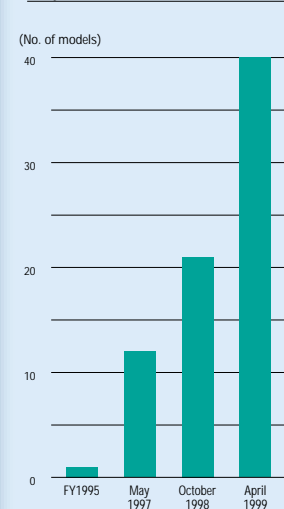


Resource Conservation and Recycling (Products)

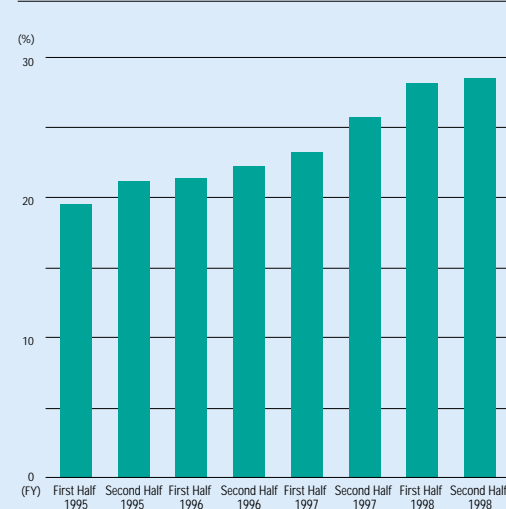
Goals and Progress

- A recovery and recycling system for products and supplies, especially toner cartridges, is to be established by the end of fiscal 2001 in Japan, Europe, the Americas, China and Taiwan, and the Asia-Pacific region.
- ▶ Recycling centers are currently operating in Japan, in northern and southern Kanto as well as in Kyushu, and are part of the establishment of a nationwide recycling system. An overseas system is underway.
- Plans call for increasing the resource recovery rate for copiers, facsimiles, and laser printers, including toner cartridges, to over 90% by the end of fiscal 2001.
- ▶ As of June 1999, we had reached 79% of the resource recovery rate for copiers in Japan.

No. of Models Incorporating Recycled Toner



Sales of Recycled Paper



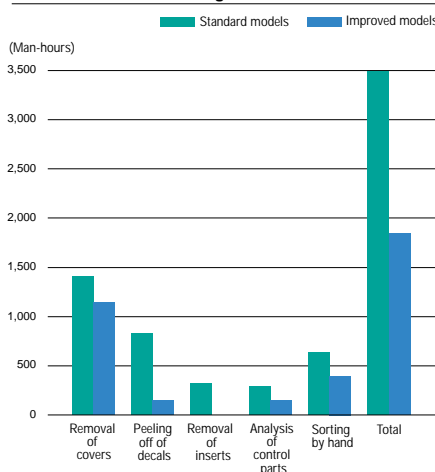
Concept of Recycling

The Ricoh Group achieves a high resource recovery rate (i.e., reuse) of its products and undertakes recycling activities as part of its business. In 1993, Ricoh set up recycling design policies and a product assessment system, promoting recyclable manufacturing from an early stage. While receiving external support, Ricoh has mainly worked to create mechanisms of disassembling, sorting, cleaning, and recycling the products that are recovered.

Recyclable Designs

Recycling begins not at recovery but from the product design stage. The Spirio 2700 series, introduced in 1994, was the first copier designed to reduce the disassembly time following recovery as well as the time needed for sorting materials to facilitate low-cost recycling. Specifically, the number of screws used was reduced for easier disassembly, materials were standardized to enable the recycling of plastics, and decals were developed that could be melted with the plastic to eliminate removal time. Currently, the Ricoh Group is extending its efforts on recyclable designs and product assessment to all its copiers, facsimiles, and laser printers. Moreover, recycling was further enhanced with our introduction of level 4 design in June 1999.

Comparison of Disassembly and Sorting Man-hours between New and Old Designs



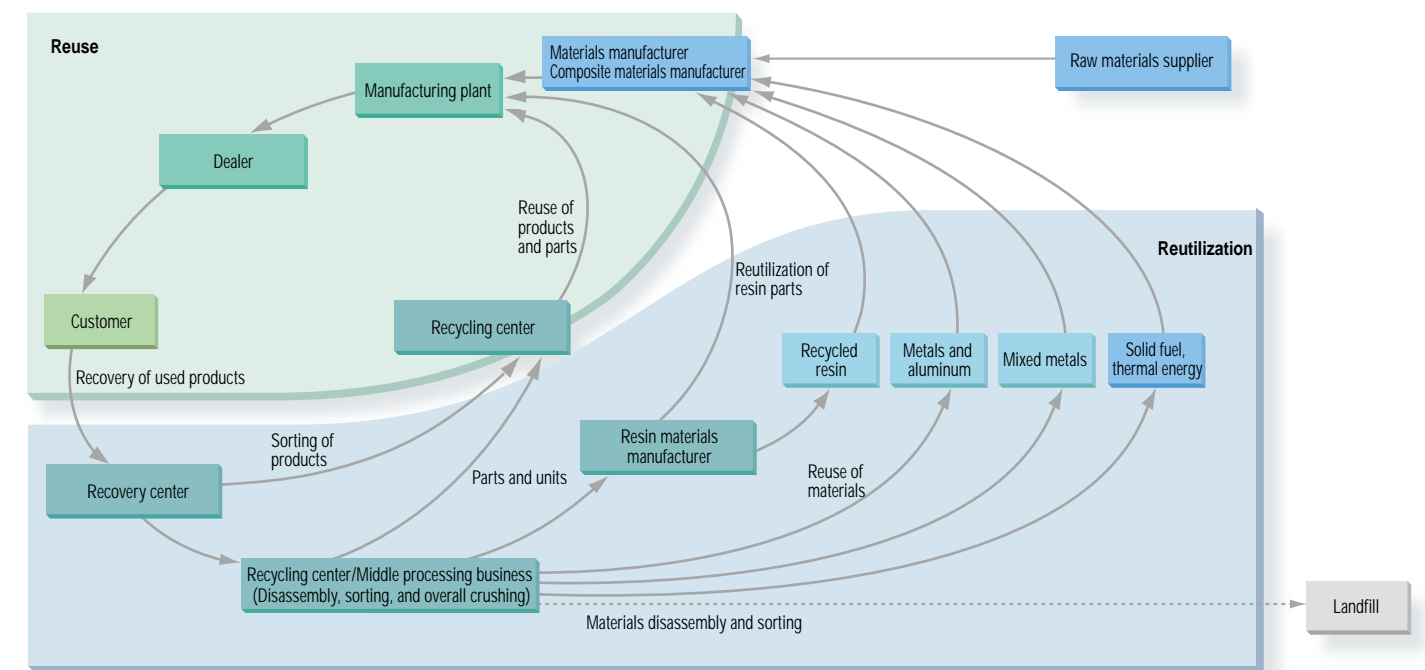
Recyclable Products

In October 1997, Ricoh marketed a copier called the Spirio 5000RM. The remanufactured copier is a copier developed using recycled parts. The Spirio 5000RM reuses more than 60% (weight percentage) of the parts of the RICOPY FT5500 series that was marketed in 1993 and uses recycled parts in all units produced. It also uses recycled plastic for the inner cover. This recycled plastic is made using a technique which removes impurities from recovered plastic parts and mixes it with virgin plastic to deliver the same properties as new plastic. Performance was also enhanced by making the liquid crystal panel easier to see.

Following this, Ricoh has marketed a total of seven recycled copier models, including the Spirio 105BB, Spirio 7210RM series, and 8210RM.



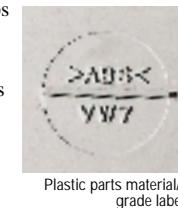
Recovery of Resources of Products (Reuse and Recycling)



Recycling of Plastic Parts

About 20% of the weight of OA equipment such as copiers consists of plastic parts. In the past, most of these plastic parts were neither disassembled nor sorted but crushed and disposed of with the product. This is because quality drops when different materials or grades of plastic are mixed, and as such plastic materials can not be reused for copier parts, they are difficult to recycle.

For this reason, since 1994, Ricoh has standardized the plastic materials it uses, indicating the kind of material and grade of each part to enable recovered plastic parts to be sorted by grade.

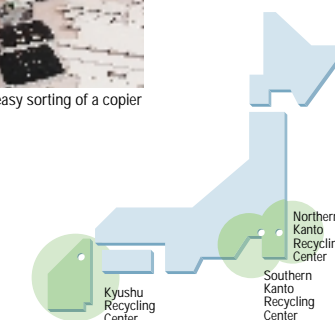


Nationwide Network of Recycling Centers

The Ricoh Group has been making efforts to establish a new mechanism for recycling. For instance, unlike newspapers and aluminum cans, no mechanism for recycling plastic has been established in the communities in which we operate. Thus, we have formed a network with recovery centers, recycling centers (disassembly and sorting), recycled equipment manufacturers, and plastic material manufacturers and created a mechanism by which recovered materials are reproduced as parts for Ricoh products. There are currently recycling centers in operation in Japan in northern and southern Kanto and in Kyushu. These centers handle about 90–100% of recovered copiers (mass ratio) as resources, and plans call for expanding this mechanism nationwide.



The easy sorting of a copier



The Ricoh Recycle Label

The Ricoh Group has set up company standards on recyclable designs, reuse rate of parts, recovery system, resource recovery, and environmental safety. We attach the Ricoh recycle label to those products shipped that satisfy these standards. As of November 1998, the Spirio 5000RM/7210RM series/8210RM and Spirio 105BB copiers have been sold with this recycle label. Ricoh plans to expand its product range bearing this label to printers and facsimiles in the future.

Criteria for the Ricoh Recycle Label (Summary) (Applicable in Japan)

1. Satisfies Ricoh's recyclable design standards
2. Products should be made using 40% or more (mass ratio) reused* parts.
3. Cartridges used in products should be of a recyclable design, and a system for recycling should be established.
4. A system for recovering and processing used products should be established. At the same time, a system for recovering used cartridges and containers must also be established.
5. At least 90% of products (mass ratio) must be recyclable for resource recovery in Ricoh's recycling system.
6. Consideration must be given to the environmental safety set in the standards.

* Reuse means to use something for the same purpose in its original form.
Reuse rate = Maximum mass of reused part/mass of product (x100)

