

Maintenance and Reutilization of Household Appliance is a Choice to Establish Conservation-oriented Society

By Liu Fuzhong

China Household Electric Appliance Association, Beijing, 100062

Abstract: With the development of social production level and the increased demand of consumer, the amount of production, consumption, elimination, maintenance and reutilization of household appliance has already reached the historical high. In this industrial chain, maintenance and reutilization of products is the key to whether the old household appliances can be reused reasonably and it is the key to extend the product life cycle too. This paper analyzes the importance of household appliance's maintenance from four aspects: its significance, effect, technical standards and social appeals.

Keywords: Household Appliance; Maintenance; Reutilization; Waste; Old

- 1、 The application and popularization of household appliance have already become important part of people's daily life.
- 2、 Distinguish the boundary between the waste household appliance and the old household appliance to make full use of the remaining use

value

3、 Confirm the basic technical criterion for the maintenance and remanufacturing of household appliance

4 、 The appeal to establish a conservation-oriented society

1 、 The application and popularization of household appliance have already become important part of people's daily life.

With the progress of the human society, the pursuit of modern life is increasing higher and higher, the consumption idea is more and more abundant, which promote household appliance to run through every field in people's life. The life is easier and happier, although some people's lives are affluent and some are tight, nowadays every family has enjoyed a few household appliances. Every year the application and popularization of household appliance are improving, which can be fully proved by the huge market capacity of household electric appliance in China and the world:

Forecast of Demand on Household Appliance in China and the Whole World (Unit: 10 000)

Product	China	The Whole World
Refrigerator	4500	8500

Washing Machine	3700	7950
Air-conditioner	7600	8000
Microwave Oven	6200	6500
TV	4200	15000
Computer	5300	19500

Average Amount of Household Appliance Owned by 100 Chinese Urban Families in 2006/2007
(Unit: 1)

Product	2006	2007
Refrigerator	91.8	95
Washing Machine	96.8	96.8
Air-conditioner	87.8	95.1
Microwave Oven	50.6	53.4
vacuum cleaner		14
Color TV		137.9

Average Amount of Household Electric Appliance Owned by 100 Chinese Rural Families in 2006
(Unit: 1)

	2006
Refrigerator	22.5
Washing Machine	43
Air-conditioner	7.3
Color TV	89.4

2、Distinguish the boundary between the waste household appliance and the old household appliance to make full use of the remaining use value

The market of second-hand household appliance exists in many countries, which meets the needs of many consumers. In order to prevent commercial fraud and block the access through which the waste household appliance flow into the second-hand market, we must stop to sell the “waste products” in the name of the “second-hand goods”, in order to ensure consumers’ personal safety and right of utilization.

We must strictly identify and distinguish the boundary between the waste household appliance and the old household appliance.

Waste Household Appliance:

(1) Electrical safety has enormous hidden

dangers and is the fatal flaw that can not be repaired;

(2) Its body is incomplete and lost the basic functions;

(3) Its service life exceeds 1.5 times of designed service life.

Second-hand household appliance is under the premise that ensures the safety of consumers, and after the necessary repairs and maintenance, can be brought into full play its remaining use value. At present, in the sense of building a conservation-oriented society, this method should be advocated. In the face of enormous social ownership of household appliances, as well as the inherent unstable quality of the products, developing countries such as China whose binary system is very prominent, the gap between rich and poor, urban and rural, east and west are very obvious. There are two issues of concern:

- (1) After-sale service and maintenance: the household appliance is mainly of utilization, not the pursuit of fashion. If the product has some problem, the consumer usually requires after-sale service and maintenance to get the result of reutilization, so that maintenance forms a trade naturally.
- (2) The reproducing of second-hand household appliance: the second-hand household appliance market exists in many countries, because driven by the modern technology the pace of updating of household appliance is being accelerated constantly. Some products have good use value after reproducing, and also suitable for a certain social group. This is the embodiment that making the best use of everything.

3、 Confirm the basic technical criterion for the maintenance and remanufacturing of household appliance

The household appliance in need of repair or the old household appliance in need of reproducing and turn into the second-hand goods should be done by the employees with professional qualification and in accordance with the norms of operation. The place of operation should be the repair workshop approved by the relevant department or the remanufacturing plant. This is the prerequisite of guaranteeing the quality of maintenance.

Maintenance and remanufacturing of household appliance should meet the following basic technical criteria:

- (1) The maintenance and remanufacturing of household appliance should be checked whether it is waste product or old product and deal with disinfection, maintenance and repair. After this process, it should be in line with GB2701-1 “the General Requirements of Household and Similar Electrical Appliance Safety” and in

accordance with the special safety compliance testing of relevant household appliance, so that the energy efficiency index and the security of electricity can ensure the consumers to continue to use.

- (2) The main function, performance and service life of household appliance that is repaired and reproduced can basically meet consumers’ requirement of utilization.
- (3) Maintenance and remanufacturing should be based on “Green Maintenance and Remanufacturing Principle”. While selecting parts and raw materials, we must strictly control the parts and materials which contain six kinds of toxic and harmful substances and must not adulterate. The parts and raw materials selected should be in line with the national standards.
- (4) Maintenance and remanufacturing of second-hand household appliance should be based on the principle of “who maintain and sell, who take the responsibility”, and should not be an infringement of the original brand. The repairer and the seller should stick their own or printed unified logo so to indicate their responsibility and show the consumer necessary quality. GB/T21097.1-2007 (General Requirements on Fixed Number of Years of Safety Use and Recycling for Household and Similar Electrical Appliances) is an important reference.
- (5) Regulate the market maintenance and transaction, strengthen the market and customs’ supervision, avoid the waste household appliance without any remaining use value flow into the market, so as to protect consumers’ personal safety and normal right of utilization.

4 、 The appeal to establish a conservation-oriented society

In our times, with an increasing shortage of energy and resource, the establishment of a conservation-oriented society becomes a common aspiration of governments, enterprises and peoples of various countries. The product

of long-life design has attracted great attention from the industrial circle, which is an important way for saving resource and also a social responsibility of the industry.

Due to the different values of life, the updates of consumer products are of widely different. As for the product of long-life design, it is very regrettable for the elimination or waste disposal when they have only some little troubles. How to give play to its remaining use value has offered an opportunity for the maintenance and remanufacturing, as well as developed the market for the operation and circulation of the second-hand household appliance. This is an important component in the development process of Circular Economy. Making the best use of everything and taking what one needs are the embodiment of establishing a conservation-oriented society.