Environmental Activities

Environmental Management

We live in a convenient society with electricity, automobiles, and easy access to whatever we need. However, CO_2 emissions are increasing, the Earth is being polluted, and the ecosystem is being destroyed. The global environment is being damaged by the way we live.

In corporate management, the Kenwood Group places top priority on "sustainable economic growth" and "global environmental protection." We are using environmental management to meet our social responsibility as a "green company".

Environmental Philosophy

True to the Kenwood Group's corporate vision of "Reaching out to discover, inspire and enhance the enjoyment of life," we strive to expand our presence around the world. We are fulfilling our responsibility to the community by working toward continuous maintenance and improvement of our precious global environment and contributing to sustainable social development.

View our environmental policy on the web at http://www.kenwood.co.jp/j/eco/activity/index.html

Guiding Principles

The Environmental Action Plan is a guideline for individual employees to take environmental actions in their jobs. All employees carry a card reminding them of the environmental actions they should take.

Environmental Action Plan's Nine Categories

Environmental design	Green procurement	Pollution prevention
Operation reforms	Delivery efficiency	Manufacturing efficiency
Compliance with laws	Education and enlightenment	Contribution to society

All employees carry an Environmental Action Plan card with their ID.

The Kenwood Group Builds Green Products to Help Protect the Global Environment

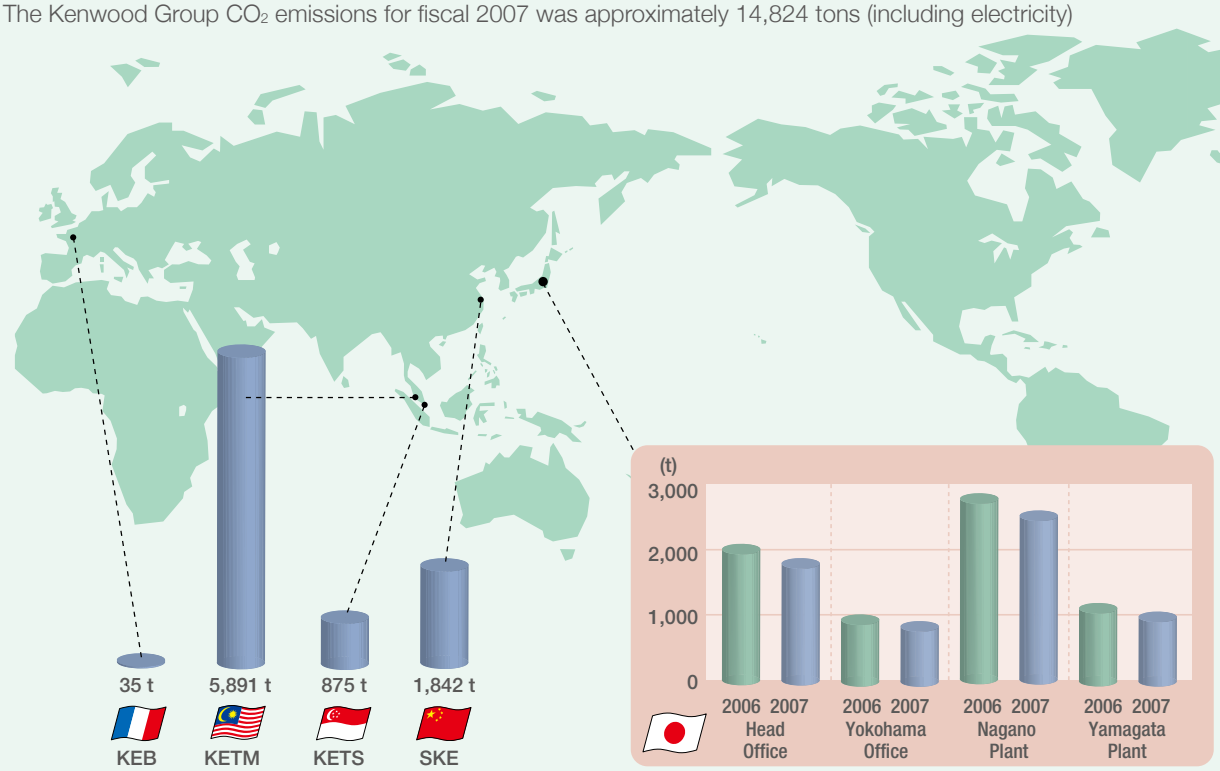
The Kyoto Protocol goes into effect in 2008, making this a critical year.
Although each and every person must increase their awareness of the environment around them in order to preserve our comfortable way of life, it seems that there is a lack of understanding about exactly what each of us must do. Contributing to the environment begins with everyday life. For example, we can reduce waste and properly separate our garbage, limit the amount of fuel used in our cars, and reduce the electricity we use everyday. We must, as a corporate citizen, make these goals a reality. Customers are demanding that products have, in addition to Kenwood's superior design and functionality, environmental value. Kenwood is developing environmentally conscious products through implementation of a systemized environmental evaluation that begins at the design stage. We are using materials without toxic substances and designing simple packaging, lightweight, low energy consumption, and easy disassembly into every product. At the office level, we are limiting usage of electricity, minimizing waste, and working to ensure that we do not pollute the air, earth, or water. As the person responsible for environmental measures at Kenwood, I am working to promote reductions in CO_2 and environmentally conscious manufacturing.

Tamio Takeda, Kenwood Environmental Management Director

Energy Usage in the Kenwood Group

Although Japan agreed in the Kyoto Protocol to reduce CO_2 emissions between 2008 and 2012 to 6% below their 1990 levels, CO_2 emissions increased by 7.7% as of 2005. In order to fulfill its obligations, Japan must reduce emissions by 13.7%. The Kenwood Group is contributing to these efforts by implementing energy-saving measures at its plants, headquarters, and sales offices.

The Kenwood Group CO_2 emissions for fiscal 2007 was approximately 14,824 tons (including electricity)



ISO 14001 Certified Facilities

In Japan	Hachioji, Yokohama offices	Certified July 1998
	Nagano Kenwood (Nagano Plant)	Certified December 1998
	Yamagata Kenwood (Yamagata Plant)	Certified December 1999
Abroad	Kenwood Electronics Technologies (M) Sdn. Bhd. (Malaysia Plant)	Certified January 1999
	Kenwood Electronics Technologies (S) Pte. Ltd. (Singapore Plant)	Certified September 1999
	Shanghai Kenwood Electronics Co. Ltd. (Shanghai Plant)	Certified August 2001
	Kenwood Electronics Bretagne S.A. (France Plant)	Certified June 2005

Environmental Promotion Organization

- **Kenwood Environment Board** — Internal Audit
  - Secretariat
  - Green Products Promotion Conference
    - Green Product Committee — Promotion of green product design
    - Reduction of Toxic Substances in Products — Dealing with environmentally regulated substances
    - Green Procurement Committee — Procurement of environmentally-friendly parts
  - Environmental Protection Promotion Conference — Energy conservation and waste reduction at offices and factories
    - Hachioji Head Office Environment Protection Promotion Conference
    - Yokohama Office Environment Protection Promotion Council
  - Environmental council of business divisions
  - Environmental council of group companies
  - Environmental council of Japanese factories
  - Environmental council of overseas factories


KENWOOD CORPORATION GROUP
CERTIFICATE OF APPROVAL
ISO 14001:2004 • JIS Q 14001:2004

ISO 14001 certificate

Kenwood Environment Board

Environmental Education and Internal Audits

Every year in accordance with our corporate plan, Kenwood implements audits, general environmental education, special education, education for internal auditors, and training to respond to environmental hazards in emergency situations.

General education

Based on laws for increasing the desire for environmental protection and for conducting environmental education, all Kenwood employees (including new employees, temps, and part-timers) receive environmental education every year. They learn about the importance of the environment, the current condition of the global environment, and how the environment affects our daily lives and the world. We also educate them about implementing improvements through our management system (ISO 14001), and the importance of preserving the global environment.

Specialist education

Specialized education is given to employees who work in fields (legal regulations, measurements, equipment, and environmental design) in which a lack of proper training and skill could adversely affect the environment.

Emergency training

Every year we hold training on how to handle various emergencies related to boilers, oil tanks, hazardous materials, and abnormal equipment noise or vibrations. We use the results of the training to revise our equipment operation manuals to help prevent accidents.

Educating the children

We offer factory tours to children as part of our education for non-employees during which we explain Kenwood's environmental activities.

Education for internal auditors and auditing

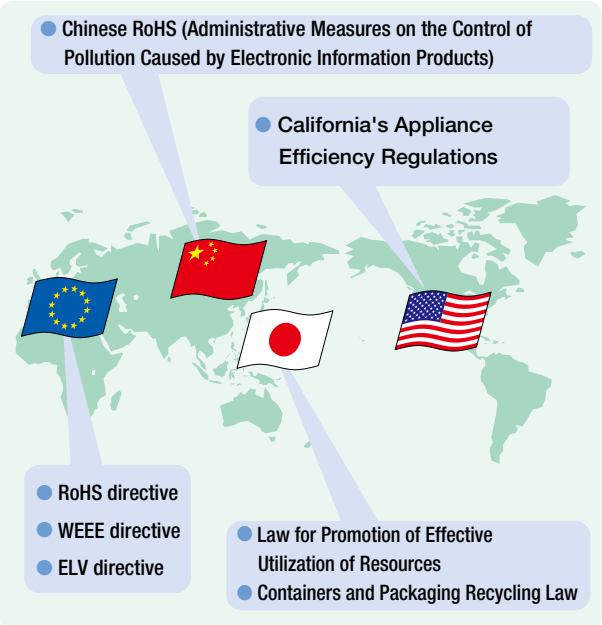
Kenwood's internal auditors study to acquire the knowledge and abilities to properly execute our management system (ISO 14001). They start by learning the JIS standards (JIS Q 14001:2004) and doing simulated audits. Those who attain a score of 80 or above on the exam are certified to be internal auditors. Currently, we have 127 certified internal auditors.

To promote the objectivity and openness of our audits, audits are done by auditors outside the department being audited.

Auditing compliance with environmental laws & regulations

From the design stage, the design auditors check to make sure products adhere to the rules of the countries where they are to be sold. They also audit the sales offices yearly to confirm compliance with regulations and make reports to the environmental management director.

●Laws in each country



Results of fiscal 2007 activities

The results of the Kenwood Group's environmental activities for fiscal 2007 are summarized in the table below.

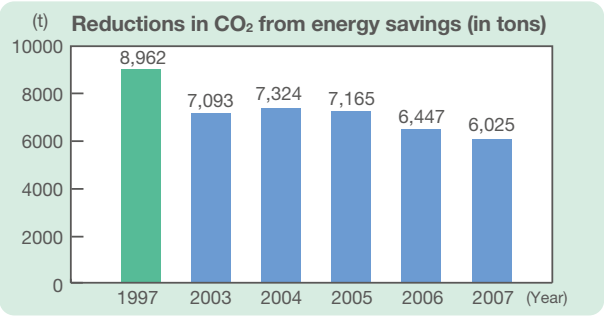
Green Product Promotion Activities

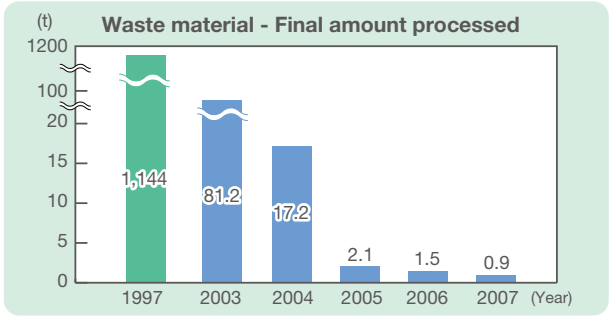
Indicates activities for producing products that have a reduced environmental impact.

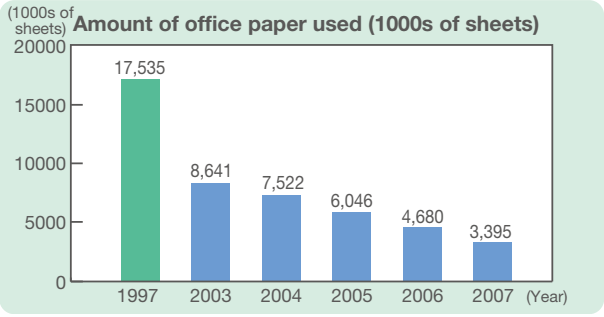
Activity	Kenwood's Environmental Goals for 2007	Fiscal 2007 results		Goals for Fiscal 2008
Making products lighter and more energy efficient	• Car electronics business: Newly-designed lighter models	Weight reduction goal attained	☺	Lower weight of newly-designed models
	• Home electronics business: Reduction of standby electricity consumption for newly-designed models Reduction of electricity consumption during operation	Reduction of electricity consumption during standby and operation attained	☺	Reduction of electrical consumption of newly-designed products during standby and operation
	• Communications business: Reduction of electricity consumption during reception standby for newly-designed models	Standby power current goal attained	☺	Reduction of electrical consumption in standby of newly-designed products
Introduction of LCA	Trial of Life Cycle Assessment (LCA) method	Goal attained	☺	Evaluations from each sales office
Formulation of design standards	Implement environmental design evaluation method for all product types	Goal attained	☺	Implement environmental design evaluation method for all product types
Reduction of toxic substances in products	• All models are green	Unattained by some models	😐	Support for all product types
	• Database management • Advancement of compliance with environmental laws in various countries • Maintenance of a self-analysis system	Goal attained	☺	Database management Maintenance of a self-analysis system
Green procurement	Monitoring of toxic substances management by suppliers	Goal attained	☺	Monitoring of suppliers

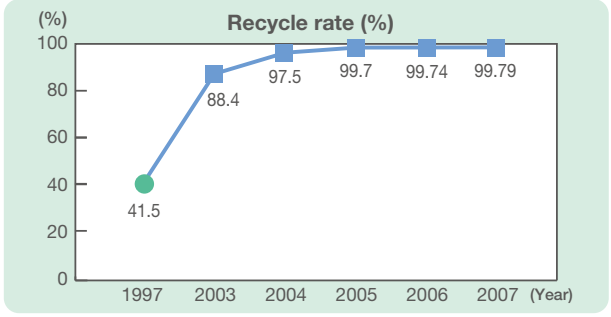
Environmental Protection Activities

Theses graphs indicate the amount of energy used, office paper consumed, final amount of waste disposed, and the rate of recycling from 1997 at our four facilities in Japan.









Making Products Environmentally Friendly

To cut back on CO_2 emissions, the Kenwood Group strives to make car electronics lighter so the car saves gasoline and to make wireless and home electronics consume less power in standby.

Less energy, lighter weight

Car electronics business

Since 2002, we have pursued the production of lighter car electronics products to help save gas and consume less resources.

New products developed in fiscal 2007 are lighter than ever. The KAC-9104D and KAC-7404 car audio amplifiers are 24.4% and 35% lighter than the previous year's models, and the DDX512 AV unit is 35.5% lighter than similar models. This lighter weight helps to save about 68.6 tons of CO_2 emissions per year.

KAC-9104D

DDX512

We will continue to make new products lighter to help stop global warming.

Communications business

From fiscal 2003, we started reducing the standby current consumption of wireless devices.

2007 saw the development of the NEXEDGE (NX-200/300) digital business radio optimized for use by hotels and factories in the business and industrial markets. These radios use 24% less energy when in standby than the standard 2002 models.

This reduced CO_2 emissions for the year by 119 tons, and significantly contributed to our efforts to stop global warming.

We will continue to help protect the environment.

NX-200/300

Home electronics business

In 2007 we pursued development of an improved digital amplifier that operates on less energy. We separated the digital and analog circuits and supplied them individually with electricity to reduce the noise inherent in digital amplifiers. These efforts were rewarded by high praise for sound quality from audio magazines.

The switch to digital and the addition of an energy saving mode (CLEAR A mode) to the R-K1000 has resulted in an operating energy consumption of only 19.02 W. This is a 54% reduction over the 2006 R-K1 model, and has helped us to reduce annual CO_2 emissions by 58 tons.

These are just some of the ways that Kenwood is working to develop products that are environmentally friendly.

2006 model
R-K1

Digital amplifier
R-K1000

Product Recycling

From the product and parts development stage, Kenwood strives to reduce the number of parts and screws to make recycling easier.

Examining product construction at the design stage

Minimizing the number of parts used during construction makes for easier disassembly later. The following picture is an example of a CD receiver made for sale outside of Japan. There are only eight parts: the 2 metallic parts that make up the chassis, the CD mechanism, the 3 panels, and the 2 circuit boards. Fewer parts also helps to minimize the energy costs associated with assembly.

Product construction

●Resin material markings

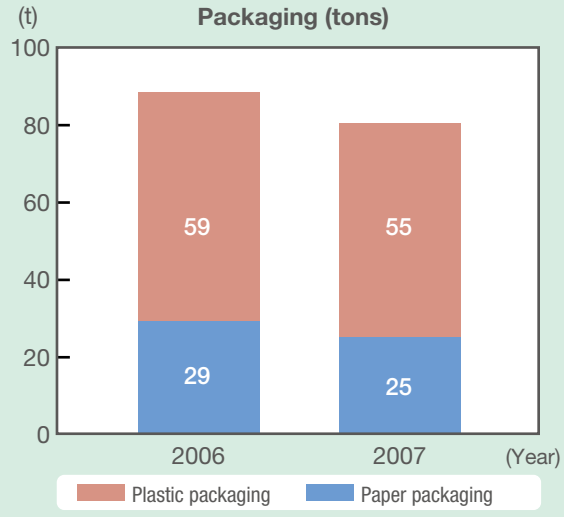
To make it easier to sort waste materials during product disposal, resin parts are marked with the material name.

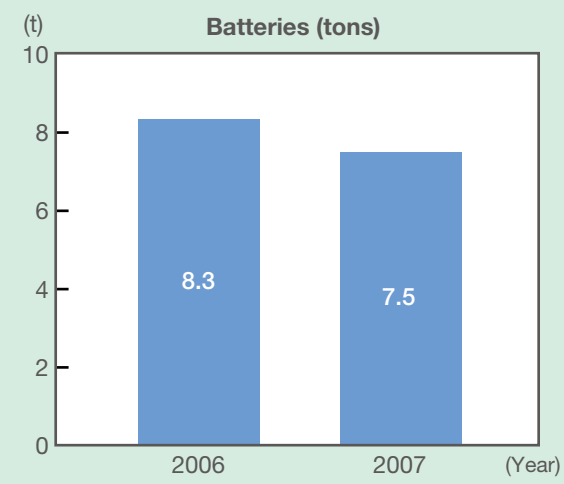
Marking on back of operation panel of Home Stereo R-K711.

PS indicates polystyrene.

Recycling of packaging and rechargeable batteries in Japan

Kenwood has been boosting its recycling of rechargeable batteries and packaging materials.





Eco mark

Products with this mark indicate that Kenwood has designed the product to be environmentally friendly. The eco mark appears in instruction manuals and catalogs.

Design Concept

This fresh design depicts a green Earth with a lively plant and circulating natural resources. The curve below is Earth, and the plant sprouting on it has twin leaves which symbolize the circulation of natural resources.

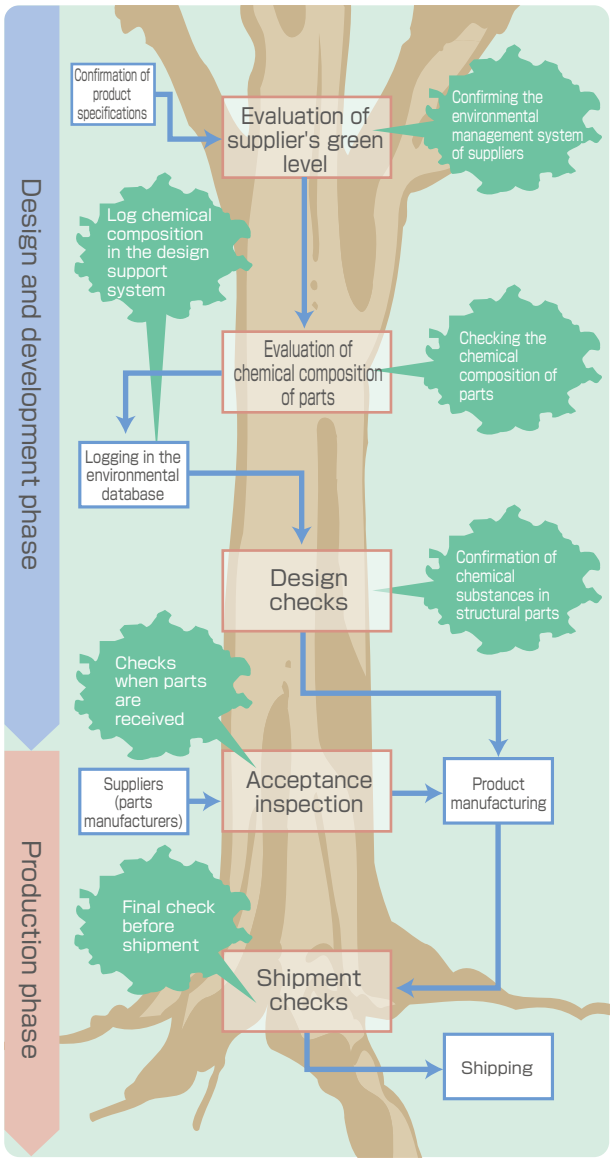
Chemical Substance Management

While complying with the environmental regulations of each country, the Kenwood Group provides safe products by restricting the use of substances toxic to the environment and humans.

Outline of chemical substance management

The Kenwood Group monitors toxic substances through a system of checks at every stage of the manufacturing process, from the design and development stages through production.

Flow of the chemical substance management system

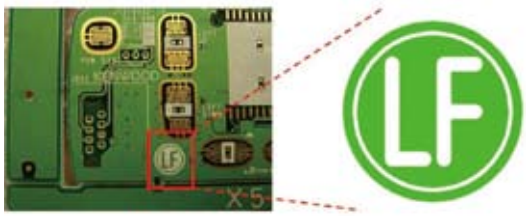


Reduction of toxic substances in products

On July 1, 2006, the Restriction of Hazardous Substances Directive (RoHS) took effect in Europe banning the sale of products within the EU which contain any of the following six banned substances: Lead, cadmium, mercury, chromium (VI), polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE).

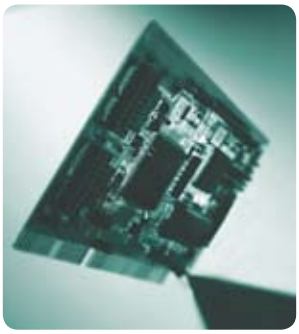
To comply with the RoHS Directive, the Kenwood Group formed a Lead-free Solder Promotion Committee to switch to lead-free solder. Except for products with custom specifications, almost all products now use lead-free solder. We also established a chemical substance compliance evaluation system to ensure that our products comply with the RoHS Directive.

Lead-free soldering tank

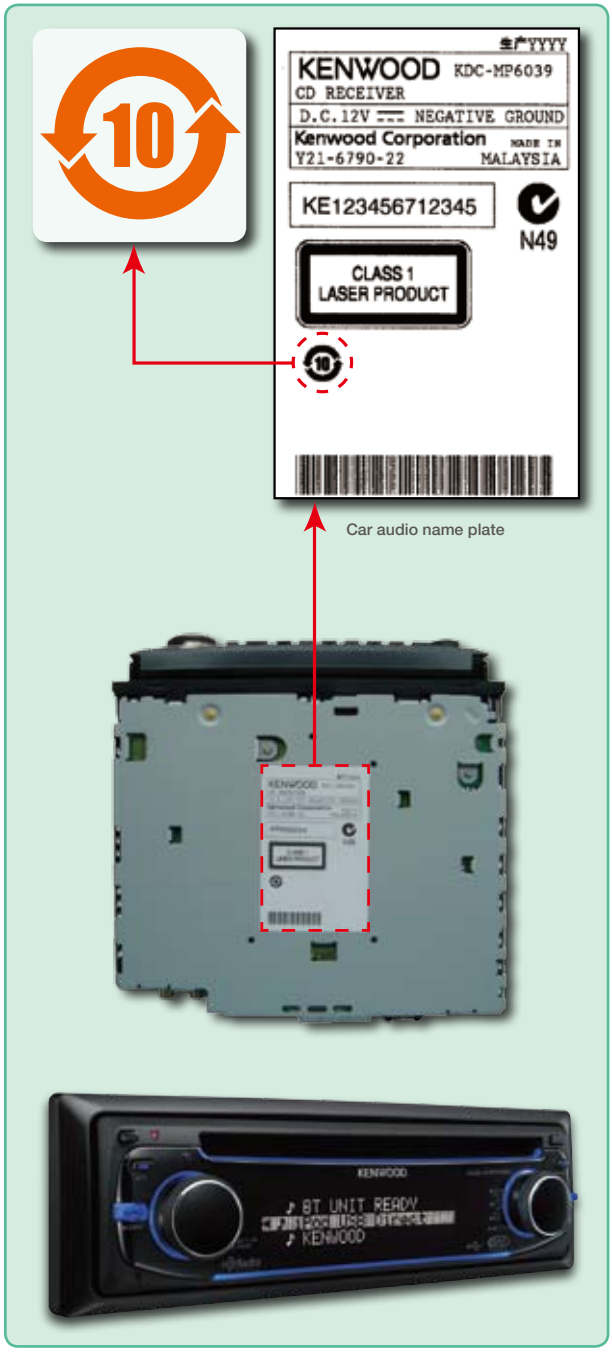


The Lead Free (LF) logo indicates a printed circuit board that uses lead-free solder.

Compliance with Chinese RoHS



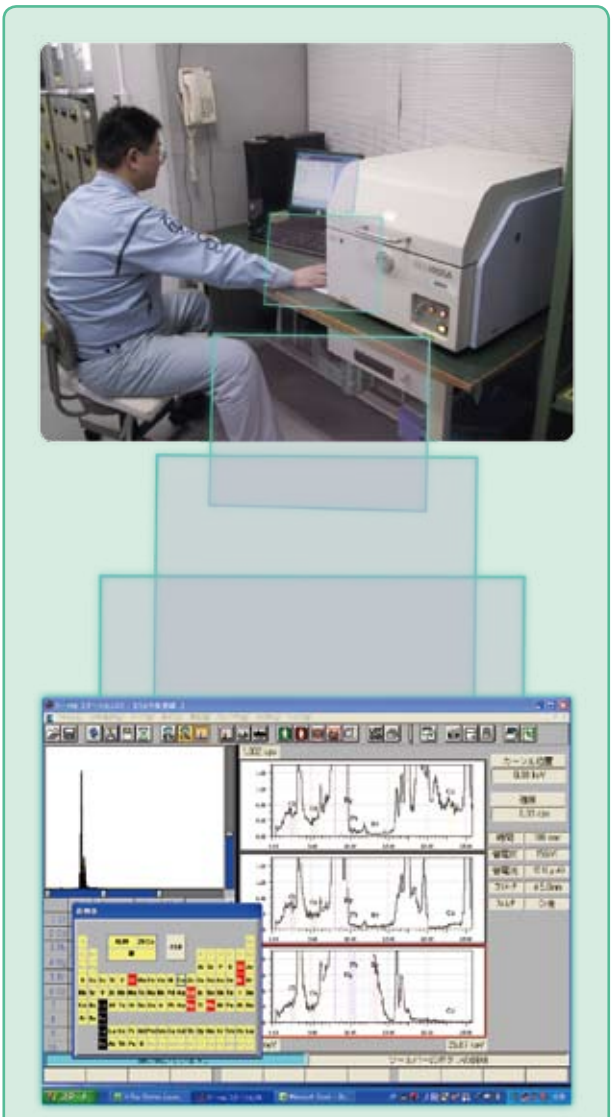
The Chinese RoHS (Administrative Measures on the Control of Pollution Caused by Electronic Information Products) took effect on March 1, 2007, requiring manufacturers to indicate whether the product contains any restricted substances on both the product and in the instruction manual.



Car audio name plate

Internal analysis for non-use of toxic substances

In accordance with the Green Procurement Guidelines, the Kenwood Group requires its suppliers to certify that materials and parts do not contain any toxic substances. Suppliers are required to submit the Declaration of Non-use of Banned Substances and the Ingredients of Materials. In addition, all Kenwood factories in Japan and overseas have an X-ray fluorescence spectrometer operated by a certified analysis engineer to inspect and evaluate materials and parts from suppliers for toxic substances to ensure compliance.



Using an X-ray fluorescence spectrometer to analyze the composition of parts.

Making Our Offices Green

The Kenwood Group is working to reduce to the bare minimum the amount of energy used in planning, design, and production.

Outline of Kenwood's environmental impact

INPUT

Energy resources

Electricity	15.4 million kWh
Heavy oil	71.3 kl
LPG gas	16.2 thousand m³
Public gas	13.4 thousand m³

Water resources

Waterworks+ground water	69.7 thousand m³

Amount of chemical substances*

Ethanol	0.98 tons
Isopropyl alcohol	3.92 tons
Lead and lead compounds	7.80 tons

OUTPUT

CO_2 emissions

6,025 tons

Waste water

64.3 thousand m³

Waste materials

Amounts recovered and sorted	457 tons
Final amount processed	0.943 tons

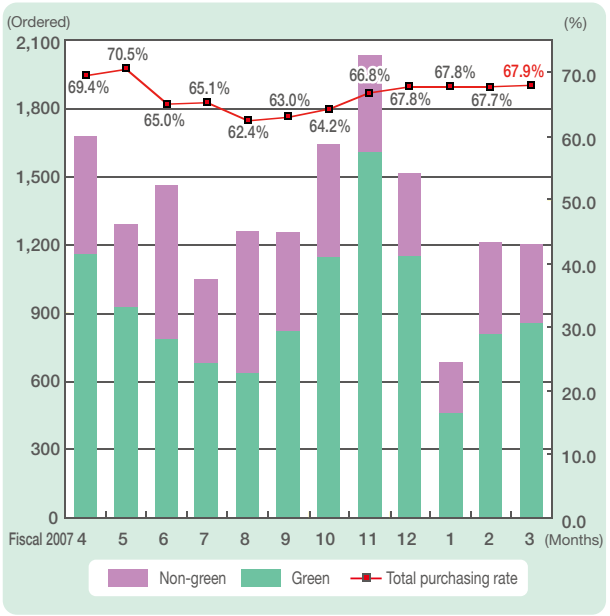
Atmospheric emissions

Ethanol	0.73 tons
Isopropyl alcohol	1.83 tons

Statistics gathered from the Head Office, Yokohama Office, Nagano Plant, and Yamagata Plant.
Period: April 1, 2007 - March 31, 2008
*Chemical substances and their major applications
Ethanol ····· Used during production for cleaning equipment, during development for testing, and also for cleaning during servicing.
Isopropyl alcohol ····· Used to clean production equipment.
Lead and lead compounds ····· Used for soldering parts during the production process.

Green Procurement of Office Supplies

The Kenwood Group's four bases in Japan (Head office, Yokohama office, Nagano Plant, and Yamagata Plant) strive to use more environment-friendly office supplies. Staff in charge of procurement use the office supply purchasing system on the Internet and order products designated as ecologically or environmentally friendly. These include products with the Eco or Green Marks, or those designated as complying with the Law on Promoting Green Purchasing.
Also, we started sending reports on the status of green purchasing to the staff in charge of procurement from 2007 to increase our rate of usage.
During the period of April 2007 to March 2008, 67.9 percent of office supply purchases by Kenwood's four bases in Japan were environmentally friendly or green products. This was a 5.3% increase from 2006.



Helping to Stop Global Warming

The Kenwood Group is doing its part as a global citizen, proactively working to reduce CO_2 emissions in its business operations to prevent global warming.

ISO 14001 management systems were instituted in 1998 at each of the Kenwood Group's 4 bases in Japan (Head Office, Yokohama Office, Nagano Plant, and Yamagata Plant). The ensuing energy-saving activities (electricity, natural gas, heavy oil, etc.) have led to a 2,939 ton reduction in CO_2 (compared with 1997 calculations) for fiscal 2007.
Kenwood takes a multifaceted approach to preventing global warming. We do not leave company cars idling, we have improved the distribution system, and we are replacing air conditioners, vending machines, and computers with more energy-efficient models. We have also asked employees to make changes in their everyday work through CoolBiz, WarmBiz, turning off the lights at lunch time, and turning off computer monitors not in use. Kenwood has also participated in Team -6% since 2006 as part of our environmental activities.

Equipment activities

● Introduction of a building management system reduces CO_2 emissions

The Nagano Plant installed a building management system that "visualizes" energy consumption. This has not only increased employee awareness of energy consumption, but it has lead to major reductions in CO2 emissions.
A centralized air conditioner management system allows for individual control of units across the factory and a power monitoring system then provides extensive 24-hour monitoring in realtime of each floor's energy usage for optimum energy distribution. These measures have allowed us to understand our day-time and night-time energy needs and clarified areas for improvement.
In 2007 the Nagano Plant saw a 330 ton reduction in CO_2 emissions compared with 2006, thanks to the installation of a building management system. This removed the plant from the list of facilities being monitored under the Law Concerning the Rational Use of Energy*.

Control computer for the centralized air conditioning management system

Power monitoring system provides realtime status updates

*Law Concerning the Rational Use of Energy: Plants that utilize more than a specified amount of fuel and energy are designated for monitoring by the government to help reduce their energy consumption.

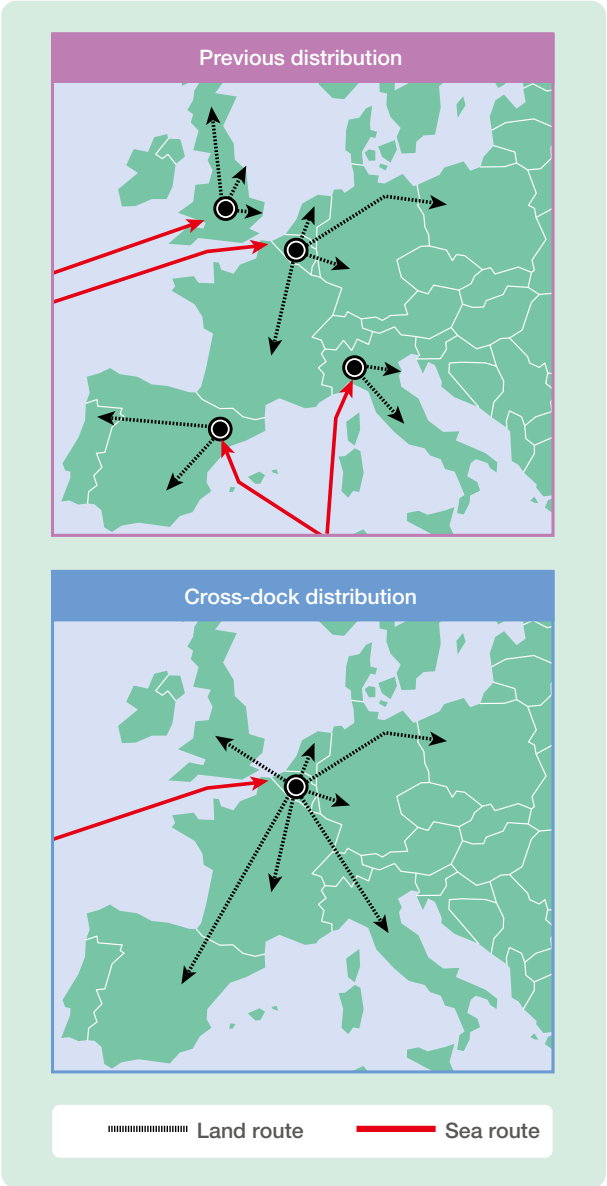
● Energy conservation patrols

The Yamagata Plant has instituted energy conservation patrols in cooperation with local businesses that overcome corporate barriers and allow personnel from other businesses to visit facilities to help discover waste. These patrols reveal waste in areas that we miss, working from the perspectives of "comprehending other companies" and "imitating good practices". Focusing on facilities that use large amounts of energy, this is one way that Kenwood continues to reduce CO_2 emissions.

Improving distribution

Kenwood is creating a more efficient distribution system, so in August 2006 we introduced the cross-dock distribution* system for delivering products in Europe. Previously, each plant supplied products to major sales companies. Now, the products are sent to a distribution center where they are consolidated for efficient delivery to the sales companies. This new system has helped Kenwood reduce delivery costs and CO_2 emissions.

* Cross-dock distribution: Freight from various factories is delivered and consolidated at a distribution center from where the products are supplied in bulk to retail outlets.



Participation in the Light Down Campaign

- Participated in Black Illumination 2007
- Turned off neon signs at the Sapporo bus terminal tower and the Kanda Kyodo Building
- Reduced lighting at our plants by adjusting work hours

Kenwood's neon sign

At our 4 bases in Japan (Head Office, Yokohama Office, Nagano Plant, and Yamagata Plant), we have instituted the summer CoolBiz and winter WarmBiz seasonal measures to help prevent global warming.

We have selected staff to monitor the temperature in air conditioned environments to keep the temperature at 28°C in both summer and winter. Employees are then encouraged, with posters and messages on the company intranet, to not wear neckties and to dress appropriately for the season.

CoolBiz poster on display in our offices

Through these activities and by planning and designing new activities, the Kenwood Group continues in its tireless efforts to prevent global warming.

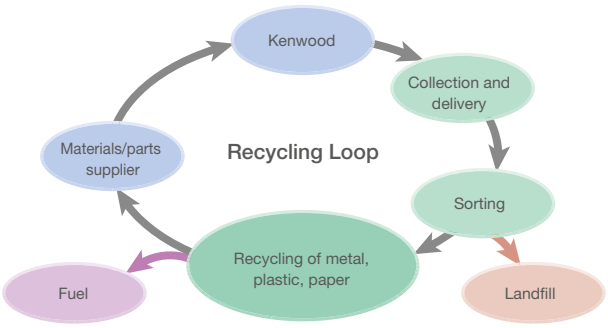
Conservation & Efficient Use of Resources

Aiming to reduce waste through "zero emissions*"

As a global citizen, the Kenwood Group is working to save and improve efficient use of resources. Our 4 facilities in Japan (Head Office, Yokohama Office, Nagano Plant, and Yamagata Plant) have set a goal to recycle at least 99.5% of their resources for their "Zero Waste Material Emissions" program since July 2006.

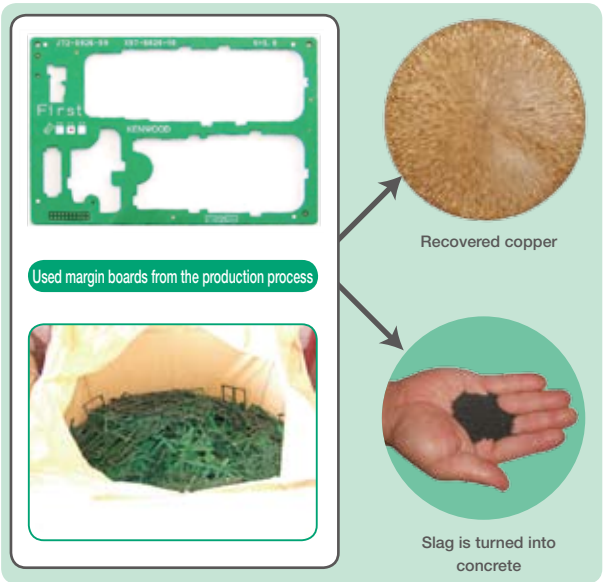
*Zero emissions: Concept advocated by United Nations University in 1994 to "effectively utilize our planet's limited resources and minimize the effect of the human race on the natural environment".

● Recovering rare metals from used margin boards



The growth in the demand for metals has lead to a worldwide shortage. In response, Kenwood Group factories are working to recover copper and slag from the large number of margin boards* consumed during the production process.

*Margin boards: Frame used to hold the printed circuit board while attaching parts using an inserting machine. They are normally thrown away after being used.



● Switching to a multifunction copier reduces office paper usage

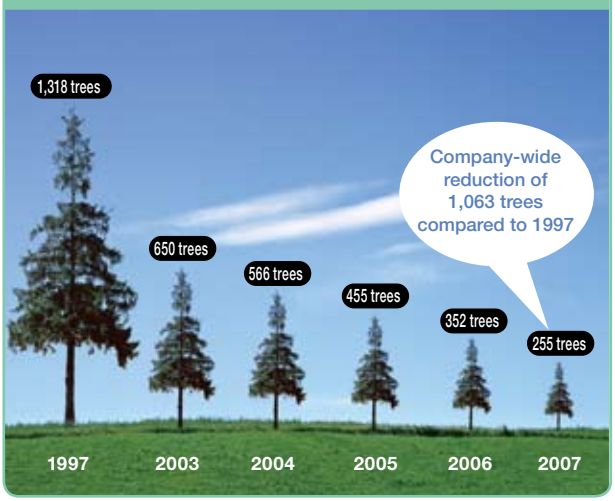
The head office and the Yokohama Office have reduced office paper usage by replacing their existing copiers with new multifunction color copiers. Employees input their ID and password before using the copier. This allows us to track usage and increases awareness of paper reduction amongst employees.

The efforts of Kenwood's 4 Japanese bases since 1998 to reduce paper used in our office saved approximately 1,063 trees in 2007 compared with 1997. (calculations based on 1 tree, 8 m tall and 14 cm in diameter equaling 13,300 sheets of paper)

Multifunction color copier
Fuji Xerox Apeos Port III C4400 PFS

Users must enter their ID and password when copying and printing.
Authorization screen from the Fuji Xerox Apeos Port III C4400 PFS

Use of office paper at Kenwood's 4 facilities in Japan



● The Yokohama Plant receives the Yokohama Environmental Action Award for Offices with Excellent (Three-Star) Garbage Separation

Of the zero emissions efforts by Kenwood's 4 facilities in Japan (Head Office, Yokohama Office, Nagano Plant, and Yamagata Plant) , the Yokohama Office was awarded a Yokohama Environmental Action Award for Offices with Excellent (Three-Star) Garbage Separation on November 4, 2007.

Environmental Board Chairman Shiohata receives the Environmental Action Award from Mr. Inoue, Chairman of the Yokohama Environmental Preservation Council.

*Yokohama Environmental Action Awards:
The Yokohama Office and 13 other businesses were recognized in 2007 based on proper and thorough separation of waste, and complete recycling of recyclable materials.

Offices with Excellent (Three-Star) Garbage Separation

● Converting food waste from the cafeteria into fertilizer

Kenwood is reusing waste materials by converting food waste from our company cafeterias to fertilizer. We have concluded agreements with local farmers to utilize food waste for fertilizing broccoli and other vegetables.

History of Environmental Activities

1992	January	Environmental Task Committee created (forerunner of current committee).
1992	November	Kenwood is the first in the industry to use environmentally friendly "pulp mold" packaging for portable CD players.
1997	April	Environmental Management System Promotion Office established at the head office's management headquarters.
1998	July	Kenwood's Hachioji and Yokohama Offices acquire ISO 14001 certification.
1998	December	The Nagano Plant, Kenwood's audio factory in Japan, acquires ISO 14001 certification.
1999	January	Kenwood Electronics Technologies (M) Sdn. Bhd (Kenwood Malaysia Plant: KETM) acquires ISO 14001 certification (Certified Jan. 8).
1999	September	Kenwood Electronics Technologies (S) Pte. Ltd. (Kenwood Singapore Plant: KETS) acquires ISO 14001 certification.
1999	December	The Yamagata Plant, Kenwood's communications equipment factory in Japan, acquires ISO 14001 certification.
2000	April	Registered with the Japan Containers and Packaging Recycling Association as a business entity.
2000	October	The environmental activities report "Environmental Report 2000" is issued.
2001	August	Shanghai Kenwood Electronics Co., Ltd. (Kenwood Shanghai Plant: SKE) acquires ISO 14001 certification.
2001	September	Registered with the Japan Portable Rechargeable Battery Recycling Center as a business entity.
2002	October	Nagano Plant reports attainment of "Zero emissions."
2003	April	Environmental Promotion Dept. established within the Corporate Administration Division. The Kenwood Environment Board, Green Product Promotion Conference, and Environment Protection Promotion Conference also established.
2003	May	Study begins for compliance with European environmental regulations (WEEE & RoHS).
2004	September	From the "Environmental Report 2004" onward, paper publishing switched to the Web.
2005	June	Kenwood Electronics Bretagne S.A. (Kenwood France Plant: KEB) acquires ISO 14001 certification.
2005	October	Product collection and recycling contracted to Matsushita Electric Industrial Co. subsidiary ENE Co. to comply with Europe's WEEE Directive. Registration completed (application preparation completed) with the German National Register for WEEE. Infrastructure preparations for product recycling in accordance with the WEEE Directive.
2005	October	Lead-free solder is incorporated at all plants.
2006	April	Preparation completed for compliance with European RoHS directive.
2006	June	Registered with the Team -6% project to stop global warming and engaged in related activities. "CoolBiz" adopted by Kenwood in Japan and a poster was created to promote CoolBiz in our offices.
2006	November	All four Kenwood offices and plants in Japan attain "Zero Waste Material Emissions." This is reported in and outside the company.
2007	April	Name changed from the Environmental Promotion Dept. to the Environmental & Social Contribution Department.
2007	April	Revised Environmental Principles and Policies. Issued Environmental Guidelines, 1st edition.
2007	July	Successfully renewed ISO 14001 certification for the third time.