About five years ago, Jacques Cazaban decided he couldn't take the heat. Yet he wanted to stay in the kitchen all the same.

So Mr. Cazaban, 58, who runs a medical equipment business in Bordeaux, paid the equivalent of about $1,700 for a home air-conditioner.

In the United States, almost three of every four homes has some kind of air-conditioning. In Europe, people have traditionally just slowed down and baked in summer. But with the arrival of this summer's heat wave, fans and air-conditioners have been leaping off appliance store shelves. And Mr. Cazaban has been delighted with his investment.

"It's indispensable," he said by phone recently, as the worst heat wave in decades continued to wither Europe.

While air-conditioner sales in the United States have been fairly stable, they have grown in Europe by more than 10 percent a year.

The engine of this growth is in part the global economy, which is forcing more and more Europeans to work summers. But Europeans have also come to know the benefits of air-conditioning in offices and in their cars and decided they want it at home, too. Sniffing a trend, air-conditioner manufacturers, most notably producers of inexpensive units from Japan, South Korea and China, have flooded the market with affordable models well adapted to small European homes.

Now, this year's seemingly endless heat wave has given the market a huge lift. "Our busiest months are usually June and July," said Christophe Mutz, marketing director in Paris for the French unit of Daikin of Japan. "This year it's been all summer long."

Not surprisingly, most air-conditioner makers are viewing Europe as a potential El Dorado.
Daikin, Mr. Mutz said in a phone interview, originally projected a growth in sales of about 8 to 10 percent for this year, compared with growth rates of 15 percent and more in recent years, based on early weather forecasts and the generally weak economy.

"Now we are thinking more than 20 percent for the whole year," he said. Demand has been strongest for residential units, he said, while sales have been relatively weak to commercial customers, who apparently feel cool enough in the general economic chill.

To be sure, hurdles to the spread of air-conditioning remain. Both air-conditioners and the power to run them are costly, and there are serious moves in the European Union to curtail both energy use and the gases traditionally used as coolants. Moreover, many Europeans continue to harbor a bias against air-conditioning; some consider it unhealthy, while others say, why not rely on nature?

The demand for cooling products has not let up. At Castorama, a leading French do-it-yourself outlet, fans of all types have been sold out since July. The hypermarket chain Carrefour reported more than 200 customers a day at its store in Aulnay-sous-Bois, near Paris, looking for fans, though by early August the entire supply was sold out except for ceiling fans. In Paris, sales of mineral water are up this summer by as much as 50 percent over last year, and ice cream by as much 40 percent, according to the daily Le Parisien.

On the Paris energy exchange, Powernext, the price of electricity has soared, rising to 67 euros a megawatt-hour today, compared with less than 40 euros in June, as demand for power to run air-conditioners and other cooling devices surges.

Europe's air-conditioning market was built after World War II by the companies that pioneered the technology in the United States, like Carrier. In recent years, the market has expanded, not least thanks to a flood of advanced equipment at affordable prices from Asian manufacturers like Daikin and Mitsubishi of Japan, LG Electronics and Samsung of Korea, and more recently, Haier and Midea of China. Indeed, such has been the onslaught of the Asian companies that smaller European competitors, like DeLonghi of Italy, find themselves increasingly squeezed.

The Asian invasion has caused prices to plummet. "You can now get these moveable spot coolers at do-it-yourself places for about £170," about $272, said Andrew Giles, director of world market intelligence at the Building Services Research and Information Association in Britain. "These are impulse purchases, he said, that often lead consumers to buy up to a larger system.

But as temperatures climbed across Europe, French researchers, echoing warnings from environmental officials elsewhere in Europe, argued that air-conditioners, while cooling the air, force out warm air, raising temperatures outside. Moreover, they said, the devices can contain ozone-depleting gases that contribute to global warming if released into the atmosphere.

"There are several big disadvantages," said Jean-Louis Plazy, deputy director for air and transportation at the French government's Agency for the Environment and Energy Conservation, in Nantes. "For one, there's energy consumption; to produce one calorie of cold, you have to generate three calories of heat. And there's the greenhouse effect, which is linked to emissions."

Makers of air-conditioners are scrambling to find substitutes for chlorofluorocarbons, gases traditionally used as refrigerants. They were banned by the Montreal Protocol, a 1987 treaty signed by more than 150 countries, because the gases deplete the earth's ozone layer. Mr. Mutz of Daikin said that European
Union rules required the replacement of the gases in conventional air-conditioners this year, and in heat pumps, which can both heat and cool living spaces, by January 2004. All of Daikin's equipment meets the new norms, he said.

But France, joining a trend throughout Europe, wants to go a step further, Mr. Plazy said. By next year, the government hopes to have in place changes to building codes that will require architects and builders to help limit the use of energy both in winter and summer. The measures, he said, "require architects to look at alternative materials, walls that keep the interior cool, window openings that reduce the cold in winter and heat in summer."

The idea, in effect, is to urge builders to construct buildings as though energy supplies were limited. As Europe deregulates its energy market, electricity supplies are expected to rise, thus reducing the cost of running appliances like air-conditioners. Governments across Europe, eager to comply with the Kyoto agreement to reduce the emissions of carbon dioxide that come from the burning of fossil fuels, are seeking ways to curb energy consumption and production.

In part, Europeans learned to appreciate air-conditioning from the offices they work in and the cars they drive. In France today, as much as 80 percent of office and commercial space is estimated to be air-conditioned, though important gaps remain. American travelers often lament the lack of air-conditioning in hotel rooms. More seriously, in the present heat wave there has been loud criticism of hospitals, where few spaces other than operating rooms and emergency treatment areas are air-conditioned. In Paris alone, more than 50 deaths, including those of some hospital patients, have been attributed to the heat. Many industry officials say this summer's crisis could increase hospital installations.

When automobile air-conditioning caught on in the 1990's, it was in part because of automakers' seeking to counter stagnant sales by making it standard equipment. In 1998, only 55 percent of European cars were air-conditioned, said Tom Devleesschauwer, who follows the auto air-conditioning market at Global Insight, a London consulting firm. For 2003, he forecasts almost 82 percent. That may be little compared with the United States, where 98 percent of cars are air-conditioned, but the market continues to grow.

"If you expect it in your car," Mr. Devleesschauwer said, "the next thing where you'll expect it is the home."

Still, resistance lingers. News reports about air-conditioning rarely fail to mention that Legionnaires' disease can be spread through air-conditioning systems. The leftist daily Liberation recently warned readers with the headline, "Air-Conditioning Cools You, While Heating Up the Planet."

Will this year's heat wave move the market permanently? Some, like Mr. Mutz of Daikin, think it will. "The French market for residential air-conditioning had been evolving anyway, with 15 percent annual growth rates," he said. "In fact, only about 4 to 5 percent of French homes have it, and you're talking 25 million. The potential is immense."

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**GRAPHIC:** Photo: Police officers in Paris are among the many Europeans seeking new forms of relief amid a heat wave. (Photo by Michel Baret/Rapho)
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