

VOLVO

Service Bulletin

900

Fault tracing

Repairs

Maintenance

SECTION	GROUP	NO.
8	87	955

DATE
Sept. 1997

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

Page 1 of 47

REFERENCE: TP 8701201, SECTION 8(87) CLIMATE UNITS: 700/900 1992-
TP 3701201, SECTION 3(37) WIRING REPAIRS, AND REPLACEMENT OF CABLE TERMINALS; 850 900
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.
XX

Odor from evaporator, installation of blower fan control module

Under humid conditions the ECC unit can cause an unpleasant odor on startup, 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

Type	Model year	Materials kit P/N	Working method page / section	Wiring diagrams page
740 MCC	1988 - 90	9148652-2	2 / A	33
740/940 MCC	1991 -	9148653-0	7 / B	34, 35, 36
740/940 ECC	1991 - 95	9148654-8	12 / C	37, 38
760/960 MCC/ECC	1988 - 94	9148655-5	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.

NOTE! After installing the airing cycle unit, copy and attach the last page (47).

Service personnel: Please circulate, read and initial

Service Manager	Parts Manager	Workshop Manager	Workshop Foreman	Service Technicians							



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

A1

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, pull out and turn central electronics module.

See section 37 in Service Manuals:

Section 3(35-39)

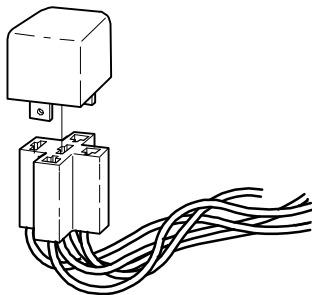
Lighting, instrumentation and other electrical equipment

700/900 1982-

Section 8(82-86,88)

Interior, exterior

700/900 1982-



8700878A

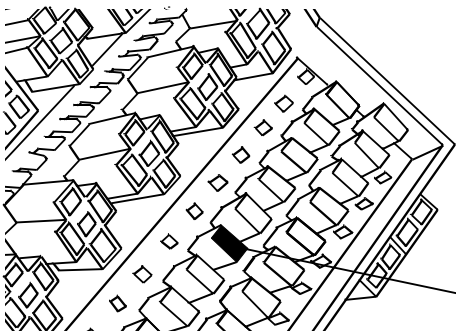
Cable connections

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

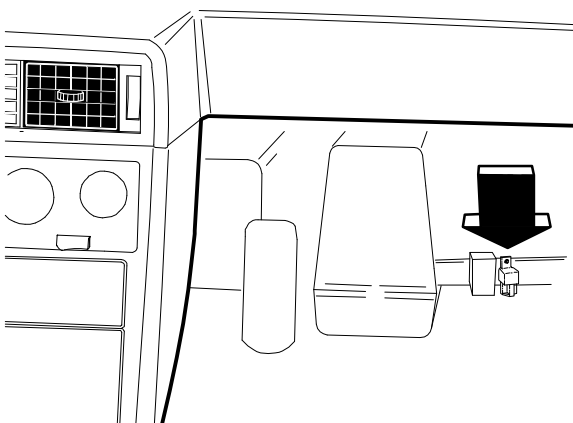


8700867A

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.

A4



8700917A

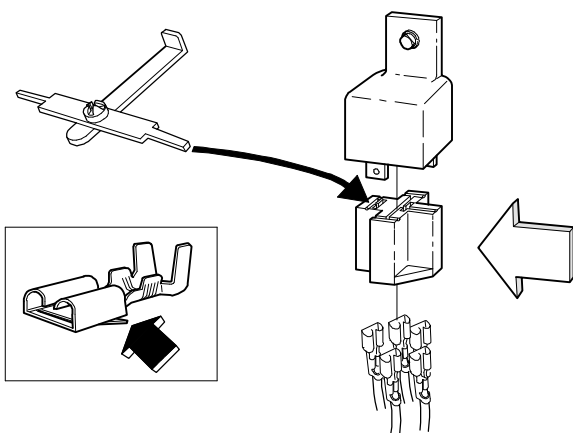
Removing existing connector from existing cable harness

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

See Service Manual:

Section 3 (39)
Wiring diagrams
740 1990

A5



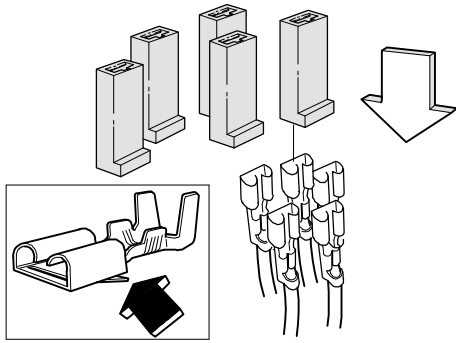
8700873A

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

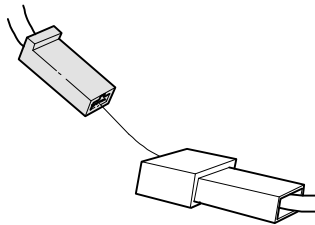


8700875A

A6

Installation of 5 housing receptacles

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

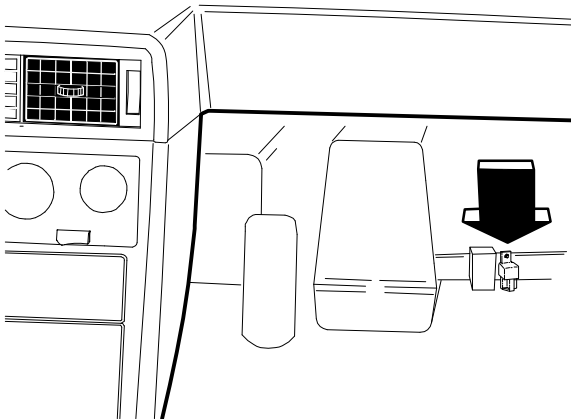


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A7

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)



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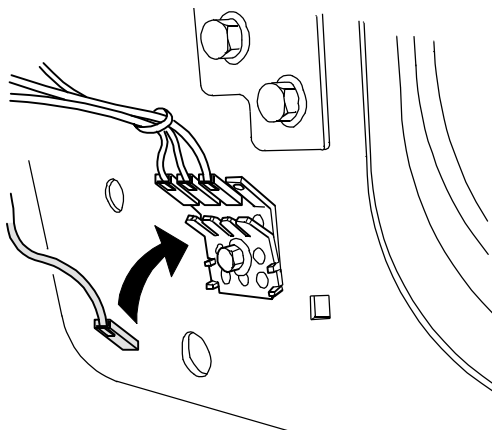
A8

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



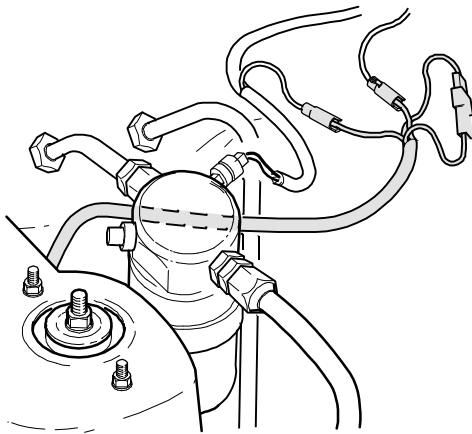
8700872A

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.



8700870A

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.

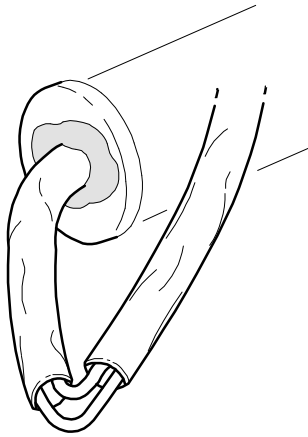
1988 and 1989 model years:

- Connect the flat connectors.

Year model 1990 cars (shown here):

- Connect the round connectors.

- Connect all unconnected connectors to each other.



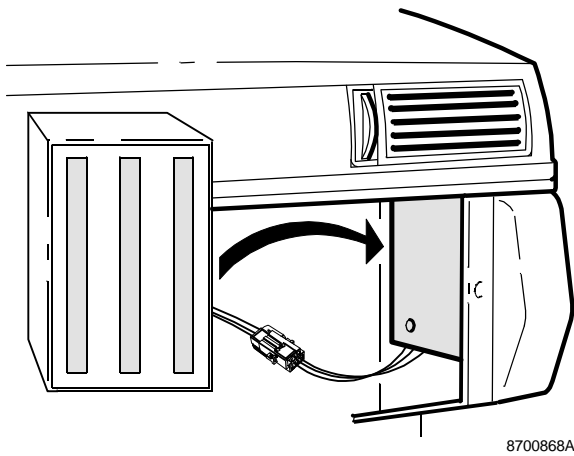
8700860A

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.

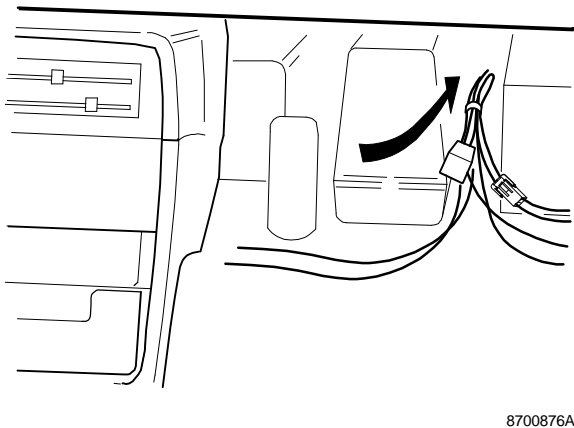


Installing control module from kit

A12

Connection and mounting of control module

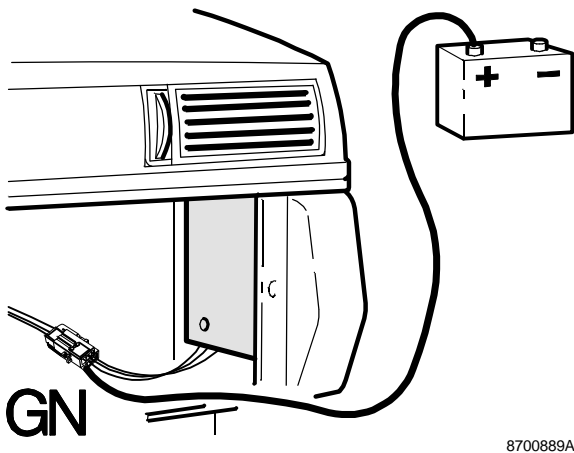
- Connect cable harness connector to control module connector.
- Apply three sections of butyl tape to the control module.
- Install control module on dashboard side section with butyl tape.



Installation of cable harness

A13

- 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 on last page in this service bulletin.

Installing control module and cables
740/940 with MCC model year 1991-*B1***Preparations**

- Clean evaporator according to Service Manual:

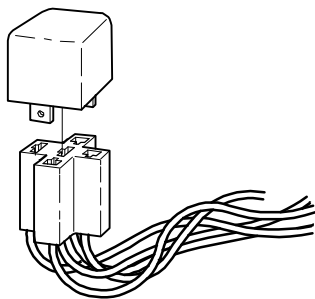
Section 8(87)**Climate control****700/900 1982-****section Y**

- 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.

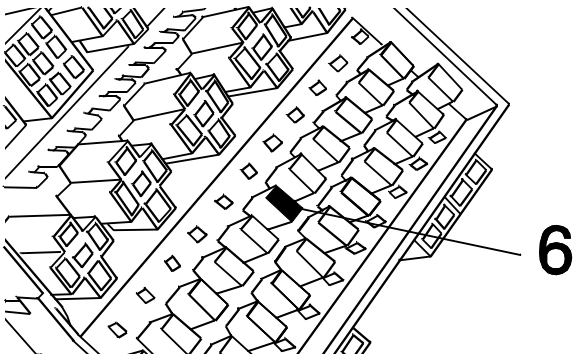
Refer to Service Manual:

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

8700878A

*B2***Cable connections****Installing new relay on cable harness**

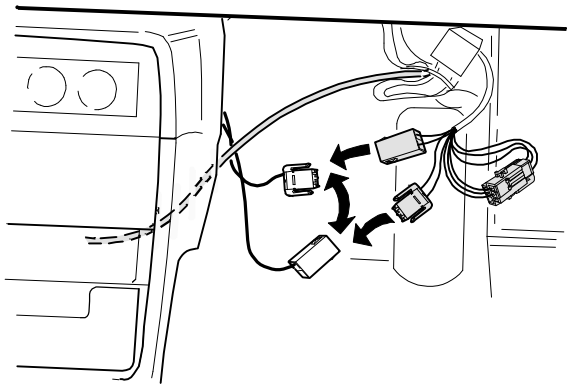
- Take out cable harness (P/N 9148756) supplied with kit.
- Connect the relay in the kit to the 5-pin connector which is attached to the same end of the cable harness as the black-red cable.



8700867A

*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.



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B4

Install cables from relay to connector

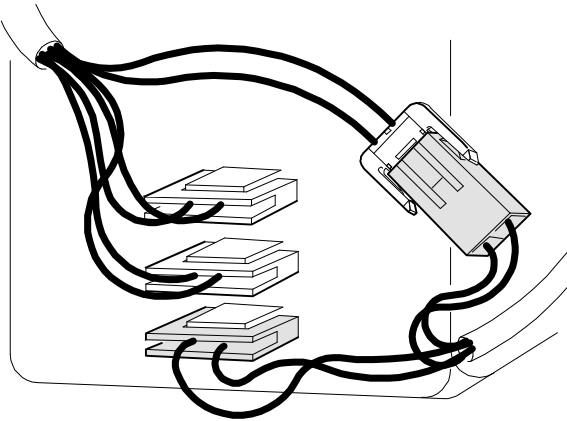
- Locate connector on cable between heater and dashboard (on side of centre console).
- Separate connector and connect connector halves, from the new cable harness to the existing for each model year:

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.



8700865A

B5

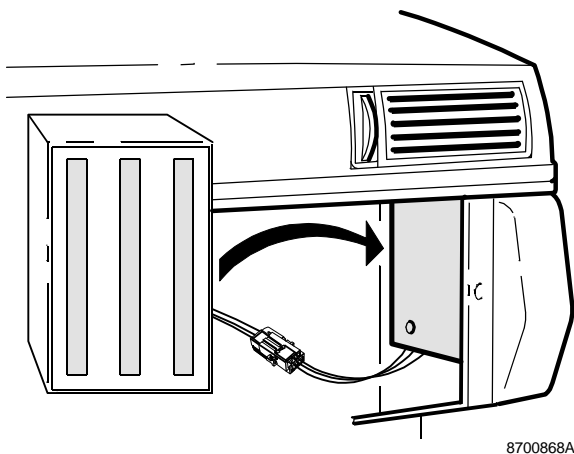
Removal of connectors from blower motor resistor

- Remove the bottom connector from the blower resistor.

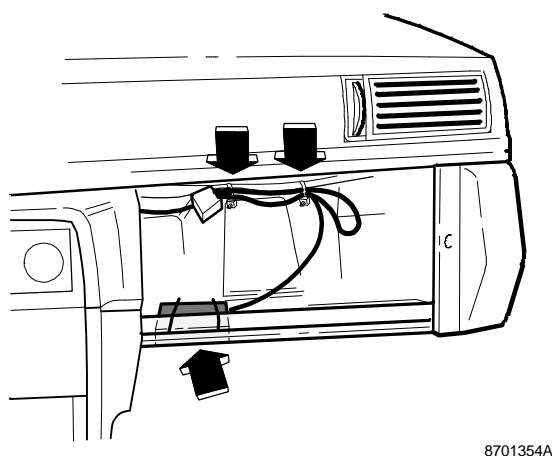
B6

Connection of new connector in blower motor resistor and cable harness

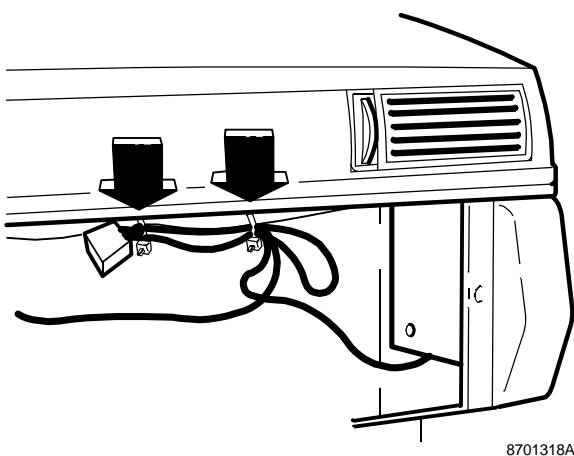
- Connect 2-pin cable harness connectors between the detached connector and the bottom terminal on the blower resistor.

Installing control module from kit*B7***Connecting and mounting control module in cars without SRS (Airbag) and knee bolster**

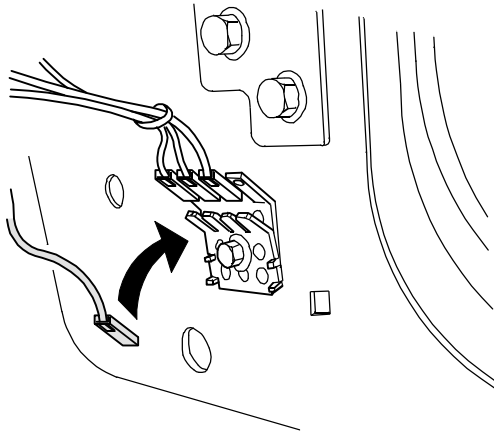
- Connect control module and cable harness connectors.
- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.

*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.



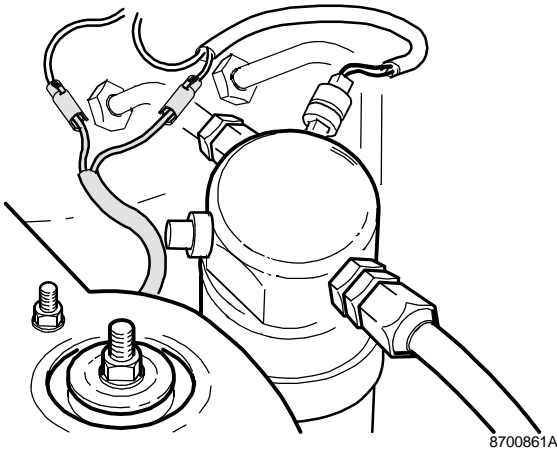
8700872A

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.

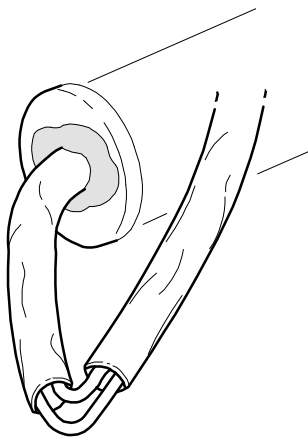


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B11

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.



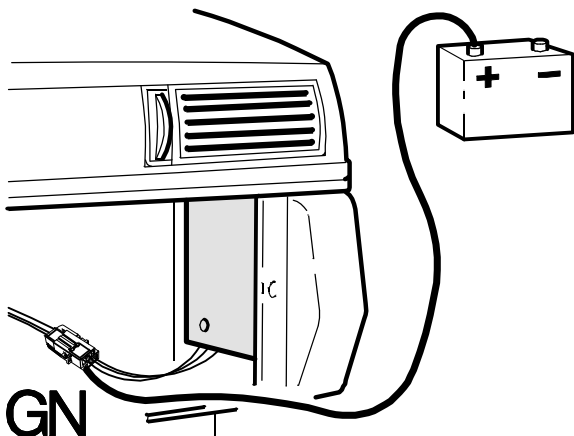
8700860A

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*

8700889A

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.

*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 on last page in this service bulletin.

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.

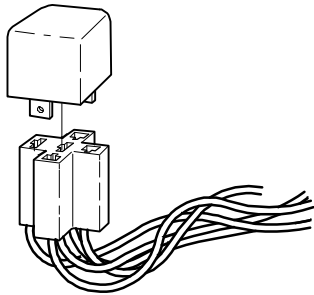
Refer to Service Manual:

Section 3(35-39)
(see group 37)

Lighting,
instrumentation and other
electrical equipment
700/900 1982-

Section 8(82-86, 88)

Interior, exterior
700/900 1982-



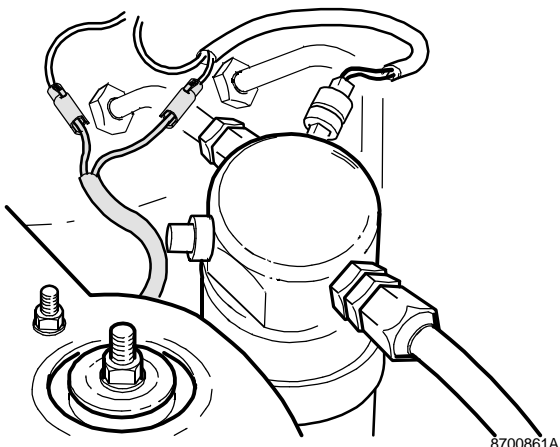
8700878A

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.



8700861A

Route cables to engine compartment

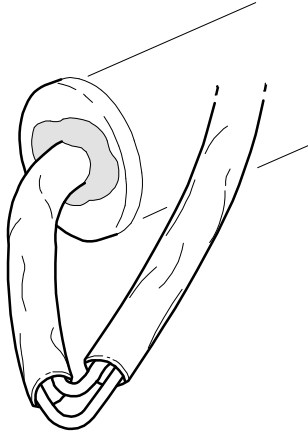
- Route cables without housing receptacles to engine compartment through unused cutout in grommet below suspension strut brace.
- Install round housing receptacles supplied with cable harness on the cables in the engine compartment.
- Separate existing connectors on the cable between the A/C compressor and the receiver/drier.
- Connect cables from the new cable harness to the separated connectors.

C3

*C4***Location of cable sheath opening**

The cable sheath is cut to drain off condensation.

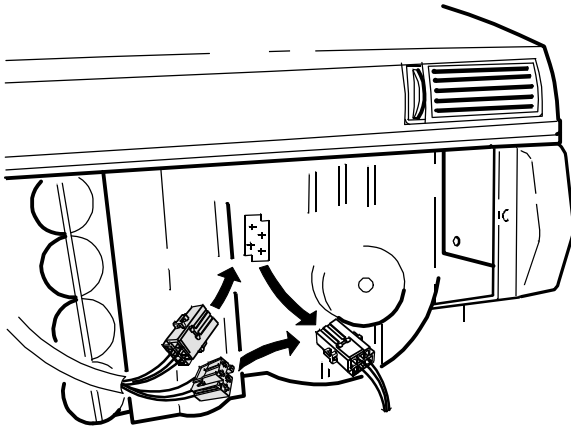
- The cut conduit section should be placed at the lowest point along the route of the cable.
- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.



8700860A

*C5***Connecting cable harness to heater**

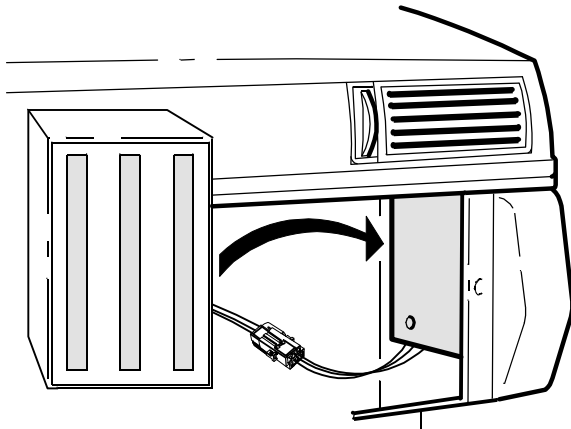
- Disconnect the yellow connector from the heater and attach the yellow connector from the cable harness.
- Install the detached connector in the other cable harness yellow connector.



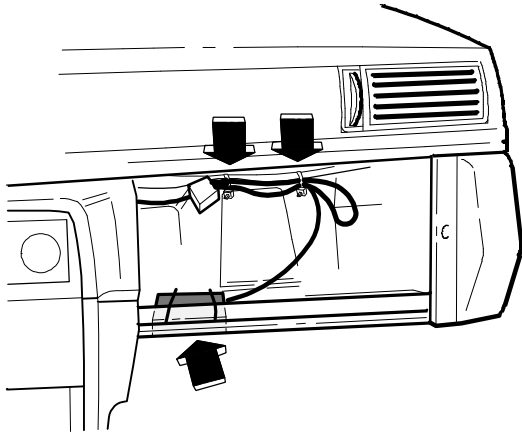
8700838A

Installing control module from kit*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.



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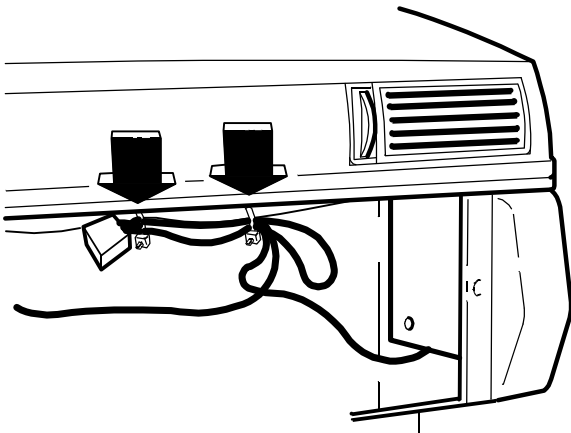


8701354A

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 SRS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration on uneven road surfaces.

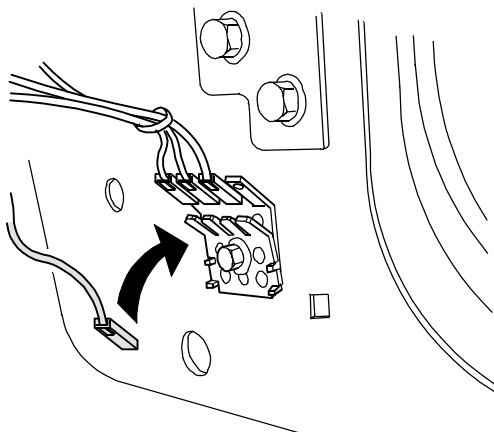


8701318A

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.



8700872A

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

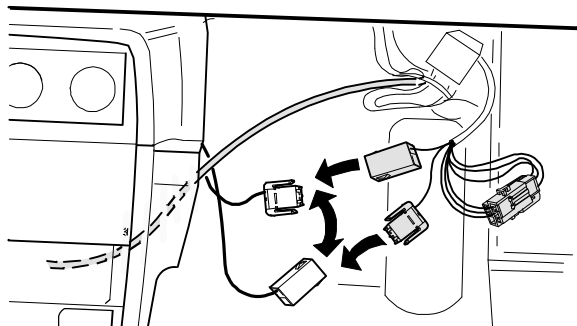
- Locate connector on cable harness between heater and dashboard (on side of centre console). Separate connector and connect new and old connectors for each model year:

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.



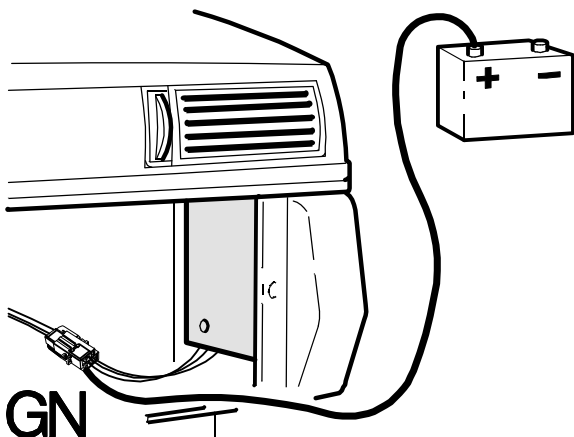
8700916A

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.



8700889A

C12

Finishing off

- Replace all parts removed.
- Reset the clock and enter the anti-theft radio code if required.

C13

Information to Car Owner

- Carry out operations on last page in this service bulletin.

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

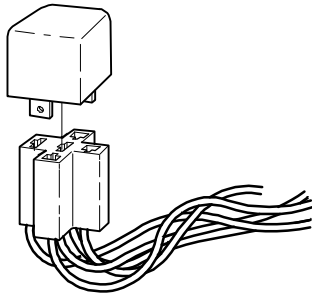
- Make note of radio code if anti-theft coded radio installed.

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-



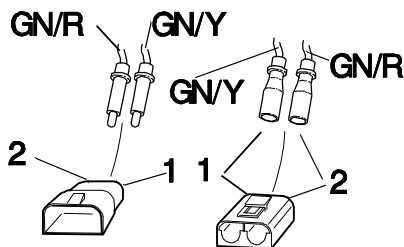
8700878A

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.

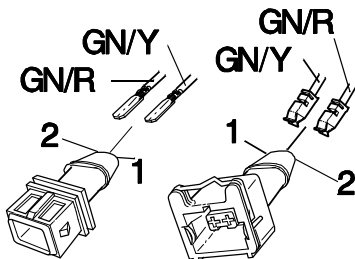


8700833A

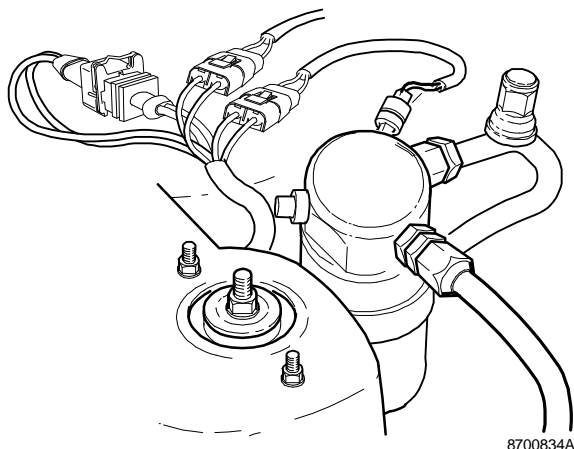
Route cables to engine compartment

D3

- 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.



8700831A



8700834A

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:

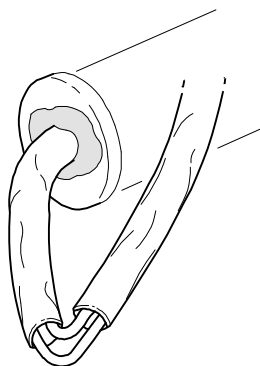
1988-1991 model year (shown here):

- 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.



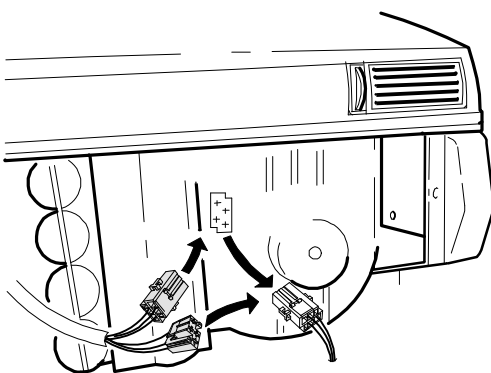
8700860A

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.

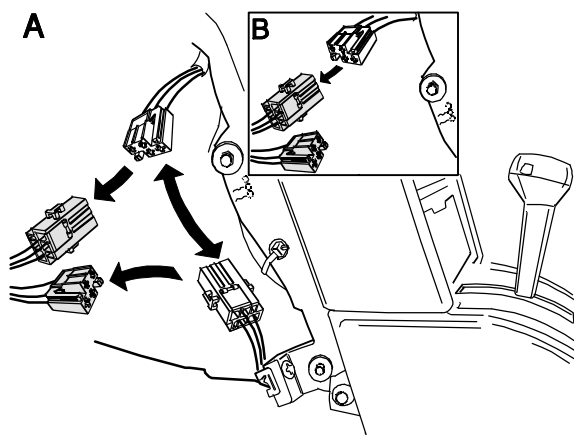


8700838A

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.

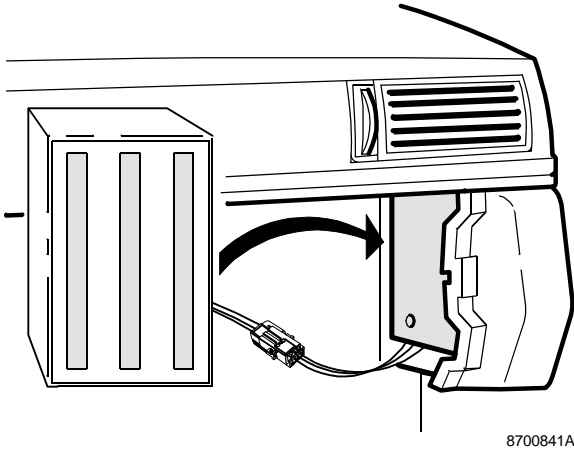


8701418A

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.

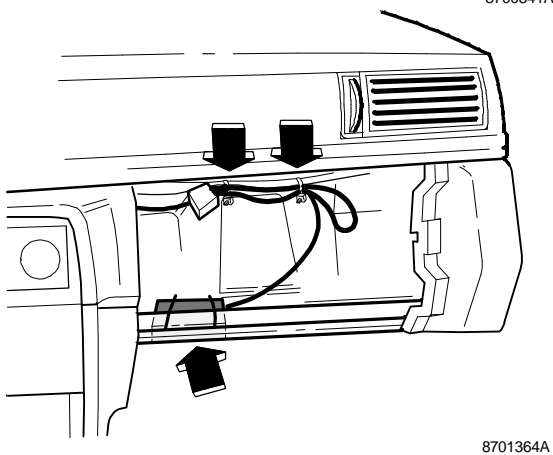


Installing control module from kit

D8

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

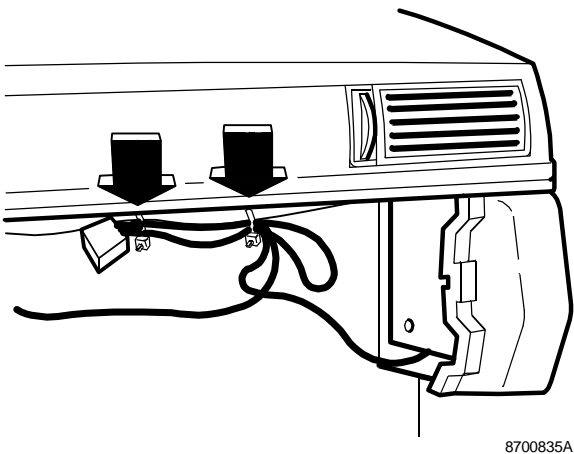
- Connect control module and cable harness connectors.
- Apply three sections of butyl tape to the control module.
- Install control module to dashboard side section with butyl tape.



D9

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

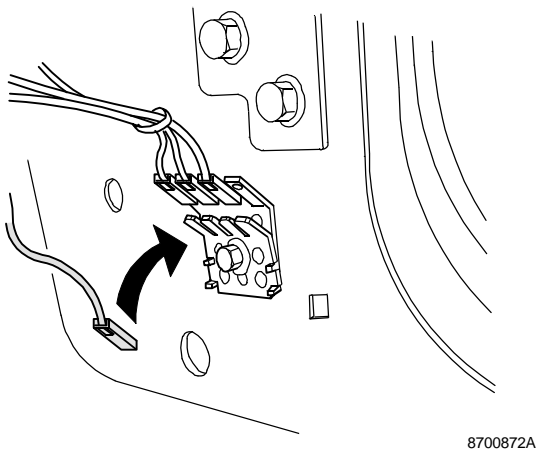
- Install control module on front of air hose under glove compartment with butyl tape and cable ties round duct and control module as illustrated.
- Attach cable harness to existing cable harness at side of SRS (Airbag) module with 2 cable ties, one as near to the connector as possible to avoid vibration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



D10

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

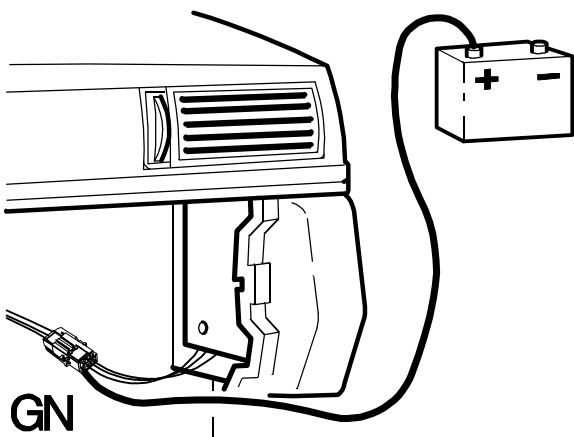
- Attach cable harness and the relay in the foam rubber covered hose which passes over the glove compartment to the side defroster with 2 cable ties, one as close to the connector as possible to prevent vibration caused by uneven road surfaces.



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.



8701317A

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 on last page in this service bulletin.

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

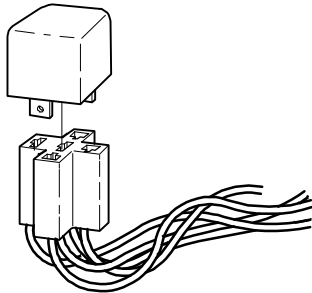
- Make note of radio code if anti-theft coded radio installed.

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-**



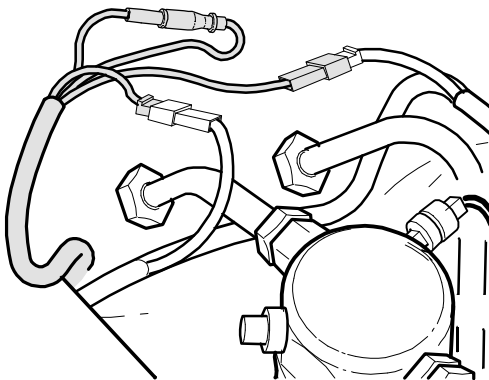
8700878A

Cable connections

E2

Installing new relay on cable harness

- Take out cable harness (P/N 9162426) supplied with kit.
- Install relay supplied in the 5-pin connector.

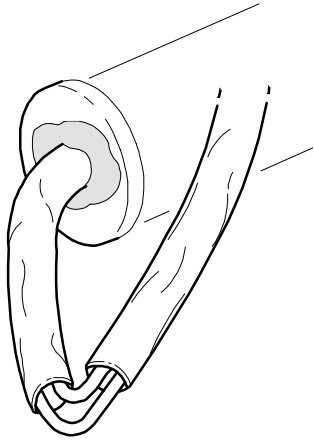


8701007A

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.

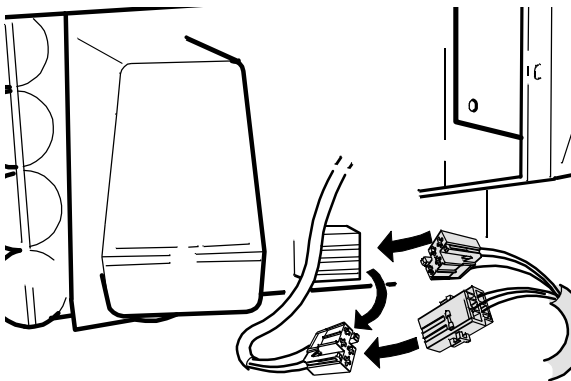


8700860A

*E4***Location of opening in cable sheath**

The cable sheath is cut to drain off condensation.

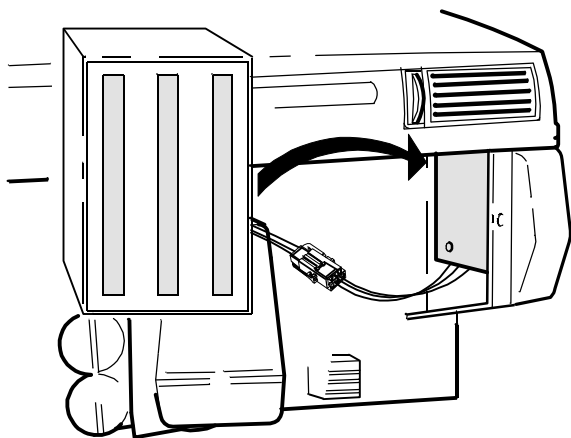
- The cut conduit section should be placed at the lowest point along the route of the cable.
- Use butyl tape to seal the grommet.
- Use existing cable tie to clamp cables to firewall.



8701008A

*E5***Connection of yellow connector**

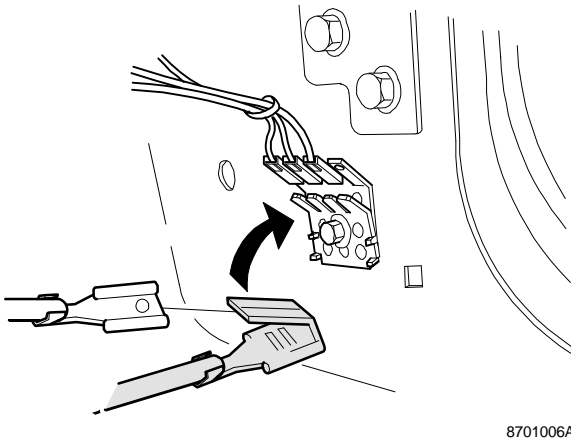
- Disconnect the yellow connector from the heater and connect the yellow connector from the new cable harness.
- Connect the detached yellow connector to the yellow connector on the cable harness.



8701011A

*E6***Installing control module from kit****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.



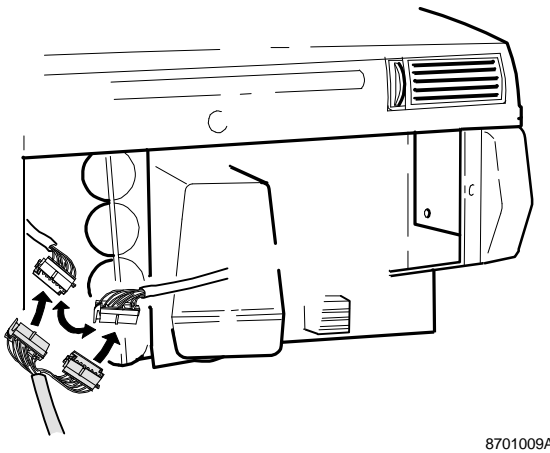
E7

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.

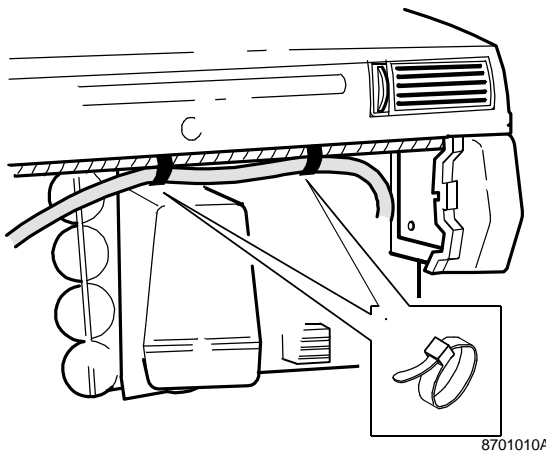
The ground lead has a twin tab terminal for when there are no vacant spaces on the ground plate.



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**

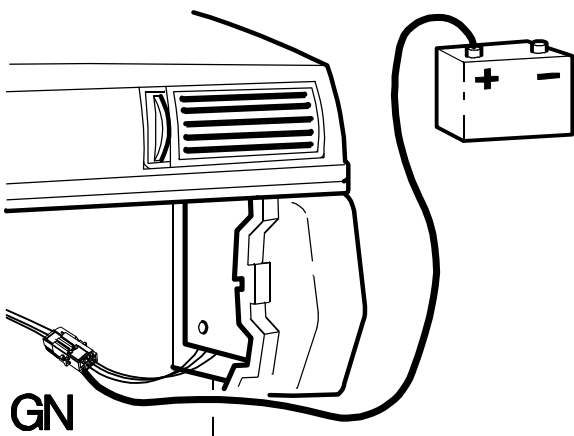
- Connect battery lead and start car.
- Turn on A/C system to start compressor.

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.

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

- Remove cable between connector and battery.



8701317A

*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 on last page in this service bulletin.

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-

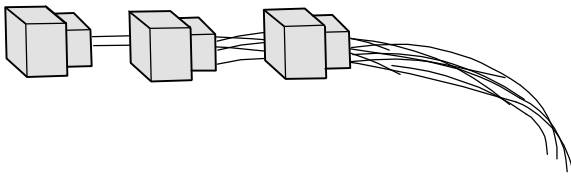
Cable connections

F2

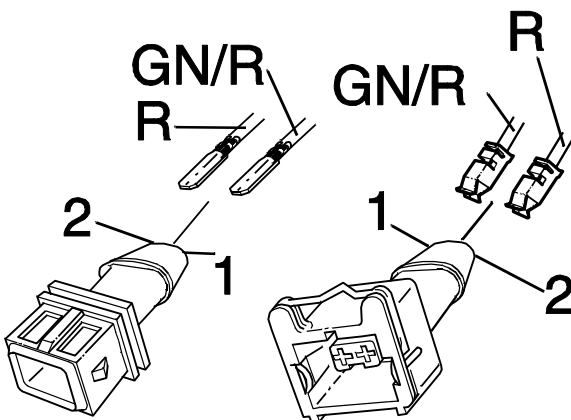
Installing new relay on cable harness

Take out cable harness, P/N 9171004-6, included in kit.

- Install 3 relays included in the 5-pin connector.



8701616A

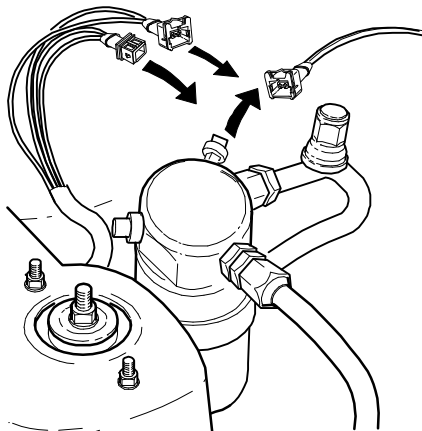


8701662A

F3

Route cables to engine compartment

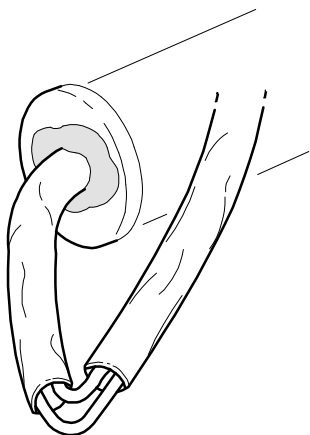
- Route the cables which do not have connectors to the engine compartment through an unused hole in the grommet under the brace to the suspension strut.
- Connect **green-red** cable to connector terminal 1.
- Connect **green** cable to connector terminal 2.



8701607A

*F4***Route cables in engine compartment (cont.)**

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

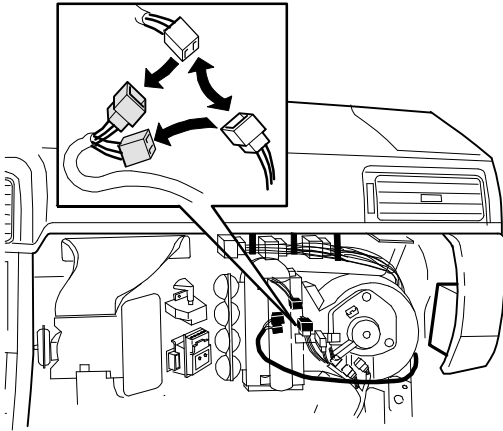


8700860A

*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.



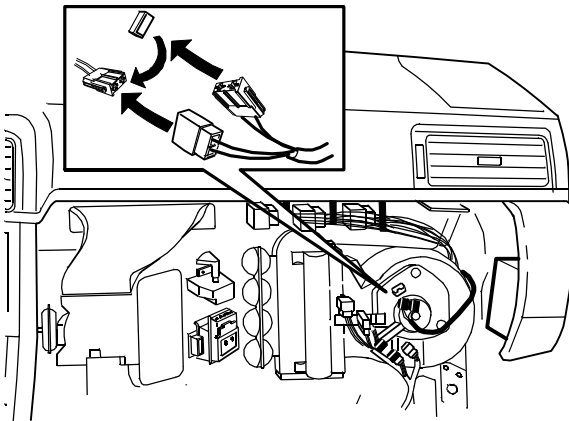
8701624A

Connecting cable harness in passenger compartment

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, (A11 in wiring diagram).

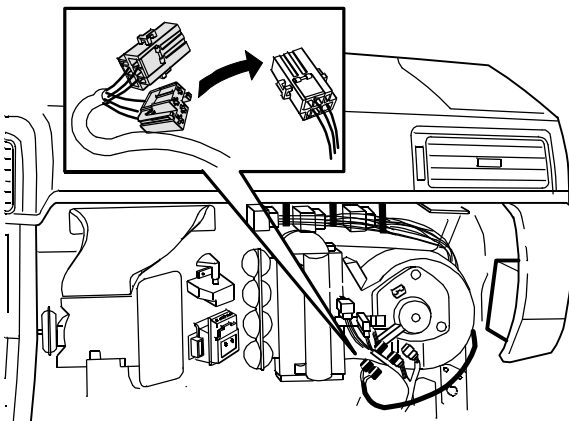


8701643A

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, (6/28 in wiring diagram).

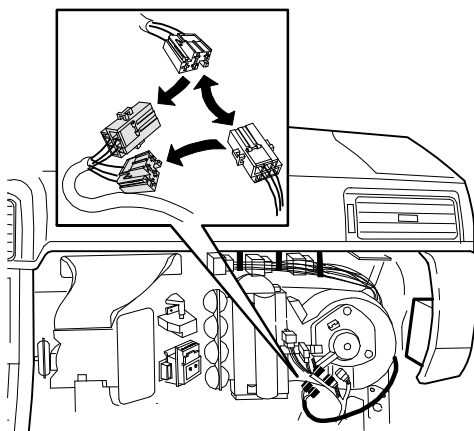


8701623A

F8

Connect 4-pin cable harness connectors

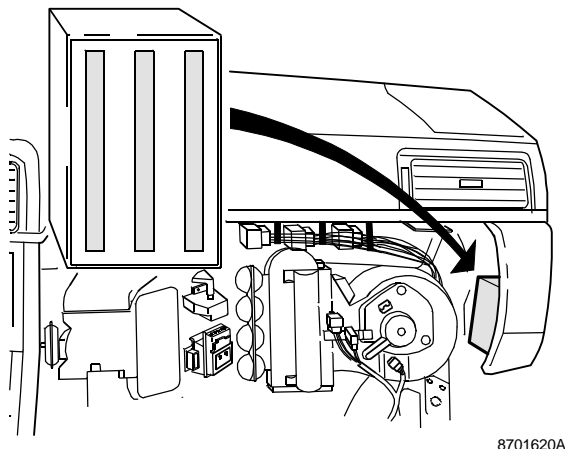
The new 4-pin cable harness connectors should be connected to the accessory connectors (D10 in wiring diagram).



8701622A

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

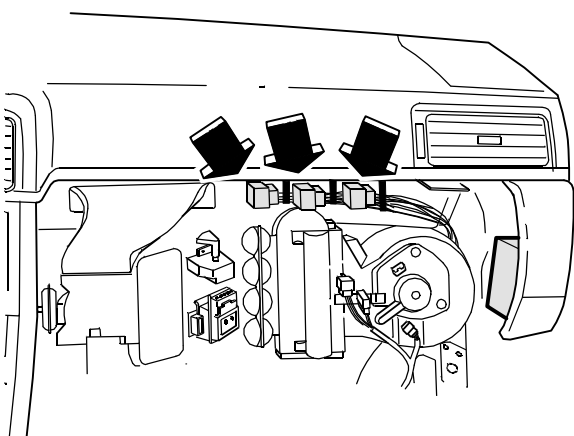


8701620A

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.

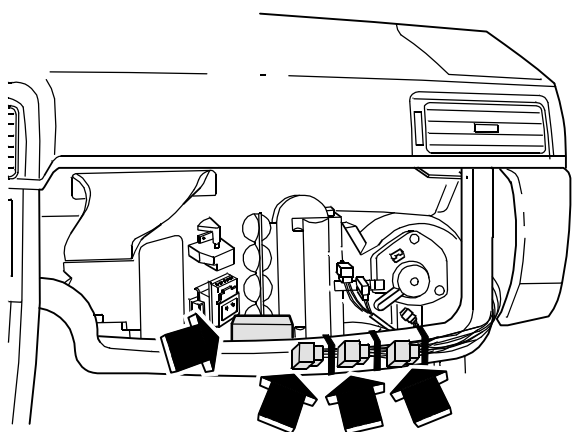


8701618A

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.



8701621A

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.

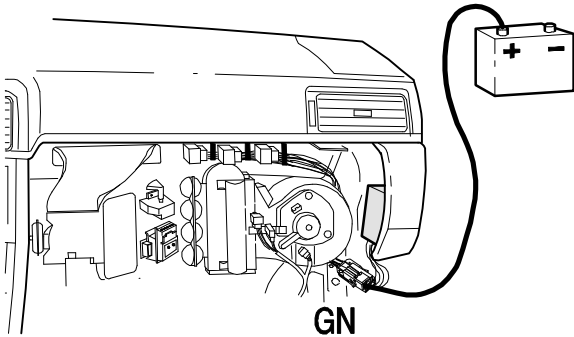
NOTE! Prevent condensation dropping onto relays by ensuring that they are not placed beneath the air hose.

- Fasten to air hose with cable ties.

Installing control module from kit.

F12

Function verification and information



8701617A

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 on last page in this service bulletin.

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

G1

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

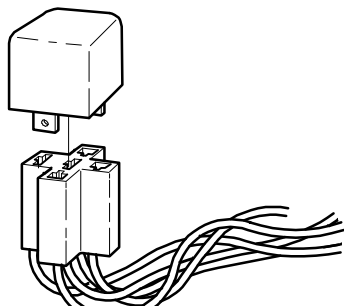
Refer to Service Manual:

**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**

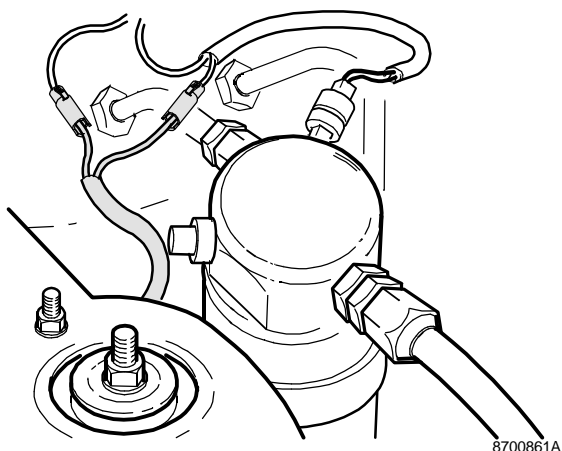
G2

Installing new relay on cable harness

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



8700878A

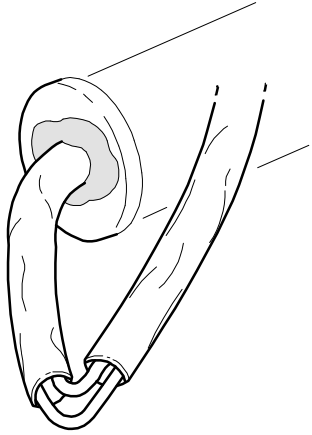


8700861A

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



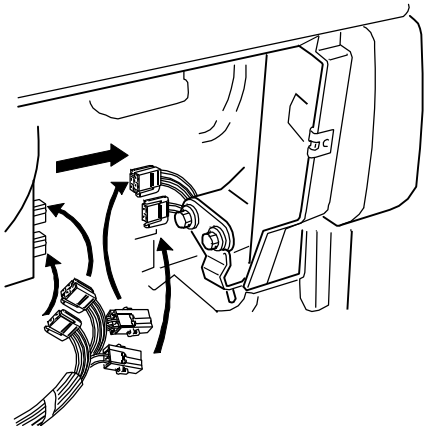
8700860A

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.

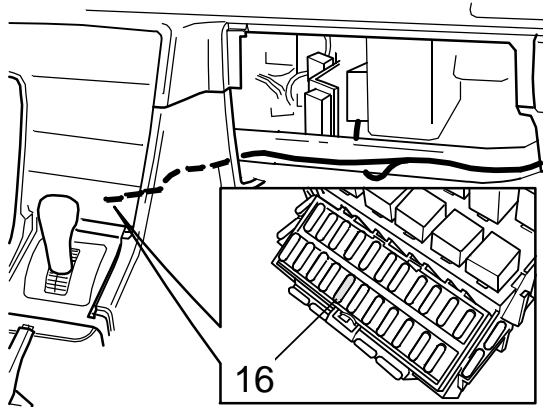


8702652A

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.

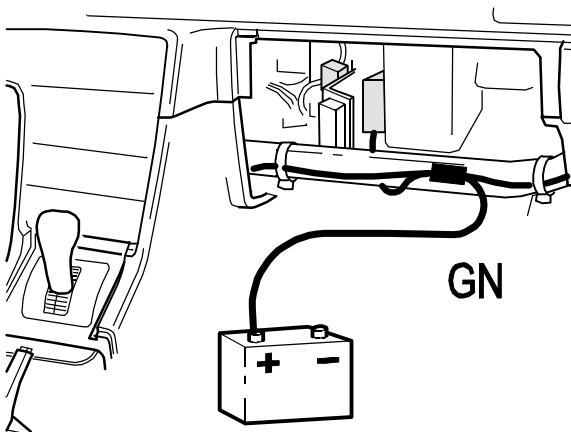
Connecting and installing the control module

8702710A

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.

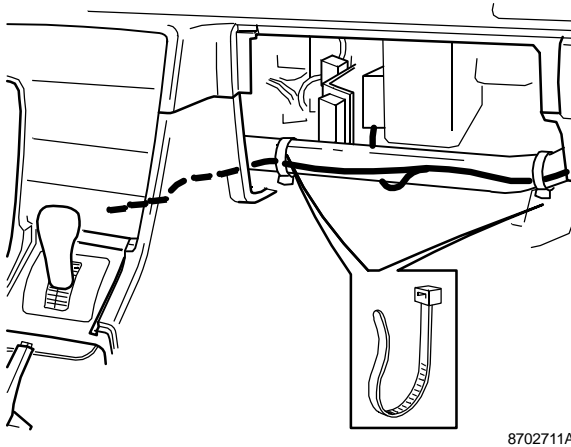


8702709A

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.

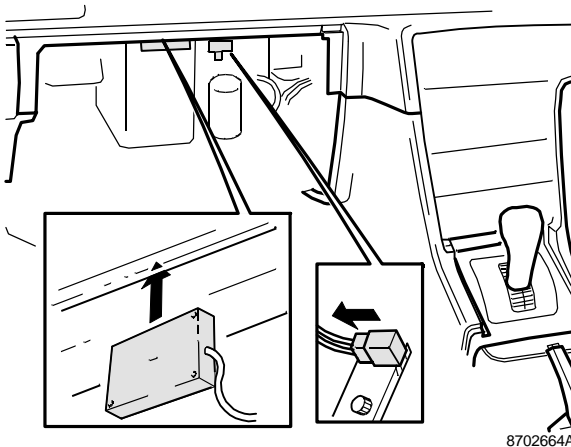


8702711A

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 tie 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.



8702664A

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

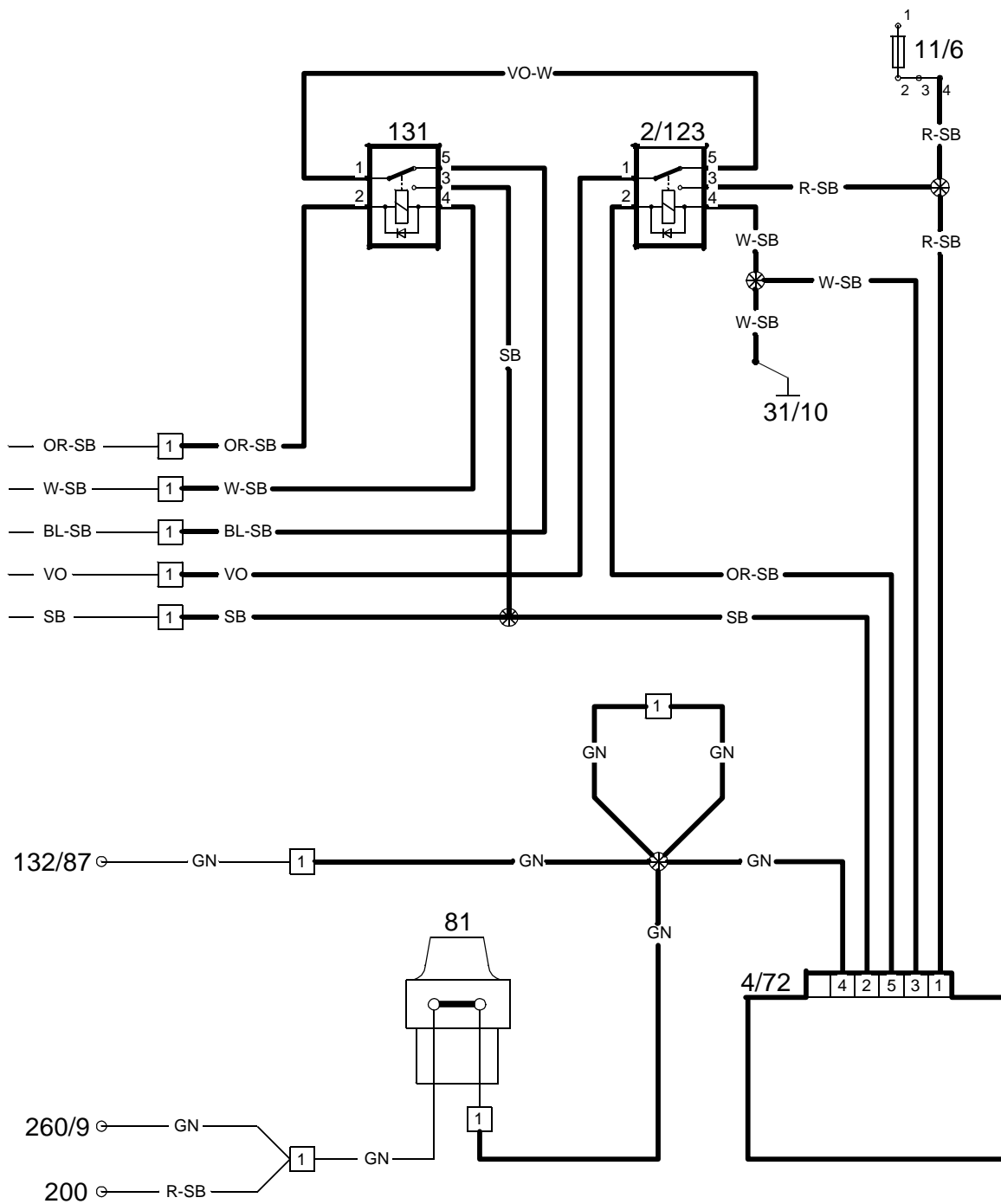
- Reinstall all components removed.
- Reset the clock and enter the anti-theft radio code if required.

G11

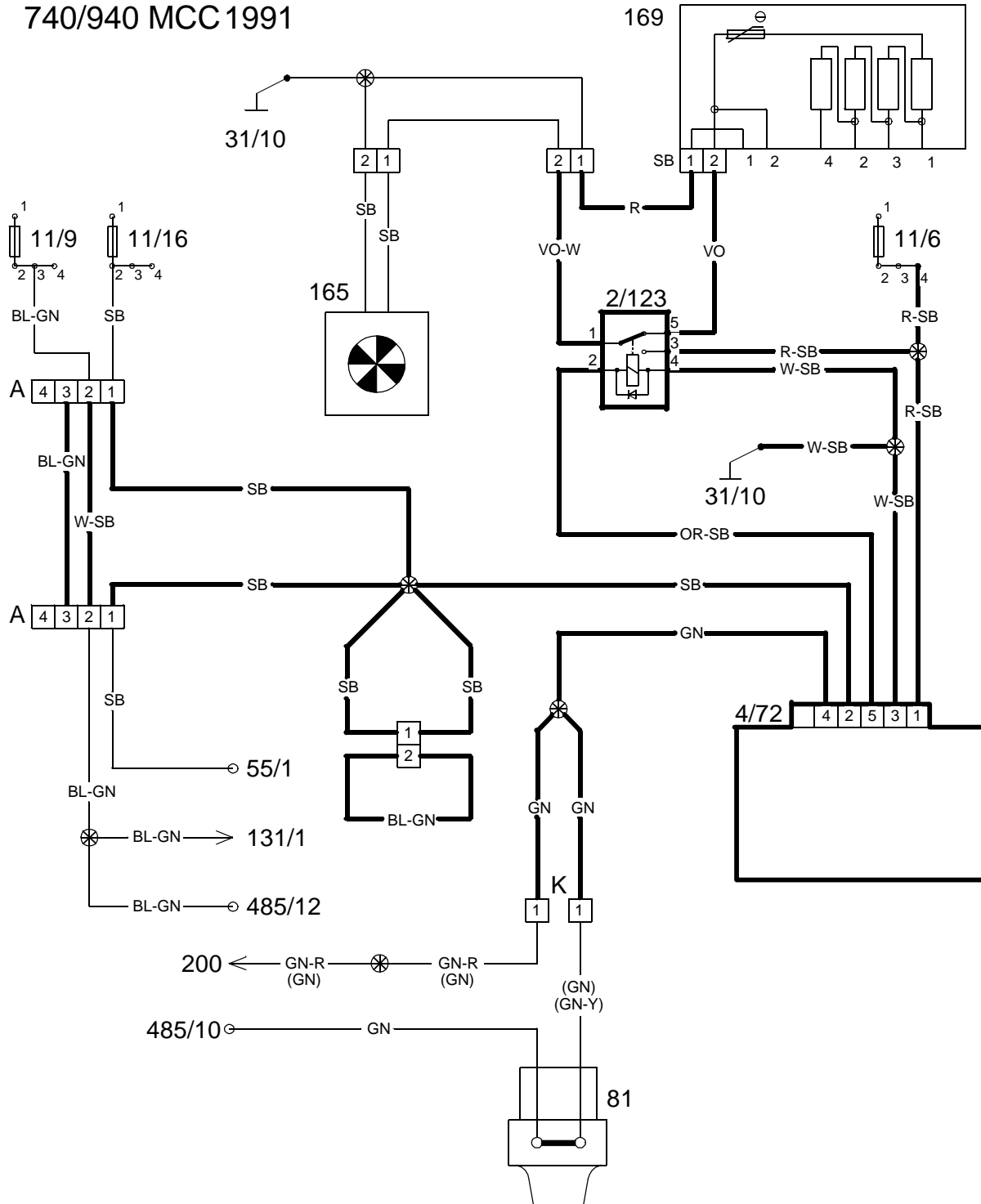
Information to Car Owner

- Carry out operations on last page in this service bulletin.

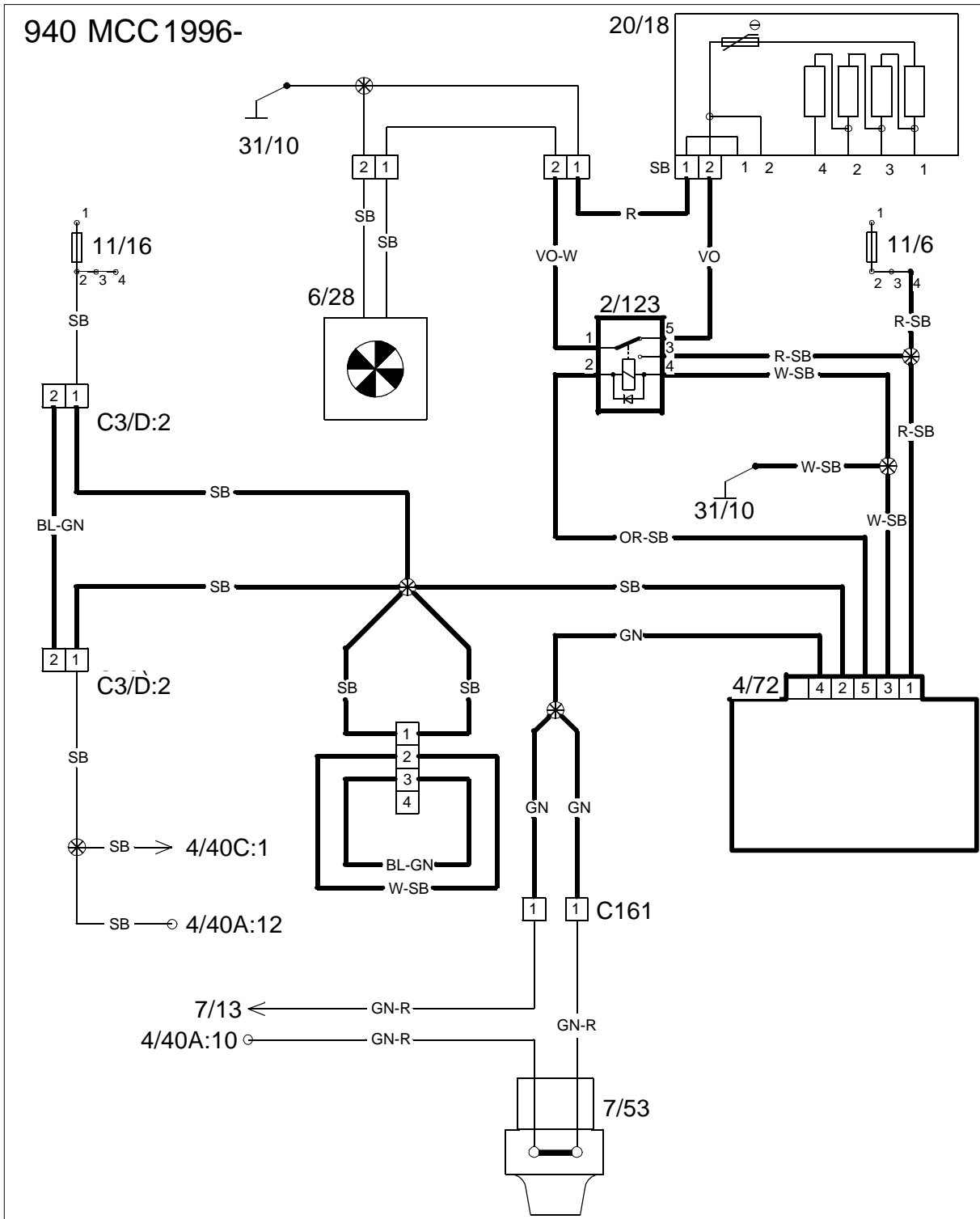
740 MCC 1988-1990



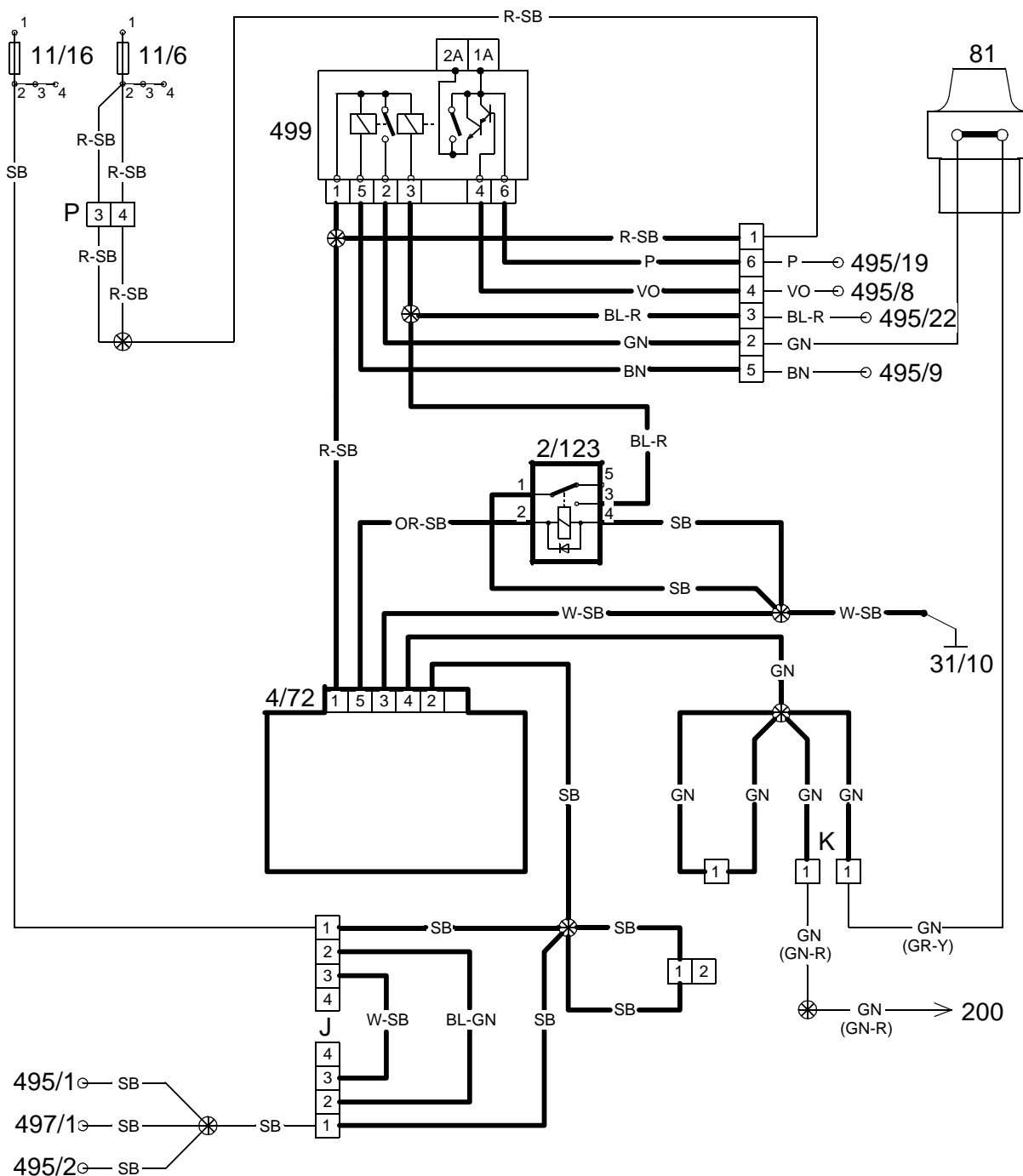
740/940 MCC1991



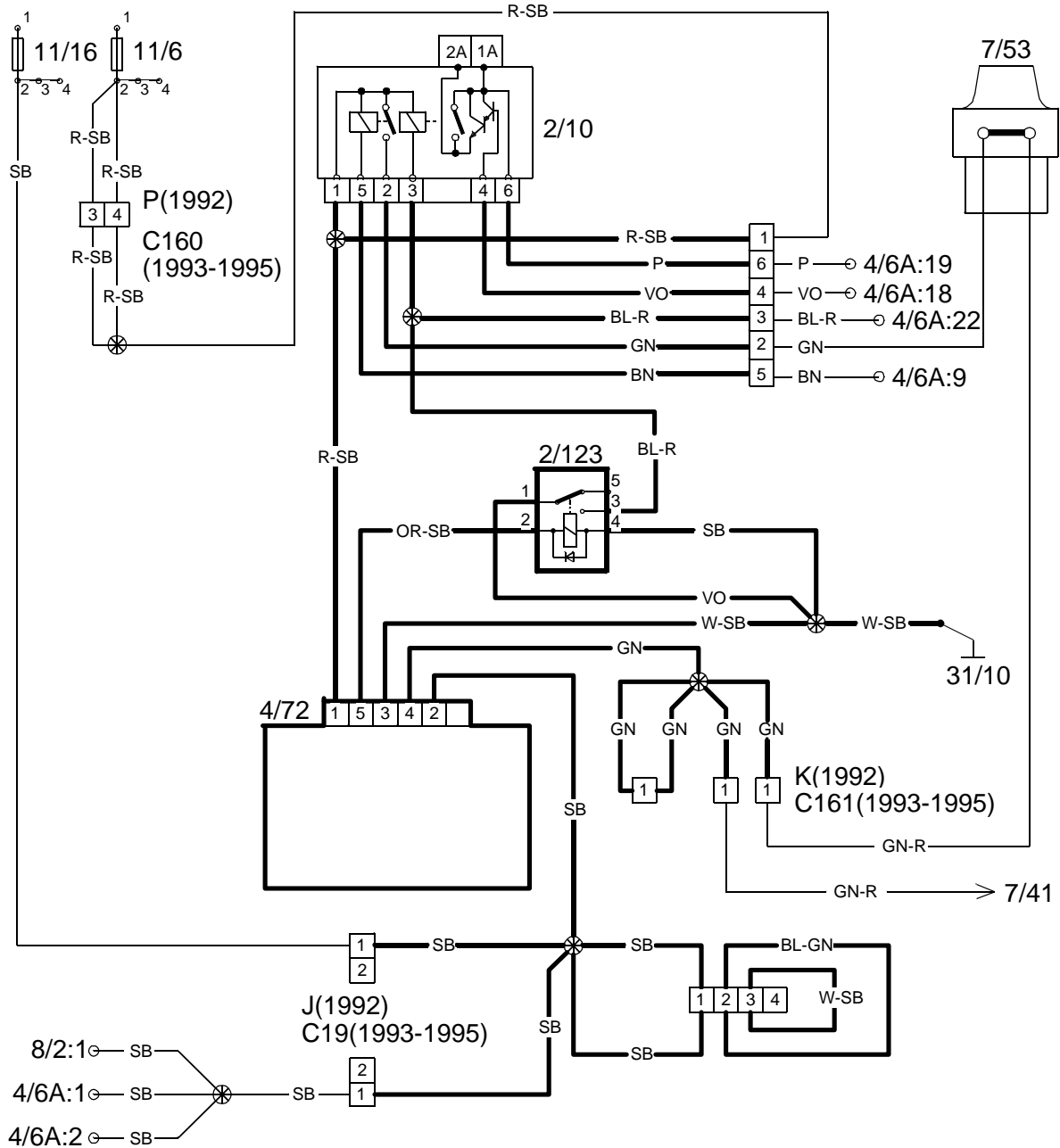
3701314A



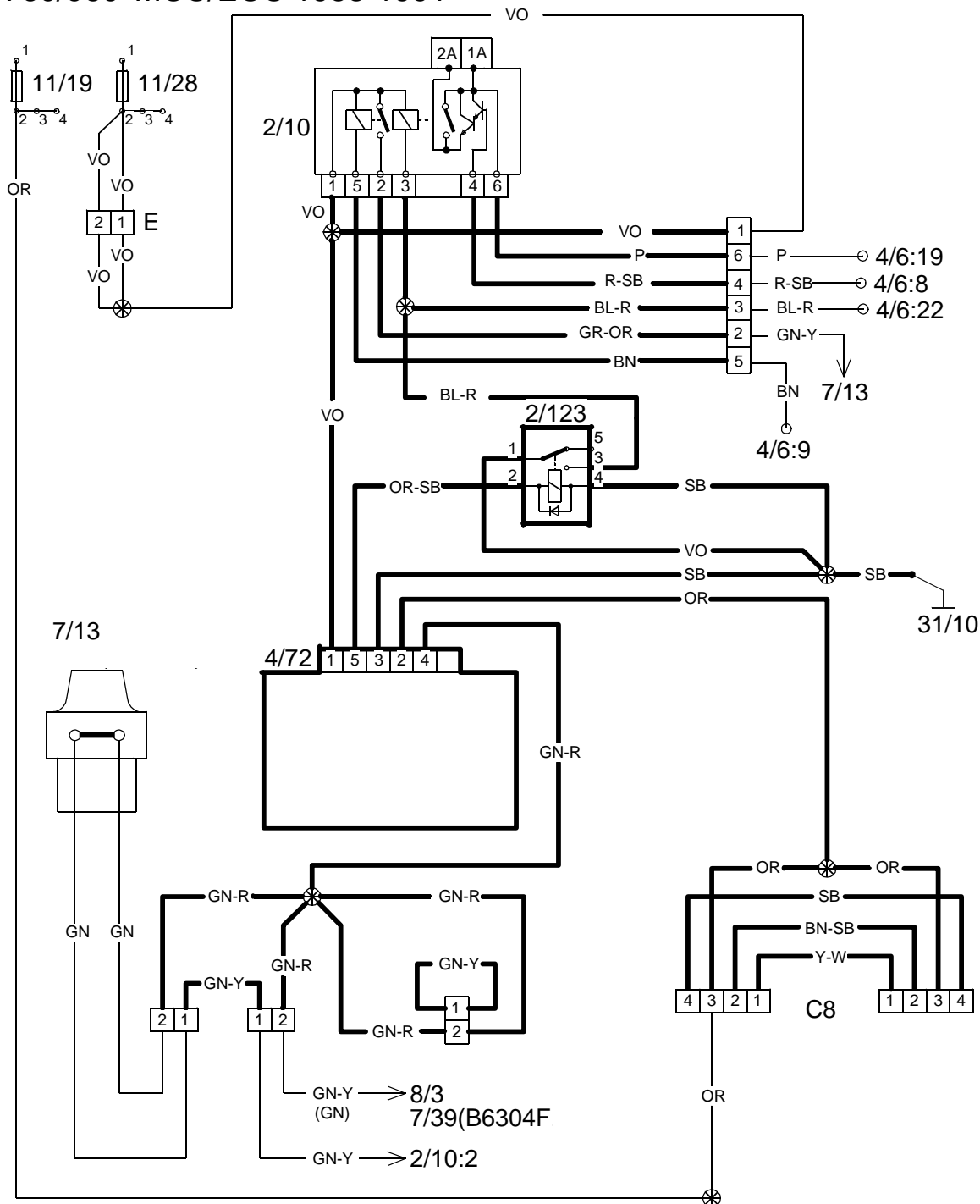
740/940 ECC 1991



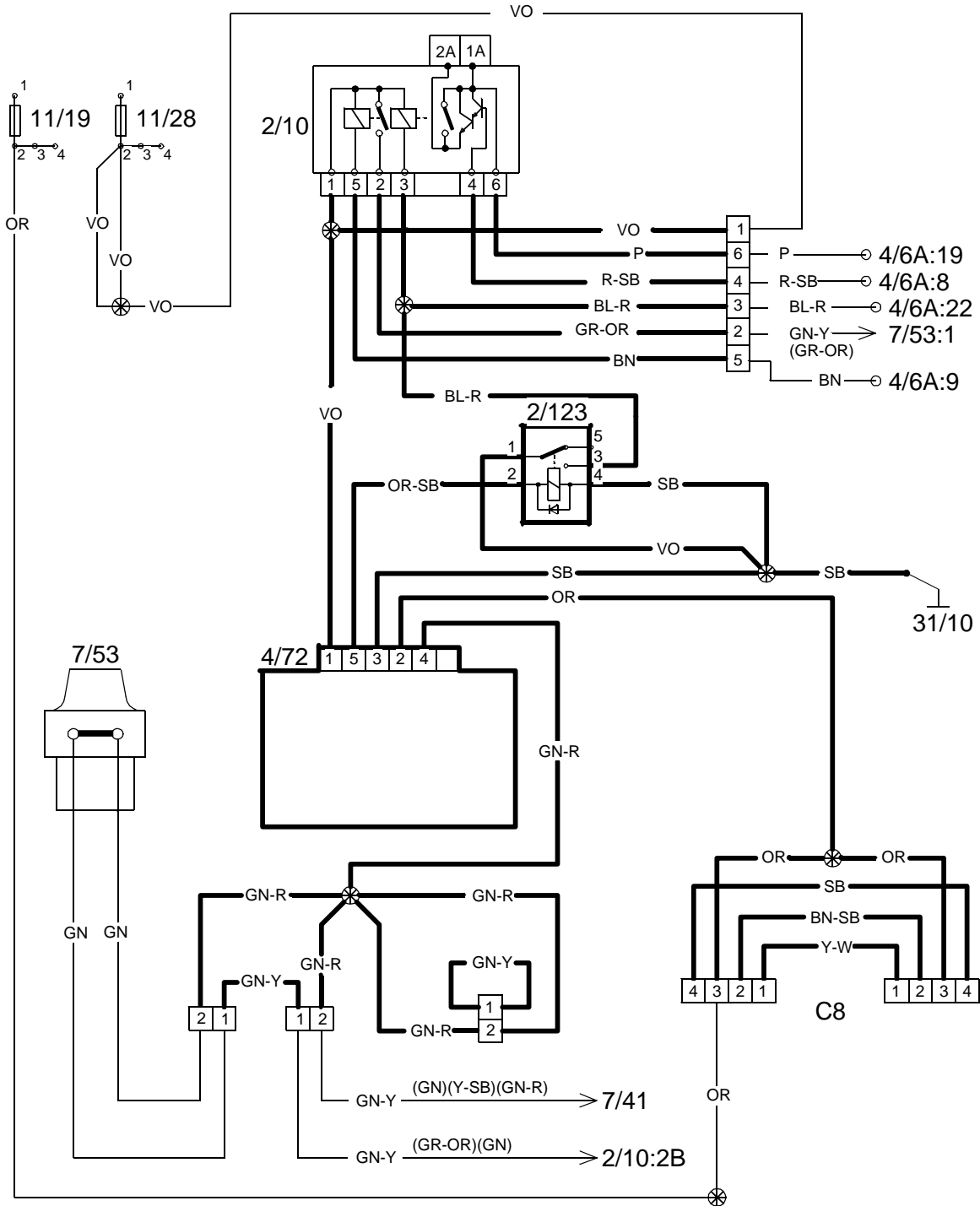
740/940 ECC 1992-1995



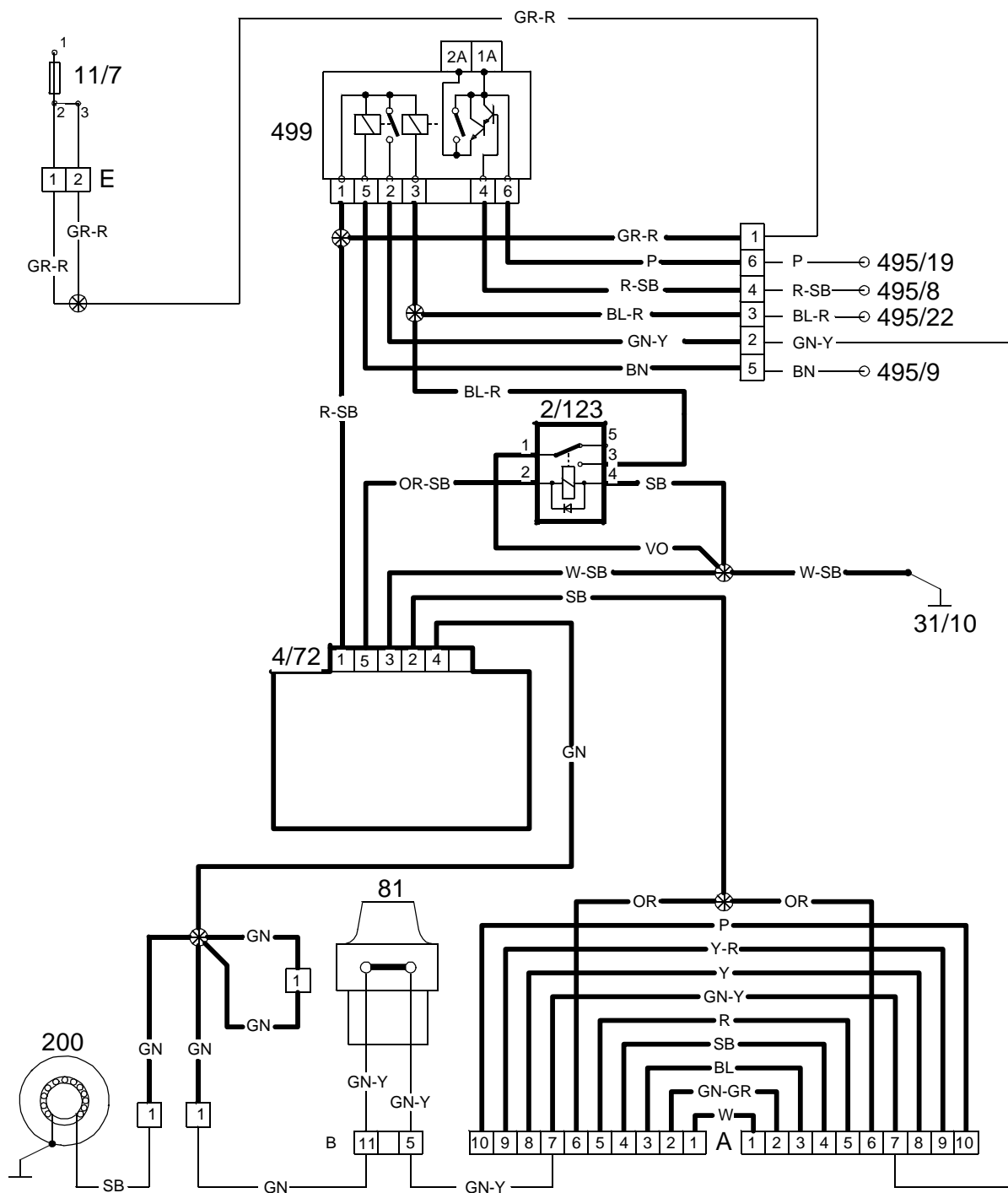
760/960 MCC/ECC 1988-1991



760/960 MCC/ECC 1992-1994

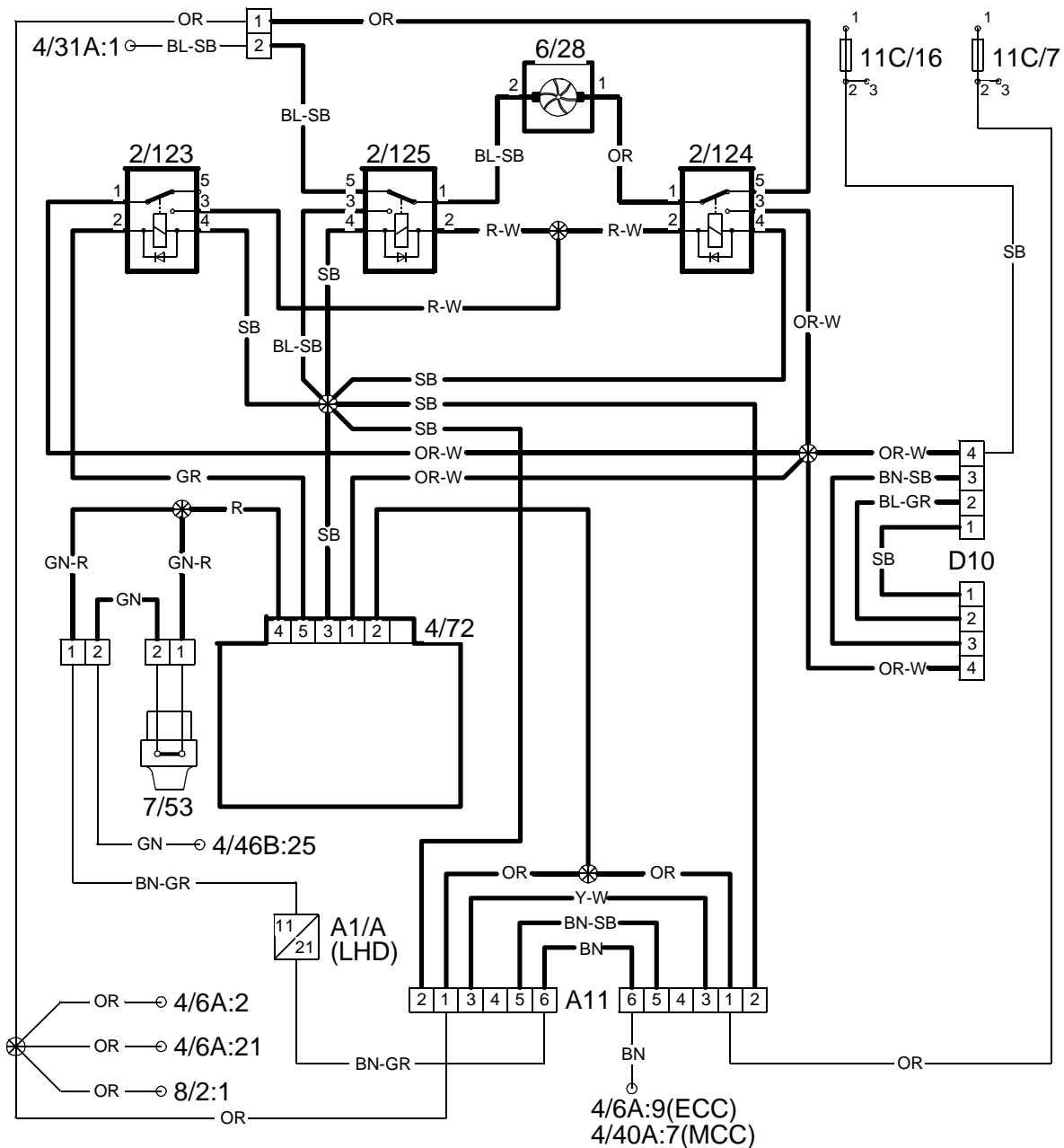


780 ECC 1988-1991

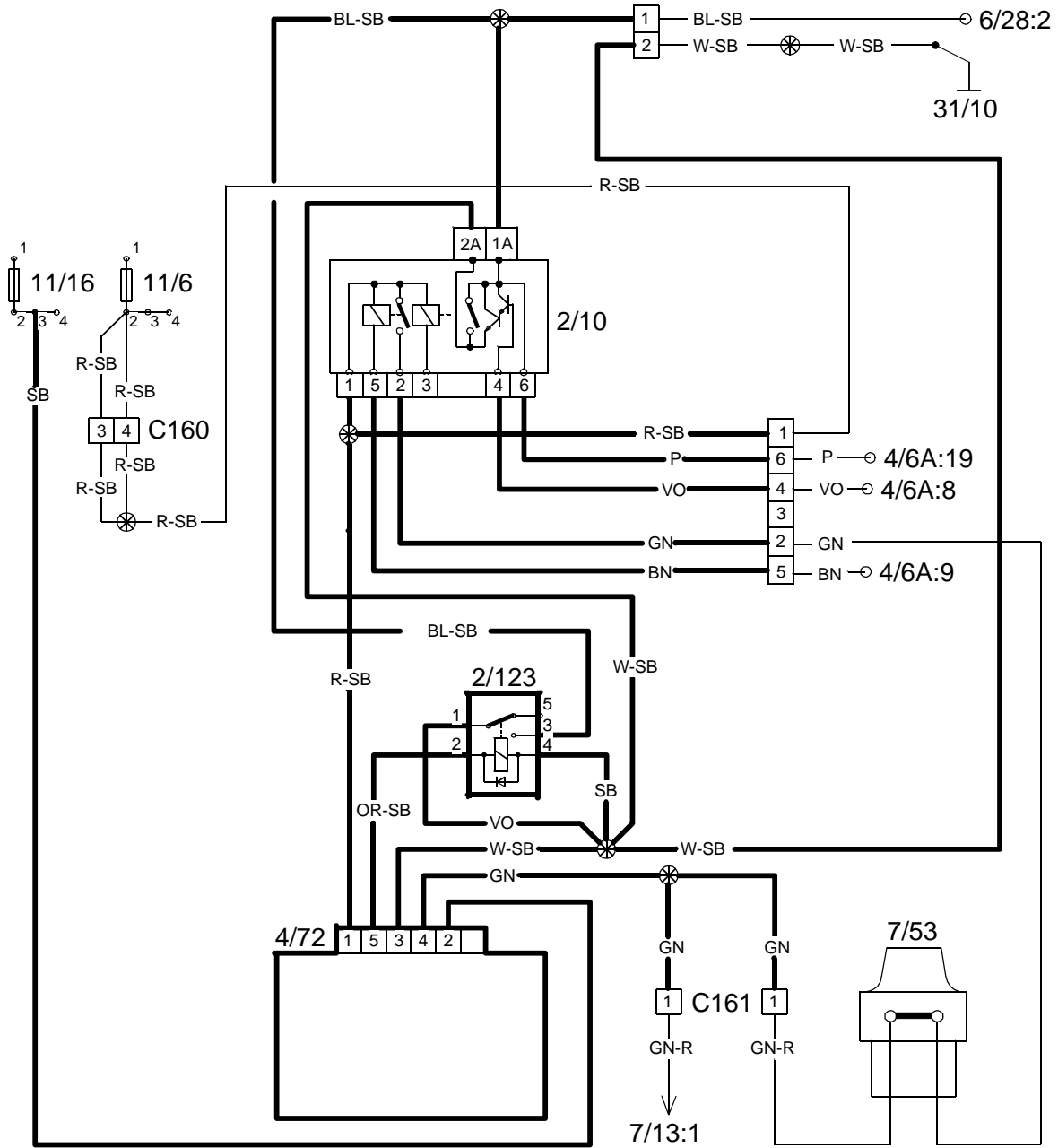




960 MCC 1996-
S90/V90 MCC/ECC 1997-



940 ECC 1996-



Description of components

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

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: 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
	940 1995- ECC 96-	1.8 hr
	760/960 88-94	1.8 hr
	780 88-91	1.7 hr
	960 95-97	1.6 hr

VOLVO		Date Sept. -97	900	Section 8	Group 87	No. 955	Page 47 of 47
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Insert the following text in the car's documentation.

Copy this page and cut along line.

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.