

Appliances

Designing for the Disabled

Custom-Tailored Appliances Meet the Needs of Physically Impaired Consumers

By Jeffrey Seisler

Most of us take it for granted when we unload a dishwasher, pull clothes from the bottom of the washing machine, or stir a pot of food on a range top. But accomplishing everyday chores in the kitchen or laundry room can be a major challenge for a person in a wheelchair, or for someone who uses a walker for support.

There are 40 million permanently disabled Americans, another 20 million who are temporarily disabled each year, and about 27 million elderly Americans who are prone to disabling physical ailments. Despite the size of the physically handicapped population, appliance manufacturers have shown a reluctance to develop equipment tailored to their needs.

The wide range of permanent and temporary disabilities makes it difficult to design a generic "handicapped" appliance suited to everyone's needs. And unfortunately, the relatively small demand for specialty appliances deters cost-conscious manufacturers from developing modified equipment that would be prohibitively expensive. However, a handful of appliance manufacturers, sensitive to the unique needs of the handicapped and disabled, do provide helpful aids and information to this special group of consumers.

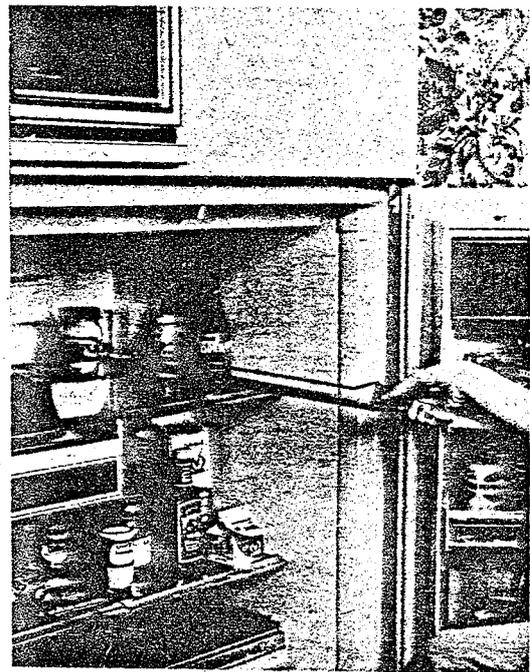
Some of the aids are available in stores; others can be easily constructed by a handy person, and still others are provided directly by manufacturers. Here are some suggestions to help the disabled meet the challenges of using home appliances.

APPLIANCE AIDS FOR THE SIGHT IMPAIRED

For people with vision impairments, the kitchen is often fraught with dangers. Cook-tops and ovens, in particular, can be a major source of accidents for many of the 11 million Americans with impaired vision.

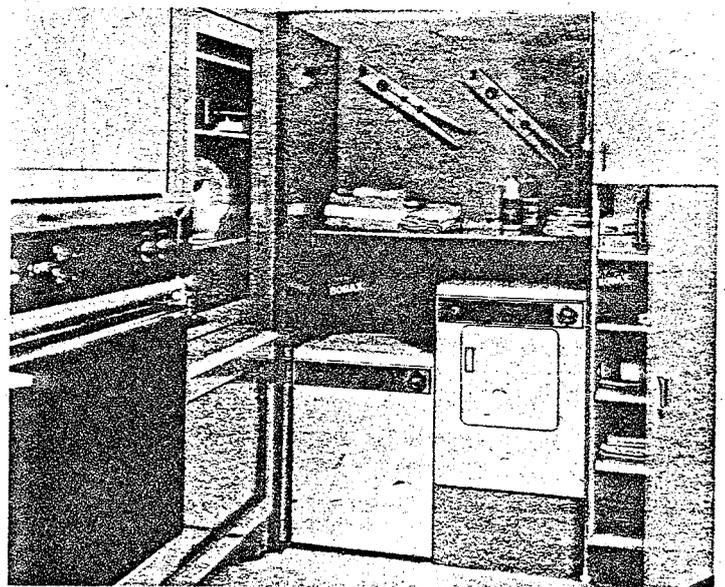
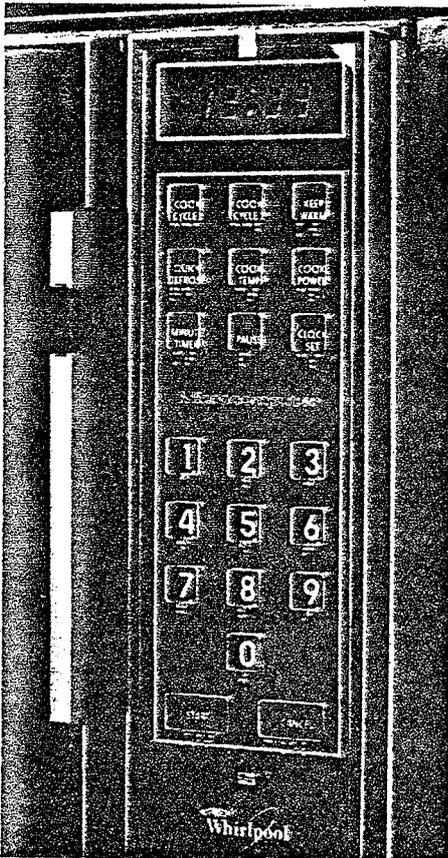
The advent of the microwave oven has enabled many people to

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◆ Long tongs and a zippered mesh bag (left) make removing small items from the bottom of a washing machine easier for someone in a wheelchair. Tongs can also be used to reach items at the back of a refrigerator.

◆ Whirlpool Corp. has designed Braille overlays for some of its appliances to enable blind consumers to read and operate the controls.



◆ A compact washer and dryer from Whirlpool with front-mounted controls allow easier access for some disabled consumers. The dryer is installed on a platform for easy loading at wheelchair height.

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cook safely and efficiently, providing accurate fingertip controls and helping to reduce accidental burns and hard-to-clean spills. But the instructions printed near the controls can be difficult to read.

The Whirlpool Corp. has designed a Braille overlay of clear plexiglass that labels the fingertip control pad of Whirlpool microwaves, but allows sighted people to operate the oven. The template has finger-sized holes to allow access to the control pad.

Some manufacturers make Braille or oversized control plates so oven settings can be easily determined. The Caloric Corp. makes Braille knobs for some of its stoves, as does Robertshaw for its gas and electric ranges. Whirlpool also has large type, Braille or audio-cassette kits for certain products.

If the appliance manufacturer doesn't provide such an overlay, plastic label-makers can be used to mark appliances. For example, "X," "XX" and "O" can mark the beginning and end of commonly used cycles on appliances such as dishwashers, dryers and washers.

Honeywell makes a replacement thermostat for the visually impaired that includes enlarged, raised numbers around the temperature dial, and a large indicator arrow to help the user request the proper temperature settings. Temperature adjustments of every two degrees are marked by an indentation, and a "click" can be heard as the temperature setting is changed.

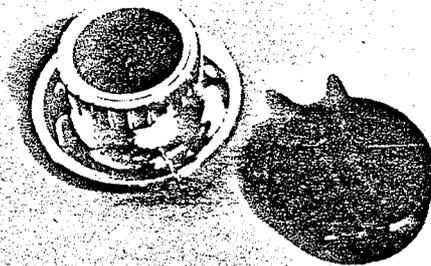
The thermostat is available in kit form for about \$30 (excluding installation) through local dealers of Honeywell products. Honeywell warns, however, that most dealers will have to special order the thermostats.

A heating contractor or an experienced do-it-yourselfer can install the thermostat.

AIDS FOR MANUAL IMPAIRMENTS

Arthritis, muscular dystrophy, stroke and many other diseases and accidents can cause loss of upper body and arm strength. Opening refrigerators and freezers with vacuum seals—designed to save energy—can present a major challenge. (Young children also have problems with these doors.)

Whirlpool makes a vacuum break (Whirlpool kit/part number 876461) that fits onto the door gasket to reduce the suction, making it easier to open the door. Alternatively, you can put several small pieces of duct tape or electrical tape at various



◆ A soft vinyl knob cover fits conventional appliance knobs for use by consumers with arthritic hands or weakened grips.

places along the gasket to interrupt the vacuum.

While this may make the refrigerator slightly less energy efficient and, in nondefrosting freezers, result in a need for more frequent defrosting, the trade-off is minor if it makes the appliance more accessible. If this is unacceptable, a looped strap can be tied to the door, providing better leverage for someone with weakened hands or arms.

Hard-to-turn appliance knobs can be fitted with rubber covers to make them easier to grip. A wooden clothespin fit across a flat plastic oven knob also can provide better leverage and a wider gripping radius than the normal manufactured knob. Vinyl jar openers, available in many supermarkets and hardware stores, also are useful as gripper assists for appliance knobs.

AIDS FOR THOSE IN WHEELCHAIRS

Operating stoves, ovens and dishwashers, and opening refrigerator and dryer doors can be difficult or impossible from a sitting position. Special considerations must be given to make appliances and work spaces accessible for people in wheelchairs.

■ **SWITCHES**—Switches for oven and stove vents and lights can be mounted in front of the stove to make it accessible to a cook in a wheelchair. (A qualified electrician will do this type of alteration.)

■ **STOVE-TOP MIRROR**—Add a small mirror at the back of the stove, tilted so the seated person can see what is cooking on the range.

■ **BURNERS**—Instead of building cabinets beneath electric or gas stove-tops, leave the space free so that a wheelchair can slide in and the cook can get closer to the cooking area.

■ **REACHING AIDS**—A wire potato masher can be used to reach knobs across a stove top or washing machine. Oven rack push/pullers are available, with a hook and long handle, to reduce the dangers of coming in contact with hot oven racks. Long tongs

and reacher/grippers can help people get to items in back of the refrigerator.

■ **REFRIGERATORS**—Refrigerators with side-by-side doors are easier to use than standard top-and-bottom combinations because they are not as wide or as heavy. A dispenser mounted in the door can also provide easy access to water.

■ **WASHING BAGS**—Zippered mesh bags can be used to wash small clothing—socks, underwear, etc.—to make sure these hard-to-get items don't get left in the bottom of the washing machine or dryer.

MORE INFORMATION

The Whirlpool Corp. has two booklets, "Aids to Independent Living" and "Designs for Independent Living," that provide excellent suggestions for installing and operating major home appliances for use by the disabled. The free booklets are available by writing the Appliance Information Service (AIS), Whirlpool Corp., Administrative Center, Benton Harbor, Mich. 49022.

The Association of Home Appliance Manufacturers (AHAM) can provide the address and phone number of appliance manufacturers who may have aids to modify your home appliance. Write AHAM, 20 N. Wacker Dr., Chicago, Ill. 60606

The following organizations can provide further assistance in finding household items to assist disabled people:

■ Accent on Living's Buyers Guide; Box 700, Bloomington, Ill. 61701.

■ American Foundation for the Blind, Customer Service Division, 15 W. 16th St., New York, N.Y. 10011.

■ Cleo Inc., 3957 Mayfield Rd., Cleveland, Ohio 44121.

■ Fashion-Able, Rocky Hill, N.Y. 08533.

■ Help Yourself Aids, Box 192, Hinsdale, Ill. 60521.

■ Sears, Roebuck and Co. Home Health Care Special, Sears Tower, Chicago, Ill. 60684.

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