	10/89	Indicator light, rear foglights
8/36	Solenoid P-shift lock	10/90	Indicator light, washer fluid level
8/42	Solenoid, pulsed secondary air injection (PAIR)	10/91	Service indicator
9/1	Cigar lighter	10/92	Indicator light, trailer
9/2	Heated rear window	10/93	Indicator light, malfunction indicator lamp (MIL)
9/3	Heater element, driver's seat backrest	10/94	Indicator light, right turn signal
9/4	Heater element, passenger's seat backrest	10/95	Indicator light, left turn signal
9/5	Heater element, driver's seat cushion	10/96	Instrument lighting
9/6	Heater element, passenger's seat cushion	10/103	Switch lighting, heated rear window/door mirrors
10/5	Left front foglight	10/104	Switch lighting
10/6	Right front foglight	10/112	Vanity mirror lighting
10/11	Left front parking light	11/1-26	Fuses
10/12	Right front parking light	11/41	Fuse, combined instrument
10/13	Left front turn signal	15/1	Positive terminal
10/14	Right front turn signal	15/2	30-rail in el. distribution unit
10/15	Left turn signal repeater (not USA/CDN)	15/9	Fuse-protected 15-rail in el. distribution unit
10/16	Right turn signal repeater (not USA/CDN)	16/1	Radio
10/19	Extra brake light	16/2	Amplifier
10/20	Left number plate light	16/3	Loudspeaker, right front door
10/21	Right number plate light	16/4	Loudspeaker, left front door
10/22	Roof light	16/5	Loudspeaker, right rear door
10/24	Trunk light	16/6	Loudspeaker, left rear door
10/25	Roof light, load area (5-door)	16/7	Loudspeaker, instrument panel, right side
10/29	Glove compartment light	16/8	Loudspeaker, instrument panel, left side
10/30	Door-open warning light, driver's door	16/9	Antenna
10/31	Door-open warning light, front passenger's side	16/10	Horn 1
10/32	Door-open warning light, rear driver's side	16/11	Horn 2
10/33	Door-open warning light, rear passenger's side	16/15	CD-changer
10/34	Warning light, rear seat belts	16/17	Loudspeaker, rear parcel shelf, left side
10/36	Control panel lighting	16/18	Loudspeaker, rear parcel shelf, right side
10/38	Ashtray lighting, rear		
10/39	Switch lighting, seat heater		
10/40	Gear selector lighting		

Refer to "Body and Frame : Locks : Diagrams : Electrical".



A4 Removing existing connector from existing cable harness -

Disconnect 5-pin connector from blower relay (relay 131 in the Service Manual).

See Service Manual: Section 3 (39) Wiring diagrams 740 1990

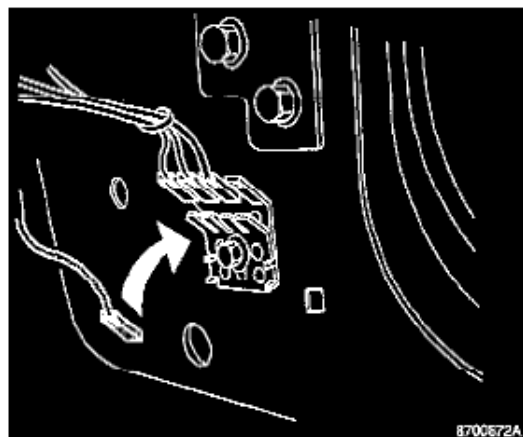
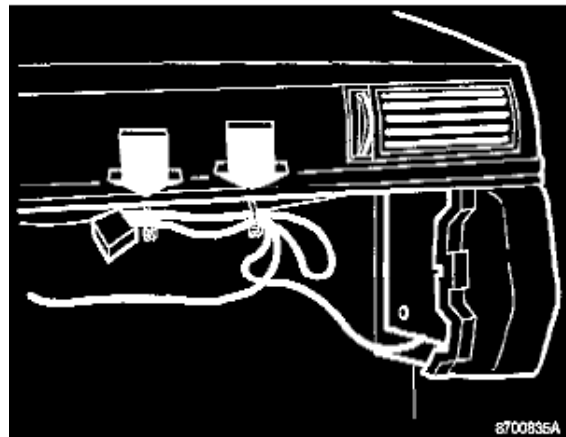
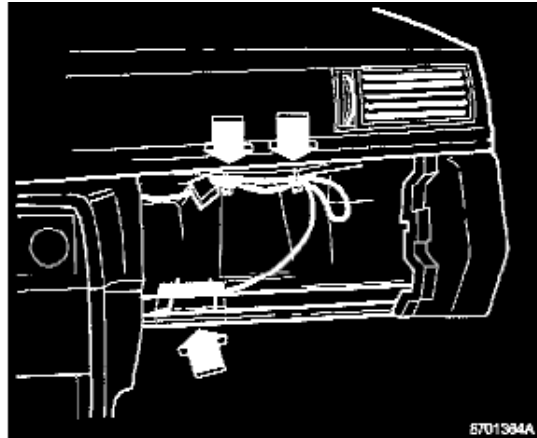
A5 Cable terminal, opening -

Detach the cables carefully from the connector's receptacle housing using tool 9814229-2, from repair kit 9814235.

See Service Manual: Section 3(37), Wiring repairs and replacing cable terminals 850, 900

A6 Installation of 5 housing receptacles -

Straighten the locking tongues carefully and attach the 5 white housing receptacles from the kit.



D9 Connecting and mounting control module In cars with SRS (Airbag) and knee bolster -

Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.

- Attach cable harness to existing cable harness at side of SRS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

D10 Fastening cables in cars without SRS (Airbag) and knee bolster -

Attach cable harness and the relay in the foam rubber covered hose which passes over the glove compartment to the side defroster with 2 cable ties, one as close to the connector as possible to prevent vibration caused by uneven road surfaces.

D11 Connection to ground plate -

Connect the black-white cable included in the cable harness to the ground plate on the right side of the cowl.

The ground plate is located behind the fuel control module.

2/10	ECC Power unit
2/22	Air conditioning (A/C) relay
2/123	Airing cycle system relay
2/124	Airing cycle system supply relay
2/125	Airing cycle ground relay
4/6	ECC Control module
4/12	Motronic Control module
4/31	Control module for blower fan motor
4/40	MCC Climate control
4/46	Engine control module (ECM)
4/72	Airing cycle system control module
6/28	Blower fan motor
7/13	Air conditioning (A/C) High-Pressure Switch
7/39	Air conditioning (A/C) Overload switch
7/41	Air conditioning (A/C) High-Pressure Switch
7/53	Air conditioning (A/C) Low-Pressure Switch
8/2	ECC Solenoid valves
8/3	Air conditioning (A/C) Solenoid valves
11/1	Fuses
11C/1-	Fuses in passenger compartment fusebox (960)
20/18	Blower fan resistor
31/6	Ground terminal, LH A-post
31/10	Ground terminal right A-post
55	Blower fan switch
81	Air conditioning pressure switch
131	Engine cooling fan (FC) relay
132	Delay relay
165	Blower fan
169	Blower fan resistor
200	Control solenoid, A/C Compressor
260	Control module ignition system
485	MCC Climate control system
495	ECC control module
497	Solenoid valves
499	ECC power unit
A	Dashboard connectors 4-pin (740/940 MCC 1991) 2-pin (940 MCC 1992) 10-pin (780)
A1/A	Multi-connector at left A-post
A2/B	Multi-connector under dashboard at left A-post
A11	Connector cable harness passenger compartment - cable harness climate unit, 6-pin

17/1	Service socket for starter motor operation	C36	Connector, under passenger's seat, 2-pin
17/11	OBD diagnostic socket	C37	Connector, under driver's seat, 2-pin
17/14	Test socket for diagnosis of power seat	C39	Connector, at driver's seat, 4-pin
		C40	Connector, at passenger's seat, 4-pin
18/1	Bridge connector 1	C41	Connector, under driver's seat, 6-pin
18/2	Bridge connector 2	C42	Connector, under driver's seat, 2-pin
		C50	Connector, 8-pin
19/1	Engine coolant temperature (ECT) gauge		Left wheel housing harness - Engine harness
19/2	Rev. counter (RPM gauge)	C51	Connector, 8-pin
19/3	Speedometer		Left wheel housing harness - Engine harness
19/4	Clock	C34	Connector, 8-pin
19/5	Fuel gauge		Right wheel housing harness - Engine harness
		C55	Connector, 8-pin
20/1	Ignition coil		Right wheel housing harness - Engine harness
20/2	Distributor	C62	Connector, at windshield wiper motor, 4-pin
20/3-6	Spark plugs	C63	Connector, at left headlight, 3-pin
20/9	Glowplugs	C64	Connector, at right headlight, 3-pin
20/15	Series resistance	C65	Connector, driver's door, 6-pin
20/18	Cabin fan resistor	C66	Connector, passenger's door, 6-pin
		C72	Connector, driver's door, 2-pin
31/1	Ground connector right front wing	C73	Connector, passenger's door, 2-pin
31/2	Ground connector left front wing	C74	Connector, rear door driver's side, 2-pin
31/3	Ground connector body (ground connection, battery-body)	C75	Connector, rear door passenger's side, 2-pin
31/4	Ground connector engine (ground connection, battery-engine)	C76	Connector, right A-post, 2-pin
31/5	Ground connector for heated rear window (4-door)	C79	Connector, driver's door, 4-pin
31/6	Ground connector left A-post	C84	Connector, driver's door, 2-pin
31/9	Ground connector at parking brake lever	C85	Connector, rear door driver's side, 2-pin
31/10	Ground connector right A-post	C86	Connector, passenger's door, 2-pin
31/11	Ground connector left tail light	C87	Connector, rear door passenger's side, 2-pin
31/12	Ground connector right tail light	C88	Connector, at switch, 5-pin
31/13	Ground connector in load area	C89	Connector, at sunroof motor, 2-pin
31/16	Ground connector at windshield wiper motor	C91	Connector, at el. dist. unit, 2-pin
31/17	Ground connector at power sunroof motor	C92	Connector, behind steering wheel, 2-pin
31/26	Ground connector, generator	C93	Connector, left rear wheel housing, 4-pin
31/28	Ground connector at overdrive solenoid	C98	Connector, at power antenna, 4-pin
31/31	Ground connection rail in el. distribution unit	C100	Connector, left wheel housing, 2-pin
31/32	Ground connector on engine (power ground)	C101	Connector, right wheel housing, 2-pin
31/33	Ground connector on engine (signal ground)	C102	Connector, at el. dist. unit, 2-pin
31/60	Ground connector on engine (diesel)	C103	Connector, at firewall, 2-pin
31/63	Ground connector at steering column bracket	C104	Connector, at firewall, 1-pin
31/64	Ground connector engine cooling fan	C105	Connector on bridge connector 1, 2-pin
		C111	Connector, at thermoelement, 3-pin
C1	Connector, 53-pin	C117	Connector, 2-pin
	Instrument panel harness - Door sill harness		Left wheel housing harness - Engine harness
C2	Connector, 53-pin	C121	Coupling reel, steering wheel, SRS (airbag)
	Instrument panel harness - Left wheel housing harness	C123	Connector to bridge connector 2, 2-pin
C3	Connector, 53-pin	C132	Connector, 8-pin
	Instrument panel harness - Right wheel housing harness		Left wheel housing harness - Engine harness
C5	Connector, left A-post, 2-pin	C137	Connector, 4-pin
C6	Connector, at el. dist. unit, 4-pin		Right wheel housing harness - Engine harness
C7	Connector, at steering column, 8-pin	C139	Connector, at gear selector, 4-pin
C9	Connector, at centre console, 10-pin	C143	Connector, at A-post passenger's side, 24-pin
C11	Connector, at el. dist. unit, 4-pin	C144	Connector, at A-post driver's side, 24-pin
C12	Connector, at el. dist. unit, 2-pin	C149	Connector, at B-post passenger's side, 11-pin
C13	Connector, at el. dist. unit, 4-pin	C150	Connector, at B-post driver's side, 11-pin
C14	Connector, at el. dist. unit, 2-pin	C154	Connector, 3-pin or 1-pin
C15	Connector, left A-post, 4-pin		Right wheel housing harness - engine cooling fan harness
C19	Connector, at instrument panel, 2-pin	C155	Connector, left A-post, 8-pin
C20	Connector, under gear lever carrier, 1-pin or 2-pin	C156	Connector, at firewall, 3-pin
C21	Connector, left B-post, 4-pin	C157	Connector, at el. dist. unit, 4-pin
C22	Connector, at tailgate, 6-pin (5-door)	C160	Connector, at instrument panel, 6-pin
C23	Connector, at tailgate, 2-pin (5-door)	C161	Connector, at firewall, 1-pin
C24	Connector, at extra brake light, 2-pin	C162	Connector, left B-post, 2-pin
C25	Connector, tailgate, 2-pin, (5-door)	C163	Connector, at firewall, 2-pin (diesel)
C27	Connector, tailgate, 1-pin, (5-door)		
C29	Connector, at driver's seat, 4-pin	D1	Connector, at instrument panel, 4-pin
C31	Connector, at passenger's seat, 2-pin	D2	Connector, alarm, 8-pin at steering column
C32	Connector, at driver's seat, 2-pin	D3	Connector, alarm, 4-pin at steering column
C33	Connector, under driver's seat, 2-pin	D4	Connector, alarm, 2-pin in engine compartment, left front
C34	Connector, under passenger's seat, 2-pin	D5	Connector, towing hook, 10-pin (not USA/CDN)
		D7	Connector, ambient temperature sensor, 6-pin

Locations

Seat Heater Relay: Locations

Refer to "Body and Frame : Seats : Locations : Components".

Diagram Information and Instructions

List of components

1/1	Battery	3/52	Switch for power antenna
2/2	Relay, front foglights USA/CDN	3/59	Beam width control
2/3	Regulator DIM-FMP	3/66	Idle air control (IAC) control, EGR
2/4	Intermittent relay, windshield wipers	3/70	Thermostat setting
2/5	Relay, seat belt reminder/ignition key warning	3/78	Lock unit, tailgate
2/6	Bypass relay 151	4/1	Overheating protector, driver's seat
2/7	Central locking relay	4/2	Overheating protector, passenger's seat
2/8	Overdrive relay	4/3	Control module, cruise control
2/10	Power unit ECC	4/4	Rheostat
2/11	Relay, engine cooling fan	4/5	Safety circuit, SRS (airbag)
2/12	Relay, radio interference suppression	4/6	Control module, FCC
2/13	Relay, fuel injection (MFI)	4/9	Sensor module, SRS (airbag)
2/14	Relay, glowplug mechanism	4/10	Control module EZ-K (DI) system
2/15	Relay, exhaust gas temperature sensor	4/15	Power amplifier, EZ-K (DI) system
2/16	Intermittent tailgate wiper relay	4/16	Control module ABS
2/18	Transient protector, ABS	4/23	Control module LH-jctronic 2.4 (MFI) system
2/24	Relay, front foglights	4/25	Control module Regina (MFI) system
2/26	Headlight flasher	4/26	Power amplifier/ignition coil REX-I (DI) system
2/27	Headlight relay	4/29	Control module driver's seat
2/28	Timer relay, exhaust gas recirculation (EGR)	4/40	A/C controls, MCC
2/45	Relay, P-shift lock	4/42	Control module REX-I (DI) system
2/49	Relay, rear foglights	4/43	Heater controls
2/50	Bypass relay, high beam		
3/1	Ignition lock	5/1	Combined instrument
3/2	Light switch	5/3	Ambient temperature sensor
3/4	Cruise control operation	6/1	Windshield wiper motor
3/5	Switch, turn signal/high-low beam	6/2	Washer motor, front
3/6	Switch, hazard warning flashers	6/3	Right headlight wiper motor
3/7	Foglight switch	6/4	Left headlight wiper motor
3/8-1	Switch, heated rear window	6/5	Central locking motor, passenger's side front
3/8-2	Switch with timer relay, heated rear window/door mirrors	6/6	Central locking motor, passenger's side rear
3/9	Brake light switch	6/7	Central locking motor, driver's side rear
3/10	Backup (reversing) light switch	6/8	Central locking motor, tailgate
3/12	Switch, windshield wash/wipe	6/9	Window lift motor driver's door
3/13	Switch, tailgate wash/wipe	6/10	Window lift motor driver's side rear
3/14	Switch, lock button	6/11	Window lift motor passenger's side front
3/15	Power window switch, driver's door for driver's door	6/12	Window lift motor passenger's side rear
3/16	Power window switch, driver's door for driver's side rear door	6/13	Power door mirror, driver's side
3/17	Power window switch, driver's door for passenger's side front	6/14	Power door mirror, passenger's side
3/18	Power window switch, driver's door for passenger's side rear	6/15	Motor power sunroof
3/19	Power window switch, driver's side rear	6/16	Motor driver's seat backrest
3/20	Power window switch, passenger's side front	6/17	Motor up-down, front edge of driver's seat
3/21	Power window switch, passenger's side rear	6/18	Motor up-down, rear edge of driver's seat
3/22	Switch for rear power window lifts	6/19	Motor fore-aft, driver's seat
3/23	Switch for power door mirror, driver's side	6/24	Vacuum, cruise control
3/24	Switch for power door mirror, passenger's side	6/25	Starter motor
3/25	Switch for power sunroof	6/26	Generator
3/26	Operating module, driver's seat	6/27	Servo motor, throttle control
3/27	Operating module, passenger's seat	6/28	Cabin fan motor
3/28	Switch for heated driver's seat	6/29	Engine cooling fan
3/29	Switch for heated passenger's seat	6/30	Washer motor, tailgate
3/31	Door switch, driver's door	6/31	Fuel pump
3/32	Door switch, passenger's side front	6/32	Tailgate wiper motor
3/33	Door switch, driver's side rear	6/33-1	Fuel level sensor/primer pump
3/34	Door switch, passenger's side rear	6/33-2	Fuel level sensor/pump
3/35	Door switch, tailgate (5-door estate)	6/34	Power antenna
3/36	Switch, glove compartment	6/35	Parking heater
3/37	Horn contacts	6/36	Central locking motor, driver's side front
3/38	Switch, brake pedal	6/38	Actuator, left
3/39	Switch, clutch pedal	6/39	Actuator, right
3/40	Start inhibit switch, automatic transmission	7/4	Brake fluid level sensor
3/42-1	Switch on transmission	7/5	Washer fluid level sensor
3/42-2	Oil pressure sensor, kick-down valve	7/6	Oil pressure sensor
3/43	Switch in gear lever	7/7	Engine coolant temperature (ECT) sensor
3/44	Seat belt lock, driver's seat	7/9	Engine coolant temperature (ECT) sensor, ECC
3/47	Parking brake switch	7/10	Cabin temperature sensor
3/50	Throttle position (TP) switch	7/11	Ambient temperature sensor
		7/12	Solar sensor
		7/14	Thermostat, engine cooling fan
		7/15	Heated oxygen sensor (HO2S)
		7/16	Engine coolant temperature (ECT) sensor, fuel/ignition (MFI/DI) system

Component Index And Identification

Insert the following text in the car's documentation.

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This car is equipped with a new blower fan control system which reduces residual condensation in the air-conditioning system to a minimum.

In normal operation the blower fan will start operating automatically about 50 minutes after the ignition has been switched off and then operate for a period of approximately 5 minutes.