

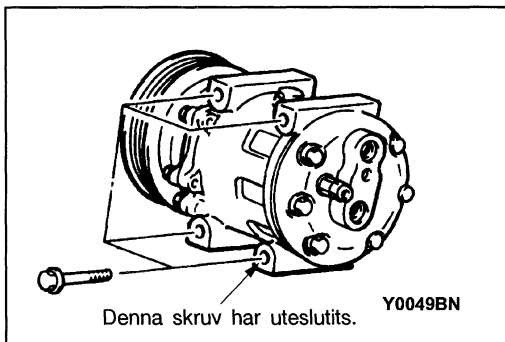
GRUPP 55

VÄRMARE, LUFTKONDITIONERING OCH VENTILATION

ALLMÄNT

ÄNDRINGARNAS OMFATTNING

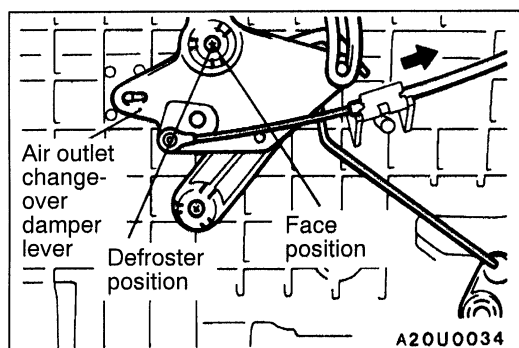
- Data och åtgärder för service har tillkommit på grund av införandet av en extra värmare <dieseldrivna bilar>.
- Demontering och montering av köldmedelsledningar har ändrats på grund av ändringen på dieselmotorn <dieseldrivna bilar>.
- För att förbättra uppvärmningseffekten har en inre luftblandningsdämpare tillkommit till dämparen för inre/ytte luftöverföring i fläktenheten <dieseldrivna bilar>.



- En av kompressorns fästsruvar har uteslutits <dieseldrivna bilar>.

SERVICEDATA

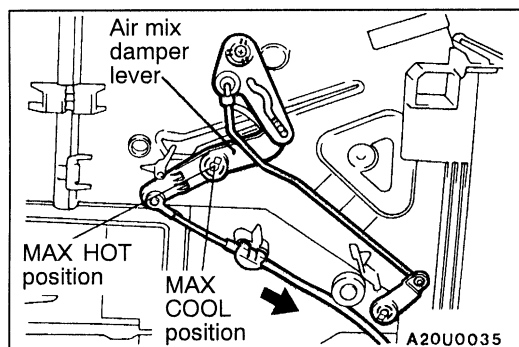
Beskrivning	Standardvärde
Extravärmarens resistans Ω <dieseldrivna bilar>	0,45 \pm 0,05 (vid 20°C)



INSTALLATION SERVICE POINTS

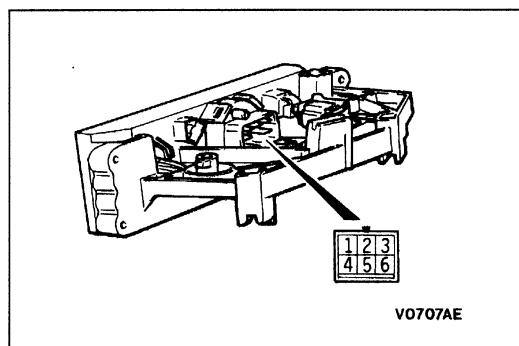
AIR OUTLET CHANGEOVER DAMPER CABLE CONNECTION

1. Set the air outlet changeover control knob on the heater control assembly to the DEF position.
2. Set the air outlet changeover damper lever of the heater unit to the DEF position and install the cable to the lever pin.
3. Push the outer cable in the direction of the arrow so that there is no looseness, and then secure it with the clip.



AIR MIX DAMPER CABLE CONNECTION

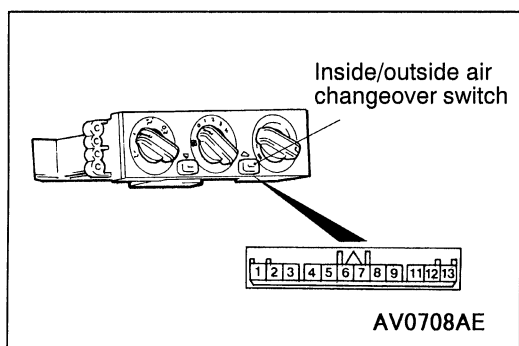
1. Set the temperature control knob on the heater control assembly to the MAX HOT position.
2. Set the air mix damper lever of the heater unit to the MAX HOT position as shown in the illustration, and then connect the cable to the lever pin.
3. Push the outer cable in the direction of the arrow so that there is no looseness, and then secure it with the clip.



INSPECTION

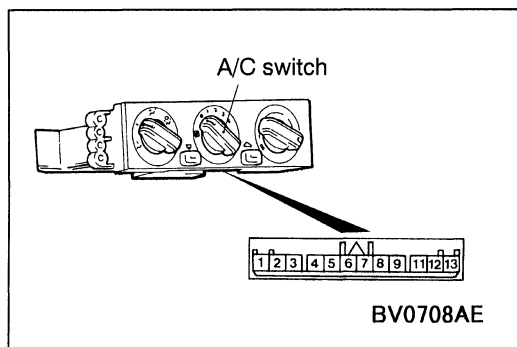
BLOWER SWITCH CONTINUITY CHECK

Switch position	Terminal No.					
	1	2	3	4	5	6
OFF						
● (LO)			○		○	
● (ML)	○		○			
● (MH)			○			○
● (HI)			○	○		



INSIDE/OUTSIDE AIR CHANGEOVER SWITCH CONTINUITY CHECK

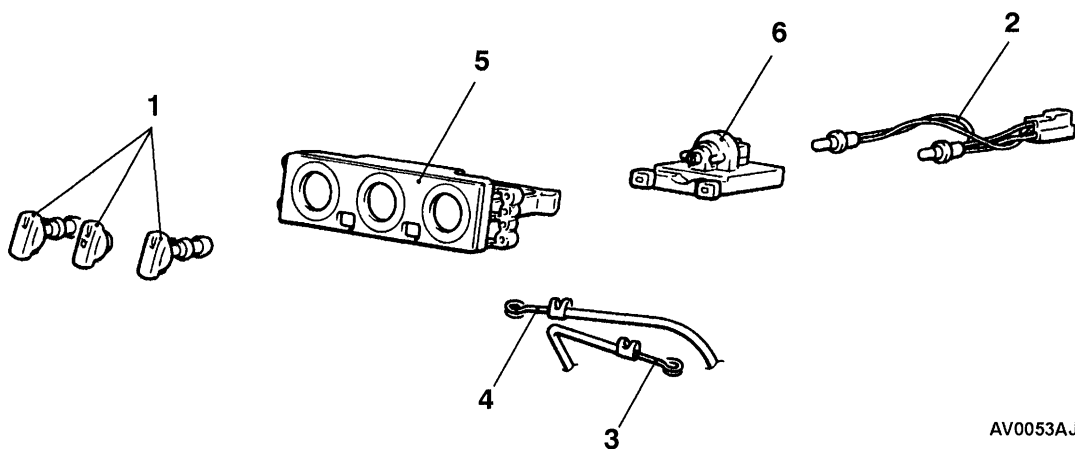
Switch position	Terminal No.						
	1	2	3	IND	4	8	9
RECIRC			○	○	○	ILL	
FRESH	○		○				



A/C SWITCH CONTINUITY CHECK

Switch position	Terminal No.					
	5	IND	6	7	8	9
OFF					ILL	
ON	○	○	○	○		

DISASSEMBLY AND REASSEMBLY



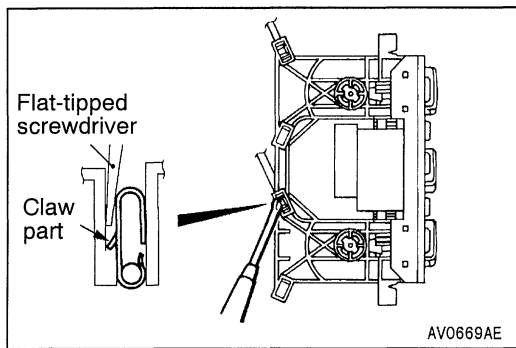
Disassembly steps

1. Knob assembly
2. Bulb harness
3. Air outlet changeover damper cable



4. Air mix damper cable
5. Heater control panel
6. Blower switch assembly





DISASSEMBLY SERVICE POINT

◀A▶ AIR OUTLET CHANGEOVER DAMPER CABLE/AIR MIX DAMPER CABLE REMOVAL

Insert a flat-tipped screwdriver into the control base clip from inner side, and then remove the cable by lifting the claw part of the clip.

FULLY AUTOMATIC AIR CONDITIONER

TROUBLESHOOTING

CHECK AT THE A/C-ECU TERMINALS

A/C-ECU

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40

41	42	43	44	45	46
47	48	49	50	51	52

V0715AE

Terminal No.	Check item	Check condition	Normal condition
1	Sensor power supply	At all times	5 V
2	Outside air temperature sensor input	When sensor section temperature is 25°C (1.7 kΩ)	1.9 V
3	Heater water temperature sensor input	When sensor section temperature is 25°C (5 kΩ)	2.8 V
4	Air mix damper motor potentiometer input	When damper is moved to MAX. HOT position	0.7 – 1.3 V
5	Illumination power supply	Lighting switch: ON	System voltage
6	IG2 power supply	Ignition switch: ON	System voltage
7	ACC power supply	Ignition switch: ON	System voltage
8	Back-up power supply	At all times	System voltage
9	Sensor earth	At all times	0 V
10	Air thermo sensor input	When sensor section temperature is 25°C (1.5 kΩ)	2.2 V
11	Photo sensor (+)	At 800 kcal/m ² -h	1 V
12	Air outlet changeover damper potentiometer	Set to DEF. position.	0.7 – 1.3 V
13	Diagnosis input	Ignition switch: ON	0 V
15	Illumination earth	At all times	Continuity
16	Earth	At all times	Continuity
21	Air mix damper motor (MAX. COOL)	Set to MAX. COOL position.	10 V
		Set to MAX. HOT position.	Weak voltage (0.5 V)
22	Air outlet changeover damper motor (FACE)	Set to FACE position.	10 V
		Set to DEF. position.	Weak voltage (0.5 V)

Terminal No.	Check item	Check condition	Normal condition
23	Inside/outside air changeover damper motor (Inside air)	Set to inside air position.	Weak voltage (0.5 V)
		Set to outside air position.	10 V (When the motor is stopped)
24	Inside/outside air changeover damper motor (Outside air)	Set to inside air position.	10 V (When the motor is stopped)
		Set to outside air position.	Weak voltage (0.5 V)
25	A/C output	When A/C is OFF	0 V
		When A/C is ON	System voltage
26	-	-	-
27	Engine-ECU output	When air mix damper is at MAX. COOL position (Compressor: ON, Inside air temperature: 31°C or more)	0 V
		When air mix damper is at MAX. HOT position (Compressor: OFF, Inside air temperature: 29°C or more)	System voltage
30	Blower pulse controller output	Air volume adjusting dial: LO - HI	3.5 - 0 V (Effective value at alternative current)
31	Air mix damper motor (MAX. HOT)	Set to MAX. COOL position.	Weak voltage (0.5 V)
		Set to MAX. HOT position.	10 V
32	Air outlet changeover damper motor (DEF.)	Set to FACE position.	Weak voltage 0.5 V
		Set to DEF. position.	10 V
34	Front blower relay	When front A/C is OFF	System voltage
		When front A/C is ON	0 V
35	Rear defogger	When rear defogger switch is ON	1.5 V or less
		When rear defogger switch is OFF	System voltage
38	-	-	-
39	Diagnosis data output	When ignition switch is ON	Voltmeter fluctuates between 0 and 12 V.
41	Rear power transistor collector output	When rear cooler is ON	0 - 10 V
42	Rear balancer solenoid valve	When rear cooler is OFF	System voltage

Terminal No.	Check item	Check condition	Normal condition
44	Rear A/C air volume adjusting dial switch input (HI)	When air volume adjusting dial is at HI.	0 V
45	Rear A/C air volume adjusting dial switch input (LO)	When air volume adjusting dial is at LO.	0 V
46	Rear balancer input	Set the temperature dial to "+4" position.	1 V
		Set the temperature dial to "-4" position.	4 V
47	Rear power transistor base output	When rear cooler is ON	0.5 – 7 V
48	Rear cooler relay	When rear cooler is OFF	System voltage
		When rear cooler is ON	0 V
50	Rear A/C air volume adjusting dial switch input (AUTO)	Set air volume adjusting dial to "AUTO" position.	0 V
51	Rear A/C air volume adjusting dial switch input (ME)	Set air volume adjusting dial to "ME" position.	0 V
52	Air thermo sensor input	When sensor section temperature is 25°C (1.7 kΩ)	2.2 V