

# Consideration for the Environment in the Area of Distribution

Casio endeavors to lower CO<sub>2</sub> emissions that result from the transport of its product by improving the efficiency of distribution through such means as a modal shift.

## CO<sub>2</sub> Emission Reductions in Domestic Distribution

Casio has a policy of “targeting for distribution that is gentle to the environment, given the mission to improve the levels of distribution services to its customers and users.” Based on this policy, Casio strives to reduce the environmental impact of its distribution.

Specific targets in the area of domestic distribution include a 50% reduction in CO<sub>2</sub> emissions (per unit of sales) by 2007 over the 2000 levels.

A look at CO<sub>2</sub> emissions in fiscal 2004 by route reveals that reductions progressed on the formal delivery routes (central distribution center → distribution center → customer) that had been monitored closely. On the other hand, increases occurred along direct shipment routes from a central distribution center to customers, an area that had not been kept track of before. As a consequence, total emissions were 104% and emissions per unit of sales were 93% of the preceding year.

### Efforts to Reduce CO<sub>2</sub> Emissions

Casio has been pressing forward with the following three action plans in order to realize its target to reduce CO<sub>2</sub> emissions

that result from distribution:

- (1) Reduction of the total transportation distance and the CO<sub>2</sub> emissions while lowering the distribution cost through relocation, elimination and integration of domestic distribution centers.
- (2) Promotion of a modal shift in favor of JR rail containers.
- (3) Promotion of a switch from chartered freight transport to shared deliveries and route services.

### Example of Efforts

#### Relocation, elimination and integration of Domestic Distribution Centers

##### Delivery of System Goods

In July 2005, production of page printer bodies and toner was transferred from Japan to China. The system distribution center will then be relocated from Kofu to Yokohama. The purpose to reduce the distance of truck transportation from ports by bringing the distribution center closer to the bay area.

##### Delivery of Consumer Goods

In 2005, distribution efficiency improvements will be made by relocating distribution centers to areas near ports and also by promoting their integration with Suzuka Central Distribution Center.

**Eastern Distribution Center:** Adachi Ward → Koto Ward (Scheduled for August)

**Western Distribution Center:** Yodogawa Ward, the City of Osaka → Minato Ward, the City of Osaka (Scheduled for October)

### Example of Efforts

#### Promotion of a Modal Shift

A modal shift means a switch in the method of transporting products from trucking, which exerts large environmental impact, to freight transportation by railroad.

Looking at the distribution of consumer goods, where a modal shift was made. CO<sub>2</sub> emissions between central distribution centers and distribution centers in fiscal 2004 decreased by 75 tons-CO<sub>2</sub> over the levels of fiscal 2003. The breakdown shows a decrease in deliveries by trucks and an increase in JR container deliveries. This suggests that a switch to JR containers contributed to CO<sub>2</sub> reductions.

#### Reductions of CO<sub>2</sub> Emissions through a Modal Shift

Year	JR Containers (Unit: ton)	Trucks (Unit: ton)
FY2000	1,767	101
FY2003	1,250	74
FY2004	1,249	76

## CO<sub>2</sub> Emission Reductions in Overseas Distribution

In the past, Casio set its targets only with respect to domestic distribution. Starting with fiscal 2005, however, targets are set newly for overseas distribution too.

Targeting to reduce CO<sub>2</sub> emissions per unit of sales by 5.0% by fiscal 2007 from the levels of fiscal 2004, efforts will be focused on the following themes:

- Integration of Malaysia Distribution Sites
- Printer Packing Box Improvement
- Digital Piano Packing Box Improvement
- Relocation of PA Distribution Site to China
- Stepped-up Use of Chinese Ports instead of H.K. Port
- Relocation of CCP's Delivery Sites to Areas near Ports
- Use of ALLWATER SERVICE for shipping to the East Coast (New Jersey) of the United States (Railroad → Sea)
- Concurrent use of SEA & AIR SERVICE for shipping to Europe

CO<sub>2</sub> Emissions by Region and by Route in FY2004 (Unit: ton)

	Boat	Air Transport	Railroad	Total
North America	9,504	35,218	1,303	46,025
Europe	8,854	29,849		38,703
Japan	2,960	7,338	1	10,299
China	132	521		653
ASEAN	79	0		79
<b>Total</b>	<b>21,530</b>	<b>72,926</b>	<b>1,303</b>	<b>95,759</b>

\* "Differences" shown in the table may not match the results of the computations. This is due to rounding of fractions.

### Changes in CO<sub>2</sub> Emissions and CO<sub>2</sub> Emissions per Basic Unit of Sales Resulting from Domestic Distribution

System Products:  
 ■ Factory, Seaport, Airport → System Distribution Center  
 ■ Suzuka Central Distribution Center → Distribution Center  
 ■ Suzuka Central Distribution Center → Customer  
 ■ Distribution Center → Customer  
 ● Per Unit of Sales

Consumer Products:  
 ■ Factory, Seaport, Airport → Suzuka Central Distribution Center  
 ■ Suzuka Central Distribution Center → Distribution Center  
 ■ Suzuka Central Distribution Center → Customer  
 ■ Distribution Center → Customer  
 ● Per Unit of Sales

Year	System Products (Unit: ton-CO <sub>2</sub> )	Consumer Products (Unit: ton-CO <sub>2</sub> )	Total (Unit: ton-CO <sub>2</sub> )	Per Unit of Sales (Unit: ton-CO <sub>2</sub> /¥100 million)
FY2000	4,323	1,868	6,191	1.60
FY2003	3,278	1,324	4,602	1.10
FY2004	3,416	1,249	4,665	1.02

**Data coverage was expanded.**  
 In the past, data were obtained only with respect to the “Central Distribution Center → Distribution Center” and “Distribution Center → Customer” routes. Starting with 2004, the data compilation was expanded to the routes shown in the diagram.

- Conventional scope of data compilation
- Routes that are newly included in data compilation
- Routes not yet encompassed for data compilation

**Delivery Flow of System Products**

```

    graph TD
        A[Domestic Factory] --> B[Seaport/Airport]
        B --> C[System Distribution Center (Kofu)]
        C --> D[Customer]
    
```

**Delivery Flow of Consumer Products**

```

    graph TD
        A[Domestic Factory] --> B[Seaport/Airport]
        B --> C[Suzuka Central Distribution Center]
        C --> D[Distribution Center]
        D --> E[Customer]
    
```