



### Reducing Amounts of Lead

Lead is found in solder and in rubber products. For this reason, we replaced the lead in solder with a tin-silver alloy, but such solder has a high melting point, and a solder-application temperature that is excessively high can give rise to such problems as destruction of IC chips and other electronic components. Aisin prevents damage to ICs and other components through strict temperature controls for solder application. We have also achieved lead-free rubber parts without sacrificing performance by replacing the lead used in the forming process to enhance durability with zinc and magnesium compounds. In FY2003 we adopted lead-free solder for the ECUs for four-wheel drive actuators as well as achieving lead-free rubber parts, thereby reducing the amount of lead used by 1% from FY2002. Solder is an item outside the scope of the ELV Directive, but we are conducting our own research and development in this area.



Four-wheel Drive Actuator ECU



Vacuum Switch  
(rubber part for internal sensors)

### Elimination of the Use of Cadmium

Our products previously used cadmium to prevent seizure of the contacts in bimetal thermostats, but we have eliminated the use of cadmium by replacing it with nickel.



Bimetal Thermostat

## Developing Recycling Technologies

With "looking after our limited natural resources" as our motto, Aisin is promoting development taking into account "3R" (Reduce, Reuse, Recycle), actively striving to develop recycling technologies.

### Evaluation of the Ease of Dismantling for Shower-toilet Seats

We conduct investigation in the design stage of such matters as attachment methods, number of attachment points, adhesive materials, composition labeling, and dismantling time, with our aim being to design products that are easier to be recycled.

Dismantling-ease Evaluation Sheet

Ease of Dismantling at the Product and Subassembly Level		Recyclability at the Individual-component Level					
No.	No.	Part name	Structural material			Material labeling	
			Metal	Thermoplastic resin	Thermoplastic resin	Other	
1	1	Lid		○			○
2	2	Seat		○			○
3	3	Seat cover		○			○
4	4	Sealing rubber				○	×
5	5	Sensor tape	○				×
6	6	Plate spring	○				×
7	7	Base cover		○			○



Shower-toilet Seat